

For the first time, the vowels of Avestan are studied comprehensively on the synchronic and diachronic level. All vowel changes which have occurred after the Proto-Iranian stage are discussed, and they are placed in a relative chronology. The phonological system of Avestan at various stages of its development is reconstructed, and the relationship between Old Avestan and Young Avestan is reviewed. Also, many philological details are discussed. This volume is of interest for Indo-Iranian philology, for Indo-European linguistics and for Iranian linguistics

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Michiel de Vaan



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Leiden, January 2003.

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Ir	Iranian	SY	Sanskrit Yasna
KA	Khorda Avesta	V	Vīdēvdād
N	Nērangestān	Vr	Vīspereḍ
Nik	Nikātum		
Ny	Nyāyiṣṇ	VrS	Vīspereḍ sāde
P	Pursišnihā	VS	Vīdēvdād sāde
PTr	Pahlavī translation	Vyt	Vištāsp Yašt
PV	Pahlavī Vīdēvdād	Y	Yasna
PVr	Pahlavī Vīspereḍ	YH	Yasna Haptaṅhāitī
PY	Pahlavī Yasna	YS	Yasna sāde
S	Sīrōza	Yt	Yašt
SrB	Srōš Bāž	YtS	Yašt sāde
+	Corrected reading which is attested in one or more mss.		
x	Corrected reading which is not attested in the mss.		
*	Reconstructed form		
†	Theoretical outcome of regular phonetic development		
o	Indicates the repetition of a stem or a compound member mentioned earlier in the text		

Linguistic cover symbols:

<i>C</i>	any consonant	<i>S</i>	any sibilant
<i>H</i>	any laryngeal	<i>T</i>	any stop
<i>N</i>	any nasal consonant	<i>V</i>	any vowel
<i>R</i>	any resonant consonant	<i>\$</i>	syllable boundary

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I. PRELIMINARIES

§ 1 Introduction

§ 1.1 Aim of the investigation

This book is an investigation into the form and origin of the Avestan vowels. There is a rather large variety of vowels in Avestan, and their historical explanation has posed more problems than the explanation of the Avestan consonants. Shorter and longer studies of separate items concerning the vowels have been produced over the last decades. These have claimed a variety of sound laws, phonetic tendencies and isolated changes, but a complete and coherent description and explanation of the attested changes has not been published yet. The present book therefore intends to discuss as many aspects of the Avestan vowels as possible, concentrating on the etymology of the different vowels and on the relative chronology of their development. It hopes to achieve a more detailed distinction of the vowel developments, thus gaining a more solid foundation for the study of the meaning of the texts, of their internal linguistic development and of their external history. The core question to which this study tries to provide an answer is: What is the possible value of a given Avestan vowel for the linguistic reconstruction of Avestan on the one hand and for comparative Indo-Iranian and Indo-European linguistics on the other?

This central objective will be approached via several more detailed questions:

- Which were the vowel graphemes of the archetype of the extant Avestan texts? The existing vacillation in the manuscripts must be explained.
- How do these vowel graphemes relate to the reconstructible phonological systems of Proto-Iranian and Proto-Indo-Iranian?
- How can the changes we observe be explained in phonetic terms?
- Which changes were phonological, and which were only allophonic?
- Where in the relative chronology can a given change be situated?

Since this study seeks to establish the linguistic system behind the texts, it does not attempt to determine the etymology of each and every Avestan word, in case this is unknown. As a result, the reader should not read this book as an etymological dictionary of Avestan; it may rather serve as a preliminary work for such an enterprise.

§ 1.2 Method and presentation

The method of investigation has been the following. For every grapheme, the relevant evidence was collected from the electronic text edition of the

Avesta (cf. <http://titus.uni-frankfurt.de/texte/avesta.html>) and compared with the standard printed text editions in order to exclude errors. The next step was to determine for every attested word the most probable spelling of the archetype (cf. § 1.4), i.e. the ancestral spelling of the first manuscripts, disregarding the influence of spelling errors. The following phase entailed the linguistic reconstruction, viz. determining to which YAv. or OAv. phoneme a given grapheme goes back, how it has changed to yield the spelling now attested in the mss., and, if possible, when.

For comparative purposes, (Vedic) Sanskrit has been the most important comparandum for Avestan. In order to show that a given Avestan word contains **a* or **ā* or any other phenomenon under discussion in a certain chapter, I have often only given the cognate Sanskrit word between brackets. Here and there, evidence of Old Persian has been supplied, and in the case of a few etymological problems, I have drawn on evidence from the Middle Iranian languages; yet in general, these languages provide little additional evidence for our purpose.

The structure of the book is as follows: the two preliminary sections § 1-2 describe the history of the Avestan language and the texts, as far as is needed for a good understanding of the discussion which follows. The next sections § 3 to § 25 are divided into six chapters, which deal with six groups of vowels which it is convenient to discuss as a group: the vowels *a* and *ā* (§ 3-5), *i* and *ī* (§ 6-9), *u* and *ū* (§ 10-13), the diphthongs **āi* and **āu* (§ 14-17), the vowels *ā̇*, *ā̈*, *ā̉*, *ā̊* and *ā̋* (§ 18-24) and the anaptyctic vowels (§ 25). The last chapter of evidence (§ 26-29) discusses four consonantal phenomena which are closely linked to the study of the vowels, viz. *i*- and *u*-epenthesis, the reflex of **hi* and **hu*, and the reflex of **rp*, **rt* and **rk*.

At the end of the larger sections, the discussion of the evidence is concluded by a summary of the separate developments, together with an interpretation of the phonetics which may explain them, and, if possible, a relative chronology of the changes discussed. In the final chapter, the conclusions will be drawn. Firstly, we will try to assess which new insights have been gained as to the phonetic and phonological nature of OAv. and YAv. at different stages of the transmission. Secondly, the relative chronology of all the vowel developments discussed in the book will be established. And thirdly, a list of reference will be given in which the possible Ir. origin of every Avestan vowel can be found.

ALPHABET

In lists of words or attestations and in the index of Avestan forms, I use the alphabetical order as given by Hoffmann-Forssman 1996: 41. This order follows most closely that of Bartholomae's 1904 dictionary, with — as far as the vowels are concerned — the difference that the vowels $\overset{\circ}{a}$ and q are given directly after \bar{a} , instead of after \bar{o} as in Bartholomae's system. The order of the Avestan alphabet will be as follows:

a ā $\overset{\circ}{a}$ q \acute{q} ə \bar{o} e \bar{e} o \bar{o} i \bar{i} u \bar{u}
k x \acute{x} x^v g \acute{g} γ c j t ϑ d δ \underline{t}
p f b β η $\acute{\eta}$ η^u n \acute{n} η m η
ẏ y v r s z \acute{s} \acute{z} \acute{s} \acute{z} h

PUNCTUATION

In the Avestan mss., a **separation point** is used to separate words. However, the separation point is also used to separate the first and second member of a compound, in other words: the scribes do not distinguish separate words from separate members of a compound. Therefore, the modern investigator has to decide in every single case whether two consecutive words are really two words or rather two members of a single compound. For instance, a fictitious sequence *paiti. drūjō. manō.* could be interpreted as *paiti drūjō manō*, *paiti drūjō.manō* or *paiti.drūjō manō* (or even *paiti.drūjō.manō*, although compounds of three members are very rare). In practice, most compounds are easy to analyze, but some difficult forms remain. For the possible age and origin of the separation of compound members see the discussion of the redactional compound split (RCS) below.

§ 1.3 Old Avestan and Young Avestan

The Avestan texts are composed in two different languages, generally called Old Avestan (OAv.) and Young Avestan (YAv.). The OAv. texts are less in number but they preserve an earlier linguistic stage. The criterium for regarding a text as OAv. is the presence of certain word-internal phonetic and grammatical features. The phonetic signals of OAv. involve especially the

consonants, e.g. the preservation of intervocalic *b*, *d* and *g*, the absence of a nasal reflex of **h̥i* and **hu*, the presence of the cluster *db* as opposed to YAv. *tb*, and others. Since we are here interested in the vocalism, these features need not all be enumerated. Moreover, some of these characteristics are deceptive in that they may also appear in (partly unexplained) contexts in YAv.; see also below on OAv. borrowings and adaptations. Apart from the phonetics, the OAv. texts are also characterized by certain grammatical features; some of them are discussed below with regard to their YAv. correspondences. The texts which I consider to be Old Avestan are:

Y 27.13 (the *yaθā ahū vairiō* prayer)

Y 27.14 (the *ašəm vohū* prayer)

Y 28-34, Y 43-51, Y 53 (the *gāθās*)

Y 35-41 (the *yasna haptanḥāiti*)

Y 54.1 (the *ā airiīdmā išiiō* prayer)

Y 58 (the *fšūšō maθrō*)

We must briefly discuss the inclusion of Y 58 in this list, because this is not part of received knowledge. Although Y 58 was considered to be OAv. by Geldner in his summary of Avestan literature (1896-1904: 26), Hoffmann has claimed at several occasions (for the last time in Hoffmann-Forsman 1996: 34) that it is a pseudo-OAv. text, i.e. a YAv. text which has secondarily received long final vowels (see also below on pseudo-OAv.). Hoffmann has even suggested that Y 58 might include forms from a different dialect (1976: 649, fn. 5) than mainstream Avestan. However, it seems clear to me that Y 58 must be regarded as a plain OAv. text. As for its contents, Pirart (1992a: 226) has adduced the necessary text-compositional arguments for this view. As for its language, most forms of Y 58 comply with the characteristics of OAv. language as opposed to YAv.; we will discuss many of those characteristics in the present study. In fact, the number of YAv. intrusions in Y 58 seems very small, the most obvious one being *ahurahē mazdā* (instead of OAv. *ahurahiiā*). The differences between the form of Y 28-53 and Y 58 will mainly have been caused by their different genre, and hence their different place and treatment in the text transmission. To refer to Y 58 as a *pseudo-OAv.* text, which would differ from YAv. only by lengthening of final vowels, is a misjudgement.

OAv. and YAv. are not always neatly separated per Avesta chapter. The phonology of YAv. has left its traces in many OAv. words; this is one of the subjects of the present study. But the influence has also gone in the other direction: single OAv. words and entire OAv. phrases may be found here and there in YAv. texts. I distinguish three different ways in which OAv. language

appears in YAv. texts: by means of borrowings, by means of adaptations and by means of quotations.

During the time when the YAv. texts were composed, several individual words were **borrowed** from OAv. (Hoffmann 1975: 197: "Wortentlehnung"). Just like Neolatinisms in Spanish or French can be detected especially by their phonological form (e.g. the French Neolatinism *fragile* 'fragile' versus *frêle* 'frail'), in the same way the OAv. borrowings in YAv. can only be identified with certainty if they show phonological peculiarities alien to YAv., e.g. the retention of intervocalic *-b-*, *-d-*, *-g-*, or of the sequence *šii-*. Borrowings are especially, or maybe even only, found in liturgical or legal terminology, e.g. *frādaṭ.gaēḍa-* 'furthering the herds', *nabānazdišta-* 'closest relative', or *šīiaoḍna-* 'act'; for this semantic category, cf. Klingenschmitt 1978: 105, fn. 4.

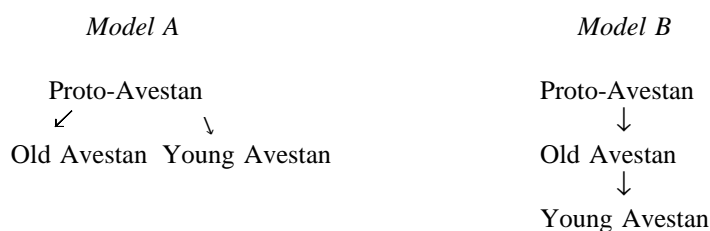
There are also YAv. words or syntagms which are not attested as such in the Gāthās, but which clearly consist of OAv. materials. I will call them OAv. **adaptations**. For methodological reasons, we must assume that these words and phrases had become or still were part of the living idiom of the YAv. poets. A well-known example (cf. Bartholomae 1904: 533) is YAv. *xraodaṭ.uruuān-* 'whose soul is in fear', which has been formed on the basis of Gāthīc *uruuā ... xraodaṭ* '(their) soul ... frightened (them)' (Y 46.11) and *uruuā xraodaitī* '(his) soul frightens (him)' (Y 51.12). The preservation of intervocalic *-d-* is a phonetic feature which additionally points to OAv. origin of *xraodaṭ.uruuān-*.

If an OAv. phrase or verse is copied into YAv. text without any changes being made to the original version, we may speak of an OAv. **quotation**. Probably, the OAv. quotations are a more recent element in YAv. than the borrowings and adaptations. We can identify the OAv. source of most of the OAv. quotations which are found. An example of such a quotation is Y 12.1 *yeḡhē raocēbīš rōiḍβan x'āḍrā* 'whose (is the thought:) let the comfortable places mingle with the lights', in which the last three words are taken from Y 31.7 *yastā maṅtā paouruiiō raocēbīš rōiḍβan x'āḍrā* 'who was the first one who thought: 'let the comfortable places mingle with the lights'. An OAv. quotation may in some cases have had a specific ritual purpose, whereas other quotations were probably prompted by the occurrence of a word in the YAv. text which reminded (later) commentators of a given Gāthīc passage.

In a few YAv. Yasna texts, we find pieces of OAv. language which have no identifiable source in the acknowledged OAv. texts. Examples are Y 27.7 *aḍā zī nē humāiīōtarā aḡhən*, and some text parts in Y 56: Y 56.1 *yē nā ištō*, Y 56.1,2 *hiiaṭ paouruuīm taṭ ustaməmcīṭ*, Y 56.3 *vaḡhuiiāscā ašōiš yasnāi yā nē āraēcā əṛənauuataēcā ašaḡhāxš* (see Pirart 1991 on Y 56).

Finally, we must mention another kind of text in which OAv. characteristics have entered YAv., viz. the so-called **pseudo-Old-Avestan** texts. They show lengthening of originally short, YAv. word-final vowels. Here, we are clearly dealing with a much later, artificial development, which was intended to give the YAv. text an OAv. flavour. Pseudo-OAv. texts are mainly found in Yasna and Vispered chapters which are used during a Gāthā ritual, e.g. Y 12-15, Y 42, Y 52, but also Yt 1.

We may now turn from phonetics and phonology to morphology. There are quite some differences of morphology between OAv. and YAv. The historical implications of these differences are uncertain: do they point to a dialectal difference between the two languages, i.e. have OAv. and YAv. undergone independent development starting from a common Proto-Avestan stage? Or are the differences merely to be ascribed to the time gap which lies between the two stages of the same Avestan language? Simplifying the matter, we have a minimal choice between two models of descent:



Model B is only possible if we find no innovations in OAv. which are absent from YAv. and have never existed in it — and this seems exactly to be the case. Model B is supported by most of the forms, and, moreover, I find no morphological evidence which excludes Model B. Below, we will discuss seven of the most striking cases of different morphology in OAv. and YAv. In all of them, OAv. shows the inherited, Indo-Iranian form or distribution of forms, whereas YAv. has an innovation. The innovation can in each case easily be explained on the basis of the forms already present in OAv.:

1. In OAv., the ending of the abl.sg. equals that of the gen.sg. in all nouns except *a*-stems. In YAv., separate abl.sg. endings have been created by means of the replacement $*-h/-š \rightarrow -t$ on the model of the *a*-stem ending $-\bar{a}t$ (see De Vaan 2001).

2. In OAv., the *a*-stem dat.sg. has two endings, viz. $*-\bar{a}i\bar{a}$ (preserved as $-\bar{a}i\bar{a}$) and $-\bar{a}i$; in the pronouns, we find $-\bar{a}i$ (*ahmāi* etc.). This matches the Skt. distribution (RV) of $-\bar{a}ya$ in the nouns and $-ai$ in the pronouns. YAv. has

only *-āi* (Hoffmann 1976: 650) in *a*-stems and pronouns, which suggests that the variant **-āi* ousted **-āiā* in YAv. (cf. Beekes 1999: 68).

3. In OAv., the enclitic 1p. pers.pron. ‘us’ is *nō* in gen.dat., *nā* in acc.; in YAv., it is *nō* for all three cases gen.dat.acc. Similarly with the enclitic 2p.: OAv. *vō* and *vā* ‘you’, YAv. only *vō*. Thus, YAv. has extended the variant in *-ō* (< **-ah*) from the gen.dat. to the acc.

4. In OAv., the poss.pron. has the forms 1s. *ma-* ‘my’, 2s. *θβa-* ‘your’, refl. *x^va-* ‘his, her own’; YAv. only has the form *hauua-* ‘my; your; his, her own’. *Hauua-* is a remake of **h_ua-* (> OAv. *x^va-*), cf. De Vaan 2003.

5. In OAv., the 1s. prs.ind.act. ending of thematic verbs is mostly *-ā*, once *-āmi*; YAv. always has *-āmi*.

6. In OAv., reflexes of Bartholomae’s Law have generally been preserved, e.g. in OAv. 3s. *aogədā* ‘said’, *dazdē* ‘renders’. In YAv., the reflexes of Bartholomae’s Law have been removed in some of the morphologically clear cases, e.g. *aoxta* ‘said’, *daste* ‘renders’.

7. In YAv., the aorist system has declined with regard to the aorist in OAv. YAv. also shows innovations in the aorist, but most of these betray themselves as secondary formations by the use of primary endings or by being thematizations of original root aorists or sigmatic aorists, cf. Kellens 1984: 375ff. For example, the root *hac-* ‘to follow’ forms an *s*-aorist 1s. subj.med. *haxšāi* in OAv., but a thematic 3s. opt.act. *haxšōit* in YAv.

Three cases of morphological difference between OAv. and YAv. give the impression that YAv. has inherited the same form as Sanskrit, whereas OAv. shows a different form. These cases might be adduced to argue that it was OAv. which carried out an innovation and that YAv. retained the IIr. variant; this would imply that we should follow Model A of the history of Avestan (cf. Meillet 1917: 187ff., who uses, among others, the three phenomena listed below). However, none of these three cases survives scrutiny. It is rather the form of Sanskrit and YAv. which represents an innovation with regard to the IIr. situation, whereas OAv. preserves the IIr. distribution more faithfully. Therefore, these cases still agree with Model B:

8. The ins.pl.m. of *a-/i-* ‘this, that’ is OAv. *āiš* versus YAv. *aēibīš* and Skt. *ēbhīḥ*. From a PIE point of view, OAv. *āiš* represents the older ending, as is also shown by Lat. *īs*, OLat. *eīs* < PIE **h₁ei-ois*. The presence of *-āiš* in other ins.pl. forms of the pronouns such as OAv.YAv. *yāiš* ‘with which’ and YAv. *kāiš* ‘with which?’ suggests that the inherited IIr. form was **Ha-aiš*, which was replaced by **Hai-b^hiš* in YAv. and Skt. independently.

9. The plural of *vīspa-* ‘all’ follows the nominal inflection in OAv. (nom.pl. *vīspāṅhō*, gen.pl. *vīspanqm*), but the pronominal inflection in YAv.

(nom.pl. *vīspe*, gen.pl. *vīspaēšqm*); the latter corresponds to the pronominal inflexion in Skt. *vīśve* and *vīśveṣām*. Since *vīspa-* is an adj., its original inflexion will have been nominal, and the Gāthic forms are therefore more archaic (cf. Hoffmann-Narten 1989: 77). The pronominal inflexion in YAv. has also spread to several case forms of the adj. *aniia-* ‘another’ and the numeral *aēuuu-* ‘one’, cf. Hoffmann-Forssman 1996: 171ff. Since the Rigveda also shows traces of nominal inflexion at least in the paradigm of *vīśva-*, it is certain that the introduction of this pronominal inflexion is a separate innovation of YAv. and Skt.

10. The gen.sg. of *xratu-* ‘intention’ is OAv. *xratēuš* < **kratauš*, versus YAv. *xraθβō* and Skt. *krátvah* < **kratvas*. The same correlation seems to exist between the gen.sg. forms of *pasu-* ‘cattle’: OAv. *pasēuš* on the one hand versus YAv. *pasuuō* and Skt. *paśváḥ* on the other. Thus, it looks as if YAv. and Skt. have preserved the hysterodynamic inflexion in the oblique cases of the *u*-stems, whereas OAv. has carried out an innovation (thus, e.g., Kuiper 1942: 51). However, it is uncertain that the zero grade form in **-u-ah* of YAv. is genuinely old: gen.sg. *xraθβō* only occurs in relatively recent liturgical texts (Y 22, Yt 2.1, S 1), next to YAv. *^xxratēuš* or *^xxrataoš* in Yt 19.94 and abl.sg. *xrataot* (P 26) which also presupposes gen.sg. **xratauš*. *Xraθβō* may have been formed on the model of the ins.sg. *xraθβa* or the compounds in *^oxraθβa*¹. The gen.sg. *pasuuō* only occurs in N 65. Furthermore, the ins.sg. of *xratu-* is *xraθβā* (3x) in OAv., so that we cannot say that the hysterodynamic forms in **-u-* were absent from OAv. It is not certain, then, that OAv. had already replaced more hysterodynamic *u*-stem forms by proterodynamic forms than YAv. It seems equally possible that OAv. has retained a more original situation in comparison with both YAv. and Skt.

¹ The single attestation of acc.sg. *xraθβəm* in Yt 18.1 versus the frequent form *xratūm* raises doubts as to the analysis of *xraθβəm*. If it is the acc.sg. of *xratu-*, it seems likely that it was built secondarily on the basis of the oblique cases in *xraθβ^o* (thus Tremblay 1999: 155). The latter process must in any case be assumed for the superlative *xraθβišta-* ‘wisest’, for which no base adjective is attested; Bartholomae (1904: 537) suggests that *xraθβišta-* was built on a poss. adj. **xraθβant-*, but this adj. has its regular superlative in Yt 10.141 *aš.xraθbastəma-* ‘who has the most knowledge’. Yt 18 shows another thematization in the compound Yt 18.4 *vīspō.xraθβa-* ‘having all knowledge’.

§ 1.4 History of the Avesta

The history of the Avestan texts is uncertain in two important respects. Firstly, we have very little information about the external history of the texts from the first composition of the Gāthās down to the extant mss. It is unknown in exactly which part of the Iranian world the texts arose and where they were transmitted until they arrived where we find them in historic times, and it is unknown which post-Avestan languages were spoken by the transmitters. Secondly, there is hardly any agreement among scholars about the absolute datings of nearly all phases in the transmission. The most recent, comprehensive discussion is by Kellens 1998; his dates (esp. p. 513) and the assumed developments seem careful but realistic, and I will use his article as a general framework. Below, I will provide an overview of the linguistic history of the texts as I see it. It is unavoidable that some of the conclusions which the study yields must be forestalled here.

Stage I: Proto-Indo-Iranian. The phonological system of Proto-Indo-Iranian, which forms the basis of the reconstructions, may be reconstructed as follows:

vowels:

i a u
ā

consonants:

p b b^h m u
t d d^h s n i̇ r
ć j j^h
č ǰ j^h
k g g^h
H

I assume that there were no vowel phonemes /ī/ and /ū/ yet, but rather biphonemic sequences /iH/ and /uH/. Although it is impossible to prove this assumption (at least in anticonsonantal position), the reconstructions *iH and *uH have the advantage of making the original morphological structure clearer; therefore, they are applied here. As for the consonants, I assume that [š] and the voiced sibilants [z] and [ž] were still allophones of /s/. The phonetic quality of *H, the cover symbol for the sound having arisen from the merger of the three PIE laryngeals, is uncertain.

Stage II (± 1500 BC): The next stage for which we might reconstruct the phonological system would be **Proto-Iranian**. However, as far as the vowels

are concerned, OAv. did not differ much from Proto-Iranian, so that we may skip the reconstruction of this stage.

Stage III (between $\pm 1200 - 1000$ BC): For the phonological system which underlies the **Old Avestan** language, I have adopted the reconstruction of the OAv. stock of phonemes as given by Beekes 1988: 52:

vowels:

i a u
ī ā ū

consonants:

p f b m u
t θ d s z n i̇ r
c j š ž
k x g
? h

The disappearance of **H* in many positions has caused the rise of the phonemes /*ī*/ and /*ū*/, and an increase in the occurrence of /*ā*/.

Stage IV (from $\pm 1200/1000$ to $\pm 800/600$ BC): **Early Young-Avestan** period.

The OAv. texts have survived as sacred texts amidst the YAv. liturgy. Their linguistic shape shows that some of the YAv. characteristics which had developed in the YAv. language, and which deviated from the OAv. phoneme system as sketched above, were imposed on the OAv. texts. This, and arguments of poetic form and religious contents (Kellens 1998: 495), suggest that the OAv. texts had already been transmitted for several centuries in a petrified form before they were *canonized* by speakers of YAv. (see below). I assume an approximate gap of 400 years between both stages in order to comply with other points in the chronology.

The canonization of OAv. also provides the first point of reference in the relative chronology of YAv. sound changes, due to the fact that the (absence of) changes in the OAv. texts tell us something about the shape of YAv. at that time. We need a term to refer to this period of YAv. changes between OAv. and the canonization of OAv.: *Early Young-Avestan*.

Although OAv. must be a linguistically older stage than YAv. (see the morphological arguments in § 1.3 above), we cannot determine which *phonological* changes marked the end of OAv. and the beginnings of Early YAv. Therefore, we may use the phonological system as reconstructed above for OAv. as a starting point for the analysis of the YAv. evidence. A more

detailed account of the Early and Late YAv. system at various points in time can only be given after we have established the relative chronology of sound changes.

End of Stage IV (between ± 800 and ± 600 BC): **Canonization of the Old Avestan texts.** Due to the fact that OAv. words and phrases appear to have been known to and used by the composers of the YAv. texts, they must already have possessed a canonical form when YAv. was fully alive. I regard the canonization of OAv. as a single moment, because all OAv. texts show the same stage of development of YAv. features.

It has been proposed by Narten 1986b: 258 to refer to the canonization of OAv. as *orthoepic diasceusis*, in analogy to Oldenberg 1888: 370ff., who used this term for the canonization of the Rigveda in an earlier *samhitāpāṭha* and a later *padapāṭha*. Yet in the case of Avestan, the use of the term orthoepic diasceusis may be confusing. Unlike the Rigveda, which was canonized as one coherent corpus, the Avesta contains two languages which were canonized at different points in time. The creation of a padapāṭha-like version may have been carried out in several distant steps, as the form of the YAv. language became more and more remote from the spoken vernacular. Therefore, I prefer to refer to the two points mentioned by means of the more general term canonization.

Stage V (from $\pm 800/600$ to ± 300 BC): **Late Young-Avestan period.** This is the period of YAv. language post-dating the canonization of OAv. In this period, the **canonization of YAv.** took place. Kellens (p. 513) distinguishes between *Proto-Yasna A* and a *Proto-Yasna B*, two Yasna canons of different age and partly of different content. The former would have been canonized before the introduction of the Zoroastrian calendar, the latter afterwards. Since the Zoroastrian calendar seems to have been introduced in the Iranian world around 500-450 BC, this would provide a relatively precise date around which we can situate the Yasna canonization. The year 300 BC would mark the definite end of the period when new YAv. texts could be composed, or old texts adjusted by the redactors. This implies that the last YAv. texts to be composed would be open to grammatical errors or deviations from the earlier norm, and this is exactly what we find in the Avesta; cf. for instance the texts with the nom.sg. ending *-ə*, discussed in § 22.7.

Thus, unlike the canonization of OAv., the canonization of YAv. cannot be ascribed to a single moment. It took place over a longer period of time, and hence shows different stages of development.

After stage V (after ± 300 BC) and before 379 AD: **final arrangement** of the Avesta. It was split in (at least) two subdivisions (Kellens p. 479): a *long liturgy* comprising Yasna, Vīspared and Vīdēvdād, and a *short* (Persian *khord*) *liturgy* comprising Yašts and the other Khorda Avesta texts. As far as we know, this (re)arrangement has had no effects on the linguistic shape of the texts. However, it cannot be excluded that some minor redactional changes affected the form of the words.

Stage VI (± 300 BC - ± 950 AD): **Post-Young-Avestan** period. This can be defined as the period after the extinction of YAv. as a living language and before the rise of a written archetype (see below). This stage is characterized by many phonetic changes in the shape of the texts, and probably some incidental redactional interference with the texts.

End of stage VI (between 651 AD and ± 950 AD): first written version in the Avestan alphabet. We shall call this the **archetype**. I regard the existence of *hyparchetypes* (in German *Stammhandschriften*) for the individual books such as Yasna or the Yašts as unlikely, and in any case unproved; the earliest reconstructible written form of each of the Avestan books equals the archetype (Kellens p. 488).

Stage VII (between ± 1000 and ± 1700 AD): **Post-archetype** period. In this period, several *ancestral manuscripts* come into existence of the different manuscript branches in which e.g. the Yasna or the Vīdēvdād are transmitted. About a few of these ancestral manuscripts we are relatively well informed by the scribes of the subsequent copies, whereas we can only guess about others. The ancestral mss. and/or the way in which their descendants relate to each other are described in § 2.

The most important feature of the Avesta transmission with regard to the phonetic form of the texts is the **oral recitation** between 1200 BC and present. Before the time of the archetype, the only way the texts were preserved was by means of oral transmission, priests teaching priests; the Avesta itself shows how this worked in the text called Ērbedestān. The way in which the text was preserved was basically the same, then, as the way in which the Vedic texts were preserved in India.

After the archetype had been created, the oral transmission of the texts has probably continued for a while. Therefore, some phenomena to be observed may be ascribed to the pronunciation habits of the period after the archetype. Some of the Yašts however, as well as didactic texts such as the Nērangestān,

were reduced to written transmission only, which explains their more corrupted state of preservation.

Apart from phonetic changes caused by the recitation, YAv. was also affected by redaction, which changed the text in a deliberate way. The most important redactional change is the split of compounds in two words, to which we will refer as **redactional compound split**, henceforth abbreviated as RCS; the RCS is discussed in detail in § 22.5. This RCS is difficult to date precisely, cf. § 30.2.

By way of a summary, we may give a diagram of the chronology and names of the proposed stages and points in time:

± 2000 BC	Proto-Indo-Iranian
± 1500 BC	Proto-Iranian
± 1100 BC	Old Avestan
From ± 1100 to ± 700 BC	Early Young Avestan
± 700 BC	Canonization of Old Avestan texts
From ± 700 to ± 300 BC	Late Young Avestan
Between ± 300 BC and 379 AD	Final arrangement of the Avesta
From ± 300 BC to ± 950 AD	Post-Young Avestan
Between 651 and ± 950 AD	Archetype
After ± 950 AD	Post-archetype

§ 2 The Avestan manuscripts

The Avestan corpus can be divided into a small number of *books*, collections of texts which the indigenous tradition regards as a unity. The main books are

Yasna: chapter 1 to 72
 Vīspereḍ: 1 to 24
 Vīdēvdād: 1 to 22
 Yašt: 1 to 21

Four smaller liturgical books are often grouped together under the name Khorda Avesta:

Nyāyišns: chapter 1 to 5
 Gāhs: 1 to 5
 Sīrōza 1 and 2
 Āfrīngāns: 1 to 4

These eight Avestan books were edited by Geldner 1886-96; his edition is taken as the starting point for the discussion of the forms.

A number of texts falls outside the scope of the frequently used liturgical ones; they have been preserved in less mss., and their orthographical evidence is often less certain. The texts and the editions which I have used are:

Hāḍōxt Nask	Piras 2000
Vīštāsp Yašt	Westergaard 1852-54: 302ff.
Ērbedestān ²	Humbach 1990; Kotwal-Kreyenbroek 1992
Nērangestān	Waag 1941; facsimile editions of the mss. HJ and TD
Pursišnīhā	JamaspaAsa-Humbach 1971
Vaēḍa Nask	Humbach-JamaspaAsa 1969
Aogəmadaēca	JamaspaAsa 1982
Āfrīn-ī Zardušt	Westergaard 1852-54: 300f.

Furthermore, there are the fragmentary collections of the Frahang-ī ōim, the Avesta quotations in the Pahlavī Vīdēvdād, and the different fragments which are known as Fragment Anklesaria and Fragments Westergaard:

² I follow the recent practice (e.g. Humbach 1990, Kotwal-Kreyenbroek 1992) to separately refer to the Ērbedestān and the Nērangestān as the separate texts E and N, although they are transmitted in the same two mss. and have received a running numbering in the edition of Darmesteter 1893: 78ff. and in Bartholomae 1904: viii. The Ērbedestān has the chapters 1 to 20, the Nērangestān the chapters 19 to 109. The overlap is caused by the fact that Darmesteter and Bartholomae divide the E into only 18 chapters.

Frahang-ī ōim	Klingenschmitt 1968 (the numeration used there has been adopted)
Pahlavī Vīdēvdād	Jamasp 1907
Fragment Anklesaria	Klingenschmitt 1971
Fragments Westergaard	Westergaard 1852-54: 331ff.

I have excluded the Vičarkard-ī dēnīg (the ms. was edited by Peshotan 1848³) because it is still uncertain whether this text is a real survival of original Avestan texts or a modern compilation of texts copied from other manuscripts and maybe even invented; compare Bartholomae 1900: 120.

The four main and the four smaller books of the Avesta are transmitted in a varying number of mss., which stand in a varying relation to each other. Whereas in the Vīdēvdād the ms. stemma is basically the same for all chapters, the stemma in the Yašts differs per chapter. In order to determine which v.l. of a given Avestan form is the oldest and most reliable form, it is necessary to determine the filiation of the mss. for that specific text.

In order to give the reader the opportunity to check my reasoning, I have often provided the v.ll. of a given form. These v.ll. can only be seen in due perspective if attention is paid to the ms. filiation, and therefore the following subsections will provide the stemmata for the eight complete Avesta books. They are meant as a reference manual. Whenever v.ll. are discussed in the following chapters, their relative weight will be established according to the observations made here. The following signs will be used:

- separates v.ll. from different ms. classes, e.g. the v.ll. of V 9.11 *dādrūm*, which can be divided into three ms. classes: L4a.Pt2 *dādrum*, K1a.P10 *dādarqm* · L1.2.K10 *dādrūm* · Jp1.Mf2 *dādrūm*.
- + indicates that some or all of the descending ms. have the same reading, e.g. F1+ indicates F1 plus all or a respectable subset of its copies, such as B27, E1, K16, K15, K19, L18, N107, P13, Pt1, etc.; compare for this practice Hoffmann-Narten 1989: 47, fn. 41.

Since most Avestan mss. are either unedited or remain in India, we depend on the data provided by Geldner in his edition (and on other editions for the texts not edited by Geldner) for most of the v.ll. In general, we can trust

³ The standard edition in transliteration is Bartholomae 1901, but a comparison with the copy of Peshotan 1848 in the Royal Library in Munich has shown that Bartholomae's text contains printing errors, and disregards some graphical distinctions which the ms. makes.

Geldner, but he indicated himself in his Prolegomena (p. LII) that "Differences between *aē* and *ae*, *aō* and *ao*, *n* and *ñ*, *š* and *ṣ*, however, have been generally ignored." In fact, we may add a fifth distinction which was ignored by Geldner, viz. that between *q* and *q̇*. In most cases, these differences are immaterial to the questions discussed in the present study⁴, but I have taken the liberty to tacitly correct Geldner's v.ll. in the case of the mss. of which a printed edition exists (Mf4, J2, K5, F1) or which I had the occasion to collate myself: Pt4, Br2 and K4. In the rare case of a difference between Geldner and the accessible mss. for any other Avestan letter or grapheme than the five just mentioned, I have noted this explicitly.

The following summary is based on the efforts of Geldner, who performed most of the work for the present state of filiation in the Prolegomena to his edition (1886-96).

§ 2.1 Yasna

The filiation of the Yasna mss. is the same for nearly all the Yasna chapters. The following scheme reflects Narten 1986a: 49, which is based on Hoffmann 1984: 124f.

1. *Pahlavī-Sanskrit-Yasna* (PSY)

This branch is the most reliable of the Yasna mss. Its name derives from the fact that all mss. have an interlinear translation of the Avestan texts, either in Middle Persian (*Pahlavī*) or in Sanskrit. The Sanskrit translation was provided after part of the Zoroastrians had moved to India, and it was directly based on the earlier *Pahlavī* translation. The PSY can be subdivided into three subclasses:

- *Iranian Pahlavī-Yasna* (IrPY)

Pt4

/

*Ms. of Hōšāng → Mf4

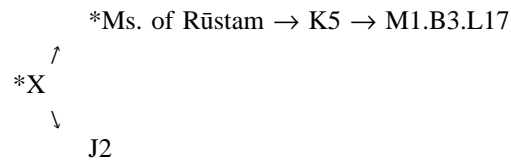
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Mf1 → F11.Br2

⁴ For an interpretation of the difference between *ao* and *aō*, see De Vaan 2000a: 531f.

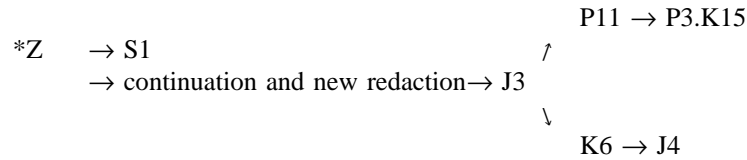
The mss. Pt4, Mf4 and Mf1 are copies of the same original, but Mf1 has additionally been influenced by the IrVS branch; this slightly reduces its textcritical value in comparison with Pt4.Mf4.

- *Indian Pahlavī-Yasna* (InPY)



This genealogy shows that J2 is derived from the same original as K5 but without an intermediate ms., so that it is slightly more trustworthy than K5.

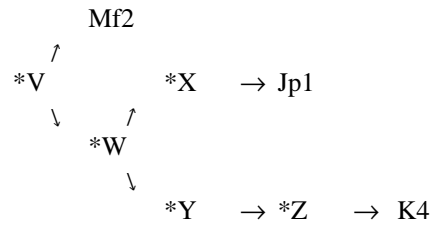
- *Sanskrit-Yasna* (SY)



The evidence of S1 would suffice except for the fact that the ms. shows many lacunae; therefore, J3 is a necessary addition for text criticism.

2. *Iranian Vīdēvdād sāde* (IrVS)

The addition *sāde* ‘pure, simple’ points to the absence of an interlinear translation in these mss. As pointed out by Geldner 1886-96: xix, we may surmise that all *sāde* texts originated by leaving out the Pahlavī translation from the originally bilingual texts. The Yasna text of the IrVS as found in Jp1, Mf2 and K4, comes next in importance to the PSY. Although Mf2 stands closer to the original ms. than Jp1, both are of nearly equal textcritical worth. K4 is more recent and less reliable.



3. *Indian Vīdēvdād sāde* (InVS)

These mss. are more recent than those of the preceding two classes and they are in general less reliable. We cannot trace the precise genealogy, but we can distinguish three different categories of reliability:

better mss.: Br1.L2.K10
 mediocre mss.: Dh1.M1.S2
 worse mss.: L1.M2.O2.B2.P1.L3.Bb1.L5.Jm2.Jm3

According to Geldner, "Br1 and L2 are probably copied from the same original, whereas K10 stands a step farther removed." In general, Br1 seems to Geldner to be the best of the InVS mss.

4. *Yasna sāde* (YS)

Just like the InVS, the YS (which is Indian) relies heavily on the contemporary pronunciation. The best mss. are somewhat older than those of the InVS. We may distinguish three groups of mss., in order of reliability:

1. C1.K11.Lb2

Certain facts point to the ancestor of the mss. having been imported from Iran, and belonging to the IrVS.

2. H1 → J7
 J6 → Jm1
 L13 → O1

The mss. H1.J6.L13 ultimately go back to a common original. But L13 has been extensively corrected in accordance with J2.K5.

3. J5.L20.P6

These mss. provide little information. P6 for example is highly dependent on K5.

5. *Khorda Avesta and Yašt manuscripts*

In addition, some parts of the Yasna are transmitted in Yašt manuscripts. The textcritical value of the Yašt mss. in those Yasna chapters has not been discussed in detail by Geldner in his *Prolegomena*, nor by any other scholars. In general, the IrKA mss. seem to have the better text, just like in the Yašts (see below). The motivation for the transmission of several Yasna chapters in the Khorda Avesta mss. is the identification of those chapters as Yašts, e.g. Y 57 *Srōš Yašt*, Y 65 *Mayā Yašt*.

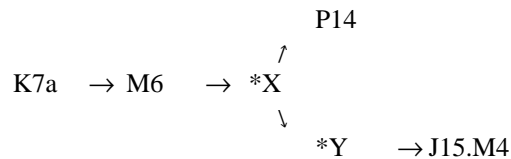
As far as we can gather from Geldner, at least the following Y chapters are contained in KA mss:

Y 5-8	Mf3.K38	Y 26	Mf3.K37.38.E2
Y 11.17-19	F2.K36	Y 28-34	K37.Pd
Y 12.8-9	F2	Y 57	F1.Pt1.E1.L18; M4.J15.K36.W1.Jm4
Y 16	K36.E2.W3	Y 65	K36.Mf3.F2; Pt1.J15.W1
Y 23	K37.38.Mf3	Y 60.2-7 (= A 1)	
Y 25.6-7	K36.W3	Y 62.7-16 (= Ny 5)	

§ 2.2 *Vīspereḍ*

We find the following three ms. classes, in the order of their importance for text criticism:

1. (*Indian*) *Pahlavī Vīspereḍ* (PVr)



K7a is the most important of these mss. There exist other PVr mss. (such as K20, which stands close to M6), but Geldner did not succeed in determining their position in the stemma.

2. *Iranian Vīspered sāde* (IrVrS)

IrVrS: F11.Kh1
 IrVS: Mf2.Jp1.K4, K8

The quality of these mss. is generally very good. We have already seen that the IrVS mss. Jp1.Mf2.K4 also contain the Yasna. The ms. K8 may be an extract from K4. The IrVrS mss. F11 and Kh1, although of a relatively recent date, show the high degree of reliability which characterizes Iranian mss. in general.

3. *Indian Vīspered sāde* (InVrS) and *Indian Vīdēvdād sāde* (InVS)

InVrS: K7b
 This is the oldest and most reliable of the InVrS mss.

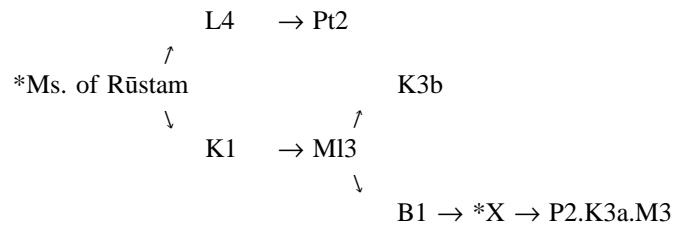
H1.J8.Jm5.K11.L27.Pt3.P12
 This group goes back to a common ancestor which must have contained more corruptions than the text of K7b. Within this group, H1 preserves the best readings. Jm5 and Pt3 stand closest to each other, but an exact filiation is not possible.

InVS: This ms. group has already been discussed for the Yasna. Recall the order of importance:

better mss.: Br1.L2.K10
 mediocre mss.: Dh1.M1.S2
 worse mss.: L1.M2.O2.B2.P1.L3.Bb1.L5.Jm2.Jm3

§ 2.3 Vīdēvdād

1. *Pahlavī Vīdēvdād* (PV)



The ms. P2 has been influenced by a ms. derived from L4. There are other PV mss., but they are less reliable; e.g. MI4, which "in the later Fargards has been sometimes influenced by Spiegel's edition", P10 (unspecified by Geldner), or K2 ("without value for text criticism").

2. *Iranian Vīdēvdād sāde* (IrVS)

The two primary mss. in this class are of nearly equal importance:

Mf2 → K9

Jp1

3. *Indian Vīdēvdād sāde*

better: Br1.L2.K10

mediocre: Dh1.MI1.S2

worse: L1.M2.O2.B2.P1.L3.Bb1

§ 2.4 The Yašt and the Khorda Avesta

The Yašt and the smaller books of the Khorda Avesta occur together only in a few mss. The KA mss. present a selection of chapters from these books. This makes it nearly impossible to set up stemmata for the KA mss. Among the Yašt sāde (YtS) mss., it is the apparent lack of an oral preservation of the Yašt texts which renders the task of reconstructing the original situation a difficult one. The minimum effort needed to acquire a firmer basis for text criticism, is to investigate the possible filiation per Yašt and KA chapter. As is clear from the progress made for Yašt 19 during the last years (Hintze 1994: 55-58, Humbach-Ichaporria 1998: 22, Tremblay 1996: 108-112), this is a matter of detailed investigation which cannot be accomplished here.

On the basis of origin and contents, we can distinguish three different manuscript groups which belong together to a greater or lesser degree: the Iranian and the Indian Khorda Avesta, and the pure Yašt mss. The IrKA is on the whole the more trustworthy of the three groups, but only a minor part of the Yašt texts is preserved in it. The YtS mss. are relatively recent, and they have in general been more exposed to influence of the contemporaneous (Indian) pronunciation; yet several chapters have been preserved only in this ms. branch.

Iranian Khorda Avesta (IrKA)

The most reliable mss. are the following. I have not tried to classify them internally, but their contents (as far as Yašt and KA texts are concerned) are given so that their selective character may be clear:

- F2 (with Pahlavī translation) Yt 1, Ny 1+3, S 2, A 1+3
- K13 Yt 13
- K14 Yt 13
- K18a (with Pahlavī translation) Yt 1+3+11, Ny 1+3, S 1+2, A 1+3
- K36 Yt 1-3+11+14, Ny 1-3+5, G 2-5, S 1-2, A 1-3
- K38 Yt 2+9+13+14.1-53, G 1, S 1-2
- Mf3 Yt 1+13, Ny 1+3+5, G 1-5, S 1+2, A 1

A group of secondary importance is formed by mss. such as K37, Kh2, L25, Lb5, Lb16, Pd, W1.

Indian Khorda Avesta (InKA)

The ms. H2 is notable for preserving small parts of Yt 13, which has been completely lost from the other Indian mss. we know. The oldest mss. are

- Jm4 Yt 1-4+9+11+14+16, Ny 1-5, S abridged, A 1-3
- O3 Yt 1-4+9+11+12+14+16+18+20+21, Ny 1-5, G 1-5, A 1-3
- H2 (with Skt. tr.) Yt 1.1-23+13.49-52+13.156-157, Ny 1+3+5, A 1+3
- J9 (with Skt. tr.) Yt 1.1-29+1.31-33+7+11.1-7+11.10-13, Ny 1+2+4+5, A 1

Of some importance are also the InKA mss. L9 and Mb2, both containing Avestan with a Bhāṣā translation; these stand very close to H2.J9. Other Indian mss. are K7c, K15 (with Sanskrit) and L11. Especially K7c, undated but datable anywhere between 1278 and 1640 AD, retains similarities to the Iranian mss., whereas L11 shows the same kind of corruptions as other Indian mss.

A special subgroup of InKA mss. is formed by some of the mss. with a Pahlavī translation. The retention of the Pahlavī (M4, P14 and J15 also contain a PTr., which they all derive from the same ancestral ms. K7a.), the selection of texts (compare e.g. K18a) and their variant readings make this group seem nearer to the Iranian mss. The ms. J15 appears to have undergone the most influence from the Indian pronunciation.

- M4 Yt 1 (transcribed and translated into Persian); Yt 11, Ny 1, S 1-2 (+ PTr.); Yt. 2.8-15+4+14 (+ Persian tr.)
- J15 (+ PTr.) Yt 1.1-22+7+11, Ny 1, S 1-2, A 1-3,
- P14 (+ PTr.) Yt 1, Ny 1-5, G 1-5, A 1-4
- L12 (+ PTr.) Yt 1+11, Ny 1+3+5, S 1+2

Other KA mss. are for example the ms. edited as J1 in the Shīrāz series (with Pahlavī translation), which is *not* J1 from Geldner's Prolegomena (which is a VS). Geldner also made use of some modern transcripts without textcritical value, such as W2.6.K40.J16.M25.35.L16 and others.

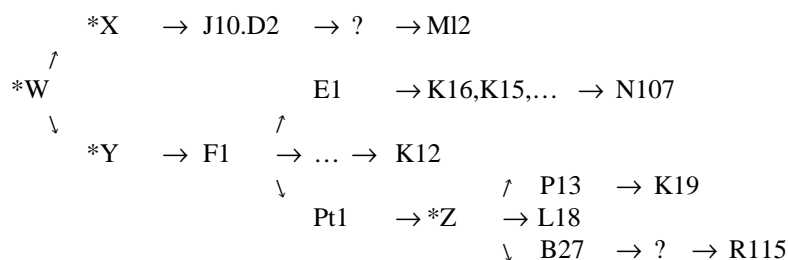
(Indian) Yašt sāde (YtS)

In the group of pure Yašt (Yašt sāde) mss. I include those called 'combined' mss. by Geldner. These are distinguished from the others by their preserving the text of Yt. 5, 6, 8, 10, 15, 17 and 19, which the Khorda Avesta mss. do not contain, and within India by the preservation of Yt. 13, which is partly attested in H2 but was lost from the later mss.

The most important YtS mss. are:

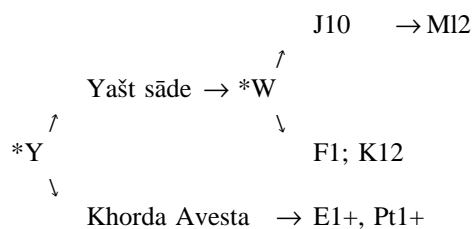
- J10 Yt 1-21, Ny 1-5, G 1-5, S 1-2, A 2-4
- F1 Yt 1-21, Ny 1-5
- Pt1 Yt 1-21, Ny 1-5, G 1-5, A 1-4
- E1 Yt 1-21, Ny 1-5, G 1-5, S 1-2, A 1-4

For an example of how intricate the relations between the different YtS mss. can be, cf. Tremblay 1996: 112. Here, a simpler scheme will suffice for the sake of reference (cf. Hintze 1994: 58):

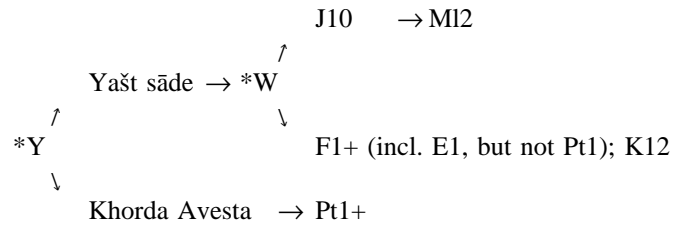


In several texts, other mss. than F1 and J10 seem to have preserved better readings, for instance K12, which has partly been influenced by the line of J10. The mss. H3 (containing Yt 10.17.18.19) and H4 (Yt 10) may also be partly independent, but their exact position is unknown (cf. Geldner 1886-96: xliiib). The ms. Mb1 was not classified by Geldner, but it seems to be quite a faithful copy of F1, deviations being due to the Indian pronunciation. The ms. Lb1 seems to follow Pt1 more than any other ms.

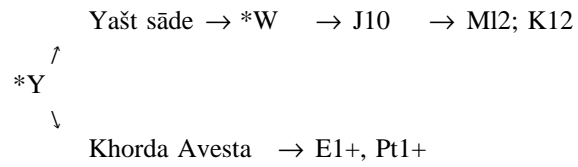
This general view is not valid for all the texts. In the chapters Yt 1-3, the mss. Pt1 and E1 do not depend on F1, but follow a different tradition, closer to the Khorda Avesta. In Pt1, other chapters in which it is independent of F1 are Yt 4+9+14+16 and Ny 1-5. The filiation of the YtS in Yt 1-3 will thus approximately be:



The filiation of the YtS in Yt 4, 9, 14, 16 and Ny 1-5 will approximately be as follows:



For the books G, S and A, which are absent from F1, the filiation is accordingly:



II. AVESTAN *a* AND \bar{a}

§ 3 Avestan **a > ā*

Lengthening of **a* is mostly due to recent developments. In general, **a* is more liable to be lengthened in initial syllable than in other syllables of the word, and lengthening is also more frequent in an open syllable than in a closed one. But these are only additional conditions; usually, they alone do not suffice to cause lengthening.

The first five subsections are concerned with the positions in which lengthening of **a* is most clearly due to the phonetic surroundings, viz. after **i* which has turned into yod (§ 3.1), after the labial glides *v-*, *x^v-* and *-uu-* (§ 3.2), between a labial and *š < *rt* (§ 3.3), in initial syllable in words which are mostly characterized by a following series of short vowels (§ 3.4), and in OAv. words in front of an ending containing *-ā*, *-āiš* or *-qm* (§ 3.5). The sixth subsection turns to the spelling *-āi-*, which can be a corruption of **-ai-* (§ 3.6). The seventh subsection discusses long vowels which cannot be ascribed to a phonetic or graphic cause, but must have been present in the language itself.

§ 3.1 After **i > ĩ*

Many scholars have recognized an Avestan tendency to lengthen **ĭa > iīā*, but no exact conditions have been established yet⁵. A first restriction which seems to apply is that **ĭa* is only lengthened in the position after a consonant. I have not encountered this additional condition anywhere in the literature, but it was formulated by Schindler in his teachings⁶, and the evidence clearly shows that this is correct.

However, even after a consonant most relevant forms do *not* show lengthening:

- nominal endings, e.g. *-iīiīāṭ*, *-iīauue*, *-iīauuō*, *-iīanqm*, *-iīaṇtəm*, *-biiasca*, etc.
- the comparative suffix **-ĭah-*: nom.du. *āsiīaṇha*, gen.pl. *kasiīaṇhqm*, dat.sg. *kasiīaṇhe*, nom.pl. *kasiīaṇhō*, *masiīaṇhō*, acc.sg. *spaniīaṇhəm*.

⁵ Compare Caland 1893, Bartholomae 1894-5: 154, Hoffmann 1992: 869f., Hintze 1994: 108, Kellens-Pirart 1988-91 I: 61, Kellens 1989: 34.

⁶ Vienna, October-November 1994.

- verbal endings⁷, e.g. in *auuāstriiata*, *apa.nasiiata*, *xruuīšiiatō*, *pišīiasū*, *framaniiata*, *baēšaziiatica*, *yūidiiaθō*, *viiāxmainiiata*, *vīmaniiata*.
- isolated words with *-Cii-* in open syllable: *airiiana-* ‘Aryan’, *airiia-* ‘guest’, *aniiadacā* ‘elsewhere’, *kasiiapa-* ‘turtle’ (Skt. *kaśyāpa-*), *mainiiuuu-* ‘spiritual’.

Some of the forms which are often quoted as examples of lengthening after **i* are due to other causes than *-ii-*:

- The long vowel in OAv. *aniiāθā*, *diiātqm*, *mainiiātā* and *vīšiiātā* may be ascribed to assimilation to (**)ā* in the ending; these forms are discussed in § 3.5.
- The ending *°Ciiāca* < **-Cīaca* is discussed together with the development **-aca* > *-āca* in § 5.3.1.4.

The remaining evidence for lengthening leaves only one clear category in which **a* > *ā* is due to a preceding *-ii-*, viz. when *-ii-* represents Plr. vocalic **i* which had become consonantal **j* at a certain stage of the transmission. First of all, this concerns the well-known compounds such as **abi-ama-*, when they are not split in two in the transmission, but survive as a single word: **abiama-* > *aiβiiāma-* (§ 3.1.1). The two other subcategories are the abl.sg. forms in *-riiāt haca* (§ 3.1.2), and a number of isolated forms in *-iiā-* which may continue a disyllabic suffix **-ia-* (§ 3.1.3). Nearly all the evidence is found in YAv., with the exception of *friiānahiiā*.

§ 3.1.1 Compounds of the type **-i.a-*

The clearest cases of lengthening after *-Cii-* are provided by compounds of a preverb in *-i* plus a noun in **a-*. They were described by Caland 1895: 302 in the following way: "In compositis nämlich, deren erstes glied eine auf *i* auslautende präposition ist, wird der vokal *a*, mit welchem das zweite compositionsglied anlautet, hinter dem in halbvokal übergegangenen *i*, zu *ā* gedehnt; wird die zusammensetzung getrennt geschrieben, so bleibt das *a* kurz." The change may then be interpreted as compensatory lengthening for the loss of the vocalic character of [*i*]: **aiβi-ama-* became [*aiβiāma-*]. It is tempting to compare the shift of the syllabic nucleus which causes lengthening

⁷ The diphthong *-aē-* is sometimes spelled *-āi-* in more recent mss., so that forms such as Yt 10.95, P 32 *aiβiiāite/i* or N 11 *paitiiāiti* ‘he returns’ are irrelevant; cf. § 15.4 on these spellings.

in Old Icelandic diphthongs, e.g. *jú* < **iu* and *jó* < **eo*; thus, Avestan **abí-ama-* > **abiáma-*, **ní-aza-* > *njáza-*. The following forms occur:

With *aiβi* ‘towards’:

- *aiβiiāuuah-* ‘assistance’ (Y 55.3), from *aiβi* + *auuah-* ‘help’.
- *aiβiiāxšaiia-* ‘to watch over’ and *aiβiiāxštar-* ‘overseer’, from *aiβi* + **axš-* ‘eye’, cf. Caland 1895: 303. For the formation, compare Skt. *ádhyakṣa-* ‘overseer’.
- *aiβiiāma-* ‘offensive, aggressive’⁸ and its superlative *aiβiiāmatəma-* continue **abi-ama-* ‘with its force (directed) towards’, cf. Skt. *abhy-amī-* ‘to attack’ and YAv. *amauuant-* ‘powerful’. The compound **abi-ama-* has also yielded Av. *auui.ama-* (Yt 8.13, 13.35), which has escaped the lengthening because of the compound split between **abi* and **ama-*.
- *aiβiiāsti* (V 18.9, E 2,17) ‘is with’ → ‘studies with (someone)’, from *aiβi* + *asti*.
- *huuaiβiiāsta-* ‘well-thrown’ (Yt 13.72) < *hu-aiβi-asta-* ‘well thrown towards’. Initial *huua*^o (not > †*x*^o*a*^o, as per § 28.2) shows that the compound was probably still *hu.aiβiiāsta-* or *hu.aiβi.asta-* at the time of the archetype.

With *paiti* ‘against, to’:

- *paitiiārəna-* ‘enemy’ < *paiti* + **arna-* ‘injustice, wrong’. The original quantity of the vowel follows from *arənaṭ.caēša-* ‘punisher of wrong’ (cf. Gershevitch 1959: 186), and maybe from Y 9.22 *arənu-*, possibly ‘battle’. Compare also the PN *arənauuācē-*, which Mayrhofer 1979: I/20 explains as ‘das Unrecht aussprechend’. We may reconstruct **paiti-arna-*.

With *paiti* and *upairi* ‘on, over’:

- *paiti āiia zəmā* (YAv.) ‘on this earth’ and *upairi āiia zəmā* (Y 12.3) ‘over this earth’ contain the ins.sg.f. **aiia* (Skt. *ayā*) of the demonstrative pronoun *a-*. We may assume that *paiti* + **aiia* and *upairi* + **aiia* were pronounced under the same sandhi conditions as e.g. *paitiiāsti-*.

For two compounds in *paiti*^o, it is uncertain whether they contain etymological *-*Cīā-* or *-*Cīa-*:

- *paitiiāmraoṭ* ‘he spoke to’ goes back to **paiti-amraut* or to **paiti-ā-(a)mraut*; cf. OAv. *paitī.mraoṭ*.

⁸ For this translation see Hintze 1994: 136, who follows Windischmann 1863: 317.

• *paitiiāra-* ‘enmity, misfortune’ and its superlative *paitiiārōtāma-* contain *paiti* + *ar-* ‘to move against’. The noun is not attested as a simplex. If it was **āra-* < **Hór-o-* (cf. OAv. *āri-* ‘pain, grief’), *paitiiāra-* is irrelevant here.

With *bi* ‘two’:

• **biiāršan-* PN ‘having two colts’, in the gen.sg. *biiāršānō* (Yt 13.132) and the acc.sg. *biiāršānəm* (Yt 19.71). In Yt 13.132, the mss. F1.Pt1.E1+ spell *biiar°*, but Mf3.K13.38 have *biiāršānō*; in many cases, these IrKA mss. preserve an older spelling than F1+. The noun (*°*)*aršan-* is frequent in the Yašts, compare Yt 13.132 *siiāuuaršānō*, from where the mss. F1.Pt1.E1+ may have adopted *°aršānō*. Therefore, *biiāršānō* may well have been the spelling of the archetype. For Yt 19 *biiāršānəm*, no v.ll. in *biiar°* occur, but this may be due to the fact that Yt 19 is not attested in the IrKA mss.

With *ni* ‘down’:

• *niiāsa-* (5x YAv.) ‘to hold tight’, from *ni* + the prs. **iasa-* of the root *yam-* ‘to hold’. Although we are not dealing with etymological **-ia-* but with **-ija-*, we may still assume that **ni-iasa-* contained the necessary input for the development to **niāsa-* > *niiāsa-*.

• *niiāza-* (3x YAv.) ‘to bind tightly’, from *ni* + the prs. *aza-* ‘to lead’, also ‘to drag’. Compare the meaning ‘to tie’ attested for *āzaiiāiti* (Vn 13, 15), which may simply be the causative to *az-* ‘to lead’. If this derivation of *niiāza-* is accepted, there is no need to posit a separate verbal root *āz-* ‘to tie’ (pace e.g. Kellens 1995a: 12).

With *vi* ‘apart’:

• *viiāxti-* ‘make-up’ (F 81) has been compared with Skt. *vyakti-* (f.) ‘appearance’ and *vyakta-* ‘manifest, clear’ by Caland 1895: 303, and this was connected with Skt. *añj-* ‘to show’ by Kuiper 1953: 77. Regardless of one’s opinion about the probability of a Skt. root *añj-* ‘to show’ (EWAia I: 54 seems sceptical), the connection of *viiāxti-* with Skt. *vyakti-* suggests that Av. *-ā-* will have arisen through the development **-ija-* > **-iā-*.

• *viiādarəsəm* (Y 45.8), 1s. aor.ind.act. ‘I saw’ with the augment: **vi-a-darsam*.

• **viiārəθa-* (V 17.3) ‘misused’ from *vi* + *arəθa-* ‘cause, case’. All mss. have *viiar°* except for Jp1 *viiārəθāhuua*. In view of Yt 13.134 **viiārəθiia-*, where *viiā°* is safely attested in the best mss., it seems likely that Jp1 has preserved the older spelling in V 17.3.

• **viiārəθiia-* (Yt 13.134) ‘uncontested’ from *vi* + *arəθiia-*. This adj. was edited as *viiarəθiia-* by Geldner and Bartholomae 1904, but only F1+ has

viiar^o, whereas J10 spells *vaiiār*^o and the IrKA mss. Mf3.K13.14.38.H5 *viiār*^o. Caland 1895: 302 already hinted at this distribution.

• ⁺*viiāršauuant-* PN (Yt 13.109). This must be connected with the names *aršauuant-* and *paitiiaršauuant-*. Although the etymology of the first part ^o*arša*^o is unclear (cf. Mayrhofer 1979: I/21), it seems certain that *aršauuant-* continues short *a-, so that the absence of lengthening in Geldner's *viiaršauuant-* would be conspicuous. The short vowel is only attested in F1+, and may be due to analogy with the preceding form *aršauuatō* in Yt 13.109. The IrKA mss. Mf3.K13.38 spell *viiārəš(a)uuatō*, and this is the lectio difficilior.

By contrast, we also find compounds in which this lengthening has not taken place. In all of these cases, we may assume that the compound was still spelled with two separate members in the archetype, e.g. **tiži.aršti-* instead of *tižiiaršti-*, as it is attested in the mss. Most of these compounds occur in the Yašts, which have a less trustworthy ms. tradition. The evidence comprises: ^x*aiβiiaghat* (E 18) = **aiβi.aghat*; *tižiiaršti-* 'with a sharp spear' (Yt 13.101, 15.48), which we can equate with *tiži.aršti-* (Yt 10.102, 17.12); *θriiafsman-* (V 13.46f.) of uncertain meaning, but compare Y 19.16 *θri.afsman-* 'with three lines of verse'; *paitiiaršauuant-* (Yt 13.109), which is still spelled *paiti.aršauuatō* in the mss. of the IrKA; *paitiiantu* (Y 65.8) 'they must go to' for *paiti.yantu*; *paitiiahmi* (F 225) 'from *paiti ahmi*'; *bərəziaršti-* (Yt 13.101) 'having a high spear' for **bərəzi.aršti-*; *vaēziaršti-* (Yt 13.101, 15.48) 'having a sharp lance' for **vaēzi.aršti-*.

Naturally, forms with etymological *ā must be excluded from the discussion. This concerns:

- Compounds with preverbs in -ī plus ā 'towards; in'. Examples are *anaiβiiāsti-* 'non-cohabitation', *paitiiāstar-* 'receiver', *paitiiāsti-*⁹ 'reception, acceptance', *biīarixti-* 'twofold irrigation', *viiāuuant-* 'luminous', *viiādā-* 'share, part' (cf. Narten 1986a: 245ff), *viiāzda-*¹⁰ 'fanned out, deployed'.
- Words with *ā in root or suffix. Examples are *aiβiiāsta-* 'girded', *(an)aiβiiāsti-* '(un)girding', *aiβiiāstar-* 'who bundles' (**aiβi + yāh-*); *jiiātu-*

⁹ Of the two possible etymologies offered by Narten 1986a: 129ff., I prefer **paiti-ā-dā* (to *dā-* 'to give') to **paiti-ah* (to *ah-* 'to throw') for semantic reasons. The noun ^o*sti-* would then continue the *ti-*abstract of *dā-*, i.e. IIr. **-dH-ti-* > **-t^hti-* > *-sti-*.

¹⁰ Humbach (1983: 121) analyzes this as **vi-ā-d^hH-ta-* to *d^haH-* 'to put'. In that case, we have a remnant of the original sequence *-zd-* < **-d^hd^h-*, which was usually replaced by *-st-* in YAv.

and °*jiiāiti*- ‘life’; *paitiiāpa*- ‘upstream’, *niiāpa*- ‘downstream’ (with *āp*- ‘water’); *niiāka*- ‘grandfather’, *niiākā*- ‘grandmother’, cf. OP *niyāka*-, Sogd. *ny’k*, Bactr. *viāyo*; *maidiiāna*- ‘middle’ n. (Khot. *myāna*-, BSog. *mδ’ny*, MP *my’n*); *viiāxana*- ‘challenging’, *viiāxmaniiā*- ‘to speak (in a contest)’, *viiāxman*- ‘ceremonial meeting’ (to Skt. *yācati* ‘asks, solicits’, cf. Kuiper 1960: 243ff.); *siiāuuuā*- ‘dark, black’; *šāma*- ‘sip’ < PIr. **ciām*- ‘to sip’ (Klingenschmitt 1982: 210).

§ 3.1.2 The sequence *-riiāt haca*

The abl.sg. ending *-āṭ* of *a*- and *ā*-stems is regularly shortened to *-at* in front of *haca* ‘from’: **-āṭ haca* > *-at haca* (cf. § 4.1.2). There is only one small but coherent group of exceptions, viz. four forms showing a final sequence *-riiāt haca*:

- *barəθriiāt haca* (V 18.38ff.) to *barəθrī*- ‘womb’.
- *yaoždāθriiāt haca* (V 9.2ff.) to *yaoždāθriia*- ‘works of purification’. The fricative *θ* shows that *r* was consonantal in PIr., which in its turn points to a vocalic suffix **-ija*-. This matches the meaning: **yauždāθriia*- would be a regular derivative of *yaož-dāθra*- ‘(ritual) purification’.
- **skairiiāt haca* (V 8.95)¹¹ to *skairiia*- or *skairī*-, some kind of tool.
- *hukairiiāt haca barəzanhaṭ* ‘from Mount Hukairiia’ (Yt 5.3ff.), **hukariia*- or **hukariija*-. If the name contains the same gerund °*kairiia*- as the compounds *uparō.kairiia*- ‘who operates on high’, *mošu.kairiia*- ‘who operates quickly’, then we may reconstruct **su-kariHa*-.

As there seems to be no morphological reason why the original ending *-āṭ* would have been *retained* in these four forms (whereas it was not retained e.g. in *aoniiat haca* and *saire.hiiat haca*, which also show the suffix *-iia*-), it will be due to lengthening after the preceding cluster. However, we have no other indications to believe that **rī* would be more liable to cause lengthening of a following **a* than any other cluster **Ci*. Therefore, we may consider the possibility that these forms show the same development of **[ija]* > *[iā]* as the forms with a preverb in **-i*. A disyllabic ending **-iiāt* may be reconstructed for *ī*-stems (abl.sg. **-iiāt* < **-iHāt*) and *-iia*-stems. As can be seen, *barəθrī*- and *yaoždāθriia*- certainly represent such stems, whereas it is at least possible that *skairiia*- (or *skairī*-) and *hukairiia*- are also *ija*-stems. For the relative

¹¹ V.II. °*at* K1a, °*āt* Pt2.MI3.B1.P2.M3 · °*at* Mf2, °*āt* Jp1 · °*āt* L2.3.Br1.Dh1.O2.

chronology, this explanation of *-riiāṭ* would imply that the shortening of **-āt haca* > **-aṭ haca* preceded the subsequent development **-riiāṭ* > *-riāṭ*.

The only forms with an ending **-C(i)īāṭ haca* other than the four forms in *-riiāṭ* are *aoniāṭ haca* (to *aoniia-* ‘oven’) and *saire.hiiāṭ haca* (to **sarīahiia-* ‘(pile of) reeds’, cf. § 28.3). *Aoniāṭ* may represent [*aoniāṭ*], in which the condition for lengthening was not given. *Saire.hiiāṭ* may have already been split into two parts before the development **iia* > *iā*. The second part *hiiāṭ* was then a separate word which would not simplify initial **hi-* (compare § 28.1 for the YAv. reflex of **h(i)j-*).

§ 3.1.3 Isolated forms

There are several isolated lexemes in which *-iīā-* may continue disyllabic **-ia-* or **-iHa-*. Although they are few in number, these forms may be regarded as independent evidence for the phonetic cause which underlies the lengthening already seen in the preceding two subsections.

- The adj. *vohu.friiāna-* (Y 17.11) denotes a kind of fire: *ātrəm vohu.friiānəm yazamaide* ‘we worship the *vohu.friiāna*-fire’. We may connect *friiāna-* with *friia-* ‘pleasant’ < **priHa-*, since *ātar-* often occurs in connection with the verb *frī-* ‘to satisfy’, e.g. Y 62.9 *ā hē pascaēta frīnaiti ātarš mazdā ahurahe* ‘next, the fire of Ahura Mazda satisfies him’. The same word probably underlies the PN *friiāna-*: gen.sg. *friiānahiiā* (Y 46.12), gen.pl. *friiānanqm* (Yt 13.120; Yt 5.81 *friiānanqm* will be due to a recent corruption of **friiānanqm*). The metre of Y 46.12 shows that *friiānahiiā* counts as four syllables, i.e. */friānahīā/*. In view of the root noun Skt. *°prī-*, Av. *ratu-frī-* ‘who pleases the Ratu’, we may propose a derivative **priH-ana-* ‘pleasing’ > **friiāna-* > YAv. *friiāna-*.

- The gen.pl. *mašiiānqm* (YAv. passim) of *mašiiā-* ‘mortal’ is unique because it is the only gen.pl. form of *a-* and *ā-* stems which does not show the ending *-anqm*, the regular reflex of IIr. **-ānām* (see § 4.9.2). None of the other stems in *-Cīia-*, such as *māhiia-*, *asniia-*, *uruṃmīia-*, *yāiriia-*, *gaēiḍiia-*, *mairiia-*, *paoiriia-*, *raḍβiia-* or *sraošiia-*, show a gen.pl. in *-iīānqm*. In theory, *mašiiānqm* could have retained the IIr. ending **-ānām*, but this is unlikely: why only in *mašiiā-*, and not in other stems? We must assume a phonetic origin for *mašiiānqm*. It is well-known that *mašiiā-* counts as three syllables in OAv. (cf. also Skt. *mārtiya-*), so that we may reconstruct **mārtianām* > *mārtiānām*.

- The noun *mašiiāka-* ‘man, people’ < **martiaka-* is a derivative in **-ka-* from *mašiiā-*. Again, the long vowel could be due to the development **-iia-*

> *-iā-*. Since a suffix **-āka-* has become productive in Middle Iranian, it might be argued that *mašiiāka-* contains this suffix. However, apart from *mašiiāka-* and *zairimiiāka-*, there are no Avestan words which point to productivity of *-āka-* in Avestan. Those which occur contain PIr. **ā: haθrāka-* ‘together’ (a thematization of **haθrāk-*), *niiāka-* ‘grandfather’, the gen.pl. *ahmākəm* ‘of us’, *yūšmākəm*, *xšmākəm* ‘of you’ (cf. Skt. *asmākam*, *yusmākam*) and the derived possessives *ahmāka-* ‘our’ and *yūšmāka-/xšmāka-* ‘your’. The PN *dahāka-* ‘Dahāka’ is probably a loan word, since it lacks the change **h > ḡh*.

- Y 9.27 *vaēdiī.paiti-* ‘lord of wisdom’ represents a spelling **vaēdiīpaiti-* in the archetype, in which *-ā-* must be due to lengthening after **-ḡi-*. The first member *vaēdiīa-* n. ‘knowledge’ is attested several times in Avestan, and may be compared with Skt. *védyā-* ‘to be known’ and *vedyā-* ‘knowledge’. Thus, *vaēdiīpaiti-* can be reconstructed as **vaiḡiāpati-* < **vaiḡiapati-*.
- *zairimiiāka-* ‘tortoise’ is a derivative of an adj. **zarm(i)ia-* ‘strong, fixed’. The Skt. cognate *harmyā-* ‘permanent house’ suggests IPr. **^harmia-*, so that *zairimiiāka-* may owe its *-ā-* to the same change as *mašiiāka-*. Note, however, that *zairimiiāka-* is a hapax, occurring in V 13.6 *yim mašiiāka auui dužuuacaḡhō zairimiiākəm nqma aojaite* ‘whom evil-speaking people call by the name (of) *zairimiiāka-*’. Therefore, it is conceivable that *zairimiiāka-* acquired *-iiāka-* by the influence of the preceding form *mašiiāka*.

Possessive adjectives in **-uant-* ‘containing X’, derived from thematic nouns, usually show the sequence *-auuant-* in Avestan: *haomauuant-* ‘with haoma’, *gaonauuant-* ‘hairy’, etc. Even the pronominal adjectives such as *aētauuant-* ‘such’, which have Skt. cognates in *-āvant-* (*tāvant-*, *etāvant-*, *yāvant-*), have usually shortened original **-ā-*, cf. § 4.4. The only certain exceptions are the three adj. in which **-uant-* is preceded by a stem in *-Cja-*. The lengthening in these three forms must be due to the preceding cluster *-Cii-*:

- *tqθriīauuant-* (^xYt 5.109, 9.31, 19.87¹²) PN, to *tqθriia-* ‘dark’. We may assume that the sequence **ri* was originally realized as [*rii*] after the preceding obstruent **t*, because **t* would not have become a fricative *θ* in front of **r*; compare *ātriiā-* ‘ashes’ < **ātrīa-* (§ 24.2).

¹² In Yt 5.109, *tqθriīā°* is not attested, but we can assume that it has been replaced by *tqθriia°* just as we can see the replacement happening in Yt 19.87. The form *tqθriīaum* is lectio faciliior. V.II.: Yt 5.109 F1+ *tqθriīā°* · J10 *tāθraīīā°*; Yt 9.31 F1.E1.J10.K12 *tqθriīauuantəm*, text lacking in M12.K37; Yt 19.87 F1+ *tāθriīauuantəm* · J10 *tqθraīīauuantəm*.

- *zairimiiāuuant-* ‘who has a fixed home’ (Yt 7.5). For the first member PAv. **zarm(i)ā-*, compare the discussion of *zairimiiāka-* above. The context of *zairimiiāuuant-* is ambiguous. It occurs in a series of adjectives *xštāuuantəm* *ištāuuantəm* *yaoxštāuuantəm* *saokāuuantəm* *zairimiiāuuantəm* *vohuuāuuantəm*, in which the three preceding forms have °*uuantəm*, and the following °*āuuantəm*. Thus, it might have adopted °*āuuantəm* from the following form, but it may also be argued that original °*uuantəm* would surely have been retained in view of the preceding three forms.
- *zaraniīāuuant-* ‘with gold’ (V 4.54), cognate with Skt. *hiraṇyavant-*. The form °*āuuant-* is lectio difficilior within its context: *āpəm saokəntāuuaitīm* *zaraniīāuuaitīm* *vīθušāuuaitīm* ‘the sulphurous, gold-containing, guilt-determining water’. There are no indications in Sanskrit metre that Skt. *hiraṇya-* ‘golden’, the cognate of *zaraniīa-*, had a disyllabic suffix *-ia-, but it cannot be excluded that the suffix was shortened in Skt. if the word had contained four syllables. A similar shortening in a stem with two syllables in front of the suffix -(i)ya- can be observed in the Skt. gerundives continuing a PIE suffix *-iHo-. After a light root syllable, we find a disyllabic suffix in the uncompounded forms (*gūh₂ya-* ‘to be hidden’, *mād₂ya-* ‘intoxicating’, etc.), but monosyllabic -ya- if the gerundive is used in a compound (e.g. *ajuryá-* ‘not aging’, *avadyá-* ‘not to be praised’); for the RV evidence cf. Seebold 1972: 219ff. As Ickler 1976: 122 argues, it is likely that the suffix *-iya- was realized monosyllabically in the compounds to avoid a sequence of at least three short syllables. The same sequence would arise if we read †*hiraṇ₂ya-*, which is why we must count with the possibility that *hiraṇya-* does contain an Iir. suffix *-iHa¹³. In other words, the Skt. evidence does not suffice to disclaim the possibility of a preform Iir. *^{zh}*rHaniHa-*. This preform might then be reflected in Av. *zaraniīāuuant-*.

Three personal names in *-āna-* and *-āni-* also seem to present evidence for a development **iā* > *īā*. However, in view of the fact that there are other personal names with a suffix *-āna-* which is not or not completely explained (e.g. *haēca₂aspānā-*), the following three forms must be used with some reservation:

- *āθβiiāni-* (Yt passim) is the patronymic of the PN *āθβiia-*. According to Y 9.7, *āθβiia-* is the father of *θraētaona-*, and *θraētaona-* himself is called *āθβiiāni-* in Yt 13.131 and FrW 2. It seems probable that *āθβiia-* is the same

¹³ In fact, Balles 1997: 146f. reconstructs PIE **ǵ^hlh₃en-iō-* ‘golden’ with a disyllabic suffix *-iō-. She assumes, however, that the suffix was shortened to *-iō- already in PIE.

name as Skt. *āptyá-*, a cognomen of *tritá-* (EWAia I: 168). As Skt. *āptyá-* must be read as *āpt₂yá-* in 8 of its 9 RV attestations (4x in cadence, 2x after caesura, 3x initially), it is quite possible that the IIr. form was trisyllabic **āptiá-*. In that case, we can explain *āθβiiāni-* as an *i*-stem variant of a patronymic **āθβiia-na-*; for *-i-* compare other Avestan names: *dāštaiiāni-* to **dāšta-iāna-* (Mayrhofer 1979: I/35) and *kərəsāni-* to other PN in *kərəsa°* ‘thin’. Hintze (ad Yt 19.36) considers the possibility that *āθβiiāni-* was formed as a hypostasis from the gen.pl. **āθβiiānqm* ‘of the *āθβiias*’. In that case, **-āni-* may preserve the IIr. ending **-ānām*, before it was shortened to *-anqm*. Yet *θraētaona-* is not the grandson, but the son of *āθβiia-*, so that he does not stem ‘from the *āθβiias*’, but he *is* one (the first) of them.

- The patronymic *gaēθō.mərəñciiāna-* was interpreted as ‘descendant of **gaēθō.mərəñciia-*’ by Bartholomae 1904: 479, but the word does not feature in Mayrhofer’s 1979 study of personal names. The form *mərəñciiāna-* can hardly be old because it is derived from the present stem *mərəñc-* of *marc-* ‘to destroy’; however, the absence of the development **c₁ > ś₁* suggests that we must nevertheless reconstruct **m₁ñciā-*. The vocalic pronunciation of **i* might be due to the heavy preceding consonant cluster **-nc-*, although in the OAv. 3s. opt. *mərəqšiiāt* < **m₁ñciāt*, the cluster *-nc-* did not prevent consonantal value of **i*. In any case, there is a possibility that long *-ā-* in *mərəñciiāna-* is based on disyllabic **-ia-*.

- *naotairiiāna-* ‘descendant of *naotara-*’. This meaning is already present in the stem *naotairiia-*, of which *naotairiiāna-* will be a derivative. The shorter adj. may be posited as **nautaria-* or **nautaria-*: there is no way to decide whether the suffix was monosyllabic or disyllabic. Of course, it cannot be excluded that *naotairiiāna-* contains the suffix *-āna-* found e.g. in *haēcat.aspānā-*.

The form *vərəziiātqm* (Y 48.5) is irrelevant. It must probably be restored to *vərəziiā* with Bartholomae 1904: 1427, who suspects that *-tqm* is a dittography of the pronoun *tqm* which follows the verb:

Y 48.5 c *yaoždā mašiiāi aipī zqθəm vahištā*
 d *gauuōi vərəziiātqm tqm nē x’arəθāi fšuiiō.*

Instead of a dittography we may be dealing with a case of ‘dittology’. The advantage of this explanation is that the first half of verse (d) would then be tetrasyllabic, as usual in Y 48. We can interpret *vərəziiā* as the 2s. prs.ipv.act. of *vərəziia-*. Y 10.20 and Yt 14.61, where we find the OAv. verse quoted as *gauuē vərəziiātqm ...*, will have been copied from 48.5 when the ‘dittology’ was already present.

POSSIBLE COUNTEREVIDENCE

In view of the relatively small number of isolated forms discussed above, it may be asked whether they are sufficient proof for the proposed lengthening. We must therefore discuss the forms in which a possibly disyllabic sequence *-iia- has yielded -iia-.

In OAv., we can use the metre in order to check the mono- or disyllabicity of a suffix -iia-. The evidence collected by Monna 1978: 104ff. and reviewed by Beekes 1988: 99 shows that a disyllabic suffix -iia- only appears in part of the nominal derivatives in -ya-, viz. *dafšniia-* ‘powerless’, *naptiia-* ‘descendant’ and 14 others¹⁴. Furthermore, IIr. *-iHa- is present in the gerundives, cf. Beekes 1988: 195: *aojiia-* ‘praiseworthy’, *išiiia-* ‘which is to be sent; strong, healing’, *vaēdiia-* ‘which is to be acquired’, *vairiia-* ‘which is to be chosen’, *začiia-* ‘risible’ (?), *zəuuiia-* ‘to be called’. However, none of the attested forms of these stems contains an ending in which -iia- could be lengthened to -iīā-. Note that the number of inflected forms in which the ending may possibly show *iia > iā is restricted: basically, these are -*asca-*, -*at-*, -*anqm*, and the ā-st. oblique sg. endings -*aiiā*, -*aiia*, -*aiiāi*, -*aiiāt*. Furthermore, the vowel -ā- in front of -*ca* or -*ci* is ambiguous, cf. § 5.3.1.

In YAv., the metre is no safe guide to the syllabic value of a given suffix -iia-. We may use evidence which fits one of the following four categories:

1. Adjectives for which a disyllabic suffix -iia- is warranted by the OAv. metre.
2. YAv. *iia*-derivatives of *a*-stems, in which -iia- is preceded by a voiceless stop or by -*θr*-: the absence of fricativization of *p/t/k* and the consonantal value of *r* in /*θr*/ show that -iia- was syllabic.
3. YAv. *iia*-derivatives of *ah*-stems, in which the preservation of *h* in -*hiia-* points to a disyllabic suffix -iia- (see § 28.3).
4. Word-internal *-iia- of other sorts.

For these YAv. categories, the following evidence is available:

Ad (1). OAv. **xšaθria-* ‘commanding’, **paruiia-* ‘first’, **naptiia-* (PN), **manahia-* ‘spiritual’, **yasnia-* ‘to be honored’, **vāstria-* ‘farmer’ and **zauištiia-* also occur in YAv. There are only four relevant forms:

- gen.pl. *paoirianqm* (YAv. passim), *yesniiianqm* (YAv. passim) and
- + *zəuuīštiiianqm* (Yt 13.21).

¹⁴ I exclude the uncertain form *jōiia-*, cf. § 14.2.

- nom.sg.m. *yesniasca* (Yt 8.15-19, 13.152).

It is uncertain whether *yesniasca* really is relevant, because we also find V 21.2 *mašiasca*, of the stem *mašīa-*; it is conceivable that the lengthening did not operate in front of *-sca* because **-a-* stood in a closed syllable (although a closed syllable seems no obstacle to lengthening after a preverb in *-i*, e.g. *viiāxti-*). Furthermore, *yesniasca* always occurs in front of *vahmiasca*, and *yesnīanqm* is found in combination with *staotanqm*; therefore, they might be ascribed to the context. However, the same is valid for *mašīiānqm* (e.g. *daēuuanqm mašīiānqmca*), which did *not* restore *-anqm*. The form *paoirīanqm* is also often combined with another gen.pl., e.g. *paoirīanqm tkaēšanqm* ‘of the first teachers’, *vīspanqm paoirīanqm frauuašinqm* ‘of all the first Fravašis’; however, some texts show an isolated attestation of *paoirīanqm*. Another explanation is possible: *paoirīa-* goes back to **pauria-*, but this form itself has arisen from PIr. **par(H)uia-* via metathesis in Early YAv. (see § 24.4). It cannot be excluded that the disyllabicity of **-ia-* was lost through this metathesis.

Ad (2). Unlengthened forms to *-īa-*stems are found with *aēθriia-* ‘pupil (of an **aēθra-*), *tqθriia-* ‘dark’ (to *tqθra-* ‘darkness’), (*a*)*dāitiia-* ‘according to law’ (to *dāta-* ‘law’) and *θritiia-* ‘third’ (Skt. *trītya*¹⁵):

- f.obl. *θritīiāiā* (Yt 5.62), *dāitiīiāiā* (Yt passim), *dāitiīiāiāi* (V 5.40), *tqθriīiāiā* (Yt 11.4), *tqθriīasci* (Yt 14.30, 16.9).
- gen.pl. *dāitiīanqm*, *adāitiīanqm* (Vr 15.1), *aēθriīanqm* (Y 26.7ff., Yt 10.119).

Ad (3). We find two unlengthened forms of stems in *-hiia-*, viz. *māhiīanqmca* (Y 1.17) and *stāhiīanqm* (Ny 3.10). Furthermore, there is no lengthening in the future participles *uzdāhiīamna-* and *zqhiīamna-*, which also have disyllabic *-īa-* (cf. § 28.3).

Ad (4). The most certain form with short *-īa-* from **-īa-* is *ajīiamna-* (Yt, V) ‘undiminishing’, *afrajiīamna-* (Yt 13.14) ‘id.’ < **jiHīa-* (Skt. *jīyate* ‘to be deprived of’). The preservation of *-jīi-* shows that **i* must have been vocalic, since **-jī-* became YAv. *-ž-* (Hoffmann-Forssman 1996: 101). In theory, it is possible that long **-ī-* was shortened *after* the change of **-īa-* > *-īā-*, so that

¹⁵ The explanation of *-ī-* in Skt. *dviītya-* ‘second’, *trītya-* ‘third’ and *turītya-* ‘fourth’ is disputed (cf. Wackernagel-Debrunner 1954: 644). Avestan ((*dai*)*bitīia-*, *θritiia-*, *tūriīa-*) and OP (*du-u-vi-i-t-i-y-* ‘2^d’, and *çi-t-i-y-* ‘3^d’) do not allow to distinguish between **i* and **ī*, but morphologically an Ilr. suffix **-iHa-* seems likely.

jiiamna- escaped the lengthening. A different solution would be to assume analogical retention of the ptc. suffix *-amna-*, as may be the case in *uzdāhiiamna-* and *zqhiiamna-* which we saw above.

Several other forms have *-a-* for expected *ā (or $\overset{\circ}{a}$) on the compound boundary. Because of the separation point or because of the possibility of restoration of short *a-* in the second member, all of them provide ambiguous evidence as to the question whether they really possessed *-ā-:

- *jii.a.jata-* ‘propelled by the bow-string’ (Yt 10.39), from * $\check{y}iHa(H)$ - ‘(bow-)string’ (Skt. *jyā-*); the syllabic value of *-ii-* is shown by the short final vowel in the nom.sg. Yt 10.128 *jiiā*; cf. also Greek *biós* ‘bow’ < * $\check{g}^w iHo-$. It is possible that the archetype had **jiiājata-*, which regularly developed from **jii.a.jata-*. The split in Yt 10.39 may be very recent, and the scribes may have automatically applied the rule that YAv. polysyllabic words take a short final vowel.
- *vairiia.stāra-* ‘more preferable = left’ (Yt 10.100) must be derived from *vairiia-*, of which the OAv. metre shows that it had a disyllabic suffix *-ia-*. The ms. H4 spells *vairiīāstāra-*. The critical value of H4 is uncertain, but even without this attestation, it is possible to assume original **vairiīāstāra-*: if such a form were split up at a recent date, the final vowel of **vairiīā*^o would have been shortened by the scribes in order to comply with the rules for final vowels in YAv.
- *zairimiiāfsman-* (V 13.46,48) literally means ‘with fixed parts’, from *zairimiiā-* (see above) and *afsmān-*, but its exact meaning in the context of the servant (V 13.46) and the whore (V 13.48) to which it refers is unclear. Since the compound is immediately followed in the text by *θriiāfsman-* ‘with three parts’ (< *θri.afsmān-*), it is possible that the expected long *-ā-* in **zairimiiāfsman-* was influenced by the short *-a-* of *θri(.).afsmān-*.
- *zairimiiāṅgura-* (V 13.6) is an epithet of the tortoise, which Bartolomae 1904: 1682 explains as **zarmiīā-angura-* ‘des Glieder (oder Zehen) in einem festen Gehäus stecken.’ The otherwise unknown $\check{x}aṅgura-$ is compared with Skt. *aṅgūli-* ‘finger’. Contraction of **-a a-* should have yielded †*zairimiiāṅgura-*. Bartholomae suggests that short *-a-* on the compound boundary is due to restoration of the simplex $\overset{\circ}{a}ṅgura-$, and this seems possible; cf. § 5.2.2.1.
- *zaraniiapaxšta.pāḍa-* (Yt 17.9) ‘having feet which are bound in gold’. Since most compounds are only split in two members (with the exception of a few cpd. in *hqm*, e.g. *hqm.srut.vāciia-*), it is likely that there never was a separation point between *zaraniia*^o and $\overset{\circ}{paxšta}$. It is therefore possible to regard *zaraniiapaxšta-* as the unchanged reflex of **zaran(i)iapaxšta-*. In theory, it is also conceivable that the archetype had **zaraniīāpaxšta-*, and that

\bar{a} was assimilated in the transmission of Yt 17 to the surrounding four syllables in *-a-*.

Finally, we find one form which is probably irrelevant because $*i\bar{a}$ stood in word-initial position:

- *uzi̇iarāt* ‘will rise’ (Yt 8.5,42) < $*uz + Hi-Hara-$, red. present to *ar-*. It is possible that the word was treated as a compound *uz.i̇iarāt* during the RCS, so that $i\bar{a}$ - was word-initial and did not get the chance to develop into $i\bar{a}$ -.

EVALUATION

The gen.pl. forms *aēθriianqm*, *adāitiianqm*, *dāitiianqm*, *paoiriianqm*, *māhiianqm*, *yesniianqm*, *stāhiianqm* and *zəuuštiianqm* form a genuine counterweight to the testimony of *mašiiānqm*. This implies that the lengthening in the latter form may be due not only to the originally disyllabic suffix, but also to the consonant $-š-$, which is absent from the unlengthened gen.pl. forms.

The form *zaraniiapaxšta.pāδa-* seems to provide counterevidence to the lengthening in *zaraniiāuuant-*. The ms. transmission of Yt 17 is very feeble, so that one may give preference to the testimony of V 4 *zaraniiāuuant-*; however, it is also possible that Yt 17 originally had *zaraniiā*^o too.

The other forms without lengthening provide no real counterevidence. The nom.sg. *yesniasca* agrees with *mašiasca*, and may show the general dislike for lengthening in inflected endings; the endings must have remained recognizable throughout the post-YAv. stage. In fact, the only inflected ending with lengthening is *mašiiānqm*. The f.sg. oblique endings in *-iiāi-* prove nothing, since there are no lengthened forms to contrast them with. The remaining forms are ambiguous, most of them because *-iā-* appears on the compound border. In the ptc. *uzdāhiiamna-*, *zqhiiamna-*, and *a(fra)jiiamna-*, the suffix *-amna-* may have been restored by the transmission; in any case, there are no forms in \dagger -*āamna-* to contrast them with.

§ 3.2 After $*u$

Lengthening of $*a$ sporadically occurs in the position after the labial glides $v-$, x^v- and *-uu-*. This phenomenon cannot be regarded as a sound law, as it affects only a small portion of the potential input. In fact, $*a$ has remained short after a labial glide in the vast majority of forms, in whatever position in the word. Examples are the possessive pronoun $x^v a-$, the verbs *duuara-* and

ϑβaxš-, the nouns *vacah-*, *uruuarā-*, *hāuuana-*, and many forms more. In addition, most of the words in *vā-*, *x^vā-* or *-uuā-* have a good etymology with IIr. *ā, e.g. *yāuuākəm* ‘your’ (du.; cf. pl. *yūšmākəm*), *caϑβārō* ‘four’, *auuācī* ‘was called’, *druuāspa-* < **druuā-* + *aspa-*, etc. The reduplicated perfect *vāuuərəz-* to *varz-* ‘to work’ can be explained from an IIr. root shape **Huarj-* (see § 3.7.1).

The discussion is divided into two subsections. The first one will address the lengthening after *v-* and after word-internal *-uu-*, while the second one discusses the words in initial *x^v-* and *huu-*.

§ 3.2.1 After *v-* and *-uu-*

Lengthening is more frequent in OAv. than in YAv., so that we shall discuss both languages separately. In OAv., I exclude the lengthening in front of an ending *-ā*, *-āiš* or *-ā̇*, which is discussed in § 3.5: *uruuātā* (2x), *uruuātāiš* (2x), *uruuāϑā*, *x^vēnuuātā*, *drəguuātā*, *hauruuatā̇*, *hauruuātā*. The lengthening in these forms probably goes back to the archetype. In front of other endings, lengthening is more sporadic, and often occurs only in part of the mss. Therefore, it will be post-archetype. In fact, it seems that the Iranian mss. are more liable to lengthen after *uu* (in OAv.) than the Indian ones. The evidence comprises:

- *uruuata-* ‘vow’ (Skt. *vratā-* ‘commandment’). Short *a* has been preserved in Y 31.3 *uruuatəm* and was originally also preserved in Y 34.8 *uruuātahiiā*, which is still spelled *uruuatahiiā* in the ms. S1.
- Y 46.5 *uruuātōiš*, gen.sg. to *uruuaiti-* ‘vow’. Since the three YAv. attestations of *uruuaiti-* have short *uruuait^o*, it seems more likely that *uruuātōiš* has been lengthened from **uruuatōiš*, than that YAv. *uruuaiti-* would be a corruption of **uruuāiti-* (pace Werba 1986: 353).
- Dat.sg. *drəguuāitē* (7x) to *drəguuañt-* ‘deceitful’. Usually, the weak cases *drəguuat-* preserve *-a-*: *drəguuataēcā*, *drəguuatō*, *drəguuatəm* and *drəguuasū*.
- 3p. prs.inj.med. *hənduuārəñtā* from **ham-duara-* ‘to concur’, cf. YAv. ind. *hənduuarəñti*.

Words which have been edited with *-a-* by Geldner sometimes show lengthening in part of the mss., especially in the Iranian branches (IrPY, IrVS and IrKA). Examples are: Y 29.11 *yūšmāuuatəm* but Mf2 *yūšmāuuātəm*; 31.3 *uruuatəm* but Pd *uruuātəm*; Y 51.13 *drəguuatō* but K4 *drəguuātō*; Y 35.3 *varəzimācā* but Mf2 *vārəzimācā*; Y 33.8 *hauruuatās* but Pt4.Mf4 *hauruuātās*; Y 31.6 *hauruuatātō* but Mf1 *hauruuāt[at]ō*.

It is uncertain whether we must assume a recent lengthening in Y 32.10 *vīuuāpat* ‘scatters’, 3s. prs.inj.act. to *vap-* (Skt. *vápati* ‘throws’). In view of the root noun *vāp-* in Y 12 (cf. Kellens 1974a: 288), it is conceivable that the vocalism of the root noun influenced the verb form.

In YAv., there is one lengthened form which must certainly go back to the archetype:

- The present *vana-* ‘to win, conquer’ always appears in the form *vana-* when uncompounded, but we find *nī-uuāna-* ‘to overcome’ in the forms Yt 5.130 *nīuuānāni*, Yt 10.75 *nīuuānānt* and Yt 14.41 *nīuuānənti*. Note however the retained form *nīuuanāni* in Yt 14.58, which may be due to *vanāni* which precedes it in the text.

Another form is irrelevant because it represents OAv. language:

- The YAv. dat.sg. form *druuāite* in the passage Y 71.13 is an adaptation of Y 46.6 *drəguuāitē*. The genuine YAv. weak cases of *druuant-* ‘deceitful’ have *druuat-* in all forms.

In general, lengthening after *v* or *uu* is sporadic in YAv., and its recent origin in one part of the mss. can sometimes be demonstrated. Some examples are:

- 2s.ipv. *duuāra* (V 8.21) to *duuara-* ‘to run’ has probably arisen in the PV transmission. V 8.21 is abbreviated in the VS mss., so that we do not have the possibility to check the spelling of the PV against that of the VS. In the same ipv. form in SrB 3 *duuāra* and in V 19.1 *upa.duuāra*, all mss. have *duuāra*.
- Yt 9.4: Jm4 *duuārānte* versus *duuar^o* in the other mss.; Yt 3.17 Jm4 *duuārānt* versus *duuarānt* in the other mss.
- Yt 13.23: L18 *vāzārətō* instead of *vazārətō*.
- Yt 13.120: L18 *vāžāspahe* instead of *vazāspahe*.
- The nom.sg. **haruātāh* is preserved in Y 70.2 (in the list of Ameša Spəntas) as *hauruātā* in the InPY, the IrVS and L2, whereas the ending appears as *ātā* in the IrPY and the YS.

Three words with a disputed etymology may receive an alternative explanation if we consider the possibility that **va-* was lengthened to *vā-*:

- The noun *vārəθman-*, traditionally translated as ‘armour’, occurs in the compounds *darəγō.vārəθman-* (Y 52.1,3), *zaraniio.vārəθman(a)-* (Yt 10.112) and in the simplex *vārəθma* (Yt 11.2; acc.sg.). This stem has originally been regarded as a derivative of the root *var-* ‘to block, to defend’ which is often used in the context of battle, e.g. *ham.varəiti-* ‘prowess’. Yet a suffix *-tman-* did not exist in Ir., which is why Janda 1993: 43 rejects a derivation from

var-. Instead, he proposes to translate *vārəθman-* as ‘road, track’, and to compare it with Skt. *vārtman-* ‘road, path’¹⁶. The comparison of *zaraniio.vārəθman(a)-* with Skt. *hiraṇyavartani-* ‘with golden paths’ is convincing, and Janda’s analysis of *vārəθma* in Yt 11.2 *nairē hqm.varəitiš drujō vārəθma xdāirišta* as ‘the manly prowess, which best holds off the course of the Druj’ is the best proposal for this passage so far.

The formation of *vārəθman-* on the basis of *vart-* must be compared with Av. *vaēsman-* ‘abode’ (Skt. *véśman-*) to *vis-* ‘to live’ or *rauuō.fraoθman-* ‘mit schnellem Schnauben’ to *fraoθat.aspa-* (Skt. *próthate*)¹⁷. As Ir. *man-* stems usually take the full grade of the root, Skt. *vārtman-* is the expected reflex of Ir. **vart-man-*, whereas Av. *vārəθman-* must be due to secondary lengthening. Unlike Janda 1993: 47, I do not think that we can reconstruct a PIE preform **uértmen-* with a vowel *e* which directly gave Avestan *-ā-*; the long vowel in *vāša-* < **uórto-* can be explained differently, cf. § 3.3. Kellens 1974a: 303 proposes to compare the *ā* of *vārəθman-* with that of *vārəθrayna-*, recte *vārəθrayni-* ‘victorious’, but this belongs to a *vṛddhi* derivation type which takes the suffix *-i-* and introduces the lengthened grade into the root. Such a derivation cannot be assumed for *vārəθman-*, and the only possibility left is to assume a phonetic lengthening within Avestan of **varəθman* > **vārəθman*.

• Yt 19.42 *nairiiqm.hqm.vārəitiuuant-* ‘endowed with heroic force’ (Humbach-Ichaporía 1998: 121) is a derivative of (*nairiia-*) *hqm.varəiti-* (YAv. 8x), compare also the compound *hqm.varəitiuuant-* (2x). The form *hqm.varəiti-* is never spelled with *vār°* in any of the important mss¹⁸. In Yt 19.42 *nairiiqm.hqm.vārəitiuuant-*, the spelling *vār°* is attested in F1+ and in J10.D, which must be due to a recent lengthening of **va°* > *vār°*. Humbach-Ichaporía assume that “the rhythmic lengthening *var°* > *vār°* is due to the exceptional length of the compound.” This is a possible explanation, especially if we connect it with the word-initial position of **var°*, cf. *kāuuaiiascā* etc., but the labial *v°* may have had additional influence. It is conceivable that this lengthening arose very recently, maybe only in the Yašt proper mss. (cf. Hintze 1994: 225); since Yt 19 is not transmitted by the IrKA mss., we have no means to check.

¹⁶ This comparison was already made by Kellens 1974a: 303.

¹⁷ The seeming exception *hušōiθəman-* ‘good house’ < **hu-kšaitman-* to the root of Av. *šī-*, Skt. *kṣi-* ‘to dwell’ must be an inner-Avestan formation. Janda 1993: 47 proposes to derive *hušōiθəman-* from *hušit(i)-* ‘good living’, which seems a plausible option.

¹⁸ Except once in Vr 7.3, where K7b has *vārəitiim*.

• A similar problem is posed by the mountain name *vāxəδrika-* in Yt 19.4. This may be derived from the noun *vaxəδra-* ‘mouth’, and thus, according to Humbach-Ichaporita 1998: 74, it might refer for instance to an extinct volcano. The unexpected first *ā* might betray an earlier *vṛddhi* formation **vāxδri-*, but in view of the scarcity of *i*-stem VD in Avestan and its restriction to liturgical terminology (see § 3.7.2), this analysis remains very uncertain. Alternatively, the long vowel may be the result of a very recent lengthening after *v-*. As we will see in e.g. *vāuuaršā-* and *vīuuarəšuuant-*, the mss. F1+ and J10 sometimes display this lengthening as opposed to the IrKA mss. Since in Yt 19 the IrKA transmission is absent, we must reckon with the possibility that spellings which are found in all the mss. can nevertheless reflect very recent changes.

Occasional lengthening can also be observed in forms with an uncertain or unknown etymology:

- Yt 13.131 *vāuuaršā-* or *vāuuaršī-* is the name of a disease, the etymology of which is unknown. It occurs in the gen.sg. *°šiiāśca*, but the different ms. branches disagree as to the first part of the form. In F1+ *vāuuar°* and J10 *vīāuuara°*, the vowel *ā* appears, but the IrKA mss. Mf3.K13.38.H5 have *vauuara°* and K37 *vīvarə°*, so that the first vowel is by no means certain. F1+ *vāuuar°* may be due to a very recent lengthening.
- The length of the initial vowel in Yt 9.31 *varəδakanā-*¹⁹ is uncertain. Bartholomae 1904 reads **vāriδkanā-*, whereas Mayrhofer 1979: I/93 hesitates; the reading *vā°* only appears in Jm4. As a lengthening of *va°* to *vā°* occasionally occurs in recent mss., and since the same can be observed in Jm4 in *duuāra-* (Yt 9.4, Yt 3) against original *duuara-*, it seems more probable that the original form was **var-*.
- The expression *vārəmna- staora-* ‘a selected piece of cattle’ in A 3.10 may probably be compared with F 221 *aspō ... varəmanō* ‘a selected horse’, according to Klingenschmitt 1968: 79. The spelling *varəmanō* could easily be a mistake for **vārəmnō*, but it is also possible that both forms represent a middle participle **varəmna-* to *var-* ‘to choose’. However, this would imply a thematic (aorist) stem **vara-*, which is attested nowhere else. According to Bartholomae 1904: 1412, *vārəmna-* belongs to an unattested verb **vāra-* built on OAv. *vāra-* ‘will’, but this is not convincing either.
- Yt 13.122 **vīuuarəšuuant-* (PN). This stem occurs in the gen.sg. as *vīuuārəšuuahē* in F1+ and as *vēuuārasauuahē* in J10, but the IrKA has a short vowel in the second syllable: K38 *vīuuarašuuahē*, Mf3.K13.14.H5

¹⁹ V.II. F1.E1 *varəiδakanqma* · Pt1.L18.O3 *varəδakanqma* · Jm4 *vārəiδkanqm*.

vīuuarašuuatō. Since *vīuu*^o is followed in the text by *ainiiāuuaha*, the gen.sg. ending *-atō* is the lectio difficilior, which renders it probable that Mf3+ **vīuuarašuuatō* is the original reading (Mayrhofer 1979: I/98); the Yašt mss. F1 and J10 have lengthened **-uuar-* > *-uuār-*.

§ 3.2.2 After *x^v-* and *huu-*

PIr. **hu-* in front of the vowels **a* and **ā* may yield *x^v-* or *huu-*. The distribution will be described and explained in § 28.2; here we may summarize the results:

x^va- < **hu-a-* (**hu* ‘good’), or < **h_ua-*.
x^vā- < **hu-ā-* (**hu* ‘good’), or < **h_uā-*.
huua- < **hu-a-* (**hu* ‘good’).
huuā- < **hu-ā-* (**hu* ‘good’).

We shall now discuss these four sequences as far as the vowel length is concerned.

1. The form *x^va-* is usually retained in the mss. An example of a deviating spelling in part of the transmission is V 7.35 (*a*)*x^vastanqm*, spelled *x^vāstanqm* and *ax^vāstanqm* in Jp1. A case of recent ms. lengthening which has entered Geldner’s edition is V 3.20, 9.49 *kərəfš.x^vāraqm*, gen.pl. of *kərəfš.x^var-* ‘eating bodies’, which must be corrected to **kərəfš.x^varaqm* as was seen by Bartholomae 1904: 469. In both passages, the IrVS preserves *-a-*: V 3.20 Jp1.Mf2 *°x^varaqm*, all other mss. *x^vāraqm*; V 9.49 Jp1.Mf2 *°x^varaqm* · L4 *°x^varaqm*, K1 *°x^vāraqm* · InVS *°x^vāraqm*.

2. The form *x^vā.*^o appears in the first member of compounds with **h_ua-* ‘self’ if the compound was split into two parts at the time of the RCS. This is due to the rule that monosyllables have a long final vowel. When there was no split, **a* remained short: *x^vā.aoθra-* but *x^vaδāta-*. This distribution has only been blurred by compounds which lost the separation point: *x^vāxšaθra-* PN, *x^vāpaiθiia-* ‘sovereignty’ and *x^vāraoxšna-* ‘having its own light’ were split during the RCS, but the point does not appear anymore in our mss. Sometimes, both variants are attested: *x^vā(.).daēna-* ‘who has his own religion’. In all instances where we find *x^vā.*^o spelled without a following separation point, we may still assume earlier *x^vā.*^o.

3. The form *huua-* is also usually retained in the mss. Two exceptions are:

- Yt 13.72 *huuaiβiiāsta* < *hu-aiβi-asta* ‘well thrown towards’ has the lengthened vowel in the IrKA (Mf3.K13.H5 *huuāiβiiāsta*, K 38 *hauuāiβiiāsta*) versus preserved *huua*^o in F1.Pt1.J10.
- The compound *huuaspā-* (5x) ‘with good horses’ is spelled as *huuāspā-* in Yt 13.122 in the mss. K38.H5.Mf3. The IrKA must have introduced the lengthening recently.

An older lengthening is found in the paradigm of the adj. *huuapah-* ‘of good work, beneficent’ < **hu-apah-* (Skt. *svāpas-*). *Huuapah-* is attested in two forms²⁰, viz. the voc.sg. *huuapō* and the nom.sg.m. *huuāpā*. As I will explain below, I do not think that there is enough contextual evidence to posit two different stems *huuapah-* and *huuāpah-*, as has sometimes been done. With Lubotsky 1990: 131, we may assume that *huuapō* reflects the original form, whereas *huuāpā* must have lengthened **a*. This lengthening cannot be due to the cluster *huu-* alone, because the number of occurrences of *huuāpā* is too high and too well-established in all mss. Therefore, it was the combination of a preceding labial and a following *-ā* which caused the lengthening of **hu-apā* to *huuāpā*.

We find the voc.sg. *huuapō* in Y 71.10 *vīspe tē +ahurahe mazdā huuapō dāman yazamaide* ‘we worship all creatures of you, Ahura Mazdā, o beneficent one’, and in Yt 10.53-54²¹ *miθrəm ... yō ... gərəzaite ahurāi mazdāi uiti aojanō: azəm vīspanəm dāmanəm nipāta ahmi huuapō* ‘Mithra, who complains to Ahura Mazdā, speaking thus: “I am the protector of all creatures, O beneficent one”. The nom.sg. in Yt 5.85 *ahurō mazdā huuapō* would have to be a corruption of **huuāpā*, but the loss of *-ā* seems strange after *mazdā*; maybe *huuapō* is rather an automatic addition to *ahura- mazdā-*. Note that in Y 71.10, the voc.sg. *huuapō* follows after a gen.sg. of *ahura- mazdā-*; from a case such as this, the composers of Yt 5.85 could have deduced that *huuapō* was the correct form to follow after *mazdā*.

We find the following attestations of *huuāpā*:

²⁰ I exclude Y 62.5 *huuāpəm* in the passage Y 62.5 *dāiiā mē ... frazañtīm ... huuāpəm* ‘give to me beneficent offspring’. The ending *-əm* in the adjective is ungrammatical; we would expect *huuāpəhəm*. The text may be compared to the similar text of Y 65.11: *īštīm vō jaidiāmi ... frazañtīmca xāparəm* ‘I ask for ... and blissful offspring’. In 65.11, *frazantī-* is determined by the adj. *xāpara-* ‘blissful’ < **hu-ā-para-* ‘having a good compensation’ (to *par-* ‘to interchange’). Tentatively, we may suggest that Y 62.5 originally read *frazantīm ... *xāparəm* too, and that **hu-āparām* was replaced by **hu-āpām* in the course of the transmission.

²¹ Narten (1986a: 171) assumes that Yt 10.54 contains a nom.sg.

- Y 10.10 *θβā ... bayō tatašaṭ huuāpā; θβā ... bayō nidaṭaṭ huuāpā*
 ‘the beneficent god created you; the beneficent god placed you’;
 Yt 10.92 *frā hē mazdā huuāpā ratuθβəm barāt gaēṭanəm*
 ‘to it the generous Mazdā gave the jurisdiction over the living beings’;
 Y 44.5 *kē huuāpā raocāscā dāt tēmāscā, kē huuāpā xʷafnəmcā dāt zaēmācā*
 ‘which beneficent one created light and darkness, which beneficent one
 created sleep and waking?’

There is thus a large overlap in the use of *huuapō* and *huuāpā*: both are epithets of gods, and *ahura mazdā* is even accompanied by both words in different contexts.

Finally, we must discuss in more detail the attestation given by Geldner as Yt 5.87 *θβəm kaininō vadre yaona xšaθra huuāpā jaiḍiiānte taxməmca nmānō.paitīm; θβəm carāitiš zizanāitiš jaiḍiiānte huzāmīm*. It was translated as follows by Wolff 1910: ‘dich sollen heiratsfähige emsige Mädchen um [gute?] Herrschaft bitten, und um einen heldhaften Hausherrn; dich sollen gebärende junge Frauen um gute Geburt bitten’. Bartholomae regards *huuāpā* as an adj. determining *kaininō*, i.e. ‘diligent girls’. As this would require a nom.pl.f. form †*huuāpāḡhō*, Bartholomae 1904: 1853 suggests that *huuāpā* in Yt 5.87 was formed as the nom.pl.f. form of an *a*-stem after the acc.sg. *huuāpəm* in Y 62.5 (but see footnote 20). Yet the text passages are different, and such an influence seems unlikely.

The problems center around the interpretation of *vadre yaona*. Bartholomae posits a stem *vadriia-* ‘marriageable’ with a nom.pl.m/n. **vadriia* > *vadre*, but this stem is his own invention. It would be derived from *vadū-* ‘bride, wife’, but the derivational suffix would be very peculiar. Furthermore, the form *yaona* calls for caution. In the preceding stanza Yt 5.86, the text speaks about *āθrauanō xθrāiiō.yaona ... mastīm jaiḍiiānte* ‘priests who protect the home will ask for knowledge’, and the sentence construction is exactly parallel to that of Yt 5.87 *kaininō ... jaiḍiiānte*.

We may solve the riddle by correcting *vadre yaona* to **vadairiauuō*, nom.pl. of *vadairiu-* ‘rutting, on heat’, an adj. which is attested several times in the Yašt in connection with camels. Since it here refers to young women, *vadairiu-* is better translated as ‘seeking marriage’; it can be a derivative in *-*iu-* from a putative noun **vad-ar-* ‘marriage’ (thus Hauschild 1966: 479f.), containing the root **vad-* ‘to wed’ which is attested in Av. *vādaiia-* ‘to wed’ and *vadū-* ‘wife’. For the formation type, cf. Skt. *indrayú-* ‘longing for Indra’, *śravasyú-* ‘seeking for glory’, etc. Thus, the text means that young women will ask Anāhitā for *xšaθra huuāpā* and for a strong master of the house (*nmānō.paiti-*), and those who give birth will ask her for a good delivery (*huzāmi-*). A restoration of **vadairiauuō* may also be supported by the v.ll.

Whereas F1.E1 read *vaδri* and Pt1 *vaδre*, K12 has *vaδara* and J10 has *vadarə*, i.e. they may preserve the second syllable *-δair-* which was lost from F1+. The error must have originated in a mistake of reading *n* for **u*, i.e. **vaδairiiauuō* became **vaδairiiaunō*; subsequently, the word *yaonō* was separated on the example of Yt 5.86. The next words *xšaδra huuāpā* must then contain the first object of *jaiδiiānte*, and since *huuāpā* must be either nom.sg. or nom.acc.pl.n., we must opt for an acc.pl. of *xšaδra- huuapah-*, to be understood as a sg.: ‘beneficent rule’. This expression is attested nowhere else in Avestan. We may thus read Yt 5.87 as follows: *θβqm kaininō* **vaδairiiauuō xšaδra huuāpā jaiδiiānte* ‘you the courting girls will ask for beneficent rule’.

A final problem of this solution is the masculine gender of **vaδairiiauuō*, referring to the feminine *kaininō*. This fact may arouse some suspicion, but it does not seem problematic enough to refute the proposed restoration. In fact, the noun *kainin-* also appears with masculine reference in a few other Yašt passages, especially Yt 15.39 *təm yazənta kainina yōi anupaēta mašiiānqm* ‘him the girls worship who are not to be approached by men’.

4. Because of the usual retention of *huua-*, we may safely assume that the sequence *huuā-* reflects *hu-ā°*. There is one set of exceptions, viz. words in which *huu°* reflects **hū-* (not **hu* ‘good’) in front of **-aṃ-* (see § 28.2.2):

- *huuāuuōiia* (Y 59.30) ‘for himself’ < **hūabia*; the long vowel is due to regular lengthening in front of **-uā* (§ 3.4.1).
- *huuāuuāstra-* (V 13.39) ‘having his own garment’ < **hūa-uastra-*. The *-ā-* is probably due to contextual analogy with the following form *x^va.aoδra-* ‘having his own shoes’.
- *huuāuuāntəm* (Yt 13.146) is explained by Bartholomae 1904: 1855 as ‘like himself’, from *huua-* ‘himself’ + *-uānt-*. The suggested meaning seems quite likely in the context, which runs:

<i>yō vīdaēuuō vīdaēuuāhe</i>	‘who is the anti-daevic messenger
<i>aštō mazdā ahurahe</i>	of the anti-daevic Ahura Mazdā,
<i>yim zaraδuštrō frērənaot</i>	whom Zarathustra assigned
<i>huuāuuāntəm aḡhuue astuuāite</i>	as a <i>h°</i> to the material world’

Instead of deriving *huuāuuānt-* from a reflexive *huua-* as Bartholomae does, I prefer to derive it from the possessive adj. **hūa-* ‘his, her own’. As I have argued in De Vaan 2003, all instances of an Avestan reflexive pronoun *huua-* ‘himself, herself’ are illusory, and the only linguistically real forms of the poss. pronoun 3sg. were OAv. *x^va-* and YAv. *hauua-*. The adj. **hūa-uānt-* ‘like himself’ could be a formation perfectly analogical to that of ŌAv. *mauuānt-* (for **māuuānt-*) ‘someone like me’, *θβāuuānt-* ‘like you (sg.)’ and *xšmāuuānt-* ‘like you (pl.)’, which are formed on the basis of the

corresponding poss. adj. *ma-* ‘my’, *θβa-* ‘your’, **xšma-* (in *xšmāka-*) ‘your’. The length of *hūuāuuant-* may in theory be due to the preceding *-uu-*, but it seems safer to assume that it reflects the same morphological derivation as **māuuant-*, *θβāuuant-* and *xšmāuuant-*.

Rarely, *hūuā°* is a text corruption of *x^vā°*. Yt 10.142 *hūuāraoxšna-* ‘having its own light’ is a hapax against the three occurrences of *x^vāraoxšna-* (Y 57.21, V 2.30,38) ‘id’. Since *x^vāraoxšna-* (= **x^vā.raoxšna-*) occurs in texts with a better ms. transmission than Yt 10.142, we can be fairly confident that *hūuāraoxšna-* is either a recent lapsus of the transmission, or a creation of the composer of Yt 10.142.

5. We may now discuss some words with a disputed etymology:

- *x^vāsaoka-* (Yt 9.2) can be either **hu-ā-saoka-* ‘good profit’ or **h_ua-saoka-* ‘having its own profit’.
- *x^vāstāiti-* (Ny 1.8, FrW 5.1) can be either **hu-ā-stāiti-* ‘in a good state’ or **h_ua-stāiti-* ‘having its own status’.
- *hūuāuuaiiāhəm* (Y 55.4). Bartholomae assumes that this is an acc. made to the nom.sg. **hūuāuuaiiā* of a stem **hu-a_ua-yam-* ‘Abbitte für sich leistend’. This word is a hapax and may be linked with Y 68.1 *auuāiiā-* ‘forgiveness’, which is cognate with Skt. *ava-yā-*. The fact that *hūuāuu-* may phonetically reflect **h_uā_u-* (§ 28.2.2) offers the possibility to link Y 55.4 *hūuāuuaiiāh-* more directly with Y 68.1 *auuāiiā-*, viz. as **h_ua-a_ua_iah-* ‘having his own forgiveness’ (vel sim.), although the suffix change to *-ah-* is unclear.
- Y 57.31 *hūuāuuāēya-* is edited as *hūuā.vaēya-* by Geldner, but many good mss. have *hūuāuu°*. Phonologically, we may therefore reconstruct either **hu-ā-_uaiga-* ‘with a good onslaught’, or **h_ua-_uaiga-* ‘with its own onslaught’; compare the noun *vaēya-* (Yt 10) ‘onslaught’. As *hūuāuuāēya-* is the epithet of *snaiθiš-* ‘sword’, a clear choice cannot be made.
- Yt 5.127 *hūuāzāta-* is an adj. referring to the goddess Anāhitā-, and must be analyzed as **hu-ā-zāta-* ‘well-born’, cf. *āzāta-* ‘noble’. Also V 16.17 *puθra- hūuāzāta-*, translated by Bartholomae as ‘selbsterzeugter Sohn’, must rather mean ‘noble son’. Firstly, the translation with ‘self’ would require a compound †*x^vā.zāta-* or †*x^vazāta-*. Secondly, compounds in **h_ua* ‘own’ are usually bahuvrīhis, so that **h_ua-zāta-* would mean ‘having own offspring’; this would be meaningless for *puθra- hūuāzāta-* in the context of V 16.17.

§ 3.3 Between $v/x^v/b$ and $\check{s} < *rt$

Short $*a$ yields YAv. \bar{a} after one of the labial consonants v , x^v or b and in front of $\check{s} < *rt$; this change only occurs in initial syllable. The evidence consists of the following forms (for the reconstruction of the accent, cf. § 29):

- $x^v\bar{a}\check{s}a-$ (V 3.33) ‘food’ < $*h\check{u}\acute{a}rta-$ is derived from the root $x^v\bar{a}r-$ ‘to consume’; compare $x^v\bar{a}r\acute{a}iti-$ ‘consumption’.
- $x^v\bar{a}\check{s}ar-$ (Y 11.3) ‘drinker’ < $*h\check{u}\acute{a}rtar-$, also to $x^v\bar{a}r-$ ‘to consume’.
- $b\bar{a}\check{s}ar-$ (Y 11.2) ‘rider’. The meaning ‘rider’ seems clear on the basis of the surrounding expressions: Y 11.1 $g\bar{a}u\check{s} zaot\bar{a}r\acute{e}m zauu\acute{a}iti$ ‘the cow calls the priest’; Y 11.2 $asp\bar{o} b\bar{a}\check{s}\bar{a}r\acute{e}m zauu\acute{a}iti$ ‘the horse calls its rider’; Y 11.3 $haom\bar{o} x^v\bar{a}\check{s}\bar{a}r\acute{e}m zauu\acute{a}iti$ ‘Haoma calls its drinker’. The connection of $bar-$ with $aspa-$ also occurs in N 37, V 6.26 and 8.73 $bar\bar{o}.asp\bar{o}$ ‘riding a horse’, which is used by the PTr. to gloss Av. $bar\acute{e}mn\bar{o}$ ‘riding’. Kotwal and Kreyenbroek 1995: 107 argue that the commentators provided this gloss in order to avoid confusion with the meaning ‘bearing’, which the main text PTr. $bar\bar{a}n$ for Av. $bar\acute{e}mn\bar{o}$ would have.

Hoffmann 1992: 853 objects that the meaning ‘to ride’ for the root $bar-$ is attested only “im patientivem Medium (‘getragen werden’)”. He therefore proposes a translation ‘caretaker’ for $b\bar{a}\check{s}ar-$, referring to Skt. $bh\acute{a}rtar-$ ‘husband’ as containing a similar specialized meaning of $bhar-$. Yet it is not necessary for nominal derivatives to adopt a formal characteristic of a verbal mood in order to be associated with verbal forms showing that mood. Nouns in $-tar-$ are not derived from a verbal stem, but from the root. As soon as the root $bar-$ had acquired the specialized sense of ‘to move on a horse’ = ‘to ride’, nominal derivatives could have been formed showing this meaning. In support of this, note e.g. Khot. $as\acute{s}ab\bar{a}ra$ ‘rider’, OP $asab\bar{a}ra$ ‘rider’, CSogd. $b^r\acute{y} < *b\bar{a}raka-$ ‘rider’, etc. (cf. Bailey 1954b: 5). It is therefore quite safe to

connect *bāšar-* with the Avestan root *bar-*²², which had the meanings ‘to carry’ but also ‘to ride’²³.

- *vāša-* m. ‘vehicle’ (24x) reflects **uárta-* ‘the thing rolling’, from the root *vart-* ‘to roll’ (Janda 1993: 45). Compare Av. *varətō.ravā-* ‘who has a rolling cart’.

Two forms are probably nonce formations:

- *ax^vāše* ‘by not eating’ (V 3.33). This form occurs after *x^vāša-* ‘food’, and its meaning proves that it is a nonce formation after *x^vāša-*: V 3.33 *x^vāšaiia zī vīspō aṅhuš astuuā juuainti, ax^vāše framiriiete* ‘for through food, the whole material world lives, through non-food it dies’. The contextual meaning of *ax^vāše* is of course ‘through not eating’, but this would require an abstract noun †*ax^varəiti*. A literal translation of *ax^vāša-* as ‘non-food’ does not make sense.
- *vāšaiia-* (Yt 17.12) ‘to draw (a vehicle)’. This verb is attested in Yt 17.12 immediately after the noun *vāša-*: *raom vāšəm vāšaiiaṅte* ‘they draw the light vehicle’. As Avestan also has a prs. *hqm.varətaiia-* ‘to put together’ (N 97) to the same root, it is conceivable that *vāšaiia-* adopted š (or, at an earlier stage, **hrt*) from *vāša-* (**váhrta-*) (cf. Hoffmann 1992: 856).

The same structure of labial + *-āš-* is displayed by the adj. *θβāša-* ‘fast, hurried; firmament’, but it is unclear whether we must reconstruct **tūarta-* or **tūārta-*. The root must be Ilr. **tūar-* ‘to hurry’, attested in Skt. *tvárate* ‘to rush’, *tvará-* f. ‘hurry’; Sog. *pδβyr-*, *’pδβyr-* ‘to hasten’ (trans.) <

²² Janda 1993: 45ff. explains *bāšar-* as the outcome of a preform **bārtar-*, but this is not convincing. His analysis is inspired by the assumption that the PIE root **b^her-* was a “Narten-root”, being characterized by having introduced a higher ablaut degree into all formations. Thus, if normal ablaut would form a noun **b^her-tr-*, the “Narten-form” would be **b^hērtr-*; cf. for a short summary of this theory Schindler 1994: 398f. It is true that the root **b^her-* shows some unexpected full grade forms (instead of zero grade ones) in various IE languages, but analogical origin for each of them can be assumed. Conclusive Avestan evidence that the roots *x^var-* ‘to consume’ and *vart-* ‘to roll’, which provide the other certain examples of **árt* > *āš*, had aberrant ablaut does not exist: the meaning and etymology of OAv. *x^vārəmnō* are uncertain, and *vārəθman-*, for which Janda has proposed a connection with Skt. *vártman-* ‘course’, is insufficient proof. Note that both *x^vārəmnō* and *vārəθman-* show *ā* after a labial glide, so that they too may have the secondary lengthening.

²³ As *bāšar-* is a hapax, the alternative solution offered by Schwartz 1989: 114 also remains possible. He suggests that *bāšar-* may have been created «in the specific context of Y 11.2 by analogy with *zaotar-* and *x^vāšar-* (where there is also rhyme)».

**upa-θbaria-*, *pδβ'r* ‘hurry’ < **upa-θbāra-*, Pth. *nydf'r* ‘haste; to hasten’, *nydfwrđ* ‘hastened’ < **ni-θuār-*, **ni-θūrta-*.

Formerly, Skt. *tūrtá-* was regarded as the *ta*-participle to the root *tvar-*, which implied that this root contained a laryngeal and *θβāša-* could be reconstructed either as **tuárHta-* or as **tuřHta-*. It has been argued by Gotō 1987: 170 and accepted by subsequent scholarship that *tūrtá-* and other Vedic forms in *-tūr-* belong to the root *tř-* ‘to penetrate’, so that *tvárate* may now be derived from an anit-root. For *θβāša-* this means that we must reconstruct at least a full grade formation **tuár-ta-* ‘hastened’; cf. Oss. *teltæg* ‘heated, ardent, fiery’ < **θβártaka-* (Abaev 1979: 259). Nevertheless, in view of the Middle Iranian forms which continue **θuāra-*, we cannot exclude a possible denominal or deverbal origin **tuār-ta-* for *θβāša-*.

The preform **tuārta-* was also used as a n. noun with the meaning ‘firmament’: the movement of the stars in the sky was apparently conceived of as being ‘swift’. Compare the epithet *tīz-rau* ‘swiftly moving’, used for the firmament in MoP poetry, which is mentioned by Zaehner 1955: 89. Avestan *θβāša-* was borrowed into Zoroastrian Pahlavī as *sp'š /spāš'/*, which implies a very late date for the borrowing²⁴.

We may compare the forms in *-āš-* with the noun *frauuāši-* < *fra-uārti-*, originally ‘choice’ (cf. § 29.4), in which **-árt-* is located in the second syllable. This implies that the change **árt* > *-āš-* may have been restricted to initial syllables.

§ 3.4 In initial syllable

Phonetic lengthening of IIr. **a* in initial syllable is found in several environments²⁵: in front of **-uía#* (§ 3.4.1); in front of several short vowels (§ 3.4.2); in disyllables, especially in OAv. (§ 3.4.3). Furthermore, *ā* can be due to a simple text corruption (§ 3.4.4).

²⁴ The native (NWIr.) word in MP for ‘firmament’ is *spyhl* < **čūitra-* ‘the white one’ (Hübschmann 1895: 205), cf. English ‘Milky Way’. The variant *sp'hl*, occurring in some Zoroastrian texts, is explained as a SWIr. dialectal variant of *spyhl* by Nyberg 1974: 178.

²⁵ Earlier collections of evidence and attempts at an explanation can be found e.g. in Kellens 1984: 245, Kuiper 1939: 35ff., Hoffmann-Forssman 1996: 56f., Oettinger 1983: 354ff.

§ 3.4.1 YAv. *-auīa- > -āuuīia-

All Avestan words with a sequence *-auīa- yield -āuu(a,ō)īia- in the mss., with anaptyctic -a- or -ō-. The anaptyctic vowel is -ō- if -īia is the final syllable of the word, but it is -a- if the ending is not word-final (-aca, -acit̄, -anqmca), cf. § 25.10.2. The forms of the adj. *hauīa- ‘left’ show that *-auī- develops into -aoīi- if the ending is not *-a-: we find ins.sg.m. hāuu(ō)īia and hāuu(a)īiaca on the one hand but acc.sg.f. haoīiqm < *hauīām on the other.

Hoffmann-Narten 1989: 83 tentatively explain long -ā- in front of *-uī- as the result of emphatic lengthening, but it is unclear why for instance the ins.sg. of hāuuīia- would be more sensitive to emphasis than other case forms. Hoffmann-Forssman 1996: 97 regard the sequence -āuuōīia as "pseudogelehrte Verunstaltung", being the result of a contamination of expected -aoīia < *-auīa with the forms in *-āuuīia with ā in initial syllable. However, the only form with inherited -āuuīi- in initial syllable is the adj. nāuuīia- ‘navigable’. Possibly, they argue, the interjection āuuōīia ‘woe!’ influenced these words as well; but we must rather ascribe āuuōīia to the same lengthening in front of *-uīa too, see below. We must accept that *a was regularly lengthened in front of *-uī- at a certain stage.

The following are the established examples of the development to -āuu(a,ō)īia:

- Y 20.3 xšmāuuōīia < PIr. *šmabīa ‘to you’; Y 29.12 xšmāuuīia is a YAv. adaptation of OAv. xšmaibīā.
- V 5.52 gāuuaiianqmca²⁶, gen.pl. *gāuīianām of the adj. *gāuīa- ‘of a cow’ (Skt. gāvya-). The acc.sg.f. gaoīiqm < *gāuīām is attested in Yt 8.17.
- V 2.25, 14.14 gāuuaiianəm (as it is given in Geldner’s edition) can also be due to lengthening of *-auīa-. Bartholomae 1904: 522 posits a separate stem gāvayana-, but it seems more likely that gāuuaiianəm reflects *gāuīa-na- ‘cowshed’. In fact, the v.ll. of V 2.25 preserve the spelling -uuīi- in the form gāuuīianqm of the PV mss. (L4a.B1.M13+). As to the meaning, *gāuīiana- is used as a substantive in V 2.25 gauuqm xgāuuīianəm ‘a cowshed of cows’. In V 14.14, it is an apposition to nmānəm: nmānəm xgāuuīianəm, ‘a house, (viz.) a cowshed’.
- YAv. māuuōīia < PIr. *mabīa ‘to me’. With enclitics, we find māuuaiiaca and māuuaiiacit̄.

²⁶ The mss. P2 and P10 spell gāuuīianqmca, which seems to have been the spelling of the archetype.

- YAv. *hāuuōīia*, ins.sg.m. of *hauīia-* ‘left’; in front of *-ca*, the same form appears as *hāuuaiīaca*²⁷ (Yt 17.22, V 3.25ff.). The acc.sg.f. *haoīīqm* is attested in V 8.47ff.
- Y 59.30 *huuāuuōīia* < **hūabīa* ‘to him(self)’. The reflex *huu-* instead of *x^v-* is probably due to (**b* >) **u* in the anlaut of the next syllable, cf. De Vaan 2003.

We may add to this evidence the YAv. cry of woe *āuuōīia* (Yt 3.14, 19.63, H 2.34, N 84, Vyt 43), which must be cognate with OAv. *auuōī* ‘woe’ < **auai* and *auuaēṭāt-* ‘wailing’ < **auai-tāt-*. In Yt 19.63, *āuuōīia* is preceded by *auuaēṭa/e* < **auai-ṭ(i)a* ‘woe’ in a series of three maledictions: *iṭe iṭa yaṭna ahmāi*, *auuaēṭa iṭa yaṭna ahmāi*, *āuuōīia iṭa yaṭna ahmāi*. The significance of this series was rightly stressed by Humbach-Ichaporria (1998: 138): the stem **auai* appears to be suffixed first with **-ṭ(i)a*, then with **-a*, so that we may reconstruct **auai-a* as the direct preform of *āuuōīia* (cf. Beekes 1999: 67)²⁸. As we will see in § 14.2, *-ō-* is the direct reflex of PAv. **-a-* (i.e. it is not an anaptyctic vowel).

Without initial **a-*, this cry of woe is attested in OAv. *vaiiōi* (Y 53.7) and *vaiiū.bərət-* ‘woeful’ (53.6). YAv. *vaiiōi* ‘woe’ (V 13.8) may be a quotation or a borrowing from OAv. *vaiiōi*.

The analysis of *āuuōīia* suggests that **a* may be lengthened not only in front of **-uīa-*, but also in front of **-uāīa-*, i.e. with inherited *-a-* between the two semivowels. There is little evidence to confirm this, since most words in *-auuāi-* in the first two syllables retain this sequence. I found only one other form in which lengthening has taken place, but it seems to post-date the archetype. The gen.sg.f. **hauuāīās* of the stem *hauua-* ‘his, her own’ appears in V 10.5 as *hauuāīāsə.tanuūō* ‘of his own body’ with unchanged *hauu*° in Jp1.Mf2 and L4, but with lengthened *hāuu*° in K1a and L1.2.Br1; in V 10.6, L4 spells *hāuu*° too.

²⁷ Geldner edited *haoīiaca* for the V forms, but Bartholomae 1904: 1736 rightly corrects them to *hāuuaiīaca* with regard to the ms. readings.

²⁸ This analysis seems much more likely to me than the connection with Skt. (AV) *āvayá-* ‘sexual drive, rut’, which was suggested by Hoffmann apud Hintze 1994: 293⁴⁰, and the derivation of *auuaēṭa* from **ava-i-* ‘to jump on, copulate’, which Panaino 1998 has proposed. Both explanations disconnect *āuuōīia* and *auuaēṭa* from OAv. *auuōi* and *vaiiōi*.

§ 3.4.2 In front of two or more short vowels

Lengthening of *a may occur if two or more of the following syllables contain the short vowels a or ə. The lengthened vowel is always in open initial syllable, i.e. it is followed by an intervocalic consonant. There is only one example of lengthening of *a- in anlaut (viz. *ātarəθra*); in all other instances, *a is preceded by one or two consonants. The lengthening is mainly attested in YAv., but there are also three instances of lengthening in OAv.

The evidence will be divided into three parts. The first subsection discusses the lengthening of the preverb *fra*, which provides the majority of the relevant forms. The second subsection turns to the isolated examples of lengthening in initial syllable. The third subsection discusses the origin of -ā- in forms of the compound *vərəθra-jan-* ‘victorious’.

§ 3.4.2.1 The preverb *fra

The preverb *fra is sometimes attested as *frā*° in verbs and nouns. If, for a given word, there is no indication that *frā*° goes back to Ir. *pra-HC-, we must assume that *fra° was lengthened to *frā*° at a relatively recent stage. This was probably after Avestan had ceased to be a spoken language, because *fra*° was not restored anymore.

Before we enter into the discussion of the forms, we must address the preliminary question as to the trustworthiness of the mss. when it comes to distinguishing *fra*° from *frā*°. After all, the preverb *frā*, when used independently, occurs with a long final vowel which might have influenced the spelling of *fra- as a prefix. Furthermore, we must consider the theoretical possibility that *frā*° may be due to a compound split which was made undone in the post-archetype era, e.g. **frakərəsta* > **frā.kərəsta* > *frākərəsta*. However, the evidence shows a remarkable degree of agreement between the Yasna, Yašts and the Vīdēvdād as to the variants *fra* and *frā*, especially in the case of frequent combinations such as *frā-iiāz-* and *frā-θβərəs-*, which are only found with *frā*° in all texts. The division between words taking *fra*° and words taking *frā*° is very clear and does not appear to be random. Therefore, we may in general use the ms. evidence for *fra*° and *frā*° (for an exception see the discussion of *frā-mrū-* below).

Another precaution we must take is to exclude from the evidence the forms in which *frā*° may derive from Ir. *praH- or *pra-a-. Examples of the latter sequence are *frāiia-* ‘to go forward’ < **pra-ai-* and *frāšn(a)uu-* ‘to reach’ < **pra-ašn(a)u-*. For an explanation of *frā*° in the sequence **fra-ṛ-*, as in F 174 *frārāzān* for **frārəzu-* and *frārāθni-* (V 7.29ff.) < **fra-(a)rθni-*

‘elbow’, cf. § 5.2.1.2. Initial *frā°* may be the result of **pra-HC-* in the verb forms *frānāšaiiata* ‘you must bring out’ (A 3.5) and *frāraoδaiieite* ‘he lets flow forth’ (V 18.46), which are derived from *nas-* ‘to reach’ (Kellens 1995a: 41) < Iir. **Hnac-* and *rud-* ‘to grow’ (Kellens 1984: 145) < Iir. **Hrud^h-*. Furthermore, a sequence **pra-HC-* may be reconstructed for the nominal forms *frārāiti-* (Y 55.3, 58.4, Vr 21.3, P 25,35), *hufrāiuxta* (Yt 10.40), *frāiiaodahe* (Yt 13.108), *frārāzōiš* (Yt 13.123) and *frāuuīrata-* (Vr 12.1).

The root *yaz-* ‘to worship’ may also have possessed an initial laryngeal in Iir. (EWAia II: 393), and indeed all derivatives of *yaz-* take *frā°*, whereas †*fra-iiāz-* never occurs. Not only the finite verbal forms, but also abstract nouns such as *frā-iiāšti-* and *hu-frā-iiāšta-* take *frā°*. Therefore, *frā-iiāz-* may have been a lexical reality of YAv. itself, rather than to be due to a later lengthening during the oral transmission. We may reconstruct PAv. **frāiāz°*. The forms which occur are *frāiieze*, *frā.yazamaide*, *frāiiazənte*, *frāiiazāne*, *frāiiazāiti*, *frāiiazāite*, *frāiiazānte*, *frāiiazāēša*, *frāiiazāēta*, *frāiiazəmna-*, *frāiieziiāt*, *frāiiazēziānt-*, *frāiiašti-*, *aš.frāiiašti-*, *hufrāiiašti-*, *hufrāiiašta-* and *frāiiazənt(an)a-*.

We may now turn to the forms which do present evidence for a more recent lengthening. With the two roots *tac-* ‘to flow’ and *yat-* ‘to place’, the preverb *frā°* is mainly restricted to forms of the structure **fra-CāCaiia-* which then changes to *frāCaCaiia-*. This may be explained as the shortening of the long root vowel **ā* (see § 4.6) and the (simultaneous or subsequent) lengthening of **fra-*, cf. Kellens 1984: 142. The forms which occur are:

- *tac-*: *frātaṭ.caiia-* (2x) < **fratācaiiā-*; *frātaṭ.carəta-* (4x) ‘flowing forth’ and maybe also ⁺*afrātaṭ.kušiš* (Yt 13.53²⁹). In support of the condition that several short syllables should follow, note that the simple present *frataca-* (frequent) does not lengthen *fra°*.
- *yat-*: *frāiitataiieṅti* (Y 57.29), *frāiitataiiat* (Yt 5.65) < **fra-yātaia-*.

The indicative of the verb *nī-* ‘to lead’ is *naiia-*; the present *frānaiia-* shows the second part of the development witnessed in *frātaṭ.caiia-* and *frāiitataiiā-*, viz. the lengthening of **fra°* in front of *-aiia-*:

- *nī-*: *frānaiieṅti* (Yt 14.46), *frānaiiata* (? N 70).

With the three verbs *kart-* ‘to cut’, *ṽβars-* ‘to fashion’ and *dars-* ‘to see’, *frā°* is followed by a form in syllabic *r* spelled as *-ərə-*. **Fra-* is not always

²⁹ Assuming that the spelling *afrātaṭ°* of the IrKA mss. Mf3.K13.38.H5 is the lectio difficilior with regard to F1+.J10 *afrataṭ°*.

lengthened in front of *-ərə-*, however: compare the retention of *fra* e.g. in *fra-mərə°* or *fra-pərə°*.

The evidence comprises:

- *frākərəntaṭ* (20x), *frākərənaoṭ* (3x), *frākərəsta-* (2x), *frākərəiti-* (Y 72.11), as against *daēuuō.frakaršta-*.
- *frāθβərəsaiti* (V 7.71), *frāθβərəsəm* (16x), *frāθβərəsō* (Y 11.7), *frāθβərəsaṭ* (2x), *frāθβərəsaēta*, *nauuā.frāθβərəsa-* (2x), *frā(.)θβarštəm* (Yt 13.54), ⁺*paoiriiō.frāθβaršta-*³⁰ (Vr 7.4), as against *fraθβaršta-* (Yt 8.35, V 21.5ff.). Although the reflexes of **fra-θβaršta-* are ambiguous, the parallel form *frakaršta-* suggests that *fraθβaršta-* was the form of the archetype.
- *dars-*: *frāḍərəsra-* ‘radiant’ (8x).

OAv. *frāxšnəna-* ‘careful’ < **fra-šn āna-* in Y 29.11, 43.12f. may also be due to lengthening in front of two short syllables, as per Beekes 1988: 47; but Y 29.11 has *frāxšnənē*. Original *fra°* is preserved in the cognate *fraxšni-* ‘prudent’ (OAv., YAv.; for the stem *fraxšni-* rather than *fraxšnini-* see Hintze 1994: 258).

The verb *vac-* shows a striking distribution. The trisyllabic forms take *frā°*: *frāuuaočəm* (Y 19.3, Yt 17.22), *frāuuaočō* (Y 19.1,3), *frāuuaoce* (Y 19.11, Vr 15.3³¹), *frāuuaočā* (Y 34.12, 46.7); but the two tetrasyllabic forms take *fra°*: Y 35.9, 70.2 *frauuaočāmā*, and Y 65.9 ⁺*frauuuuuaca*³².

The remaining forms present less certain evidence. Five forms with *frā°*, which cannot be due to a following laryngeal, are Yt 5.62 *frāγmaṭ*, Yt 13.124 *frāciθrahe*, Yt 10.1 *frādadačm*, Y 65.7, Yt 10.142, P 23 *frāḍāiti* (whereas *dā-* usually takes *fra°*) and Yt 19.42 *frāzuštəm*. Four of these are isolated and occur only in the Yašts, which have a less trustworthy ms. tradition. The form *frāḍāiti* does not show the following short vowel which has caused lengthening in *frātacaiia-* etc.; rather, *frā°* may be due to assimilation to the next *-ā-*.

The same explanation (viz. assimilation to a following *ā*) may account for the present *frā-nəma-/nāma-*, with the lengthened preverb in *frānmāne* (Yt 9.4, 17.25) and *frānāmāite* (Y 57.18, Yt 19.96). It is possible that *ā* in the following syllable(s) of *frānmāne* and *frānāmāite* influenced **fra°*. On the

³⁰ I read thus instead of Geldner’s *fra°*, on the strength of the v.ll. F11.K4.Kh1 *frā°*.

³¹ Vr 15.3 *frāuuaoce* for Geldner’s *fra°* on the strength of K7a.Kh1.L2 *frā°*.

³² Thus corrected for Geldner’s *frā°*, since the mss. J2.K5, Pt4.Mf1, Jp1.K4 and Mf3 read *fra°*. In view of the following *frā zaraθuštrō*, *fra* is also the lectio difficilior.

other hand, in 57.18, Yt 9.4 and 17.25 we find *frā* ... *nəmante/nəmānte* in the following phrase, so that *frān(ā)ma-* might simply imitate the form of the independent preverb.

The verb *mrū-* is sporadically attested with *frā*^o, but we can assume *fra*^o for the archetype for all the forms of this verb. *Frā*^o seems to be due to a split spelling *frā.mr*^o, as we can illustrate with the aid of the v.l. of Yt 4.6 *framraomi* (3x): F1 3x *framr*^o · O3 2x *frāmr*^o, 1x *framr*^o · Jm4 3x *frā.mr*^o. The form *frāmraot* in Y 19.15ff. is an augmented form **fra-a-mraut*, cf. Kellens 1984: 245. Two forms with an uncertain spelling in the archetype are V 5.24 *frādauiate* and V 18.70 *frāuūinuiiāt*: in both cases, the mss. Jp1.Mf2 read *fra*^o. V 7.30 *frābāzu.drājō* has probably adopted *frā*^o from the preceding word *frārāθni.drājō*.

§ 3.4.2.2 Isolated forms

The following words present independent evidence for a lengthening of **a* in initial syllable in front of a sequence of short vowels. In all forms (except *yāsāiti*) the following two syllables have *a*, or *a* and *e*.

- YAv. *ātaraθra* (2x) ‘on both sides’ belongs to the nom.sg. *atārō* (Yt 14.44) ‘which of two’ showing the original stem form *atāra-* (cf. *yatāra-*, *katāra-*). Kellens 1974d: 154 has proposed a development **atāraθra* > **atarāθra* (shortening in antepenultimate) > *ātaraθra* (lengthening in the initial syllable of a polysyllabic word). In Kellens’ view, the shortening was due to the position in antepenultimate syllable, but as we will see in § 4, shortening in antepenultimate syllable is nearly completely restricted to words ending in *-ca* or *-ciṭ*. Therefore, I ascribe *ātaraθra* to the sequence of short vowels.
- YAv. *kāiḍiia-* ‘the follower (m.) of a *kaiiada*-sinner’ is attested in Y 57.15 gen.sg. *kāiḍiiehe*. It must reflect a stem **kaḷadia-*, derived from **kaḷada-* ‘a *kaiiada*-sinner’ (cf. Hübschmann 1875: 269). The gen.sg. **kaḷadiaḥja* must have undergone lengthening in initial syllable to **kāḷaḍiahe*, whence with *i*-mutation **kāiieḍiiehe*; subsequently, haplology yielded *kāiḍiiehe*.
- The same has happened to f. **kaḷadī-* ‘a female *kaiiada*-sinner’, which is attested in Y 61.3 in the gen.pl. *kaiieḍinqmca* and in the gen.sg. *kāiḍiīāsca*. The original gen.sg. **kaḷadiīāsca* must have yielded **kāḷadiīāsca*, and after *i*-mutation **kāiieḍiīāsca*. Haplology then yielded *kāiḍiīāsca*.
- nom.pl. *kāuuiiascā* (Y 46.11) and *kāuuiiascī* (Y 32.14) of the stem *kauui-* ‘seer’ go back to **kauaias*^o.
- gen.sg. *kāuuiieheca* (YAv.) to the adj. *kauuiia-* ‘of a Kavi’, the acc.sg. of which is attested as *kauuaēm*. It is impossible to interpret *kāuuiieheca* as

original **kauiāhia-ca*, gen.sg. of an adj. **kauiā-*, as Bartholomae 1904: 431 did. Such a preform would yield †*kaoiieheca* by virtue of the relative chronology **kauiāhia* > **kauiēhe* > **kaoiēhe* (cf. § 3.4.1 above). Compare YAv. *snaoiiehe*, gen.sg. of the PN **snauiā-*, and °*staoiiehī-* ‘stronger’ < **stauiahī-*.

- nom.pl. *xštāuuaiiō* (Yt 13.38) has been analyzed as a VD to the PN *xštāuui-*, attested in the dat.pl. *xštāuuiβiiō* (thus e.g. Mayrhofer 1979: I/101). However, it would be strange to have a suffixless VD from an *i*-stem, so that *xštāuuaiiō* may also be due to phonetic lengthening of initial **a*, as per Hoffmann-Forssman 1996: 56.

- YAv. **para-aii(a)-* ‘to go away’ is reflected as *pāraiiā-* in four different forms, viz. V 9.39, 15.9, E 1 *pāraiiāt* < **parāiāt* < **para-aiāt*, Yt 13.157 *pāraiantu*, V 19.32 *pāraieinti* and V 22.1 *pāraieni*. The tetrasyllabic forms seem to have undergone the same switch in vocalism as e.g. *frātaṭ.caiiā-*. Compare the retention of *par°* in the forms *para.āidi*, *paraiiāt* N, *paraiiāt* N, and *parāiti* V passim.

- The adj. *pārāntara-* ‘aloof, set aside’ (Yt 19.1, V 9.11, 29, 33f.) refers to ‘the other side of a mountain’ (Yt 19.1) and to ritual holes (*maṣa-*) situated at ‘the far side’. The stem is probably cognate with Skt. *pāra-* ‘far; on the other side of’, and is also found in Av. *parānc-* ‘away, aside’ < **para-Hnč-*. The expected form of the comparative in *-tara-* would be **para-tara-*; this was probably reshaped into **parantara-* by analogy with its antonym *aṅtara-* ‘inner, on the inner side’. Initial **a* was apparently lengthened in front of the following three short vowels, just like in *pāraiiā-*.

- The present stem *yāsa-* ‘to take’ has a long root vowel when **yasa-* is not directly preceded by a preverb (Kellens 1984: 158), i.e. when the first syllable of **yasa-* was presumably stressed in the transmission: *apa vā yāsāiti* ‘if he steals’, *yāsāiti* ‘if he tries’, *ā ... yāsajha*. The same cause underlies the lengthening of **iasatai* in Y 33.1 *hām.yāsaitē* ‘balances, cancels’ (of two weights on a scale), which was restored for attested *hāmēmiiāsaitē* by Klingenschmitt 1972: 84ff.: the preverb *hām* was pronounced as a separate word/compound member, and **yasaite* was lengthened. Whenever **yasa-* is preceded by a preverb attached to it (i.e. it forms one word), no lengthening takes place, viz. in the stems *apaiiasa-* ‘to take away’ and *aiiasa-* ‘to bring’ (< **ā-iasa-*). In the stem *niiāsa-*, which appears to contradict this rule, we can explain *ā* from lengthening after a preverb in *-i* (see § 3.1.1).

- Y 32.6 *srāuuahiieitī* ‘seeks glory’ must be cognate with Skt. *śravasyā-*, so that we can assume lengthening from **srāuuahiiatī*; some reservations must be kept however, since it seems that the frequent causative present *srāuuaiiā-*

has influenced some of the ms. forms, and it may also have caused the introduction of *ā* into **srauuahiiēitī* (Kellens 1984: 133)³³.

§ 3.4.2.3 YAv. *vərəθrājanō* and *vərəθrājanəm*

The paradigm of the compound *vərəθra-jan-* ‘victorious’, lit. ‘slaying the shield’ (Skt. *vṛtrahā́*, *vṛtrahánam*, *vṛtraghñás*), presents a unique alternation between *a* and *ā*. The compound consists of *vərəθra-* ‘cover, shield’ and the root noun *°jan-* ‘slaying’, attested in many other compounds such as *vīra-jan-* and *vīran-jan-* ‘slaying men’, *xrafstra-jan-* ‘slaying vermin’, *kamərəδa-jan-* and *kamərəδō.jan-* ‘slaying the head (of daēvas)’, etc. The short vowel of the first member *vərəθra°* is retained in the nom.sg. *vərəθrajā́*, also *vərəθraja*, and in the weak case forms of *°jan-* viz. gen.dat.abl.sg. *vərəθrayn°*, but the forms *vərəθrājanō* (gen.sg., nom.pl., acc.pl.) and *vərəθrājanəm* (acc.sg.) show a lengthened vowel *ā* in front of the disyllabic second member.

The forms *vərəθrājanō* and *vərəθrājanəm* occur in many different text passages, and there is never any disagreement between the different mss. about their spelling. This renders it unlikely that *vərəθrājan°* is due to a recent, post-archetype lengthening of the mss. On the other hand, it is also very unlikely that the alternation *vərəθraja* vs. *vərəθrājan°* is due to the RCS by means of which the first member of compounds in *°jan-* could be replaced by an inflected form: in the cases where this happens, we find that the first member in **-a°* is replaced either by a form in *-ō°* or in *-əm°*, e.g. *kamərəδaja* vs. *kamərəδō.janəm* and *vīraja* vs. *vīrəñjanō*, cf. § 5.2.2.2.

The conclusion can only be that the nom.sg. **vṛθrajā́* / **vṛθrajā́h* and the oblique cases in **vṛθragn-* were left unchanged, whereas the forms **vṛθrajanah* and **vṛθrajanam* underwent phonetic lengthening of the first of their three short *a*’s, i.e. they became **vṛθrājanah* and **vṛθrājanam*. Since this lengthening did not take place in the initial syllable of the word, these two words stand isolated: there are no other forms with a similar lengthening of **a* in the second syllable. However, the lengthening in **vṛθrajanah* and **vṛθrajanam* occurs in the same kind of sequence of several syllables in short *a* as we have seen above in *ātaravra* etc. Therefore, it seems justified to

³³ Widmer’s (1998: 182) derivation of *srāuuahiiēitī* < PIE **kléuosiēti* is based on the view that **h₁* yields *xii* in OAv. if the accent immediately followed in IIr., and on the expected accentuation of a stem **crauasiā-* as **crauasiā́-*. Widmer deduces that *srāuuahiiēitī* can *not* represent the usual denominative present formation with accented suffix **-iá-*. Yet it is very uncertain that OAv. *hii* versus *xii* can be explained by means of the IIr. accentuation; see § 28.3.

regard *vərəθrājanō* and *vərəθrājanəm* as a subcategory of the lengthening of short *a in initial syllable.

§ 3.4.2.4 Uncertain evidence

The occurrence of the augment in Avestan verb forms is a matter of dispute. According to the list of certain augmented forms in Kellens 1984: 245, we find six forms where the augment *a- is reflected as ā- by the texts. Four of them occur in Y 19: *ādadaŋ* 19.12, *āmraoŋ* 19.15, *āmṛūta* 19.15 (also spelled *ā.mṛūta*) and **āsīxšaŋ* 19.10. Since *mrū-* and *dā-* often occur with the preverb *ā* ‘towards’ in YAv., it cannot be excluded that we are dealing with the preverb *ā* instead of the augment in these verb forms. The two other augmented forms are *ākərənauuō* (Y 9.15) and *ākərənəm* (V 22.1ff.). If these really contain the augment, they may be due to a recent lengthening of initial *a° in front of *-ərə-*, like the stems *frākərənt-* and *frāθβərəsa-* discussed above.

The noun *āθrauuān-* ‘priest’ (Skt. *átharvan-*) opposes the strong stem *āθra-uuan-* (nom.sg. *āθrauuā*, acc.sg. *āθrauuānəm*, nom.pl. *āθrauuānō*; eventually a thematic *āθrauuāna-* was created) to the weak stem *aθaur-un-* < **athar-un-*. In view of the agreement of the weak stem with Skt. *áthar-van-*, it seems that the strong stem is an innovation. Hoffmann-Forssman 1996: 56 explain *āθrauuān-* from influence by the weak stem *āθr-* of *ātar-* ‘fire’, as in the gen.sg. *āθrō* ‘of the fire’. This would imply that **aθarūan-* replaced **aθar°* by *āθra°* on the model of the weak cases *āθr°* in ‘fire’, and applied it only to the strong cases. It seems rather unlikely that, if ‘fire’ did analogically influence ‘atharvan’, it was not the strong case form *ātar-* which was adopted by the strong cases of **atharvan-*. Therefore, the *ā-* in *āθrauuān-* must either date from Ir., or it must have come into being by some kind of lengthening, for which the condition was given in **aθarūan-* but not in **aθarun-*. Since not only initial *ā-* but also the suffix alternation *-ra-* : *-ar-* is unexplained, the stem alternation *āθrauuān-/aθarun-* may well be old. Oettinger 1983: 356 suggests that **aθarūan-* was lengthened to **āθarūan-* in trisyllabic forms, i.e. nom.sg. **aθarūā* and voc.sg. **aθarūān*. In view of *ātarəθra* and other forms discussed above, it seems even better to assume that lengthening first occurred in the longer forms acc.sg. **aθarūānəm* and nom.pl. **aθarūānah*. Although such an explanation is not completely satisfactory (especially because lengthening mostly takes place in open syllable), I have no better solution.

YAv. *āsītō.gātu-* is explained as **āsita.gātu-* ‘having an un-lie couch’ by Lubotsky 1998, with lengthening of initial **a-* in a long word. Since the text exalts the vigilance of *nairiīā- hqm.varəiti-* ‘manly valour’, this translation makes more sense than Bartholomae’s ‘auf dem Lager ruhend’ (1904: 338). Both interpretations presuppose that *āsita-* contains the verb *si-* ‘to lie’, and this seems above all doubts: the combination with *gātu-* ‘place’ appears in V 3.25 *starəta gātuš saiiamnō* ‘lying on pillowed couches’³⁴. However, it seems less certain that initial *ā-* indeed continues privative **a-*, since *ā-* is not followed by any syllables containing short *a* or *ə*. Humbach-Ichaporria 1998: 116 stress the occurrence of Y 10.14 *āsita-*, possibly ‘set up, planted’, which denotes a banner: *yadā gaoš drafšō āsitō* ‘like the bull banner, planted’. If Y 10.14 represents **ā-cīta-* ‘set up’, the same may underly *āsītō.gātu-*, the most likely translation of which would be ‘having a set-up place, whose place is set up’. This would mean that we need to posit only one Avestan lemma *āsita-*. If we stick to the more neutral translation of *gātu-* as ‘place’ (rather than ‘couch’), the use of *āsita-* in connection with *gātu-* in Y 62.5 = Yt 19.39 yields no semantic problems (translation according to Lubotsky 1998: 91 except *āsītō.gātūm*):

<i>nairiīqm pascaēta hqm.varəitūm</i>	‘[Give me] further the manly Valour,
<i>ərəδβō.zəngqm axʹafniīqm</i>	with upright shanks, without sleep,
<i>āsītō.gātūm jayāurūm</i>	whose place is set up, vigilant.’

The adj. *āhita-* ‘stained’ and the abstract *āhiti-* ‘stain’ (name of a disease) have been connected with Skt. *āsita-* ‘dark-coloured’, e.g. by Oettinger 1983: 352ff., 366ff. The problem with this etymology is that it leaves initial *ā-* unexplained. Gotō 2000: 160 proposes a different etymology Iir. **ā-sita-* ‘fettered’, with the preverb *ā* and the verb Iir. **si-* ‘to tie’. He compares the Avestan goddess *Anāhita-*, which seems to be the deified negated counterpart of *āhita-*, with the Skt. goddess *Āditi-*, which seems to be the personification of the abstract *āditi-* ‘dissoluteness’. Both goddesses could thus represent an Iir. meaning ‘the Unbound One’, which Skt. forms with the root *di-* ‘to bind’ and Av. with *hi-*. This etymology is attractive because it would mean that *(an)āhita-* has retained its etymological quantity.

The same etymology has already been proposed by Hertel 1927: 20ff., who accordingly explains the abstract *āhiti-* ‘stain, pollution’ as ‘Fesselung’.

³⁴ Humbach 1999: 56 suggests that *āsita-* may be derived from Iir. **čH-tá-* ‘sharpened’, verbal noun to the root **čaH-* ‘to whet’, but this solution is impaired by the fact that verbs of the structure **CaH-* have usually generalized the full grade in YAv. (cf. Insler 1971: 573f.)

Hertel as well as Gotō assume that *Anāhitā*- implies the use of the meaning ‘the unbound one’ in a metaphorical, moralistic sense: ‘the immaculate one’. Oettinger 2001 accepts Gotō’s derivation of *āhita*- from *hi*-, but he objects to the semantic interpretation, and assumes that *Anāhitā*- has always referred to a river goddess: “This goddess got her name because of her original nature as [a] torrential river.” Thus, ‘unbound’ should be taken literally as ‘uninhibited’.

A conspicuous long vowel appears in YAv. *frānāmāite* (Y 57.18, Yt 19.95f.), 3s. prs.subj. to *fra-nama*- ‘to flee’. The phonetic context is nearly the same as in the 1s. *frānmāne* (*-*nāmāne*) which lacks lengthening. It is conceivable that *frānāmāite* is due to an attempt of the redactors to restore a full root vowel in original **frānāmāite*.

Av. *uzbāraiiān* can be contrasted with *us ... baraiiān*. Both were explained as different rhythmic variants by Kellens 1984: 115, but we may rather explain them as the 3p. ind. to *bāraiiā*- versus the 3p. opt. to *bara*-, as per Kellens 1995a: 37.

§ 3.4.3 In disyllables

Lengthening of **a* in anlaut has probably occurred in three OAv. forms, viz. Y 43.10 *ārəm* (1s. aor.ind/inj.act. to *ar*- ‘to rise’), Y 33.12 *ārəšuuā* (2s. aor.ipv.med. to *ar*-), and Y 33.1 *ārəzuuā*³⁵ ‘correctness’. Note that all three forms have a following *-r*-. The YAv. form P 39 *ārəitīmca* < **arəitīmca* (cf. *ašīm*) might belong here too (P contains several OAv. quotations), but its *ā*- may also be due to an error in the narrow ms. tradition of the Pursišnihā.

It is possible that Y 51.17 *āždiiāi* < **ač*- ‘to reach’ is also due to a lengthening in the Gāthā transmission; we know that the cluster *žd* regularly causes lengthening of a preceding **i* and **u* (§§ 6.2.4.1, 10.2.4). Alternatively, initial *ā*- may be due to perseveration of the final *-ā* of the preceding word *ašahiā*.

The adj. *zairi*- ‘yellow, golden’ is found as YAv. *zāiri*- in the expression *haoma*- *zāiri*-³⁶ and in the voc.sg. *zāire* ‘O Golden One’ (addressed to

³⁵ See also § 3.7.2 below on *vṛddhi* derivation.

³⁶ Nom.sg. *zāiriš* V 19.19, voc.sg. *zāire* Y 9.30ff., Y 10.13, Vr 11.2, acc.sg. *zāirīm* Y 10.21, 42.5, Yt 20.1f., S 2.30. The nom.sg. attestation in V 19.19 is uncertain. In its stead, we expect an acc.sg.: *yazəmnō ahurəm mazdəm, yazəmnō aməšə spəntə*

Haoma in Y 9.17). The fact that *haoma-* *zāiri-* really contains Iir. **z^harHi-*, and not a different word with an inherited long vowel, is suggested by the Rigvedic use of *hāri-* ‘yellow’ as a name for *sóma-*. We thus seem to be dealing with an Iir. juxtaposition **sauma-* **z^harHi-*. Oberlies 1989: 91 reports that Hoffmann considered *zāiri-* a possible case of lengthening in the vocative, inspired by Thieme’s explanation (1986) of several unexpected vowel phenomena in Sanskrit from the vocative accentuation. Since the vocative case is usually accompanied by a strong stress on the initial syllable, the voc.sg. *(*hauma*) *zari!* could have become *(*haoma*) *zāri!*, and the long vowel may have spread to every combination of **zairi-* with *haoma-*. This explanation seems to be supported by the apparent complementary distribution of *zairi-* and *zāiri-*: as an independent adjective to *haoma-* we find only *zāiri-*, but in the compound *haoma-* *zairi.gaona-* ‘haoma which has a yellow colour’, the short vowel is preserved. Furthermore, short vowel *zairi-* appears in all occurrences which do not refer to *haoma-*: the gen.sg. Yt 10.96 *zarōiš aiiarhō* ‘yellow iron’, and many times in compounds, e.g. in *zairi.gaona-* ‘of yellow colour’, *zairi.pāšna-* ‘with yellow heels’.

Hoffmann’s explanation of *zāiri-* as a vocative development of *zairi-* is therefore very attractive as far as the meaning and context are concerned. Furthermore, he has found another possible case of vocative-induced change in the paradigm of *spitāma-*, cf. § 4.6. There, it is assumed that the **ā* in the second syllable was shortened because the first syllable was stressed. However, the explanation of *zāiri-* requires two different assumptions: 1. the initial stress which may have been present in the vocative caused a phonologically relevant vowel lengthening; 2. the new long vowel was analogically introduced into other case forms. Especially the latter development is difficult to accept.

The noun *yākarə* (F 189) ‘liver’ is suspect, since all other Iranian languages continue **īakar-*, e.g. MP *ykl*, MoP *īgar*, Khot. *gyagarrā*, and Oss. *igær*. The two mss. which transmit the Frahang-ī ōim contradict each other: K20 has *yakarə* whereas M51 writes *yākar*. Both mss. are copies of the same original, but K20 is of an older age and often has the better reading. The

haomasca zāiriš bərəzō ‘worshipping Ahura Mazdā, worshipping the Aməša Spəntas and the *zāiri*, lofty Haoma.’ We must also take into account the fact that V 19.19 seems to be a concoction of Avestan quotations from various sources. Wolff 1910: 429 is forced to leave it partly untranslated, exclaiming «der ganze § ist scheußlich». It is possible that *haomasca zāiriš bərəzō* was formed by the composers of V 19 by means of taking Y 10.21, 42.5 *haoməm zāirīm bərəzantəm yazamaide* ‘we worship the *zāiri*, lofty haoma’ and transposing it into the nom.sg. (but why?).

word ‘liver’ occurs in a section of F which enumerates body parts, and in F 192 we find the word *zārasca* ‘bladder’, erroneously spelled as *δārasca* in M51. Klingenschmitt 1968: 68 compares the expression *yā.kərə dārəšca* ‘liver and bile’ in Vn 22, in order to confirm the reading *yākarə* in F 189; however, Vn 22 *yā.kərə dārəšca* is regarded as a quotation taken from the F (cf. Humbach-JamaspAsa 1969: 24). Since the spelling *dārəšca* has the same faulty *d-* for *z- which appears in M51 *δ-* in F 192, the Vn quotation must be based on M51 or a ms. descending from it. This implies that we cannot go beyond the opposition of F 189 *yakarə* (K20) against *yākarə* (M51). Klingenschmitt correctly argues that *yākarə* is the lectio difficilior in view of Phl. *ykl*, but this does not exclude the possibility that in this case, it is M51 which has carried out an occasional lengthening. The cost of positing Avestan **yākarə* would be quite high, since nowhere else in Iranian or Indic do we find an ablaut grade **yākṛ* of the word for ‘liver’.

The form Y 51.14 *āsənda-* ‘pernicious’ was derived from **a-sanda-* ‘not pleasant’ by Humbach 1959 II: 91, compare Y 38.5 *paiti.sənda-* ‘welcome’. Bartholomae 1904: 1560 had already proposed to read two words, i.e. **ā.səndā*; although this spelling is only attested in K5, it is possible that this is correct. In that case, long *ā* is irrelevant here.

§ 3.4.4 Text corruptions

This subsection deals with the most striking examples of *ā* < **a* in initial syllable which arose or may have arisen *after* the archetype; such forms are irrelevant for the study of the vocalic developments of the earlier stages of the transmission.

The stems *afrasāh-* and *afrasah^hant-* (also *ā^hant-*) ‘unlimited’ lengthen their initial vowel in some mss. In P 37 *afrasah^han*, only *a^o* is attested. In Y 62.6 *afrasā^hhā*, all mss. spell *a^o* except K4 *ā^o*. In G 3.6 *afrasah^ham*, the good mss. Mf3.K36 and Pt1 retain *a^o*, but all the other Indian mss. (J10, O3, E1 etc.) have *ā^o*. Finally, in Y 52.1 *āfrasā^hhaitīm*, the reading *a^o* is preserved in all the good mss. except for the ‘learned’ ones J2.K5 and Pt4 which read *ā^o* (but not Mf4.1, which have *a^o*). Thus, lengthening of initial **a-* in this word may be due to the fact that it is a word of many syllables, but *ā-* obviously has a very recent character.

The adj. *asna-* ‘near’ (7x) appears with *ā^o* in the loc.sg. *āsnaēca* in Yt 17.2 *uta hē āsnəm xratūm auua.baraiti vārəma, uta hē āsnaēca zbaiiantāi dūraēca zbaiiantāi jasaiti auua^hhe* ‘and she bestows on him natural wisdom

at will, and to him who invokes (her) from nearby and (to him) who invokes (her) from far away she comes in aid'. As the loc.sg. is attested with expected a° in V 13.46f. *asnaēraēša-* 'who wounds from nearby', Yt 17.2 *āsnaēca* will have \bar{a}° due to the influence of the preceding adj. *āsnəm* 'natural'.

OAv. *āṇhāmā* 'may we be' (2x) may be due to perseveration of the sequence *-āṇh-* (Kellens 1984: 86): Y 32.1 *dūtāṇhō āṇhāmā*, 49.8 *fraēštāṇhō āṇhāmā*. Similarly, Y 10.15 *nigāṇhənti* 'devouring' may be the result of a spelling error for **nigaṇhənti* (Kellens 1984: 114).

The noun *xšafniia-* 'evening meal' occurs in the acc.sg. Y 62.7 *xšafnīmca*, as against *xšafnīm* in Yt 14.20. I assume that the spelling *xšaf^o* in the mss. Pt4.Mf4, K4 and Pd in Y 62.7 preserves the older form. There is no reason to assume a vṛddhi derivation **xšafnia-* for this isolated attestation, even if the meaning shows a clear derivational relationship to *xšapan-/xšafn-* 'evening, night': the suffix **-ia-* alone suffices to convey the derived meaning of 'belonging to'.

The adj. *daxiiuma-* 'of a *daxiiu-*; belonging to *daxiiuma-*' is often attested as *dāxiiuma-*, and Geldner has mostly adopted the reading *dāxiiuma-* in his edition. Yet Bartholomae 1904: 710 rightly saw that the original reading is *daxiiuma-*. In nearly all attestations of the Yasna and its liturgical complement the Gāhs, we find the spelling *dāx^o* in the mss. of the Yasna sāde, sometimes also in the SY (S1.J3), and at times in Pt4. The majority of mss. has *daxiiuma-* in most passages. We must assume a very recent lengthening in initial syllable of a longer word; the actual forms showing *dāx^o* in one or more mss. are *dāxiiumāica*, *dāxiiuməmca*, *dāxiiumō* (Y 19.18), *dāxiiumā* (Y 26.1, Yt 13.21), and *uzdāxiiunəmca* (Y 26.9)³⁷.

Yt 17.12 *darəya.ārəšti-* (in F1+) 'with a long spear', and its variant *darəya.arəšti-* in J10 and in the text of Yt 10.39 and 10.102, derive from **darəyāršti-*, see § 5.2 below.

Yt 19.80 *frāuuōiṭ* is often compared with Skt. *prāvate*, suggesting a lengthening of **frāuuōiṭ*. Yet it seems to me that *frāuuōiṭ* may well be a corruption of **frāuuaiiōiṭ*, 3s. prs.opt. to *frāuuaiia-* 'to fly, sweep; extinguish', attested in Yt 19.68 and V 8.75ff. Hintze 1994: 342 has pointed to the fact that the line 19.80b *vaēnəmnəm maiiā frāuuōiṭ* 'lust swept (them) about openly' has only seven syllables instead of eight. It may be added in support of our restoration of *frāuuōiṭ* to **frāuuaiiōiṭ* that in Yt 19.68, the mss. B27.R115 spell *frāuuaiiōiṭ* for *frāuuōiṭ*, with a similar loss of a syllable; a

³⁷ Only in G 3.6 is *dāx^o* in the majority: *dāxiiuməmca* Mf3.K36.O3.Pt1.K12, *dax^o* E1.2.Mb1.J10.L11. Other v.ll. are: Yt 13.21 *dāxiiumā* F1.Pt1, *daxiiumā* IrKA and E1; Y 26.9 Pt4+YS *uzdāx^o*, other mss. *uzdax^o*.

restoration of a causative form was already considered but not opted for by Pirart 1992b: 104, who wanted to restore ^xfrāuuōiiōiṭ instead of ^xfrāuuaiiōiṭ.

The nom.sg.m. of *hama-* ‘the same; entire, every’ is always attested as *hāmō* (OAv. 1x, YAv. 5x), and even when it occurs as the first member of a compound, we sometimes find *hāmō*; cf. Kuiper 1939: 47. Nevertheless, the compounds in *hāmō*^o are a minority against those in *hamō*^o: we find *hāmō.taxma-* ‘equally strong’ in Yt 10.124, *hāmō.daēna* V 4.44, *hāmō.gātuuō* Yt 5.27, *hāmō.nāfō* Vyt 37, and *hāmō.šīiaoθna* in V 4.43 against *hamō.šīiaoθna-* (2x), *hamō.xšaθra-*, *hamō.manah-*, *hamō.vacah-* in the Yašts.

No other form of *hama-* shows a tendency to spell *hā*^o, e.g. *hamahe*, *hamaiiā*, *haməm*, *hame*, *hama*. The reason for the aberrant behaviour of *hamō* emerges when we compare the v.ll. of *hamō*. Yt 14.50 ^x*hamō.gaona-* is actually spelled *haomō.gaona-* in all mss., and in Yt 13.18 *hamō.xšaθra-*, the mss. F1.Pt1.E1 spell *haomō*^o as against the IrKA mss. *hamō*^o. The same vacillation is attested in Y 31.7 *hāmō* < ^{*}*hamō*, where only the IrVS and Mf1 spell *hāmō*, but the other ms. branches have *haomō*. This implies that the mistake of *hāmō* for ^{*}*hamō* went through the stages ^{*}*hamō* > *haomō* > *hāmō*, and clearly post-dates the archetype. It was only in front of *-ō* that the copyists or their prompters confused *hamō* with the frequent noun *haoma-*, and then, because of the [ɔ:]‑like pronunciation of *ā* in Persia, *-aom-* was confused in speech with *-ām-*.

The form *hāmē* in Y 16.10, which is usually analyzed as the loc.sg.n. ^{*}*hame* of *hama-*, is unclear to me. The interpretation of the passage is uncertain, and the text seems to be composed in an imperfect kind of grammar.

§ 3.5 Assimilation in front of *-ā*, *-āiš*, *-qm* in OAv.

The OAv. corpus presents a relatively large amount of forms in which **a* has been lengthened to *ā* in front of an ending in *-ā*, *-āiš*, *-ā*^o, or *-qm* (< ^{*}*-ām*). This distribution can hardly be explained differently than as an assimilation of **a* to (^{*})*ā* in the final syllable, as was recognized by Humbach 1959 I: 25f.; compare for (parts of) the evidence also Werba 1986: 353, Beekes 1988: 46 and Kellens-Pirart 1988-91 I: 61. Nearly all relevant forms show an intermediate single dental consonant *t* or *θ*; whether this is a condition or just coincidence remains unclear because there is no other evidence for a similar effect of dentals on preceding vowels.

Many of the lengthened vowels occur after *ii* and *uu* (as pointed out by Kellens-Pirart loc.cit.), but this too may be a coincidence. Nevertheless, I will group the evidence according to the preceding consonant.

After *-ii-*, we find four forms. In each case, *-iiā-* represents monosyllabic **-iā-* in the metre of the Gāthās, so that these forms are not to be connected with the lengthening **Cīa > Ciiā* discussed in § 3.1.3.

- *aniiāθā* (Y 51.10) ‘otherwise’ (Skt. *anyāthā*).
- *diiātqm* (Y 48.7) < **d^hHiatām*, 3s. prs.ipv.med. of *diia-* ‘to bind’.
- *maniiātā* (Y 45.11), 3s. prs.inj.med. of *manīia-* ‘to think’.
- *višiiātā* (Y 30.3,6), 3p. aor.inj.med. **vi-ciata* to *ci-* ‘to pile up’.

After *-uu-*, lengthening is attested in more forms than are given here, and especially in Iranian mss.; see § 3.2 above. The following forms present a sequence *-uuā-* which was probably already present in the archetype:

- *uruuātā* (2x) and *uruuātāiš* (2x), acc.pl. and ins.pl. respectively of *uruuata-* n. ‘vow’.
- *uruuāθā* (Y 51.14), nom.pl. of *uruuad^θa-* ‘companion’; compare the nom.sg. *uruuad^θō*.
- *x^vēnuuātā* (Y 32.2), ins.sg. **h^uanuata* of *x^vēnuuant-* ‘sunny’.
- *drəguuātā* (Y 49.9), ins.sg. of *drəguuant-* ‘deceitful’; compare dat.sg. *drəguuataēcā*, gen.sg. and acc.pl. *drəguuatō*, gen.pl. *drəguuatqm*.
- *hauruuātā* (Y 58.7), nom.sg. of *hauruātā-* ‘health’. The ins.sg./nom.acc.du. *hauruuātā* (6x) < **haruatātā* is ambiguous, because its first *-ā-* may also belong to the suffix **-tāt-*, i.e. *hauruuātā* may represent **hauruu[at]ātā*.

The three remaining forms show different preceding consonants:

- *mərəždātā* < **mərəždatā*, 2p. prs.ipv.act. of *mərəžda-* ‘to have mercy’.
- *vərənātā* < **vərənatā*, 3p. prs.inj.med. of *vərən-* ‘to choose’.
- *hātqm*, gen.pl. of **hant-* ‘being’; *hātqm* only occurs in OAv. and in YAv. passages based on OAv. quotations. The expected short vowel is preserved in the gen.sg.m. YAv. *hatō* and in the acc.sg.f. *hāitīm* (an erroneous spelling for **haitīm*, cf. § 3.6). Therefore, *hātqm* is isolated within the paradigm of *hant-*³⁸.

Two forms with uncertain etymology might have **a > -ā-* in front of *-ā-*:

³⁸ *Hāiā.marani-* Yt 1.8, Y 32.6 may contain *hāiti-* ‘(Yasna) chapter’.

- *daibitānā* (2x) ‘?’. According to Humbach 1991 II: 78, this might be derived from the adverb *daibitā* ‘twofold’ (to Skt. *dvitā*) by means of *-nā*, although Kellens-Pirart 1988-91 II: 263 regard the meaning of *daibitānā* as uncertain. If it does contain **dvita-* ‘second’, it may have been built directly on the ordinal; in that case, penultimate *-ā-* may be due to the influence of final *-ā*.
- *daxšārā* (Y 43.7) ‘?’. Meaning and grammatical function of this word are unclear.

Possibly, we find a similar lengthening in one YAv. form. Vr 15.1 *vərəziātqmca*³⁹ is generally analyzed as 3s. prs.ipv.med. to *vərəziia-*: ‘must be worked’. The form occurs in *vərəziātqmca ida vohu vāstriia* ‘and good pastoral works must be performed here’, in which *vərəziia-* + *vohu vāstriia* recalls OAv. *vərəziieidiiāi ... vāstriiā* ‘to perform pastoral works’ (Humbach 1991 II: 32). However, there is no clue in the context that this passage must have been taken from OAv. Since we expect a short thematic vowel in this formation, K7a and Mf2 may have preserved the older form *vərəziiatqmca*; the other mss. may have lengthening due to the following *-q-*. Alternatively, it is conceivable that Y 48.5 *vərəziātqm* influenced the transmission of Vr 15.1; for an explanation of the form in Y 48.5, see § 3.1.3.

§ 3.6 The grapheme *āi* as a corruption of *ai*

The grapheme *-āi-* results from *i*-epenthesis on **ā*, as in *dadāiti* ‘puts’ (Skt. *dādḥāti*). In a few cases, we find *-āi-* where we expect a grapheme *-ai-* as the outcome of *i*-epenthesis on **a*. Often, the spelling *-āi-* is found in one part of the mss., whereas other mss. spell the same word with *-ai-*. The reason for the corruption of *-ai-* to *-āi-* must be the pronunciation of both these sequences: apparently, they were so similar that mistakes arose in the process of copying manuscripts. Similar confusion arose between the sequences *-aē-* and *-āi-*, cf. § 15.4. The fact that these mistakes appear in the written mss. may be due to the texts being dictated to the person who wrote them down.

Among the examples are quite a few 3s. verb forms in *-aiti* and *-aite*, such as Y 31.12 *pərəsaitē*, which is spelled *°āitē* in Mf2.Jp1.K4. Sometimes the

³⁹ This form is emended to *°iiatqmca* by Bartholomae 1904 on the basis of the spelling of K7a: *°ziiat°* K7a.J15 · *°ziiāt°* Fl1.Kh1.Jp1.K4, *°ziiat°* Mf2 · *°ziiāt°* H1.J8.Jm5.K11.L27.Pt3.P12 · *°ziiāt°* S2.L1.2.Br1.B2.

original spelling *-ai-* does not survive in the mss., as in Yt 8.6 ^h*vazāite* (spelled F1+ *vazāite*, J10 *vazāiti*), and Yt 10.107 ^h*fraxštaite* (Kellens 1976b: 59). This phenomenon explains several cases of unexpected *-ā-* in Avestan words.

In Yt 14.28 *təm yazata yō ašauua zaraθuštrō (...) vərəθraynahe paiti frauuāke vərəθraynahe paiti pāitiuuāke* ‘to him prayed the righteous Zarathustra (...) for victory in proclaiming, for victory in answering’, the nouns *frauuāka-* and *pāitiuuāka-* contain the noun ^{*}*vāka-* ‘speech’ combined with the preverbs *fra* and ^{*}*paiti* respectively. Form and meaning can be compared with Skt. *pra-vac-* ‘to proclaim’ and *prati-vac-* ‘to answer’. Whereas *frauuāka-* is attested many times in Avestan, Yt 14.28 contains the only attestation of ^{*}*pāitiuuāka-*. The spelling *pāiti*^o, which is present in all important mss., poses a problem. Bartholomae 1904: 887 suggests that *pāiti-uuāka-* is a derivative of a stem ^{*}*paiti-uuak-* with the lengthened grade of the root; yet such a formation type is unknown in Avestan. In particular, we would expect a secondary derivational suffix to be present. It seems preferable to assume that the archetype had the expected form ^h*paitiuuāke*, which acquired *-āi-* for *-ai-* at a relatively recent stage in the Yašt tradition.

Similar corruptions also account for other preverbs in *-āi-*. The adj. *paiti.šmuxta-* ‘shod’ appears as *pāiti.šmuxta* in all important mss. in Yt 5.64 and 5.78, whereas in Yt 10.125 only H4 has *pāiti*^o while the other mss. write *paiti*^o. Bartholomae 1904: 838 claims that the real Avestan form was *pāiti.šmuxta-* and that its *ā* is due to vṛddhi formation, but to me *pāiti*^o rather seems a recent corruption of *paiti*^o.

The preverb *āiti* ‘towards’ (Skt. *āti*, OP *atiy*) in the chapters Vīdēvdād 9 and 11 in *āiti bara-* ‘to bring’ and *āiti jasa-* ‘to approach’ must represent the same form *aiti* as e.g. in V 5 *aiti bara-*. In V 9.11 and 9.12, only K1a and L1 once spell the expected form *aiti*. In V 9.32, Jp1.Mf2 have *āiti* but the PV (L4 *aēti*, K1 *aēte*) and the InVS (L1 *aēti*, L2.M2.B2 *aeiti*) have preserved the short *a-* of ^{*}*aiti*.

The mountain name *upāiri.saēna-* is attested twice, viz. in Y 10.11 and in Yt 19.3. Yet in Y 10.11, only the mss. Mf1.4.Pt4 have *upāiri*, whereas all the others have *upa(ē)iri*. In Yt 19.3, F1.J10 and their descendants have *upāiri*, but K12 has *upairi*, which must be the older form. There is no need to posit a stem *upāiri.saēna-*.

The 2s.ipv. verb form V 21.4ff. *pāiri.haēzaḡ^hha* ‘search all around’ is spelled with *pāiri*^o in the PV mss. L4.K1 *pāiri*^o, but the VS branches have retained *pairi*^o.

The adj. *pāiriuuāza-* (Yt 10.127, 14.15) refers to a boar; Bartholomae translates it as ‘overrunning’, Gershevitch as ‘leaping about’. ^o*Vāza-* may well

be connected with Skt. *vāhá-* ‘carrying, bearing’, but a specific Iranian *vṛddhi* of **pari* seems unlikely. Nor can we assume *pāiri*^o to be a corruption for **pāiri*^o, since *pāiriuuāza-* is always attested with *pā*^o. Therefore, *pāiriuuāza-* might be due to a phonetic lengthening of **a* in initial syllable, or *pāiriuuāza-* may have a different etymology altogether.

The prs.ptc.act. to *zan-* ‘to give birth’ is **zizana(n)t-*, the gen.pl. of which is attested in Yt 5.129 *zīzanatqm*. The f. **zizanatī-* appears in two passages, both times with a spelling *-āiti-*. In Yt 5.87 *θβqm carāitiš zizanāitiš jaidiānte huzāmīm* ‘the young women who are giving birth will ask you for a good delivery’, the expected form **zīzanaitīš* was probably influenced by the spelling of the preceding form *carāitiš*⁴⁰. In Y 9.22 *haomō āzīzanāitibiš dadāiti xšaētō.puθrīm* ‘haoma gives possession of excellent sons to those who give birth’ (Josephson 1997: 65), *āzīzanāitibiš* is actually spelled as *āzī(.)zanāiti.biš* in all mss., as if *(āzī)zanāiti* were a separate word. It seems that the following form *dadāiti* caused **āzīzanaitibiš* to be spelled as *°āiti*^o.

Similarly, we must assume a corruption of **-aitiš* → *°āitiš* for Yt 8.40 *vījasāitiš* ‘spreading’ (nom.pl.f. of *vi-jasant-*), which will have adopted the ending from the preceding and following forms *uruuāitiš* and *uruuaitīš*. The etymology of the latter two forms is uncertain; if they represent the f. of a prs.ptc., then *uruuaitīš* will be the original form.

The f. **vi-batī-* ‘shining (apart)’ < PIE **(d)ui-b^hh₂nt-ih₂-* (Skt. *vibhātī-*) of the prs.ptc.act. to *bā-* ‘to shine’ is attested with a short vowel in Yt 5.62 *vīuuaitīm* and in Yt 17.6 *vīūuuaiti* (< **vi-ā-batī*), cf. Kellens 1984: 89. In Yt 13.40 we find the form *vīuuāitiš* (acc.pl.f.), which Kellens 1984: 89 derives from the root *vā-* ‘to blow’; this would mean that *vīuuāitiš* can be reconstructed as **ui-uaH-nt-* (Swennen 1995: 214). Yet in view of a possible corruption of **-ait-* to *-āit-*, we cannot exclude that Yt 13.40 originally had **vīuuaitīš* ‘shining’. This would fit the required meaning at least equally well: Yt 13.40 *frauuāšaiiō yazamaide, yā ... vīuuāitiš* ‘we worship the Fravašis, who are shining forth’.

The f. form of the prs.ptc.act. of *ah-* was **hatī-*, which is spelled both as *hait*^o and as *hāit*^o in the mss. The acc.sg. form is *haitīm* in Y 19.9 (where only K4 has *hāitīm*), Yt 13.100 and H 2.14, whereas in Y 32.9 the majority of the mss. have *hāitīm*; nevertheless, the mss. J2 and Jp1.K4 spell *haitīm*, which will have been the original form of Y 32.9. In Vyt 60, *hāitīm* is attested, but this text has a very poor ms. tradition. The gen.pl. is *haitinqm* in

⁴⁰ Long **ā* in **carāitī-* is confirmed by *rauūascarāt-* ‘who goes around freely’. Kellens 1974a: 258 compares Greek *kélēt-* ‘yacht’ and reconstructs PIE **k^vel-ēt-*.

Yt 13.91f., but in Y 12.9 we find *hāitinąmcā* in Pt4.Mf4 and J2.K5 on the one hand but *haitanąmcā* in S1 and *hitinąmcā* in Mf2. Unfortunately, the paragraphs 12.8-9 are abbreviated in most mss. of the InVS and the YS, so that we cannot decide between the contradictory data of the oldest Yasna mss. Finally, the acc.pl. is attested as *hāitiš* in Yt 13.21 (3x) in the IrKA mss. Mf3.K13.38, but F1.Pt1 have 2x *haitiš*. As a conclusion, it seems most probable that the archetype still had *haitī-* in all instances of this word. The strong tendency to replace this by means of *hāitī-* is probably to be ascribed to the influence of the frequent words (also in recitation) *hāiti-* ‘chapter’ and *haptaṇhāiti-* ‘with seven chapters’.

A different misreading (rather than a mispronunciation) of **-ai-* to *-ā-* appears in two forms with original **-ain-*, viz. in *vourucašānē* (33.13) for **vourucašainē* (Kellens-Pirart 1988-91: 61), and probably also in 32.6 *hātā.marānē* for **hātā.marainē*. The latter reconstruction is suggested by YAv. *hāta.marāni-*, a clear calque on the OAv. compound, but with *-rāni-* < **-rani-* (or **-rni-*, cf. § 25.2).

§ 3.7 Linguistically real *ā*

When Avestan *-ā-* is matched by *-ā-* in cognates in Sanskrit or in other Indo-European languages, we can usually posit IIr. **ā*. However, if Avestan *-ā-* corresponds to a short vowel in cognate languages outside Iranian, and sometimes even within Iranian, we may be dealing with a replacement of IIr. **a* by *ā* in the period between IIr. and Avestan. The present subsection discusses such forms; obviously, they cannot be regarded as evidence for *phonetic* vowel changes in Avestan or in the post-Avestan transmission period.

We can distinguish between three groups of forms: firstly, reduplication syllables containing *ā* of analogical origin; secondly, *vṛddhi* derivatives in which *-a-* was changed to *-ā-* in the initial syllable; and thirdly, isolated forms in which *ā* is due to analogy with other lexemes.

§ 3.7.1 Analogical ā in reduplication

§ 3.7.1.1 Verb forms

In Vedic Sanskrit, a number of perfect stems has a long reduplicating vowel instead of the expected short one: *dādhāra* ‘holds’ as a reflex of Iir. **d^ha-d^hār-a*, *dīdāya* ‘shines’ for **di-dāi(H)-a*, and others. As is now known, this long vowel originated in roots with an initial laryngeal, where the short reduplication vowel was lengthened when the following laryngeal was lost. The prime example is Skt. *jāgāra* ‘is awake’ from **H̥ja-Hgār-a* < PIE **h₁ge-h₁gór-e* ‘has woken up’. Kümmel 2000: 23 has listed five other verbs for which an Iir. laryngeal-initial verb may explain the long reduplicating vowel of Skt.: *ānāmśa* ‘has reached’ < **Ha-Hnánć-*, *anāha* ‘has tied’ for **ānāha* < **Ha-Hnad^h-*, *māmṛj-* ‘has cleaned’ < **Hma-Hmṛj-*, *yuyudhur* ‘have fought’ for **yūyudhur* < **Hju-Hjud^h-*⁴¹ and *vāvṛdh-* ‘has grown’ < **Hua-Hud^h-*. Another form was added by Lubotsky 2000: 317, viz. the 3sg. pluperfect *āvāvarīt* to *var-* ‘to cover’ < Iir. **Huar-*. Kümmel 2000: 456 argues that the RV ptc. *vavrivāms-* may have replaced an earlier **vāvṛvāms-*, which would also show a lengthened reduplication vowel. Plath 2000: 421 has added the perfect *tūtujāna-* of *tuj-* ‘to urge, thrust’, which might be reconstructed as **Htu-Htuǰ-* if the root is the same as in Greek *atúzetai* ‘is scared’ and Hitt. *ḫatukzi*, *ḫatuganzi* ‘to be scary’.

The long vowel in the reduplication is also found in other Skt. perfect stems, where it cannot have arisen phonetically. It is generally assumed that it spread to these verbs from its original locus, the laryngeal-initial verbs. Thus, we find *cākana* ‘has pleased’ to the root **kanH-*, *dādhāra* ‘holds’ to the root **d^har-*, *dīdhāya* ‘shines’ to **d^haiH-*, *tūtāva* ‘is strong’ to **tauH-*, and many others. A collection of almost all the forms with long vowel reduplication in the Vedic *saṃhitās* has been compiled by Krisch 1996: 68-89.

The Skt. perfect forms contain a further complication: many roots show an alternation between long vowel reduplication in some forms of the paradigm, and short vowel reduplication in others. The prime example of this phenomenon is the root *vardh-* ‘to grow’, where Skt. has the reduplication *vā-* if the root is in the zero-grade (*vāvṛdhúr*, *vāvṛdhé*, also the derived thematic present stem *vāvṛdhá-*) but *va-* in the 3sg. *vavárdha* ‘has grown’. It has been

⁴¹ *Yuyudhur* is found (RV 3x) in the cadence of *jagatī* (2x) and *gāyatrī* verses, cf. Krisch 1996: 27f.

argued that Vedic shows a preference for short reduplication in front of a heavy root syllable (of the structure *-Cā-* or *-CaR-*) but long reduplication in front of a light root syllable (Krisch 1996: 52ff.).

However, there are many exceptions to this rhythmic tendency, e.g. *jāgāra*, *dādārtha*, *nānāma*, etc. In fact, most of these length alternations in the reduplication syllable seem to be fairly recent: the rise of the rhythmic tendency can be followed in the course of the Vedic texts. It appears that most changes concern perfect stems which have long vowel reduplication, but which in some forms shorten the reduplication vowel by means of a few well-definable processes:

- A long vowel in front of two consonants may be shortened, e.g. *dadhriré* ‘they are fixed’, *dadhré* ‘he holds himself’, *pipyathur* ‘you two have increased’ (Krisch 1996: 53f.), *vavne* ‘has gained’.
- Sometimes, an exceptional form can be ascribed to metrical reasons, e.g. in the case of *vavárdha*. Kümmel 2000: 469 argues that *vavárdha*, occurring only at the end of a triṣṭubh-cadence, may well represent a metrically shortened version of earlier **vāvárdha*; in that case, no form of *vavardh-* would be left.
- More recent texts may show the rise of a shortened form where older texts have the long vowel: e.g. *cakánanta* (RV 1st Maṇḍala) next to *cākánanta* (RV 5th Maṇḍala) ‘they may please’. A small collection of such forms is given by Krisch 1996: 56.

If the rhythmic alternation of the type Skt. *vāvrdh-* vs. *vavardh-* is indeed of a recent date, it seems likely that pre-Sanskrit only knew perfects which had either a short or a long reduplication syllable. This would remove one complication in the comparison between Avestan and Sanskrit. The main question left to be answered is then: was long vowel reduplication in the perfect of Indo-Iranian date, i.e. had the long vowels or their predecessors⁴² already spread beyond the verbs with inherited initial laryngeal in Proto-Indo-Iranian? For a possible answer, we must turn to the Avestan perfect.

Like Sanskrit, Avestan possesses a number of perfects with a long reduplication vowel where a short one is expected on the basis of the etymology. From the available evidence I discard the roots with *ū-* and

⁴² There is not much evidence on which to decide whether a word-initial laryngeal in front of a consonant was still present in Proto-Ir. If it was, we would have to speak of the spread of word-initial laryngeal, which would imply a less uniform model for analogy.

ī-reduplication, because they are ambiguous. Short **u* is regularly lengthened to *-ū-* in an open initial syllable in Avestan (see § 10.2), so that the perfects *tūtauu-*, *urūraoδ-*, *urūruδ-*, *zūzu-* and *šūšū-* cannot be used as evidence for a possible earlier analogical lengthening. Roots in *-i-* with *ī*-reduplication are found not only in the perfect (the only relevant perfect is that of *riθ-*) but also in the reduplicated present and desiderative. For a number of reasons, it seems unlikely to me that *ī*-reduplication is historically connected with *ā*-reduplication, so that I will postpone its discussion to § 6.2.1.

We may focus our attention on the Avestan perfect forms which display a reduplication syllable containing *ā* instead of expected **a*. There are ten verbs which show finite forms with this long reduplication:

- *cāxnarē* (44.13) to *kan-* ‘to desire; satisfy’.
- *cāxrarē* (V 4.46) to *kar-* ‘to make’.
- *jāgərabuštarā-* (V 4.48) to *grab-* ‘to grasp’.
- *dādrē* (Y 51.8) to *dar-* ‘to hold’.
- *dādarəsa* (H 2.10, Vyt 57, Y 9.1) to *dars-* ‘to see’.
- *dādarē* (Yt 19.6) to *dā-* ‘to give’.
- *həm.pāfrāiti* (V 4.48) to *par-* ‘to fill’.
- *pāpərətāna-* (Yt 4x) to *part-* ‘to fight’.
- *bābuuarē* (Yt 13.150) to *bū-* ‘to become’.
- *vāuuərazananəmçā*, *vāuuərazātārē*, *vāuuərazōi* and *vāuuərazušē* (Y 13.4, 29.3, 35.2, Yt 13.88) to *varz-* ‘to work, achieve’.

Two roots have cognates with long reduplication in Sanskrit: **kanH-* (Av. *cāxnarē*, Skt. *cākan-*) and **d^har-* (Av. *dādrē*, poss. *dādri-*, *dādru(ua)-*, Skt. *dādhār-*). Yet from both roots, Avestan also possesses short reduplication forms, viz. 3s. ind.act. *cakana*, and 3s. ind.act. *dadāra*, ptc.med. *dadrāna-* (2x), *dadrāna-*. In principle, it is possible to argue that these short reduplication forms are innovations of Avestan; note especially the 3s. ind.act. *jayāra* ‘is awake’ from Iir. **jāgāra*, Skt. *jāgāra*, a verb which must have inherited long reduplication because of the root anlaut **Hg-* (for analogical *-a-* in the reduplication see § 4.9.8). In that case, *cāxnarē* and *dādrē* would be the remains of inherited Iir. long reduplication. In order to assess the probability of this solution, and the possible effects it has on the explanation of the other Avestan forms with a long reduplication vowel, we must look at the evidence in more detail.

At first sight, the presence of *ā* in the reduplication syllable might seem to be morphologically conditioned: in all forms except *dādarəsa*, *-ā-* is followed by the zero-grade of the root: *cāxnarē* < **ca-kn-*, *cāxrarē* < **ca-kr-*,

jāgərəbuštara- < **ja-grb-*, *dādrē* < **da-dr-*, *dādarə* < **da-dH-*, *pāfrāiti* < **pa-prH-*, *pāpərətāna-* < **pa-prt-*, *bābuuarə* < **ba-bHu-*, *vāuuərəz-* < **Hu-a-Hurj-*. Moreover, if the same root is attested in a full grade form, the reduplication syllable has *a*: *jayauruuā-* to *grab-*, *dadāra* to *dar-*, *cakana* to *kan-*, *dadāθā* and *dadā*⁴³ to *dā-*. The one form in which *ā*-reduplication is accompanied by a following full grade of the root, viz. *dādarəsa* < **da-darə-a*, is not sufficient counter-evidence.

On the other hand, we find many perfect forms with *a*-reduplication although the root is in the zero-grade; these forms contradict the possible morphological distribution. Perfect forms of roots which also have lengthened forms are especially disturbing, viz. *pafrē* (Y 49.1, P 17) (as against *pāfrāiti*) and *dadrāna-*, *dadrāna-* (as against to *dādrē*).

But there are also many perfect stems which are never attested with *ā* in the reduplication, although the root occurs in the zero-grade⁴⁴: *cakuš-* to *kā-* ‘to desire’; *caxse* to *xsā-* ‘to teach’; *jaynuuah-* to *gan-* ‘to slay’; *jaymat*, *jaymiiqm*, *jaymuš-* to *gam-* ‘to come’; *jaxšuuah-* to a verb **gas-* (cf. Kümmel 2000: 633); °*taṭ.kuš-* to *tac-* ‘to flow’; *taršuuah-* if from **ta-tš-uaḥ-* to *taš-* ‘to fashion’; *daidii-*, *daidii-* < **dadī-* to *dī-* ‘to watch’; *dad-*, *dad-/dadθ-* to *dā-* ‘to put; give’; *baβrarə*, *baβriiqn* to *bar-* ‘to bring’; *mamne*, **mamnāitē*, *mamnāna-* to *man-* ‘to think’; OAv. *yōiθəmā*, *yōiθβah*, YAv. *yaētatarə*, *yaētūš-* to *yat-* ‘to take a stand’; *vaoxəmā*, *vaokuš-*, *vaoc-* to *vac-* ‘to say’; *vaon-* to *van-* ‘to win’; *vaoz-* to *vaz-* ‘to convey’; *saškuš-* to *sac-* ‘to be able’; °*šastarə* to *stā-* ‘to stand’; *zazuuah-* to *zā-* ‘to win’; *hazdiiāt* to *had-* ‘to sit down’.

This evidence is so vast that we cannot ascribe the problematic *ā*-verbs only to a zero-grade root syllable. We must find a different cause.

Kellens 1984: 407f. has keenly observed that most of the lengthened reduplication syllables occur when the subsequent root syllable, "longue ou brève, ouverte ou fermée, à initiale consonantique simple ou complexe", contains vocalic or consonantal *r*, be it radical or desinential. I see no possibility to interpret the condition ‘-*r*- in the next syllable’ as a phonetic trigger for lengthening of **a* in a preceding syllable; therefore, we may try to interpret Kellens’ observation as the result of analogical spread of *ā* from one or more of the forms containing *-r-*.

⁴³ These cannot be ascribed to a phonetic shortening of earlier **dā*^o, as Kümmel 2000: 646 assumed.

⁴⁴ OAv. *nəsuuah-* to *nas-* ‘to perish’ is phonetically ambiguous, **na-ns-uaḥ-* or **nā-ns-uaḥ-*.

In fact, we may go one step further than Kellens and subdivide the *ā*-forms in three groups. The first two of them show a similar word structure, and may be explained from the spread of *ā* from one original locus. The third group consists of two isolated forms:

A. *jāgərəbuštara-*, *dādarəsa*, *pāpərətāna-*, *vāuuərəz-*.

B. *cāxnarə*, *cāxrarə*, *dādarə*, *bābuuarə*.

C. *dādrē*, *pāfrāiti*.

Group A subsumes the forms with a root of the structure *CrC. In three of the four forms, the root is in the zero-grade, yielding -CərəC-. The only stem in which lengthening may have a phonetic origin in IIr. is *varz-*, which probably goes back to an IIr. verb with an initial laryngeal *Huarǵ-.⁴⁵ The strongest indication that *varz-* had an initial laryngeal are the nominal compounds in °*varəza-* and °*vərəz-* (discussed below in § 5.2.1.2), which show lengthening of a preceding thematic vowel *-a- > -ā-. The reconstruction of the perfect as *Hua-Huǵj- would directly account for *vāuuərəz-*.⁴⁶ Therefore, the paradigm of *vāuuərəz-* seems the most likely model for the other forms of the structure Cā-CərəC-.⁴⁷ Note also that

⁴⁵ Avestan *varz-* ‘to work’ has no Sanskrit counterpart. It may be connected with PIE **uerǵ-* ‘to work’, as in Greek *érgō*, Goth. *aurkjan*, etc. The Greek word family cannot have contained an initial laryngeal, but there were a few Indo-Iranian roots of the structure *HuarC-, viz. IIr. *Huarǵ- ‘to turn’ (RV *prá vāvṛje*, *parāvṛj-* m. ‘outcast’, etc.), IIr. *Huard^h- ‘to grow’ (Skt. *vāvṛdh-*) and IIr. *Huarš- ‘to rain’. It is therefore quite conceivable that Indo-Iranian or proto-Avestan replaced inherited *uarǵ- ‘to work’ by *Huarǵ- on the analogy of the other verbs. This explanation has been proposed independently by Kümmel 2000: 663, and by Janda 2000: 188, who cites that this solution was suggested by Schindler in his lectures. Apparently, Schindler compared only the root *Huarǵ- ‘to turn’.

⁴⁶ The 3sg. pf. form P 17 *vauuarəza* ‘has acted’ is ambiguous. JamaspAsa-Humbach 1971 restore **vāuuarəza* and argue that it has been influenced by the preceding *vauuaca*, which cannot be excluded. Kümmel 2000: 663 objects that the reduplication syllable of the 3sg. is sometimes analogically shortened (e.g. *jayāra*), so that *vauuarəza* may be a linguistically real YAv. form from earlier **vāuarəza*. The form is thus too ambiguous to be used.

⁴⁷ In theory, it is possible that the lengthening originally belonged to the paradigm of *vard-* ‘to grow’, where we are certain of the IIr. root structure *Huard^h-. As Kümmel 2000: 663 argues, the lengthening may have spread from **uāuard^h-/uāurd^h-* to *varz-* and to the other *ā*-forms. Yet no perfect forms of *vard-* are attested in Avestan, so that we must content ourselves with *vāuuərəz-*.

vāuuərəz- is attested in four different forms (1s.med., 3d.act., ptc.act., ptc.med.), whereas the other *ā*-reduplicated perfects are isolated forms.

Of the three other forms in group A, *pāpərətāna-* is attested four times in the expression *antarə daǰhu pāpərətāne* ‘between two countries at war’ in the Yašts. This expression forms a verse-line of eight syllables, and by this token it looks like an old text passage. Yet the root **part-* ‘to combat’ is without verbal cognates in Skt., which gives the impression that it did not yet have verbal derivatives in Ir.; rather, they were formed in Proto-Iranian.

The form *jāgərəbuštara-* in V 4.48 shows by its preserved intervocalic *-g-* and *-b-* that it is an OAv. form. Its context points to a religious term: *hāuca ... vohu manō jāgərəbuštārō* ‘and he is the one who has grasped better Good Thought’; the lexical category of religious (and legal) terms sometimes shows borrowings from OAv.

The form *dādarəsa* ‘I have seen’ (cf. Skt. *dadārśa*) occurs in two different but closely similar contexts in Y 9.1 and H 2.24; it does not have *-CərəC-* like the three preceding forms, but there are also no other forms with the structure $C_1a-C_1(a)rC_2-$ which could be used as counterevidence⁴⁸.

I would thus explain *jāgərəbuštara-*, *pāpərətāna-* and *dādarəsa* as forms which have introduced the vowel *ā* into the reduplication syllable on the model of *vāuuərəz-*. If the sg. form *vauuarəza* actually represents **vāuuərəza*, as proposed in fn. 46, there are no forms with an inherited structure *CaC(a)rC-* left.

Group B contains forms with the 3p.act. ending *-arə*. In fact, there are two other forms which also show the structure **ā_a* just like *cāxnarē*, *cāxrarə*, *dādarə* and *bābuuarə*, viz. *āǰharē* ‘they have been’ < **āhar* and OAv. *ādarē*, YAv. *ādarə* ‘they say, call’ < **ādar*. Nevertheless, not all 3p. forms have *ā*-reduplication: we find a short reduplication syllable in *baβrarə* ‘they have brought’ < **ba-br-ar*, *vaonarē* ‘they have won’ < **va-ṽn-ar* and *šastarə* ‘they have come to stand’ < **sa-stH-ar*. If we assume for the moment that the root *kan-*, which shows a Skt. perfect *cākan-*, already had a long reduplication vowel in Ir., the form *cāxnarē* might be the source from which the length in the three other forms was derived; *cāxnarē* is also the only OAv. form of those four. The length of **cāxnar* may then have spread to the other forms.

⁴⁸ P 17 *vauuarəza* is ambiguous because of the preceding *vauuaca*, see above. The form *jayauruua* < **ja-garb-a* shows unexpected vocalization as opposed to Skt. *jagrabha*; it is probably a remake on the basis of the zero-grade **jagərb-* (> YAv. *jayauruu-*); cf. Kümmel 2000: 634.

The form *cāxrarə* ← **caxrar*⁴⁹ is only attested in V 4.46 *həm.taptibiō aiβiīō cāxrarə nərəbiiō zaraθuštra* ‘with hot waters they have made it for the men, o Zarathustra’. The meaning of this sentence is unclear in the context of the preceding V 4.45 and the following V 4.47, and its grammar seems corrupt. Three grammatical difficulties of this passage are: 1) the text lacks an object to which *cāxrarə* might refer; 2) the use of the dat.pl. in *-biiō* instead of the ins.pl. in *-biš*; 3) the use of a f. adj. *həm.taptī-* instead of *həm.taptā-* (*ī*-motion of *a*-stems is otherwise only found with substantives: *hupuθrī-* ‘one who has good sons’, and with the suffix **-na-*: *zaranaēnī-*). One ms. branch, viz. the PV, has *həm.taftaēibiīō* with a dat.pl.m. ending. All these problems taken together, V 4.46 may well be a quotation taken from a different Avestan text.

The form *dādarə* ← **dad(H)ar* (Skt. *dadúr*) only occurs in Yt 19.6 *mašiiāka ... nāməm dādarə* ‘the people have given names’, with an acc.pl. *nāməm* which is peculiar. The expected acc.pl. of *nāman-* is *nāmən*, attested in YAv. *nāmən āzbaīia* ‘I invoke the names’ and *nāmən frāīīeze* ‘I worship the names’. As we will see in § 19.3.1, the form *nāməm* contains the typically OAv. assimilation of *-mən* to *-məm*. As Schindler 1982: 192 has shown, *nāməm dādarə* finds its immediate OAv. example in Y 38.4 *nāməm dadāt*, where the same expression *nāman dā-* occurs in the sg.

The 3p. form *bābuuarə* ‘they have become’ only occurs in Yt 13.150 *paoiriīq ikaēšē yazamaide yōi bābuuarə* ‘we worship the first teachers who have become’. Intervocalic *-b-* should be lenited in YAv., so that there is at least the possibility⁵⁰ that *bābuuarə* represents an OAv. form, in contradistinction to the 3s. *buuāuua* < **bubāya*.

It appears that all three forms *cāxrarə*, *dādarə* and *bābuuarə* are in some way suspect in the YAv. texts, and two of them point to an OAv. origin. This raises the possibility that the type 3p.pf.act. **CāCCar* was at home in OAv. (where we have *cāxnarə*), and that the reduplication syllable was short in genuine YAv. (*baβrarə*, *vaonarə*, °*šastarə*); however, *vaonarə* also occurs in OAv. (YH), so that the type **CāCCar* must have existed side by side with **CaCCar* in OAv. One important question remains unanswered: why does only the 3p.act. have this long reduplication vowel?

⁴⁹ The incidental character of the lengthening may also be illustrated by the fact that the OAv. adj. *caxri-* ‘making’ has no lengthening. The reduplicated adjectives in **-ī-* (Skt. *cakrī-*) are based on the perfect stem.

⁵⁰ The presence of the aorist forms *buua*, *buuaf*, etc. in YAv. might have led to the restoration of the root anlaut *-buu-* in *bābuuarə*.

Group C: OAv. *dādrē* ‘he keeps’ might show an inherited long vowel (Skt. *dādhāra*), but the YAv. ptc. *daḍrāna-* ‘keeping’ and Y 55.6 *dadrāna-* (which might even be a loan word from OAv. because of *-d-*) from the same stem have a short reduplication vowel. In view of the threefold attestation of *daḍrāna/dadrāna-*, I find an explanation via a phonetic shortening of **dāḍrāna-* not attractive; if one wishes to regard the short reduplication as secondary, it is best explained through analogy, cf. *jayāra*.

The form *ḥam.pāfrāiti* occurs in V 4.48, one line after *jāgərəbuštarō*:
hāuca aiiā narā vohu manō jāgərəbuštarō aḥat, yō gēuš uruḍβarə
ḥam.pāfrāiti ‘and he of those two men, who has filled his belly with cow(’s meat), will be the one who has better grasped Good Thinking’. In view of the two independent occurrences of *pāfrē* in OAv. and YAv., it is conceivable that *pāfrāiti* is a corruption of earlier **pāfrāiti*, which arose under the influence of the red. syllable of *jāgərəbuštarō*.

§ 3.7.1.2 Nouns and adjectives

We find a few reduplicated nominal stems with unexplained *-ā-* in the reduplication syllable. The formation is not always clear; some of them may be based on a perfect stem, but some certainly are not.

- *dādari-* ‘possessing’ occurs in N 96 in the nom.pl.m. *dādaraiiō*; it is clearly derived from *dar-* ‘to keep’, and might presuppose a reduplicated adj. **dādri-* ‘keeping’ of the type Skt. *cakrī-*, cf. Wackernagel-Debrunner 1954: 292. In that case, the long reduplication vowel may be directly compared with OAv. *dādrē* and Skt. *dādhāra*. However, if the original form was **dadaraiiō*, it is quite conceivable that the first **a* was lengthened in the tradition, due to the sequence of three syllables in *-a-*, cf. *ātaraθra*. Furthermore, the spelling with intervocalic *d* is conspicuous: the spellings of the N are more often unreliable, and *dādaraiiō* could easily represent **daḍraiiō* or **dāḍraiiō*.
- *dāḍmainiia-* ‘inflating itself’ (said of frogs) occurs in V 14.5 and 18.73. It is possible to connect it with the verb **d^ham-* ‘to blow’ as **d^ha-d^hm-anīa-*; the meaning of *dāḍmainiia-* suggests (nominal) intensive reduplication rather than an original perfect. Skt. also shows a derivative in **-ani-* of the root **d^ham-*, viz. *dhamāni-* ‘the blowing’. The Avestan form could be a thematization of an original *i*-stem **dād(a)mani-*.
- V 9.11 *dādru(ua)-* has an uncertain meaning. It is usually translated as ‘piece of wood’ after Bartholomae 1904: 732, but compare the context (cf. § 15.4 for the form of the text):

*θrāiiiō upa nauuu.paδəm asānō [āiti maya] āiti barōiš, safəm vā dādrum
vā zəm.varətəm vā kəmciṭ vā xrūždismanəm*

‘To (each of) the three nine-foot spaces, you must bring stones [to the holes], or (a piece of) hoof or *dādru(ua)*- or a clod of earth or any hard (piece of) earth’.

The text refers to the division of the consecrated area where the purification of someone who is contaminated with *nasu* shall take place. As we can see, *dādru(ua)*- might refer to a piece of wood, but a kind of earth or stone may be more appropriate in view of two subsequent terms ‘clod of earth’ and ‘hard earth’. This leaves the etymology unclear. We might suggest that *dādru(ua)*- refers to the form of the object; if it was a ‘wedge’, we might connect it with the root *dar-* ‘to pierce’. A different possibility is a connection with the perfect of *dar-* ‘to keep’, cf. Skt. *dādhāra* ‘holds, keeps’, *dādhrvi* ‘supporting’.

- *pāpiθβā-* (N) ‘sacrificial meal’ probably contains the noun **piθβa-* ‘meal’, compare *dāitiiō.piθβa-* ‘lawful meal’, *θripiθβa-* ‘having three meals’ etc., which derives from the root *pi-* ‘to feed’ (prs. *°pinaoiti*). We might connect *pāpiθβa-* with the red. adj. Skt. *papí-* ‘drinking’ to *pā-* ‘to drink’, a root of which no verb forms are attested in Avestan. In that case, we must posit a Plr. form **pāpi-* which was contaminated with *piθβa-*. However, the meaning of *pāpiθβa-* in N 64ff. is rather a ‘solid’ oblation as opposed to a ‘liquid’ (*xšaodri-*) one; see Bartholomae 1904: 888. Thus, the connection with ‘to drink’ is less obvious.

- *vāunu-* (Y 28.8) ‘loving’ or ‘eager’; probably a reduplicated *u*-stem adj. **vāun-u-* of the type *mamnu-*, cf. Kümmel 2000: 662. He separates it from the verb *van-* ‘to win, gain’ < **uanH-*, but this seems unnecessary as far as the meaning is concerned. Since the Skt. verb *van-* takes a long vowel reduplication in its perfect (Skt. *vāvān-*), it is possible that *vāunu-* is a form retaining the Ilr. long vowel. Nevertheless, this long vowel was not present in the whole paradigm, since we find the perfect stem as *vaon-* in the 3p. *vaonarə* in the YH.

§ 3.7.1.3 Conclusion

The stem *vāuuərəz-* quite certainly contains Ilr. lengthening due to an initial laryngeal. The forms *cāxnarə*, *dādrē* and *vāunuš* have cognates in Skt. which also have long vowel reduplication, which renders it likely that their long vowels go back to Ilr. too. Since the roots *kan-*, *dar-* and *van-* did not have an initial laryngeal, this would imply that the spread of the long vowel

reduplication to non-**HC*- roots had already started in the Proto-Indo-Iranian period.

The forms *vāuuərəz-* and *cāxnarē* (maybe together with *ā̄ṅharə* and *ā̄ḍarə*) each gave rise to a small group of forms imitating their reduplication pattern. These local analogies may have to be dated to the Early YAv. period; later YAv. generalized the normal full grade reduplication of the bulk of the paradigm.

As for the reduplicated adjectives, it is striking that three of them (*dādari-*, *dā̄ḍmainiia-* and *dādru(ua)-*) have an initial sequence *dād/ḍ-*. It is conceivable that this specific environment (between two identical voiced dental stops) was more liable to provoke lengthening at some stage, so that we might reconstruct **dad-* for these forms. Ultimately, then, lengthening in **dad-* might also account for the verb form *dādrē*.

§ 3.7.2 Vṛddhi forms

This subsection intends to provide an overview of the certain or probable cases of vṛddhi derivation (VD) in Avestan, so that they may be separated from forms in which initial *-ā-* is due to a phonetic lengthening. The Indo-Iranian process of VD can be defined as secondary noun derivation by means of increasing or ‘upgrading’ the vowel in the initial syllable of the derivational basis. The vowel changes in the initial syllable which accompany VD are somewhat different in Avestan and in Sanskrit. Whereas Sanskrit replaces all simple and guṇa vowels by vṛddhi, Avestan has retained the more original process of replacing simple vowels by guṇa and guṇa by vṛddhi⁵¹. Avestan shares with Sanskrit the vṛddhi derivation of **ṛ* by *ār*. Schematically, the picture is the following (Avestan shows evidence for VD to only four basic vowels, with the annotation that the case of **i* is uncertain):

IIr. <i>*a</i>	→ Skt. <i>ā</i>	IIr. <i>*a</i>	→ Av. <i>ā</i>
IIr. <i>*i/ī/ai</i>	→ Skt. <i>ai</i>	IIr. <i>*i</i>	→ Av. <i>aē</i>
IIr. <i>*u/ū/au</i>	→ Skt. <i>au</i>	IIr. <i>*u</i>	→ Av. <i>ao</i>
IIr. <i>*ṛ/ar</i>	→ Skt. <i>ār</i>	IIr. <i>*ṛ</i>	→ Av. <i>ār</i>

⁵¹ There exists general agreement as to the fact that the Avestan type **u* → **au* is more original than Skt. **u* → **āu*. It has been argued e.g. by Kuryłowicz 1947-48: 46ff. that this must be linked to the monophthongization of **ai* and **au* to Skt. *e* and *o*.

Since a complete list of the inner-Avestan instances of VD is as yet lacking in the literature, I will also discuss VD with a word-initial diphthong (**hau*^o and **dauš*^o), despite the fact that they do not yield any problem for the synchronic analysis of the Avestan vowel system. Among the scholars who have provided shorter, non-exhaustive lists of Avestan VD are Bartholomae 1894-5: 44, Reichelt 1909: 73 and Wackernagel-Debrunner 1954: 106. The most elaborate discussion so far, which contains all instances of Avestan VD of words containing **i*, **u* or **r* in the initial syllable, can be found in Darms 1978: 367-375.

In Sanskrit, VD are usually also characterized by a contrastive accent shift, e.g. *áyas-* ‘metal’ : *āyasá-* ‘made of metal’, *marút-* ‘the Maruts’ : *máruta-* ‘pertaining to the Maruts’. However, the accentuation of Avestan is mostly unknown, so that we must rely on the two remaining indicators: the formal condition of a vowel change (‘upgrading’) in the initial syllable of the derived word and the semantic condition that the derivative shows a derived meaning.

The following Avestan forms, which have sometimes been analyzed as VD in the past, can be discarded from the evidence. They contain a long vowel which is due to ms. corruptions or to post-YAv. sound change: *ārəzuuā* (cf. § 4.7), *upāiri.saēna-* (§ 3.6), *kāuuaiiascā* (§ 3.4.2.2), *gāuu(a)iiāna-* (§ 3.4.1), *xšāfni(a)-* (§ 3.4.4), *dāxiiūma-* (§ 3.4.4), *pāitiuuāka-* (cf. § 3.6), *pāiriūuāza-* (§ 3.6).

Avestan possesses two evidently productive categories of vṛddhi derivation, viz. compounds in **hau*^o or **dauš*^o, and *i*-stem adjectives (mainly) from thematic nouns. These two are discussed in § 3.7.2.1 and 3.7.2.2 below. A third group of Avestan forms contains the more or less isolated cases, for which the identity as vṛddhi derivative is not always certain (§ 3.7.2.3). As far as they are relevant, the possible Old Persian cases of VD have been taken into account.

§ 3.7.2.1 Compounds in **hau* and **dauš*

The largest group of VD forms thematic abstract nouns from (mostly) athematic adjectival compounds in **hu-* ‘good’ and **duš-* ‘bad’. These prefixes receive the guṇa vocalism **hau* and **dauš*; the added suffix is usually *-a-* but twice we find **-iiā-*. The evidence comprises:

Vṛddhi derivative	Derived from
<i>daožar̥ha-</i> ‘hell’	* <i>duš-ahu-</i> ‘having a bad life’
<i>dəuš.dāitiia-</i> ⁵² ‘unlawfulness’	* <i>duš-dāta-</i> ‘of evil law’
<i>dəuš.manahiia-</i> ‘enmity’	<i>duš.manah-</i> ‘inimical’
* <i>dəuš.srauuar̥ha-</i> ‘bad reputation’ ⁵³	* <i>duš-srauah-</i> ‘infamous’
<i>haomanar̥ha-</i> ‘cheerfulness’	<i>humanah-</i> ‘cheerful’
<i>haosrauuar̥ha-</i> ‘good reputation’	* <i>hu-srauah-</i> ‘famous’ (cf. Skt. <i>suśrāvas-</i>)
<i>haozq̄θ̥ba-</i> ‘familiarity’	<i>huzəntu-</i> ‘well acquainted with’
<i>hauuapar̥ha-</i> ‘creative power’	<i>huuapah-</i> ‘doing good work’
<i>hauuar̥ha-</i> ‘a good life’	* <i>hu-ar̥hu-</i> ‘having a good life’
<i>huuō.(g)uuā-</i> ⁵⁴ (* <i>hau-guua</i>)	<i>hugu-</i> (PN) ‘having good cows’

This category of VD seems to have been present in Avestan from the beginning of the text composition. Three of the forms are already found in OAv., viz. *haozq̄θ̥ba-* (Gāthc 1x), *hauuapar̥ha-* (YH 2x) and the name *huuō.guua-* (Gāthc 4x). The YAv. forms are evenly distributed among the different text genres and show no sign of being recent. In fact, this type of VD is likely to be of Indo-Iranian date in view of the nearly precise match between *haomanar̥ha-* and *haosrauuar̥ha-* on the one hand, and RV *saumanasá-* and *sauśravasá-* on the other. In order to facilitate the comparison, I give the full evidence for *sau*^o (in the RV) and *daus*^o (in the RV and AV) in the oldest Vedic texts. Note that some Vedic VD take the suffix *-(i)ya-* rather than *-a-*, and that *-gy-* instead of *-jy-* in *saúbhāgya-* and *daúr̥bhāgya-* yields a phonological clue to a recent origin of that suffix:

⁵² In Aog 56; cf. JamaspAsa 1982: 69 and Humbach 1983: 120.

⁵³ Viz. in F 550, cf. Klingenschmitt 1968: 167. It is striking that Y 11.1 *dəuš.srauuā*, apparently acc.pl. of *dəuš.srauuah-* ‘bad reputation’, does not show a derivational suffix and is synonymous to the attested *dəuš.srauuar̥ha-*. *Dəuš.srauuah-* may be one of the linguistic peculiarities which set the Hōm Yašt (Y 9-11) apart from the rest of the Yasna.

⁵⁴ The OAv. patronymic *Huuō.guua-* derives from **hau-gua-* through the development of **-au* > **-ō* > YAv. *-uuō* (cf. § 16.3.1). YAv. *huuōuuā-* is a borrowing of the OAv. name which underwent the change **-gu-* > *-uu-*.

Vrddhi derivative	Derived from
<i>saumanasá-</i> ‘benevolence; pleasure’	<i>sumánas-</i> ‘benevolent’
<i>sauśravasá-</i> ‘high praise’	<i>suśrávas-</i> ‘famous’
<i>saúkrtya-</i> ‘acting well, piety’	<i>sukṛt-</i> ‘doing good’
<i>Saudhanvaná-</i> patronymic	<i>Sudhánvan-</i> PN
<i>saúbhaga-</i> ‘welfare’	<i>subhága-</i> ‘fortunate’
<i>saúbhāgya-</i> ‘welfare’	<i>subhāgá-</i> ‘fortunate’
<i>saúvaśvia-</i> ‘possession of many horses’	<i>s_(u)váśva-</i> ‘having good horses’
<i>Daurgahá-</i> (RV 1x) patronymic	RV <i>Durgáha-</i> PN
<i>daušvapnya-</i> (AV 4.17.5) ‘evil dreams’	RV <i>dušvápnia-</i> ‘evil dream’
<i>daúrjīvitya-</i> (AV 4.17.3) ‘miserable existence’	
<i>daúrbhāgya-</i> (AV) ‘unhappiness (of a woman disliked by her husband)’	

This state of affairs allows us to reconstruct the following derivational process for Indo-Iranian:

poss. compound **Hsu-X-* (athem.) → abstract noun **Hsau-X-a-*.

poss. compound **duš-X-* (athem.) → abstract noun **dauš-X-a-*.

The genesis of this type of VD must probably be sought in Indo-Iranian itself. The forms in the right hand column were inherited from Proto-Indo-European, as can be seen by comparing Iir. **Hsumánas-* and **dušmánas-* with the Greek type *dusmenēs* ‘hostile’ and *eumenēs* ‘well-disposed’. However, it is unlikely that the Iir. full grades **Hsau* and **dauš* of these prefixes were also inherited from PIE⁵⁵. Within Indo-Iranian, the creation of **Hsau*^o and **dauš*^o can be motivated by the alternation between **i/u* and **ai/au* which already existed in inherited derivatives of roots containing Iir. **i* and **u*. For instance, to a verbal root **duiš-* ‘to hate’, root noun **duiš-*, we find a derived noun **duaišas-* ‘enmity’ (Skt. *dvéšas-*, OAv. *duuaēšah-*, YAv. *tbaēšah-*). This process seems already to have spread to purely Indo-Iranian words, e.g. **b^hišaj-* next to **b^haišajá-* (see below), which has no PIE etymology. It is thus conceivable that this process of derivation

⁵⁵ Schindler (1987: 346) has surmised that the prefix *duš-* might be derived from a noun **déues-* ‘want, lack’ as a kind of ‘super zero-grade’. A reflex of such a noun might be seen in Skt. *doṣá-* f. ‘darkness’, Av. *daoša(s)tara-* ‘western’ (cf. EWAia I: 750), if the meanings ‘western’ and ‘dark’ are based on the ‘fading’ of daylight. There is no evidence for a root noun **deus-* ‘want’, however. For the adjective PIE **h₁s-u-* ‘good’, the other Indo-European languages (Greek, Anatolian) contain no certain evidence for ablaut in the suffix, i.e. †*h₁s-e/ou-*; cf. De Lamberterie 1990 II: 764ff.

has spread to the compounds in **Hsu^o* and **duš^o*, which hereby acquired the guṇa shape **Hsau^o* and **dauš^o*.

There are very few other Avestan forms in which a VD **i* → **ai* or **u* → **au* seems likely. The best candidate is probably YAv. *xšaodri-* ‘liquid’, to *xšudra-* ‘a liquid’. Some translators have assumed a meaning ‘alcoholic’ for *xšaodri-*, but to my mind, all attestations talk about ‘liquid’ food as opposed to ‘solid’ food, viz. in V 16.7, where a woman having her menses in seclusion must be fed (with two *danarə* of *tāiiūiri-* and two *danarə* of *xšaodri-*); in N 64, where an offering (*zaoθrā-*) is to be offered which is either *xšaodri-* or *pāpiθβa-* ‘solid’; and in N 66-67, where it is asked how much of *xšaodri-* milk (*paiiah-*) should be offered to the Water and how much of *tāiiūiri-* milk. Since the ablaut grade **xšaud-* also appears in a derivative such as *xšaodah-* ‘river’ (Skt. *kṣódas-* ‘Wasserwall’), it is possible that *xšaodri-* took its full grade from there.

Another possible example is the PN *θraētaona-*, which is certainly derived from the PN *θrita-*, originally ‘third’ (Mayrhofer 1979: I/83). However, the exact derivational process is unclear. The Skt. PN *Tritá-* (*Āptyá-*) has as a patronymic *traitaná-* (RV). Thus, the initial syllables of *θraētaona-* and *traitaná-* can represent a VD to **trita-*, but the suffixes differ. For a possible interpretation of the relationship between the Avestan names and their Sanskrit counterparts, see Kellens 2001: 317f.

Darms 1978: 18 has claimed that *šīiaodna-* ‘action’ (Skt. *cyáutna-*) is also a VD, but this is doubtful. The alleged basic noun **c̣iu-tan-* ‘setting in motion’ is unattested, and the full grade of the root **c̣iau-* is amply attested in Indic and Iranian verb forms, so that it could have served as a direct basis for the formation of **c̣iau-tna-*.

§ 3.7.2.2 *i*-stem adjectives

Avestan *i*-stem derivatives with a change of the initial vowel **a* > *ā* and **r* > *ār* are adjectives derived from substantives. The undisputed forms are:

Vṛddhi derivative	Derived from
<i>āhūiri-</i> ‘ahuric’	<i>ahura-</i>
<i>dāsmaini-</i> ‘accompanying the offering’	* <i>dāsmān-</i> ‘offering’
<i>māzdaiiasni-</i> ‘of a Mazdayasnian’	<i>māzdaiiasna-</i>
<i>vārəθrayni-</i> ‘victorious’	<i>vərəθrayna-</i> ‘victory’
<i>sāuuahi-</i> ‘of the morning’ ⁵⁶	<i>sāuuah-</i> ‘increase’
<i>hāuuani-</i> ‘related to the pressing’	<i>hāuuana-</i> ‘(haoma) pressing, pond’

There is a remarkable difference in the attestation of these six stems. The two words *āhūiri-* and *vārəθrayni-* are found with a relatively high frequency, they have an even distribution among the texts (older Yašts, Yašt-like Yasna parts, liturgy of the Yasna) and they are found as adjectives to a variety of nouns⁵⁷. Furthermore, *āhūiri-* has a seemingly perfect match in the Skt. patronymic *āsuri-* (ŚBr.), and *vārəθrayni-*⁵⁸ may be compared with Skt. (RVKh., YV+) *vārtraghna-* ‘relating or belonging to the *vṛtrahán-*’ although the meaning of the Skt. compound is clearly based on the meaning which *vṛtrahán-* has in Skt., which is different from the Avestan meaning of *vərəθrayna-*.

In OAv., we find a stem *āhūiriia-* (Y 37.3) in *təm at āhūiriia nāmānī ... yazamaidē*, translated by Narten 1986a as ‘ihn verehren wir in den göttlichen Namen’; the same stem is attested several times in YAv. as an epithet to *sraoša-* and to the *aməša spəntas*, in Yt 13, 14 and Y 60. Narten assumes for *āhūiriia-* an original meaning ‘zu den Ahuras gehörig’ → ‘göttlich’, and she compares the Skt. cognate *asuryā-*, which has no vṛddhi: RV 10.52.2 *catvāri te asuryāni nāma* ‘vier sind deine asurische Namen’ (translation by Geldner 1951). According to Narten (1986a: 178), there is a difference of use between

⁵⁶ According to Kellens 1996: 65ff.

⁵⁷ Most of these nouns are in some way connected with the religious terminology, but this is hardly surprising given the content of the texts. We find YAv. *āhūiri-* as an adjective to *daēnā-* ‘religion’, *nmāna-* ‘house’ (viz. of *haoma*), *frašna-* ‘question’ (viz. that of Zarathuštra to Ahura Mazdā), *tkaēša-* ‘doctrine’ and to *asti.gāfiio* (?). YAv. *vārəθrayni-* occurs with *vacas-* ‘word’ (viz. in the ritual), *nmāna-* ‘house’ (viz. of *sraoša-*), *maqθra-* ‘(ritual) speech’, *frauuaši-* ‘the Fravašis’, *vaēda-* ‘weapon’, *haoma-*, and substantivized as an abstract ‘power of attack’, ‘victory’ (Y 10.9,19).

⁵⁸ There is no Avestan adj. *vārəθrayna-*. The only alleged attestation (in Yt 19.92) can be corrected to **vārəθrayni-*: the acc.sg. *vārəθraynəm* in the mss. F1 and J10 will be a corruption of *-īm (via F1 *-im, cf. § 8.1.2) under the influence of *vaēdəm* in the same line.

Av. *āhūriia-* and *āhūri-*, in the sense that *āhūriia-* shows the meaning ‘divine’ which can be explained on the basis of the Indo-Iranian meaning of **asura-*, whereas *āhūri-* is used as a reference to the Mazdayasnean *Ahura Mazdā*, meaning ‘in connection with *Ahura*’. This would match the fact that Skt. *āsuri-* is a patronymic: Av. *āhūri-* rather approaches the function of a patronymic, whereas *āhūriia-* may be compared with Skt. *asuryā-* and has additionally acquired initial long *ā-* (Narten loc.cit., footnote 43). The most probable source for this *ā-* would be exactly the stem *āhūri-*; thus, the occurrence of *āhūriia-* in OAv. would indirectly point to the existence of **āhuri-* already in OAv. We may accordingly posit two inherited stems, IIr. **āsuri-* ‘descending from *Asura*’ and IIr. **asurīHa-* ‘characteristic of (an) *asura*’.

Contrary to *āhūri-* and *vārəθrayni-*, the four other Avestan VD in *-i* have a very limited distribution, which points to a later origin. YAv. *māzdaiiasni-* is found as an adj. to *daēnā-* ‘religion’ (in the liturgical parts of the Yasna), to *vis-* ‘community’, and substantivized as ‘a follower of the Mazdayasnean religion’ in V passim. Thus, *māzdaiiasni-* appears in the same context as *āhūri-* and *vārəθrayni-*, and it seems reasonable to assume that it was built after the example of especially **āsuri-*. In any case, the derivational basis *māzdaiiasna-* can hardly have existed before Proto-Iranian, which also suggests that *māzdaiiasni-* will be a more recent formation than **āsuri-*.

The VD *dāsmaini-* only occurs in Y 10.18, where it relates to *vacah-* ‘word’, standing beside *vārəθrayni-*: *ime hənti aršuxda vācō dāsmainiš vārəθrayniš* ‘these are the rightly spoken words, accompanying the offering, victorious’. The translation of *dāsmaini-* was suggested to Kellens (1974a: 323) by Klingenschmitt, who connects Skt. *dās-* ‘to make an offering’: the IIr. stem **dāc-* is probably preserved in Av. *°dāšta-* ‘granting’ (see Hintze 1994: 279 for the compounds in *°dāšta-*). Unfortunately, in order to assume VD we must posit an intermediate stage **daćman-* which is not attested: Avestan only has *dasma-* ‘offering’. Since nouns in *-man* are mostly derived from the full grade of the root, or in any case they are closely connected with the verb forms, it cannot be excluded that *dāsmaini-* is based on a noun **dāc-man-*. In that case, Y 10.18 *dāsmaini-* can be analyzed as an (irregular) *i*-stem derivative to an *n*-stem, which was motivated by its use in the same context as *vārəθrayni-*.

The two remaining stems *sāuuahi-* ‘of the morning’ and *hāuuani-* ‘related to the (haoma) pressing’ are mainly found in the recent, liturgical parts of YAv.: Y 1.3, 2.3, 18, 3.5, 4.8, 27.12 and their quotations. In these texts, the two VD function as adjectives to *ratu-* ‘fixed part of the (ritual) day’. *Hāuuani-* is also found in Y 9.1 (*hāuuaniīm ā ratūm*) and in the N, where it

refers to *gāθā-* (N 47), viz. ‘the morning *gāthās*’. Since *hāuuani-* complies with the formation of the *i*-stem VD (viz. to an *a*-stem *hāuuana-*) whereas *sāuuahi-* is based on an *ah*-stem, and since *hāuuani-* is found in more passages than *sāuuahi-*, the odds are that *hāuuani-* is the older form of the two, and that *sāuuahi-* was formed on the basis of *hāuuani-*. *Hāuuani-* itself is not necessarily much older, and it is uncertain whether we must regard its *-ā-* as the result of VD. In Avestan, we also find the stems *hāuuana-* ‘pond’ (beside *hauuana-* ‘id.’) and *hāuuanan-* ‘the priest who presses the haoma’ with lengthened grade of the root Ir. **sau(H)-* (cf. EWAia II: 713). Thus, it is possible that *hāuuani-* was created within Avestan as an *i*-stem derivative directly to *hāuuana-*.

It is probable that the superlative *pāθmainiiō.təma-* ‘most providing for the flight’ (Y 9.16) was built on a VD **pāθmani-* ‘providing for the flight’, just like *vārəθrayniō.təma-* ‘most victorious’ will be the superlative of *vārəθrayni-* ‘victorious’⁵⁹. Once again, the context of this VD is similar to the passages in which *āhūiri-* and *vārəθrayni-* occur: *haomō ... urunaēca pāθmainiiō.təmō* ‘Haoma ... (is) the most providing for the flight of the soul’. A form **pāθmani-* may also be hidden behind Yt 16.1 *hupaθmainiia-* ‘of good flight’, if Humbach 1991 II: 178 is correct in assuming original **hupaθmainiia-*: *razištəm cistəm hupaθmainiīəm* ‘the straightest insight which is of good flight’. We must then assume shortening from **hu-pāθmanīām*. Of course, we cannot exclude the possibility of a stem **hu-paθman-iHā-*, with no lengthened grade. The basis for this adj. is preserved in Y 46.4: *paθman-hucistōiš* ‘the flight of good insight’.

In Old Persian, the only certain *i*-stem derivative is the month name *bāgayādi-*, which presupposes a feast **baga-yāda*⁶⁰ ‘worship of the gods’, cf. Eilers 1953: 43, who follows an earlier suggestion by Marquart. The month *θāigraci-* has been explained by Justi as ‘month of the gathering of

⁵⁹ Compare e.g. V 9.27 *imq vacō yōi aṅhən vārəθrayniō.təməmca baēšaziiō.təməmca* ‘these words which are most the victorious and the most curing’ with Yt 13.20ff. *aθa imqəm vacō framuiiā vārəθrayniš* ‘then you shall pronounce these victorious words’.

⁶⁰ The noun **yāda-* also seems the probable origin of MP *z’m’y’d*, Pāzand *zamiāt*, the name of the 28th day of the month and of Yašt 19.1-8: **zām-yāda-* resp. **zam-yāda-* ‘worship of the earth’. This explanation is phonetically straightforward, unlike the etymologies of *z(’)my’d* as **zām yazata* ‘deity of the earth’ (proposed by Pirart 1992b: 6 and Hintze 1994: 47) or as **zam huδād* ‘munificent earth’, an adaptation of Avestan *zəm- huδāh-* (proposed by Humbach-Ichaporria 1998: 14).

garlic’ (cf. Eilers 1953: 43 with references) to a stem **θigra-* ‘garlic’; cf. MoP *sīr-sūr* ‘garlic feast’. However, the OP spelling *θ-a-i-g-r-č-i-š* might just indicate a normal diphthong /ai/ rather than /āi/, as Eilers remarks.

In conclusion, the Iranian evidence suggests that *i*-stem VD were especially used for names: in Avestan *āhūiri-* and *vārəθrayni-*, and in OP *bāgayādi-*. In fact, the apparent spread of the *i*-stem derivatives among the Avestan liturgical vocabulary may have been supported by the frequent occurrence of the stem *zaraθuštri-* (already OAv.), a patronymic to *zaraθuštra-*. *Zaraθuštri-* lacks lengthened grade vocalism in the initial syllable, just like the other Avestan *i*-stems which are pure patronymics, e.g. *daβramaēši-* ‘having dark sheep’, *pərəθuuaršti-* ‘having a broad shaft’, or *siiāuuaspi-* ‘having black horses’ to **sīāuaspā-*.

The use of *i*-stem derivatives as patronymics dates back to Indo-Iranian, cf. Wackernagel-Debrunner 1954: 301ff. In Skt., these stems additionally take the lengthened grade of the initial syllable. In the oldest text layer of Skt., viz. the RV, we find eight *i*-stem VD with lengthened grade in the first syllable. Apart from *sārathi-* ‘charioteer’ to *sarātha-* ‘travelling on the same chariot’, these stems are all patronymics derived from personal names: *āgniveši-* to *Agniveśa-* (ep.), *Paúrukutsi-* to *Purukútsa-* (RV), *Prátardani-* to *Pratardana-* (KS), *Pláyogi-* to *Playoga-* (Sāyaṇa), *Vaidadaśvi-* to **vidád-aśva-*, *Sāmvarāni-* to *Samváraṇa-* (RV), *Sávarni-* to *sávarṇa-* (RV) ‘having the same colour’.

We may reconstruct for Indo-Iranian a class of *i*-stem derivatives which were used especially for the formation of patronymics. Subsequently, they were also used for other names, such as the months of the calendar (OP) and adherence to deities. Although such derivatives were originally not accompanied by vowel upgrading in the first syllable (cf. the Avestan patronymics), there must have existed a core of *i*-stem derivatives in Indo-Iranian in which the vowel pattern of *a* → *ā* in the initial syllable already existed. The question, in exactly which forms this vowel-upgrading started, is very difficult to answer; in any case, it falls outside the scope of our investigation.

§ 3.7.2.3 Other formations

There are very few remaining instances of VD in Avestan which are certain. Even where the derivational relationship seems clear, it is often possible to suspect that *ā* in the initial syllable is due to a recent phonetic lengthening, or to the influence of other forms from the paradigm. The suffix

which is found most often in these isolated cases of VD is Iir. *-iHa-, the suffix of appurtenance.

The most likely VD are the following names:

- *xštāuuāēniia-* (Yt 13.111), probably a patronymic to *xštāuui-*.
- *frāšaoštraiana-*⁶¹ (Yt 13.104), a patronymic to the name *frāšaoštra-*. Since *fra^o is often lengthened in longer words (see § 3.4.2.1 above), *frā^o* might be ascribed to phonetic lengthening, but such lengthening usually takes place in front of a (sequence of) short vowel(s), which is not the case here.
- *nāḡhaiθiia-*, name of a demon, cognate with Skt. *Nāsatya-*. The Iir. comparison suggests that the name was formed already in Iir. Following the suggestion of several scholars that Iir. **nāsatīa-* may be connected with the Skt. root *nas-* ‘to unite’, EWAia II: 39 proposes to analyze **nāsatīa-* as a VD meaning ‘zur Heimkehr gehörig’, derived from an abstract noun **nas-atī-* ‘Heimkehr’.

We find three adjectives which have a lengthened grade vowel. Two of them have the suffix *-iia-*:

- YAv. *ārštīia-* ‘of a spear’ is a hapax which occurs in the cpd. *ārštīiō.barəz-* ‘of the height of a spear’ (Y 9.11 = Yt 19.40). Since it is attested in two different texts, it is less likely that initial *ā-* is due to a recent phonetic lengthening of **a-* in front of *-rC-* (see § 3.4.3 above).
- *xqniia-* (Y 68.6, Yt 8.41) ‘from a spring’ belongs to the root noun *xā-* ‘spring’ (nom.sg. *xā*, gen.pl. *xqm*). Since this noun is probably derived from the Iir. root **kHanH-* ‘to dig’ (Skt. *khanⁱ⁻*)⁶², the derived adj. may originally have been **kHanH-iHa-* ‘of a spring’ > **xaniīa-*. The lengthened grade may be due to the identity as VD, but it may have been supported by the long vowel which must have been present in the nom.sg. **kHānH* of the noun.
- *hqmina-* ‘of the summer’ has been derived from *ham-* ‘summer’ by means of the suffix *-ina-*, which we also find in the daily periods *uzaiieirina-*, *ušahina-* and *rapiθβina-*, none of which shows lengthened grade vocalism. If one does not wish to explain **hām^o* from *vrddhi*, one might consider that *ā* was adopted from the paradigm of *ham-*: besides the attested forms ins.sg. *hama* and gen.sg. *hamō*, a nom.sg. **hām(i)* < **sāmH* does not seem impossible.

⁶¹ Thus IrKA against F1.J10 *fra^o*.

⁶² This etymology is rejected by EWAia I: 451, but it is difficult to regard *xqniia-* simply as an «erweiterte Bildung» to a root noun **k^haH-*. MP *xān* may also contain original **-n-*.

A less certain, but not completely impossible VD is the following form:

- *ārəzuuā* ‘correctness’. For this word, an Ilr. etymology **ārjua-* ‘rightness’ has been suggested, viz. as a VD to Ilr. **rju-* ‘right’ (Av. *ərəzu-*), e.g. by Wackernagel-Debrunner 1954: 128 and Darms 1978: 105. However, the Skt. comparandum *ārjava-* ‘rectitude’ is only attested from the Chāndogya Upaniṣad onwards, so that it may be an inner-Indic formation which does not support *ārəzuuā*.

In Old Persian, we find three relatively certain *a*-stem VDs, two of which have the suffix *-iya-*; the third one is derived from a name.

- *xšāyaθiya-* ‘royal’ → ‘king’ from a probable basis **xšay-aθa-* ‘rule’, according to Brandenstein-Mayrhofer 1964: 126. Hoffmann 1976: 637 has compared the Skt. derivatives in *-athiyā-* to stems in *-atha-*, suggesting that this type of derivation goes back to Ilr.
- Possibly, a word **dāraniya-* ‘golden’ → ‘object made of gold’ is preserved in OP *dāraniya-kara-* ‘goldsmith’, the *-ā-* of which would otherwise be difficult to explain.
- OP *mārgava-* ‘related or belonging to *Margu-*, Margian’.

The following five forms have sometimes been interpreted as VD containing *-ā-* in initial syllable, but none of these cases is convincing:

- *ānušhaxš* (OAv.) ‘one after the other’ is the nom.sg. of *ānušhak-*, which matches Skt. *ānuṣák* ‘in continuous order, one after the other’. Since there is a verb *anu-šac-* ‘to follow, accompany’, the appearance of *ānu°* in a nominal derivative might suggest a VD. However, semantically there seems to be no derivational relationship between *anu-šac-* ‘to follow’ and Ilr. **ānu-šak-* ‘following’; furthermore, there is no derivational suffix in the latter stem. Accordingly, **ānu°* may be old and inherited. This is supported by the fact that *ānu(°)* appears more often without extra suffix than any other of the VD to preverbs: *ānūkám* ‘one after the other’ < **ānu-Hk^w-á-*, *anānukṛtyá-* (to **anukṛtya-*). Wackernagel (1953: 1314ff.) has suggested that Ilr. **anu* ‘along’ vs. **ānu°*, Skt. *anānu°* may be compared with the co-occurrence within Germanic of **enu* and **ēnu*, e.g. Got. *inu* versus OHG *ānu* ‘ohne’; thus also Pokorny 1959: 318. However, the productivity of long vowel derivatives in Germanic, and the lack of any other Indo-European reflex of **ēnu*, renders this solution uncertain. A different approach would be to assume an ablaut **enu* : **onu*; the latter variant would yield Ilr. **ānu* via Brugmann’s Law. However, there are no certain reflexes of **onu* in any of the other IE languages.
- *janī-* ‘wife’ (?) is a hapax in V 7.59: *θrišūm aētaēšqm axtinqm janaiiō* [†]*drənjaiiei(n)ti* ‘one third of those pains the *janis* recite / consolidate’. It has

sometimes been argued that *jāni-* may be a VD to *jani-* ‘woman’, but this assumption can be supported nor refuted by means of the context. The meaning of the phrase quoted here is uncertain, as is its function in the context (cf. Bartholomae 1904: 608, 772). Therefore, *jāni-* is best left out of consideration.

- *pāšnā-* (n./f.) ‘heel’ < **pāršnā-*. The cognate form in Skt. is *pārṣṇi-*, which has been explained as a VD **pārṣni-* to earlier **paršnā-*, which would be the expected cognate of Gr. *ptérnē*, Got. *fairzna*, etc. ‘heel’ < PIE **persneh₂*; thus e.g. EWAia II: 124. However, one may ask what a VD of ‘heel’ would mean. The most obvious derivative would be a collective, ‘the heels, both heels’, like Skt. *pārśva-* ‘Rippengegend’ to *pārśu-* ‘rib’. But since *pārṣni-* and *pāšnā-* are used in the dual as ‘both heels’ in Skt. and in Av., a collective meaning seems unlikely. The other Indo-European languages show no (certain) traces of a lengthened grade vowel, e.g. Lat. *perna*, Gr. *ptérnē*, Goth. *fairzna*. This renders it conceivable that the long vowel of Iir. **pāršna/i-* is due to an inner-Iir. analogy with another word in *-ā-*; in the case of ‘heel’, one would think especially of Iir. **pāds*, **pādam* ‘foot’.

- Humbach 1957: 40 has suggested that the adj. *zaiiana-* ‘of the winter’ corresponds etymologically to Skt. (AV+) *hāyaná-* ‘yearly’; the Avestan word would have undergone shortening of **ā* in front of *-ii-*. Yet the word for ‘winter’ is Avestan *zaiian-* (nom.sg. *zaiia*, ins.sg. *zaēna*), so that the adj. *zaiiana-* may be a simple derivative in *-a-* without vṛddhi (cf. EWAia II: 814).

- The OP month name *Θūravāhara-* may contain an adj. **vāhara-* ‘belonging to the spring’ → ‘spring-feast’(?), to be compared with Skt. *vāsará-* ‘morgendlich leuchtend’ to *vasar^o* ‘morning’. However, this is uncertain since the explanation of the first member *θūra-* is not agreed on (cf. Eilers 1953: 45).

§ 3.7.3 Analogical ā in isolated forms

IN INITIAL SYLLABLE

The frequent word *ārmaiti-* ‘good thought, piety’ < **ara-mati-* ‘having a fitting thought’⁶³ is cognate with Skt. *arámati-* ‘readiness to serve’, and in

⁶³ The compound *arəm.maiti* in P 24 (next to *arəm.ūxti* and *arəm.varšti*) has retained the original length of *ar^o* and the tetrasyllabicity.

the metre of the Gāthās, *ārmaiti-* still counts as */aramati-/*. In YAv., *ārmaiti-* usually combines with *spənta-*. This combination must have been common in Iranian, and the PIr. expression **śuanta aramati* was apparently deified at an early stage. Strikingly, all Iranian languages show a long vowel in the name of the deity (earth): Sogd. Letters *'spnt'rmt* 'month name', Manichean Sogd. *spnd'rmt* 'earth-god', MoP *isfandārmud* 'month name', Khwar. *'sbnđ'rmd* 'earth', Khot. *śśandrāmata* 'Buddhist *devatā*-deity'. It seems that **śuanta aramati-* contracted to **spantāramati-* in most Iranian dialects. As **spanta-* was still a living adjective, it became possible to metanalyze the second part of the compound as a noun **āramati-*, and this has probably happened in (Young-)Avestan. As a result, the word *ārmaiti-* of the texts may correspond to a real **āramati-* in spoken YAv. The OAv. form can be tentatively explained from the replacement of **aramati-* by **āramati* by YAv. speakers.

The verbal adjective of *taš-* (Skt. *taṣṭá-*) is attested as *tašta-* once in OAv. (Y 49.9 *taštō*), and in the YAv. substantive *tašta-* 'cup' (used in the *haoma*-ritual); the abstract noun **tašti-* (Skt. *taṣṭi-*) is preserved in *vacastašti-* 'speech-construction' = 'stanza'. In YAv., the verbal adj. is *tāšta-* 'made', which has probably replaced **tašta-* because of the long vowel in the present, Av. ind. *tāšti*, inj. *tāšt*. The adj. occurs in the simplex *tāštəm*, in *hutāšta-* 'well-formed', in *mainiiu.tāšta-* and *mainiiu.hqm.tāšta-*. In some forms of *hutāšta-*, many mss. spell *hutašta-*, but usually some of the good mss. preserve *hutāšta-*⁶⁴. This is especially clear in the KA tradition, where in nearly each case the good IrKA mss. and often also J10 have *hutāšta-* as against *hutašta-* in F1 and in other Indian mss. Yt 10.143 *hqm.taštəm* relies on the two mss. F1 and J10, so that an error for **hqm.tāštəm* may easily have occurred.

The numeral *θrāiiō* 'three' has been a matter of dispute, since the expected form is *†θrāiiō*, cf. Skt. *trayah*. Emmerick 1992: 294 confirms that the forms of 'three' in Middle and Modern Iranian languages are ambiguous as to the length of the initial vowel in **θrājah*. In Avestan, *θrāiiō* must represent a linguistically real form in **θrā^o* because of the shortening observed in *θraiiasca*: if *θrāiiō* were due to a more recent lengthening, we would certainly expect *†θrāiiasca*. In addition, Gershevitch 1959: 209 claims that the noun *θrāiiuuan-* 'name of a priest' stems from **θrāia-uan-*

⁶⁴ Long vowel in *hutaštəm*: Y 2.6, 6.5, 17.5 Mf1.2 *ā*; Yt 2.10 K36.J10 *ā*, K12 *ā̄*; G 4.10 Mf3.E1.K12 *ā*; S 2.20 E1.M12 *ā*, J10 *ā̄*; A 1.9 F2.K36.Mb2.M12 *ā*; Yt 14.7,9,44 *hutaštō* K38.J10.M12 *ā*.

‘attending a triad’, i.e. a period of three years of study. The noun *θrāīiauuuan-* would contain a noun *θrāīia-* ‘triad’ from **θrāīa-* ‘triple’, cf. Skt. *trayá-* ‘triple’. This latter relation would be exactly parallel to that between Av. *θrāīiō* ‘three’ and Skt. *trayah*. If Avestan indeed possessed the numeral **θrāīah* ‘three’, the most obvious source for *-ā-* seems to be analogy with the long pre-desinential vowel in PAv. **caθuārah* ‘four’.

The adjective *vairīia.stārəm* ‘more preferable’ (Yt 10.100) is clearly a comparative to the adj. *vairīia* ‘preferable’ (threesyllabic in OAv.), but the expected comparative of such a thematic stem would be **varīa-tara-*. Therefore, **varījastāra-* must be a recent formation, which adopted the suffix form **-stara-* from stems in dentals (*amauuastara-*) or **-s* (*aš.aojastara-*). This fact renders it possible that the composers also gave the suffix an analogical long vowel *-tāra-* instead of *-tara-*, on the model of the vacillation *ar/ār* occurring in *ar-*stems such as *dātar-* ‘giver’, and pronominal adj. such as *katāra-* ‘which of both’.

The dat.abl.pl. *vāγžibiīō* (7x) replaces **vagbīah* by means of the analogical introduction of the nom.sg. form *vāxš* → **vāxšbīah*; cf. Bartholomae 1904: 1335 and Kuiper 1967: 118. The short vowel is assumed to have been preserved in Yt 10.88 *vāγžibiīō*, but although F1+ spell *vāγžəbiīō*, J10 spells *vāγžibiīō*. It thus seems that *vāγžibiīō* is the original form⁶⁵.

The comparison of the superlative *stāuuīšta-* (Yt 17.59) ‘strongest’ with Skt. *sthāviṣṭha-* suggests that the vowel of the first syllable was phonetically lengthened in the transmission of Avestan. But it is possible that *-ā-* was copied from other superlatives, such as *āsišta-* ‘fastest’, *dāhišta-* ‘most generous’, *vāzišta-* ‘best’ (Skt. *vāhiṣṭha-*), *nqmišta-* to *namra-*, *hāiḍišta-* (Skt. *sādhiṣṭha-*), and especially *dāirišta-* ‘strongest’, which is quite close to *stāuuīšta-* in meaning.

The root *sar-* ‘to unite’ (cf. the root noun *sar-* ‘union’) is generally derived from Ir. **carH-* ‘to mix’ (Skt. *āśir-* ‘the milk which is mixed with soma’, *āśirta-* ‘mixed’). Its (only Old) Av. verbal stems present an unexpected long vowel, viz. the present *sāra-* (3p. ind.med. *sārəntē*, ptc.med. *sārəmma-*) and the *s-*aorist *sārəš-* (3s. inj.med. *sārəštā*). Although the following cluster *-ršt-* might have caused a recent vowel change in *sārəštā*

⁶⁵ With a short vowel nom.sg. **vaxš* we find ins.pl. *vāγžibiš* (once, in N67 ‘with the six texts’) and dat.abl.du. *vāγžibiīaca* (Vr 14.1ff., ExtrW 5).

(cf. *dōrəšt* from **daršt* § 24.1.3), the forms *sārəntē* and *sārəmna-* lack an obvious phonetic explanation: compare the retention of *a* in *sarədanā*, *sarədiia-* and *sarəjan-*. The explanation by means of Middle-Iranian influence, which was proposed by Kuiper 1939: 43f. is impossible to prove (cf. Kellens 1984: 116), and in fact unlikely. Maybe, then, all three forms contain etymological **sār-*. The vowel *ā* must be due to some kind of analogy, but the number of possibilities is too large to venture into speculation.

The *s*-aorist *nāš-* < **nāčš-* (Skt. *nākṣat*) to the root *nas-* ‘to reach’ (for a discussion of the attestations cf. Kellens 1984: 368f.) presents an unexpected long vowel in all its forms: OAv. 1p.subj. *°nāšāmā*, inf. *°nāšē*, YAv. 1p.opt. *nāšīma*, ptc. (them.) *nāšəmna-*. Kellens 1974a: 294 has suggested that *ā* may be due to a phonetic lengthening of **nakš-* > *nāš-*, i.e. a compensatory lengthening for the loss of **k*; as Kellens admits, this is hard to prove or disprove. Alternatively an analogical origin of *ā* seems possible. In 1974a: 294, Kellens points to the unexpected long vowel of the root noun *nas-* in its loc.pl. OAv. *nāšū*, and in 1984: 355, he adds the ill-explained 3p.prs.ind. *aīβi.nāšənti* and the compounds *ašanāsa-*, *ahu.nāsa-* and *vahišta.nāsa-*. Hence it is conceivable that long *ā* has spread in this root from a smaller nucleus, so that the aorist forms are uncertain evidence.

IN NON-INITIAL SYLLABLE

The 3d. pf.ind.act. forms Y 13.4 *vaocātarə* and *vāuuəərəzātarə* display an ending *-ātarə* instead of **-atar*; they have probably adopted the suffix vowel *-ā-* of the athematic 3d.ind.med. *-āite*, which is also attested in Y 13.4 *mamnāitē*, and in the ipv. *-ātəm*. The fact that Y 13 is a conscious attempt at gathicizing a YAv. text may also have played a role: YAv. *-atarə* may have been replaced by (pseudo)OAv. *-ātarə* on the model of e.g. OAv. *buiāmā* against YAv. *buiama*.

Another set of forms with linguistically real **ā* are the pronominal adj. *katāra-* ‘who of them both?’ (Skt. *katará-*) and *yatāra-* ‘which of both’ (*yatará-*). The suffix form **-tāra-* is confirmed by other Iranian languages: Phl. *kt’r* ‘who, which’, BSogd. *kt’r* ‘which’, etc.

The numerals *haptāiti-* ‘70’ and *aštāiti-* ‘80’ contrast with Skt. *saptatī-* and *aṣṭītī-*, but agree with the other Iranian languages, all showing an ending **-āti-* in the numerals ‘70’ and ‘80’ (cf. Emmerick 1992: 310). The vowel *-ī-* in Sanskrit *aṣṭītī-* points to Iir. **HačtHti* ‘80’, which means that Iranian must

have replaced **HaćtH-ti* by **HaćtaH-ti*, introducing the form of the cardinal ‘8’; from ‘80’, **-āti-* will have spread to ‘70’ (Bartholomae 1894-5: 112).

§ 3.8 Uncertain etymology

The following words have been excluded from the evidence in the preceding subsections because their etymology is unclear.

With a sequence *-Ciiā-* we find *nmāniiāitī-*⁶⁶ (G 5.5), OAv. *viiānā-* ‘attentiveness’ (?), *viiāne*⁶⁷ (Yt 10.64), *viiānīs*⁶⁸ (Yt 10.64, P 30), *viiāmbura-*⁶⁹ (Yt 14.54ff.) ‘certain class of daevis priests’, the place-name *zainiiāuuara-*⁷⁰ (Yt 9.30) and the personal names *ainiiāuuā-*⁷¹ (Yt 13.122f.) and *airiiāuuā-*⁷² (Yt 13.131).

A number of YAv. words are only attested with *vā-* or *-uuā-*. Since the etymology is unknown, *-ā-* could in theory be the result of lengthening in **va-* or **-uuā-*. I only present the forms which are attested once, since a double attestation reduces the chance that we are dealing with the sporadic lengthening after labial glides. The forms included are *uruuāxra-* (Yt 19.69) ‘heat’, *uruuāðra-*⁷³ (Yt 8.47) ‘dripping’ (?), *x^vārəmna-* (Y 32.8) ‘?’ (cf. Kellens 1984: 113), *duuācina* (Yt 10.84), *framrauuātō* (FrW 9.1; maybe 3d. **mruuātō*), **vīzūuāiriñtām* (V 8.10), *huuāpī-* (V 5.19), the name of a mythical

⁶⁶ Maybe **nmāniiuuaiti*, according to Bartholomae 1904: 1094.

⁶⁷ Inf. *vi + yāna-* ?

⁶⁸ JamaspAsa-Humbach 1971: 47 suggest that it may be the 2s.prs.opt. ‘you shall take respite’ of an athematic verb *vi-an-* ‘to breathe out’, but this remains uncertain.

⁶⁹ It is uncertain whether *viiāmbura-* was really the form of the archetype. The sequence *-āmb-* cannot be original, since **-āmb-* would be reflected as Avestan †*-āmb-*. When we look at the v.ll., it appears that *viiāmbura-* is not a certified reading: F1+ *viiāmb*^o, replaced by *viiqm.bura* in L18.P13 · *viiāma*^o, *viiāmē*^o J10 and Jm4.

⁷⁰ V.ll. F1.E1.K12.M12 *zainiiāuuaraṭ* · J10 *ziziiāuuaraṭ*. Bartholomae 1904: 1662 argues «wohl *zaini*^o + *ā-vara-*».

⁷¹ V.ll. F1.J10 *ainiiāuuāhe* · Mf3.K13.14.38.H5 *ainiiāuuāhe*; *-uuā-* seems the lectio facilior, based on *frauuāšīm*.

⁷² V.ll.: F1.Pt1.J10 *airiiāuuāhe*, E1 *auuāhe* · Mf3.K13.38 *auuāhe*. *-uuā-* seems the lectio facilior in view of the frequent form *frauuāšīm* in this part of Yt 13.

⁷³ V.ll. F1+.K12 *uruuāð*^o · J10 *uruuāð*^o.

tree, the mountain name *uruniiō.vāiḍimiḍkā-* (Yt 19.5) and the PN *kauuārasman-* (Yt 13.103) and *vāgəərəza-* (Yt 13.115).

We find *ā* in initial syllable in *āfša-*⁷⁴ acc.pl. ‘damage’, *āiiapta-*⁷⁵ ‘benefit’ (shortened to *aiiapta-* in the less trustworthy mss. of Yt 8 and P 49, cf. § 4.3), *ākā-* ‘visible, open’, *ātara-* ‘evil one’, *ādu-* ‘?’ (cf. Kellens 1974a: 328), *āri-* ‘?’ (Y 51), *āžu-* ‘?’ (Y 53.7), *uruuāsnā-* ‘kind of plant’ (V 8.2, 18.71), *grāfe* ‘?’ (Yt 15.52), *dādrājōiš* ‘?’ (E 14, corrupt), *dānaiiana-* ‘son of *Dāna or *Dāni’ (Yt 19.41), *dāzgra-* ‘?’ (probably a colour), *pāzaṇuhntəm* ‘?’ (F 721), *frāšmi-* ‘?’ (Yt 8.33), (*hū*) *frāšmō.dāiti-* ‘sunset’, *bāše* ‘?’ (Yt 15.52), *nāršni* ‘?’ (A 3.13), *māzaniia-* ‘Māzanyan’, *vāθman-* (E 17), *rāma-* ‘fury’ (Y 49.4; cf. Humbach 1991: II 208), *zāuuīši* ‘?’ (V 19.6), *hāuuīšta-* ‘novice, fellow student’, *hāirišī-* ‘woman’, the diseases *dāžu-* (V 20.3ff.), *sārana-* V 20.3ff., *sārasti-* (Yt 13.131, V 7.57), *sārastii-* (V 20.3ff.), and the PN *āxrūra-* (Yt 13.137), *cāxšni-* (Yt 13.114), *drāθa-* (Yt 13.109), *paiti.drāθa-* (Yt 13.109), *pāzinah-* (Yt 13.117), *vāgəərəza-* (Yt 13.115), *sāiiuždri-* (Yt 5.72) and *snāuuīḍka-* (Yt 19.43).

We find *ā* in non-initial syllable in *aiiažāna* (V 14.10), *apāiθiš* ‘?’ (V 4.54f.), *ažiuuāka-* (V 20.3ff.), *anāiritibiiasca* or *anāraitibiiasca* (V 14.17), *ašxrāx’anutāma-* (Vr 3.5, Y 13.3), *uruuāxra-* ‘heat’ (Yt 19.69), *uzrāfaiiaṭ* (VPTr. 18.51f.), *parāta-* (Yt 13.96), *frazdānaom* (Yt 5.108, F 273), 3s.opt. *vādāiiōiṭ* and the PN *usnāka-* (Yt 13.117), *vanāra-* (Yt 13.10) and *varakasāna-* (Yt 13.113).

§ 3.9 Summary

We may now summarize the forms which present certain or possible evidence for the various phonetic lengthenings of *Ir*. **a > ā* which we have distinguished in Avestan. For every development, a short account of the phonetic causes will be given and, if possible, the conclusions which they yield for the relative chronology of sound changes.

⁷⁴ V.II. V 13.10 L4.K1a *afšē*, Pt2 *āfšē* · Jp1.Mf2 *aβšē* · L1.2.Br1.K10 *āfšē*; V 13.11 L4 *afšē*, Pt2 *āfšē*, K1a *āfšē* · Jp1.Mf2 *aβšē* · L1.2.M2.Br1 *āfšē*.

⁷⁵ For a survey of the various etymologies which have been proposed for this word, none of which carries conviction, see Hintze 2000: 76.

1. Post-YAv. *iā > iā:

1a. After a preverb

Certain/probable:

<i>aiβiiāuuah-</i>	<i>upairi āiia zəmā</i>
<i>aiβiiāxšaiia-</i>	⁺ <i>biiāršānō</i>
<i>aiβiiāxštar-</i>	<i>niāsa-</i>
<i>aiβiiāma-</i>	<i>niāza-</i>
<i>aiβiiāmatəma-</i>	<i>viiāxti-</i>
<i>aiβiiāsti</i>	<i>viiādarəsəm</i>
<i>huuuiβiiāsta-</i>	⁺ <i>viiārəθa-</i>
<i>paitiiārəna-</i>	⁺ <i>viiārəθiia-</i>
<i>paiti āiia zəmā</i>	⁺ <i>viiāršauuañt-</i>

Uncertain:

<i>paitiiāmraoŋ</i>
<i>paitiiāra-</i>
<i>paitiiārōtəma-</i>

1b. The sequence *-riiāŋ haca*

Certain:

<i>barəθriiāŋ haca</i>	⁺ <i>skairiiāŋ haca</i>
<i>yaozdāθriiāŋ haca</i>	<i>hukairiiāŋ haca</i>

1c. Isolated cases

Certain:

<i>friiāna-</i>	<i>zairimiiāka-</i>
<i>vohu.friiāna-</i>	<i>tqθriiāuuuñt-</i>
<i>mašiiānəm(ca)</i>	<i>zairimiiāuuuñt-</i>
<i>mašiiāka-</i>	<i>zaraniiāuuuñt-</i>
<i>vaēθiiā.paiti-</i>	

Uncertain:

<i>āθβiiāni-</i>
<i>gaēθō.məṛəñciāna-</i>
<i>naotairiiāna-</i>

Phonetically, this change may be interpreted as compensatory lengthening for the loss of the vocalic character of [i]: **abí-ama-* > **abiáma-*, **ní-aza-* > *niáza-*. Chronologically, the lengthening must be dated after the shortening of **ā* in the antepenultimate syllable of a word ending in *-ca*, otherwise we would not get *-riiāŋ haca*. The lengthening probably took place after YAv. had become a dead language, because the correct forms of the second member were not restored in the compounds affected by the lengthening: *aiβiiāma-* is not restored to †*aiβi.ama-*. On the other hand, the presence of *auui.ama-* next to *aiβiiāma-* suggests that the lengthening was contemporary with or not much later than the RCS, because compounds which remained split (*auui.ama-*) are left unchanged.

It seems striking that all instances of (1c), the isolated cases, have lengthening of **a* in an open syllable. However, category (1b) and the majority of forms in (1a) have lengthening in a closed syllable, so that it may

simply be a coincidence that (1c) only has forms with an open syllable. These forms have lengthened **a* in front of the (secondary) suffix, and most of these suffixes have a single initial consonant.

2. Sporadic lengthening after *v-*, *-uu-*, *x^v-*, *h^uu-*:

	Archetype:	Post-archetype:	Uncertain:
OAv.	<i>uruuātōiš</i> <i>drəguuāitē</i> <i>həṇduuārəntā.</i>	<i>uruuātahiā</i>	<i>vīuuāpaṭ</i>
YAv.	<i>ni-uuāna-</i> <i>h^uuāpā</i> <i>vārəθman-</i>	<i>duuāra(-)</i> <i>hauruuātā</i> <i>? nairiiqm.hqm.vārətiuuant-</i> <i>? vāxəθrika-</i> <i>x^vāsta-</i> <i>h^uuāβiiāsta</i> <i>h^uuāspa-</i>	

The lengthening after labial glides took place especially in the initial syllable of the word. Its rise can partly be observed in process during the post-archetype period.

3. YAv. Lengthening in initial syllable in front of *š* < **rt*:

Certain:	Ambiguous:
<i>x^vāša-</i>	<i>ax^vāše</i>
<i>x^vāšar-</i>	<i>vāšaiia</i>
<i>bāšar-</i>	<i>θβāša-</i>
<i>vāša-</i>	

Phonetically, it is likely that this lengthening at least partly reflects a compensatory lengthening due to the simplification of the consonant cluster **hrt* > **hl* > *š*. The second condition, viz. the preceding labial consonant (cf. Hoffmann 1992: 846), also governs the regular lengthening of **i* > *ī* after labial glides (but not *b-*!) in open syllable, cf. § 6.2.3. Just like in that case, we notice that labial *m* does not cause lengthening: *māšiiā-*, not †*māšīiā-*, just like *miθah-*, not †*mīθah-*. The absence of lengthening in the form *frauuāši-* may be interpreted as evidence that the lengthening occurred only in initial syllable, pointing to the word-initial stress which seems to have prevailed at the later stages of the Avesta transmission. All three conditions would assign this lengthening to a relatively recent date in the chronology.

4. In initial syllable

The tendency to lengthen *a in initial syllable concurs with other tendencies in initial syllables.

4a. YAv. *-auiā- > -āuuīia-:

Certain:		Post-archetype:
<i>xšmāuuōīia</i>	<i>māuuaiiaciṭ</i>	<i>hāuuaiiāsə</i>
<i>xšmāuuīia</i>	<i>hāuuōīia</i>	
<i>gāuuaiianəmca</i>	<i>hāuuaiiaca</i>	
⁺ <i>gāuuīianəm</i>	<i>huuāuuōīia</i>	
<i>māuuōīia</i>	<i>āuuōīia</i>	
<i>māuuaiiaca</i>		

Phonetically, the lengthening of *a might be viewed as a dissimilation, since it only occurs if the next syllable contained the vowel *a*. Probably a strong stress on the first syllable caused the interpretation of *-auiā- as -āuuīia-.

Two developments can be used to date this lengthening. A first terminus post quem is the change of intervocalic *b > u, as shown e.g. by the heading of Y 29 *xšmāuuīia.gəuš.uruuā hāitiš*, an adaptation of the first three words of Y 29 *xšmaibiīā gəuš uruuā*. A second terminus post quem is the RCS: the superlative N 70 *haoiō.təma-* ‘most to the left’ shows that the replacement of **hauīatama-* by **hauīō.tama-* happened before **hauīa*° could turn into †*hāuuīia*°. The only terminus ante quem is the rise of an anaptyctic vowel between **u* and **i*. Comparison with the dat.sg.f. *hauuīiāi* < **hauīiāi* (to *hauua-* ‘own’), shows that a form such as *gāuu(a)ianəmca* must have lengthened the vowel before the rise of anaptyctic *a* between *uu* and *ii*.

5. In front of several short syllables

5a. Initial *fra- > frā° (mostly YAv.)

Certain:			Uncertain:
<i>frātaṭ.caiia-</i>	<i>frākəraṇtaṭ</i>	<i>frāxšnəna-</i>	<i>frāγmaṭ</i>
<i>frātaṭ.carəta-</i>	<i>frākəraṇaot</i>	<i>frāuuaočəm</i>	<i>frāciṭrahe</i>
⁺ <i>afrātaṭ.kušīš</i>	<i>frākərašta</i>	<i>frāuuaočō</i>	<i>frādadaḡm</i>
<i>frāīiatāiieīnti</i>	<i>frākəraīiti-</i>	<i>frāuuaoce</i>	<i>frādāīiti</i>
<i>frāīiatāiiaṭ</i>	<i>frāvβərəsa-</i>	<i>frāuuaočā</i>	<i>frāzūštəm</i>
<i>frānaiieīnti</i>	<i>frāvβaršta-</i>		<i>frānmāne</i>
<i>frānaiiata</i>	<i>frādərəsra-</i>		<i>frānāmāite</i>

Phonetically, the forms of the structure **fra-CāCaia-* almost certainly reflect lengthening of **fra* in the initial syllable of a word with several consecutive syllables in short *-a-*. The date of this change is impossible to establish. It seems conceivable that the consistent *frā°* in the paradigms of *kərəθ(ṅ)t-* and *θβərəsa-* is due to a similar tendency, viz. to avoid a sequence of several short vowel syllables.

For the other forms, it cannot be excluded that part of them is due to the analogical introduction of *frā°*. First of all, *frā-C-* will have been the regular reflex of **pra-HC-* in verbs with an original initial laryngeal; this *frā°* could then be adopted by other verbs. Furthermore, the preverb *frā* in isolation had a long vowel in YAv.; the forms *fra°* and *frā* thus occurring side by side, the replacement of **fra°* by *frā°* would have been trivial, and may have been applied at quite a recent date, even by the scribes of our mss.

5b. Isolated cases:

Certain:

<i>ātarəθra</i>	<i>kāuuaiiascī</i>	<i>pāraiiā-</i>	<i>yāsarṅha</i>
<i>kāiḍiiehe</i>	<i>kāuuaiieheca</i>	<i>pārəntara-</i>	<i>*həm.yāsaitē</i>
<i>kāiḍiiasca</i>	<i>xštāuuaiiō</i>	<i>yāsāiti</i>	<i>srāuuahiieitī</i>
<i>kāuuaiiascā</i>			
<i>vərəθrājanō</i>	<i>vərəθrājanəm</i>		

The fact that **a > ā* in initial syllable is attested both in OAv. and in YAv. already suggests that lengthening occurred in post-Avestan times, when OAv. and YAv. were transmitted together. Lengthening seems to happen especially in the initial syllable of a word of four or more syllables; this suggests that it is due to a strong stress on the first syllable, partly combined with a tendency to avoid a sequence of three or more short syllables.

Whereas the forms of *yāsa-* illustrate the influence of stress on the first syllable of the word, the occurrence of *kāuuaiieheca* beside *kauuāēm* (< **kauaija-*) shows that longer forms are more susceptible to lengthening. The forms *ātarəθra* and *pāraiiā-* show redistribution of quantities like we saw in *frāiitaiiā-* (5a above). The lengthening of **vrθrajanah, °am* to *vərəθrājanō, °əm* is included in this category because these are the only forms with lengthening in second syllable, under conditions which are closely similar to those of the other forms given here.

6. In disyllables:

Certain (OAv.):	Uncertain (OAv., YAv.):
<i>ārəm</i>	<i>ārəitīmca</i>
<i>ārəšuuā</i>	<i>āsənda-</i>
<i>ārəzuuā</i>	<i>āždiiāi</i>
	<i>yākarə</i>
	<i>zāiri-</i>

7. Lengthening in OAv. in front of *-ā*, *-āiš*, *-qm*:

a. After <i>-ii-</i>	b. After <i>-uu-</i> :	c. After other consonants:
<i>aniiāθā</i>	<i>uruuātā</i>	<i>mərəždātā</i>
<i>diiātqm</i>	<i>uruuātāiš</i>	<i>vərənātā</i>
<i>maniiātā</i>	<i>uruuāθā</i>	<i>hātqm</i>
<i>vīšiiātā</i>	<i>x^vənuuātā</i>	
	<i>drəguuātā</i>	
	<i>hauruuātā</i>	

§ 4 Avestan *ā > a

Shortening of Iir. *ā is partly due to phonetic developments, partly to analogical replacement of *ā by a. In the case of phonetic shortening, we may distinguish between linguistically real shortening in YAv., and later shortenings which took place during the period of text transmission. In some cases, it is difficult to distinguish between these alternatives.

The most consistent and probably linguistically real shortening takes place in the antepenultimate syllable of forms ending in enclitic *-ca* or *-ci̯* (§ 4.1). Here, shortening appears relatively often in *r*- and *n*-stems, and in the abl.sg. ending **-āi̯* when followed by *haca* ‘from’.

Other linguistically real shortenings are due to paradigmatic analogy among noun and verb categories. The different kinds of analogy are discussed in § 4.9 below.

Shortening which is more recent, and only of phonetic nature, is found in front of the consonants *-ii-* (discussed in § 4.3) and *-uu-* (§ 4.4), and in front of *-na-* (§ 4.5). These phenomena can be regarded as exceptions to the general rule that *ā is mostly preserved in these positions. Other, even more sporadic shortenings occur in the second syllable (§ 4.6), in anlaut (§ 4.7), and if *ā is followed by the vowel ā or a in the next syllable (§ 4.8).

No specific kind of OAv. shortening has been found (cf. Beekes 1988: 44f.). All OAv. forms which contain *a* < *ā (viz. *adāhū*, *apaiiaṅt-*, *apāna-*, *apaēmā*, *asišta-*, *auuaēnātā*, *daθrəm*, *daduiē*, *dəmanahiia*, *fradaθa-*, *kaiiā*, *nanā*, *sax^vārē*, *spitamāi*, *spitamā*, *spitamāṅhō*, *uštanəm*) have either shortening in antepenultimate syllable, shortening in front of ā in the next syllable, morphological shortening from YAv. (*kaiiā*) or must be due to a recent error (*aiθiṣcī̯* in some of the mss.). All of these shortenings have happened after the OAv. period.

§ 4.1 In words in *-ca* and *-ci̯*

It is a well-known fact that the addition of enclitic *-ca* to a given Avestan form causes various phonetic changes, cf. Hoffmann-Forsman 1996: 113. The present subsection is devoted to two such phenomena. The first of these is the shortening of *ā in an open antepenultimate syllable, if the word is followed

by *-ca* or *-ci̯*⁷⁶. We find shortening of *ā mainly in *r*- and *n*-stems, especially if the last two syllables are *-asca*, but also with final *-aca* and *-əmca*. The second change which belongs here is the shortening of the abl.sg. ending *-āi̯* in front of the postposition *haca*.

§ 4.1.1 Antepenultimate syllable of forms in *-cā* and *-cī̯*

There is no general shortening of *ā in antepenultimate syllable apart from the forms in *-ca* and *-ci̯*. In front of *-ca*, shortening in an open antepenultimate syllable is regular in *ar*-stem agent nouns, and in other nominals in which the sequences **-ārasca* and **-āramca* arose. The shortened forms are Yt 19.18 *dātarasca* ‘creators’ (as against Vr 11.12, Y 65.12 *dātārō*), *marəxštarasca* ‘formers’ (*marxštar-*), *θbarəxštarasca* ‘shapers’ (Y 42.2 *θβōrəštārā*), *aiβiiāxštarasca* ‘overseers’ (*aiβiiāxštar-*), *nipātarasca* ‘protectors’ (Yt 14.45 *apātāra*, *nipātāra*, 14.57 *nipātārəm*, *pātārəm*), *nišharətarasca* ‘guardians’ (Yt 14.45 *nišharətāra*) and Y 41.5 *staotarascā* (*staotārəm* Y 10.9, Yt 13.92, 17.12); Yt 19.7 *caθbarasca* ‘four’ (*caθbārō* 30x); YAv. *katarasci̯* (6x) and Yt 15.1 *katarəmcī̯* (*katāra-* ‘which of both’); V 2.40, Yt 12.25 *starasca* ‘stars’ (nom.pl. YAv. *stārō*). The only clear counterexample in this category is Yt 10.103 *aiβiiāxštārəmca*; but this word is immediately preceded by *harətārəm* in the text of Yt 10.103, from which it may have adopted *-ārəm-*.

In the *n*-stems, the forms *asanasca*, *masanaca*, *vaṇhanaca* and *mąθranascā* show shortening in antepenultimate position (cf. § 4.5 below). Of these four forms, only *mąθranascā* seems unmistakable evidence, since the three remaining words are matched by forms retaining *ā*, viz. OAv. *masānasca*, *vaṇhānasca* and Yt 10.136 *asānasca*. We furthermore find *ā preserved in V 6.27 *maidiiṇasci̯* and possibly in Yt 13.35 *viiānasca* (where *ā* may also be due to the preceding cluster *vii-*). Thus, the only sure evidence in *n*-stems is in front of *-asca*, and it is restricted to *mąθranasca* and a V attestation of *asanasca*.

An isolated noun showing shortening is *āp-* ‘water’, cf. Kellens 1974a: 371ff. The acc.sg. is regularly *āpəm* but *apəmca* (YAv. *passim*). A similar alternation can be observed between the gen.sg. *āpō* (Y 19.8, 65.5, Yt 1.21,

⁷⁶ The category ‘shortening of a long vowel in antepenultimate syllable’ is often considered to be larger than here assumed. Some of the forms which can be found in the literature are discussed as cases of shortening of *ā- in absolute anlaut (§ 4.7), as cases of the dissimilation *ā_ā > a_ā (§ 4.8), or as analogical shortenings (see § 4.9).

5.112) and *apasca* (YAv. *passim*), but since the IIr. form must have been **apás*, with short **a-*, Av. *apasca* is ambiguous: it may retain the original quantity. The hapax acc.sg. *vacimca* N 72, which has short *a* in contrast with usual *vācim*, is not necessarily the result of phonetic shortening: it may be due to recent analogy with the weak cases of *vac-* (gen.sg. *vacō* etc.).

The dat.pl.f. form **ābīah* of *a-* ‘this’ is attested as *ābīiō* without *-ca*, but as Y 53.5 *aibīiascā*, Yt 10.82 *aīβīiasca* and Yt 15.41 *aibīiascī*. Apparently, the existence of stem forms in **ah-* and **aḡh-* in the f.sg., and of *aē°* in the m.pl. of the same demonstrative paradigm, prevented the restoration of *ā°* in these dat.pl. forms.

An isolated case of shortening in a verb form is presented by V 4.47 and N 37 *aḍaēca uiti* ‘and thus is said’, which derives from **āḍai* ‘it is said’, which is probably attested in Yt 8.48 *āiḍe*; cf. Panaino 1990: 136f. for *āiḍe* and Kellens 1984: 42 for *aḍaēca*. As *aḍaēca* occurs in two different contexts in V 4.47 and N 37, it seems likely that its initial *a°* is indeed due to the shortening of **ā-* in **āḍai-ca*, rather than to a recent shortening of **ā-* in anlaut (as discussed in § 4.7).

We now turn to the less certain forms. Y 11.6 *dahakāca* may show the shortening — if this noun represents the same stem as the well-known *aži-dahāka-*; but in Yt 15.45, admittedly a late text, we find a nom.sg. *dahakə*, so that *dahakāca* may also represent **dahaka-*. Y 51.12 *caratascā* is uncertain; Humbach 1959 II: 90 has proposed to regard it as the abl.sg. of *carāt-* ‘walker, walk’. The form *sicidauuasca* in Yt 19.5 can be connected with MP *Sičidāw*, which suggested to Bartholomae 1904: 1580 an original stem **sicidāuua-*, with shortening in *sicidauuasca*. Yet the etymology is unknown, and the MP name does not necessarily go back to the same preform as the Avestan name. Y 32.16 *aiḍiščī* (of *āiḍi-* ‘danger’) is attested with *a°* in J2.K5, K37.Pd, J3, YS and InV, but original *āiḍiščī* is preserved in Pt4.Mf1 and Mf2.Jp1.K4. Therefore this shortening is too recent to be included here. Similarly H 2.35 *aiḍiuuaṇtəm* must be a ms. error for H 2.17 and Aog 28 *āiḍiuuaṇtəm*.

Kellens 1974a: 211 has suggested that Y 60.2 *viiādaibišca*, ins.pl. of *viiādā-* ‘repartition’, derives from an *ā-*stem ins.pl. **viiādābišca*. This may be questioned on philological grounds: it is not usual for the ending **-ābiš* to show *i*-epenthesis. We may alternatively interpret the sequence *-daib-* as original **-db-*, with anaptyxis and *i*-epenthesis as in OAv. *daibitā* < **dbitā*. The spelling *viiāt.biiasca*, shown by K11 (the only YS ms. adduced by Geldner), would be an expected YAv. reflex of an original form **viiādbišca*. There are more reasons to question the belief that this word, which is also

attested in P 39 and in Y 38.5, really is an *ā*-stem *viiādā*-. The text of P 39, where the noun occurs in the acc.pl., has *viiādasca*, which Kellens restores to **viiādāasca*. Yet *viiādasca* can be the regular acc.pl. of a consonant stem *viiād*-, which would fit into one paradigm together with an ins.pl. **viiādbišca*. The reason why it has been tempting to posit a stem *viiādā*- is the acc.pl.f. *paīti.viiādā* in Y 38.5, but this is an adj. and may simply be a thematic stem *paīti.viiāda*-, pace Narten 1986a: 245ff.

In spite of the clear-cut shortenings of **-ārasca* and **-ārasci*, penultimate **ā* is retained in most other words, and it is possible to interpret this as restoration for morphological reasons. The vowel *ā* is attested in open penultimate syllable in the 3s.med.subj. forms *fraḍātaēca* (Yt 13.68), *naḍātaēca* (Yt 13.66), *nāšātaēca* (Yt 19.12,90), *varəḍātaēca* (Yt 13.68) and *haošātaēca* (Yt 13.66), whereas no subj. form with a shortened vowel exists. The suffix *-tāt-* is left unchanged, viz. in OAv. *aməratātascā*, YAv. *arštātasca*, *arštātəmca*, *uštātātəmca* and *yauuaētātātaēca* (16x). In all the remaining forms, antepenultimate **ā* is part of the root: *aβždātəmca*, *aša.pātəmca*, *gāθāasca*, *caṅraṅhācasca*, *jāmāca* Yt 4.7, *θraotō.stātasca*, *θrātāca* (Yt 1.12), *dātāca* (Yt 1.12), *pairi-uuārasca* (Yt 1.19, 13.71), dat.sg. *frauuākaēca* (Vr 15.2), ins.sg. *frārāticā* (Y 58.4), *māṅhəmca*, *vātasca*, *vātəmca*, *vārəmca*, *rāḍəmca*, *rāzarəca*, *spānasca*, *spəntō.dātasca*, and *žnātāca* (Yt 1.12). The form *rāzarəca* (< **rāzarca*) can be contrasted with the only remaining isolated form which is consistently shortened, viz. the nom.acc.sg. *zauuarəca* (8x YAv.) as against *zāuuarə* (14x). As the root of *zāuuar*- ‘strength’ is not attested anywhere else in Avestan (in fact, its etymology is unknown), we may surmise that *zauuarəca* did not restore *-ā*- because the root was unknown, whereas *-ā*- was restored in *rāzarəca*.

There is one form in which shortening may have struck the syllable before the antepenultimate. The noun *haθrāniuuāiti*- (Yt 10.94,114, A 1.9, Vyt 25) indicates a ‘one-blow victory’, and is cognate with other nominal forms such as the adj. *haθra-uuanaṅt*- ‘winning in one blow’ and the n. noun *haθra-uuata*- ‘a victory in one blow’. Without *haθra*-, we find Y 10.16 nom.sg. *niuuāitiš* ‘victory’. Both *-uuata*- and *-uuāiti*- are formed from the zero-grade of the verb *van*- ‘to win’, apparently Ir. **-uṅta*- and **ni-uṅ-ti*-, so that the difference in root vocalism is problematic. The noun *haθrāniuuāiti*- is attested too frequently to make a recent corruption of **niuuaiti*- credible (along the lines of § 3.6), but it is also difficult to find a model for an analogical change **niūati*- ‘victory’ → **niūāti*-; compare pairs such as *man*- ‘to think’ : *maiti*-, *jan*- ‘to hit’ : *jaiti*-.

It seems that we must seriously consider a possible preform **ni-unH-ti-*. The verb **uan-* might at some stage have been replaced by **uanH-*⁷⁷, as happened in various Sanskrit forms of *van-* ‘to win’ too: des. *vívāsati*, nom.ag. *vánitar-* ‘owner’, ptc. *avātá-* ‘unattacked’. As was argued by Meissner (1993: 47), this replacement may have been prompted by analogy with the root **sanH-* ‘to gain’ rather than by analogy with **uanH-* ‘to love’. If we take the quantity of Av. *ni-uuāiti-* seriously, the analogy may already have affected (part of) the forms of **uan-* ‘to win’ in IIr. In that case, the actually occurring form of the noun *haθrauuata-*, viz. the gen.sg. *haθrauuataheca* (Yt 13.133, 15.1), can go back to **haθra-uātaheca*, with assimilation of **ā* to the surrounding syllables with *a*. Judging by RV *ávāta-*, we might argue that at least the nominal formations **untá-* ‘gained’ and **untí-* ‘victory’ had become set-forms **unHtá/i-* in IIr.

§ 4.1.2 Abl.sg. **-ā́t > -at*

The thematic abl.sg. ending *-ā́t* is shortened to *-at* in YAv. when it is followed by the postposition *haca* ‘from’. According to Hoffmann-Forssman 1996: 60, we can interpret the whole syntagm, e.g. *nmānaṭ haca* ‘from the house’, as a univerted group with one accent. Original **-ā́t* came to stand in antepenultimate syllable and was shortened: [*nmānāt*] but [*nmānāt haca*] > [*nmānat haca*]. First we will discuss the evidence of *haca*, and the various positions in which it does and does not cause shortening. Subsequently we will have a look at the postpositions *paiti*, *pairi* and *parō*, in order to put the behaviour of **-ā́t haca* in its proper perspective.

§ 4.1.2.1 Postposition *haca*

The following forms have abl.sg. *-at* instead of **-ā́t*:

- *airiīō.xšūṭat haca garōiṭ* (Yt 8.6,37) ‘from (mount) A.’ The etymology and form of the stem *airiīō.xšūṭa-* are uncertain; Panaino 1990: 127 prefers the reading *airiīō.šīṭa-*, which appears in F1+ in Yt 8.37. Theoretically, the stem

⁷⁷ The Av. reflex *van-* ‘to love’ is only attested in nominal derivatives, but not as a living verb. Maybe the merger of **uan-* ‘to win’ and **uanH-* ‘to love’ in a number of environments after the loss of laryngeals led to the loss of one of the two meanings of the resulting **van-*.

could also be athematic **airiiō.xšuvō-*, in which case it would be irrelevant here; however, a thematic compound seems more likely.

- *aoniiat̄ haca* (V 8.86,93) to *aoniia-* ‘oven’⁷⁸.
- *aparat̄ haca* (Vyt 29) to *apara-* ‘rear’.
- *apāxtarat̄ haca* (V 19.1, H 2.25, FrW 10.42) to *apāxtara-* ‘backward, northern’.
- *aṇuhiiat̄ haca* (YAv. passim), abl.sg. **aṇuiaiāt* of *aṇ^hhā-* ‘mind’.
- *aṇhat̄ haca* as an adverbial expression ‘in this way, therefore’ (V 13.38, 15.1ff.); the abl.sg.f. **ahiāt̄ haca* is a rare variant of the abl.sg.m/n. *ahmat̄ haca* which usually conveys this meaning. It probably refers to a f. noun, but it is unknown to which.
- *aṇhat̄ haca vīsat̄* (Y 60.3) ‘from this house’, with the abl.sg.f. **ahiāt̄* of the dem. *a-*; compare *haca ... aṇhāt̄ vīsat̄* in Y 57.14. In Y 60.3, most mss. have °*at̄* which is the lectio faciliior in view of *vīsat̄*. The ms. Jp1 and P11 have *a(i)ṇhāt̄*, which may in theory preserve the older form. But since *-āt̄* is also found elsewhere as a v.l. for abl.sg. *-at̄* (in consonant stems), I think that the archetype had **aṇhat̄* here.
- *ahmat̄ haca* in Y 10.7 *ahmat̄ haca nmānāt̄* ‘from this house’; compare *haca ahmāt̄ nmānāt̄* elsewhere.
- *ahmat̄ haca* as an adv. expression ‘in this way, therefore’ (Yt 19.2,34, V 13.37, 15.4ff., P 22, Nik 4,9, Vn 4x in the form *hamat̄ haca*), with the abl.sg.m/n. of *a-*.
- *ušastarat̄ haca* (V 19.5) to *ušastara-* ‘eastern’.
- *xumbaṭ̄ haca* (V 8.84,85) to *xumba-* ‘fire-pot’.
- *tanūraṭ̄ haca* (V 8.91) to *tanura-* ‘oven’.
- *diβžat̄ haca* (V 18.1-5) to *diβža-* ‘deceit’.
- *dištaṭ̄ haca* (V 8.92) to *dišta-* ‘cauldron’.
- *paṇtat̄ haca* (V 8.94) to *paṇta-* ‘place’.
- *pisraṭ̄ haca* (V 8.87-90) to *pisra-* ‘smithy’.
- *nazdištaṭ̄ haca* (V 8.96) to *nazdišta-* ‘nearest’.
- *vəhrkaṭ̄ haca* (V 19.33, Aog 19)⁷⁹ to *vəhrka-* ‘wolf’.
- *yahmat̄ haca* ‘from which’ (YAv. passim) to the rel.pron. *ya-*. The reading +*yahmat̄ haca* is also preferable in Y 68.14, where *yahmāt̄ haca* is only attested in the ms. J2. In Yt 8.4, we must read +*yahmat̄ haca* with F1.E1.K15;

⁷⁸ The connection with Skt. *avāni-* ‘river(bed)’, which was proposed by Scheftelowitz 1905: 689, is unlikely because PAv. **-anī-* does not yield **-ənī-*, the necessary prestage of a contraction **aṇənīa-* > *aoniia-*; cf. § 23.3.2.2.

⁷⁹ V.ll. V 19.33 °*at̄* K1, °*āt̄* L4 · °*at̄* Jp1.Mf2° · *āt̄* L1.2.Br1.K10; in Aog 19, the editions write *vəhrkaṭ̄ haca*, but all mss. have *vəhrkāt̄*.

in Pt1+ as well as in J10.MI2, this has been replaced by *yahmāt*, but since *haca* is followed by *bərəzāt*, *yahmat* is the lectio difficilior.

- *yimat haca* (Yt 19.35ff.) to *yima-* ‘Yima’.
- *rapiθbitaraṭ haca* (H 2.7) to *rapiθbitara-* ‘southern’.
- *saire.hiiat haca* (V 8.83) to *sairehiia-* ‘(pile of) reeds’ (for the meaning, see § 28.3).
- *spəntat haca* (FrW 10.40) to *spənta-* ‘holy’.
- *hutaxtat haca* (Yt 10.39) to *hutaxta-* ‘well-stretched’.
- *huš.hqm.bəratat haca* (Yt 13.67) to *huš.hqm.bərata-* ‘well-brought-together’.

In two cases where we find the ending *-at* in thematic nouns, it is uncertain whether this reflects the phonetic development, since *-at* may also have been adopted from surrounding athematic forms in *-at*:

- V 3.14 and 9.40 *frašumakaṭ haca* ‘from the anus’, which is preceded by *frauuāxšaṭ haca* (abl.sg. of *frauuāxš-* ‘penis’).
- V 3.14 and 9.40 *hizūmaṭ haca* ‘from the mouth’ which is preceded by *nāḡhanaṭ haca cašmanaṭ haca* ‘from the nose, from the eye’, abl.sg. to the *n-*stems *nāḡhan-* and *cašman-*.

The sequence *yahmāt mē haca* ‘from which to me’ occurs three times. In Yt 5.121, it is spelled *yahmāt mē haca* in all mss., whereas in Yt 5.96, all mss. except the unimportant W2 have *yahmat mē haca*. In Yt 12.24, we find evidence in more mss. The majority of them (F1+ and J10) have *yahmāt*, whereas *yahmat* is attested only in P13.K12 (from the line of F1+) and MI2 (from the line of J10). Thus, we can assume for all three Yašt passages that the original form was *yahmāt mē haca*, which was replaced in some mss. by *yahmat*, taken from the more frequent sequence *yahmat haca*. As Oettinger 1983: 270 indicates, *yahmāt* has been preserved because it is not directly followed by *haca*.

We find two forms in *-at* for expected *-āt* which are not followed by *haca*. In these cases, other forms in *-at* from the context have brought about a very recent replacement of **-āt* by *-at*. In V 11.10ff. *haca nmānaṭ* (to *nmāna-* ‘house’) is due to the following series *haca āθraṭ haca apaṭ haca zəmaṭ*. In N 54 we find *arədušaṭ apaititaṭ* ‘because of an untoned blow’, in which the ending of *arədušaṭ* has influenced **apaititāt*.

In a few YAv. forms, the ending *-āt* has been preserved in front of *haca*. In the sequence *ašāt haca* (YAv. *passim*) ‘from Aša’, we are dealing with an OAv. quotation. OAv. *ašāt hacā* occurs many times, and apparently the shortening in front of *-ca* was an exclusively YAv. rule; the only other relevant sequence in OAv. is *xšaθrāt hacā*. I agree with Oettinger 1983: 162

that *ahmāt haca* V 9.53, 13.52 and *kahmāt haca* N 46ff. can be regarded as errors of the tradition.

Important information is provided by the expression Y 57.14 *dūrāt haca ahmāt nmānāt* ‘far from this house’. As we can see, this shows an unshortened *-āt haca*, but there is a clear syntactic reason for this: *haca* is not coordinated with *dūrāt* (which is rather an independent adverb) but with *ahmāt nmānāt*. This proves that there must be a close syntactic link between *haca* and the preceding abl.sg. in order to provoke shortening, and this in turn renders Hoffmann’s explanation by means of an accentual unit of **-āt haca* all the more likely.

The form *nižbərətāt* in V 8.37f. is probably a later gloss which entered the original text. The text reads *frā mē gaδβa zazaiiṇ, nižbərəta nōiṭ ainižbərəta, nižbərətāt haca paouruaēibiia* ‘they shall bring forth (for me) the *gaδβa*-dogs, dragged away, not not dragged away, *nižbərətāt* from the first two ones’. Bartholomae translates *nižbərətāt haca* as ‘by means of dragging away’ and interprets *paouruaēibiia*, with its dual ending, as ‘by the front legs’, suggesting (1904: 870) that **pādaēibiia* ‘the two feet’ was left out elliptically. But since *niž-bar-* + *haca* + abl.pl. can mean ‘to drag away from’ (e.g. Y 52.6, Yt 19.93), the syntactic construction of V 8.37f. *nižbərəta nōiṭ ainižbərəta ... haca paouruaēibiia* will be identical to V 8.39 and V 9.9, where *paouruaēibiia* implies the ellipsis of **māyaēibiia* ‘both holes’. This perfectly fits the ritual described by V 8.37-38. Therefore, the original text will have meant ‘they shall bring forth the *gaδβa*-dogs, dragged away, not not dragged away, from the first two (holes)’. *Nižbərətāt* must be a later addition to the text, a kind of gloss, which somehow received the ending *-āt*.

Four exceptions, all of them securely attested, cannot be explained away. These are the forms *barəθriiāt haca* (V 18.38ff., 19.6), *yaoždāθriiāt haca* (V 9.2, 47, 52, 19.41), *hukaiiāt haca* (Y 65.3, Yt 5.3, 9.8, 15.15, 17.28) and **skairiāt haca* (V 8.95). The ending of these forms may be explained (with Oettinger 1983: 162) from the tendency to lengthen **a* after a cluster of consonant + *-ii-*, as described in § 3.1.2.

§ 4.1.2.2 Postpositions *paiti*, *pairi*, *parō*

The adverbs *paiti*, *pairi* and *parō* may also serve as postpositions, but these never cause shortening of a preceding abl.sg. ending **-āt*. The evidence consists of:

- *paiti*: *apaiiuxtāt paiti* (V 18.30ff.), *anuzuuarštāt paiti* (V 4.20ff.), *ərəžuxδāt paiti* (Yt 5.76), *uzgərəptāt paiti*, *dātāt paiti*, *nisritāt paiti* (V 5.26), *uzdātāt paiti* (Yt 10.91, V 9.56, 13.55, A 4.5), *frastərətāt paiti* (Y 57.2, Yt 10.91ff., V 9.56ff., A 4.5), *raoxšnāt paiti* (Yt 10.123f.), *srāuuaiiamnāt paiti* (Yt 10.91, A 4.5).
- *pairi*: *afraṇharəzāt pairi* (V 16.16).
- *parō*: *auruuadāt parō* (Yt 1.24), *anāhitāt parō*, *anāhitaiiāt parō* (Yt 10.88), *ḍaxtaiiāt parō* (Yt 13.46) and *dahmaiāt parō* (V 9.37).

When the abl.sg. form preceding one of these postpositions ends in *-Ciiāt*, the theoretical possibility exists that these were lengthened after having been shortened (cf. § 3.1.2). The four forms of this kind which occur are therefore ambiguous: *ərəzifiīāt paiti* (Yt 5.45), *uzgərəβiiāt parō* (Yt 13.46), *haraiḍiīāt paiti* (Yt 10.51) and *hukaiiīāt paiti* (Yt 5.25).

There is one exception to the rule that postpositions other than *haca* do not cause shortening, viz. *ahmaṭ para* (Yt 19.80) ‘afterwards’. This will be due to an error in the Yašt tradition.

§ 4.2 The ending *-āatcā*

The ending **-āt* occurs in the abl.sg.m.n. of *a*-stems and of some pronominal forms, and in the 3s.subj.act. ending of thematic verbs. It is usually reflected as *-āt* in Avestan, but in front of the clitic *-cā* we regularly find the reflex *-āatcā* (Bartholomae 1894-5: 154). There are simply no Avestan forms in *-ātca*, and the only form edited as such by Geldner, viz. Yt 13.71 *varəniiaiīātca*, should be edited *varəniiaiīāatca* in accordance with the best v.l. *-āatca* found in the IrKA mss. (Mf3.K13.38.H5), and with the parallel passage Yt 1.19 where Geldner did edit *varəniiaiīāatca*.

The complete evidence for **-ātca* comprises *apāatca* (Vr 7.4), *asnāatca* (Yt 5.15, Vr 7.4, H 2.13, Vyt 59), *ašāatcā* (Y 28.10, 32.4, 35.10), *uruuaraiīāatca* (Vr 7.4), *xšafnāatca* (Yt 5.15), *tāiīāatcā* (Y 12.1), *daēuuāatcā* (Y 58.2, Yt 13.89), *dūrāatca* (H 2.13, Vyt 59), *drənjaiīāatca* (E 13), *^xbaxšāatca* (N 76), *mašiiāatcā* (Y 58.2, Yt 13.89), *yasnāatca* (Y 68.7), *varəniiaiīāatca* (Yt 1.19, 13.71), *vahištāatcā* (Y 50.1), *vahmāatca* (Y 68.7), *vīrāatcā* (Y 31.15), *vīspō.mahrkāatca* (Yt 1.19, 13.71, 13.142), *višaiīāatca* (H 2.36), *⁺vīš.gaiṇtaiīāatca* (H 2.36) and *zəməatca* (Vr 7.4). Outside of this ending, *-āa-* only occurs in the YAv. particle *āat*.

Bartholomae 1904: 307 assumed that *-āatca* indicated original ‘Schleiftonigkeit’ of the ending **-ātca* in tonic position, implying that the Indo-European origin **-o-ed* of the abl.sg. ending would have left its traces

in this particular position. However, the metre of the Gāthās shows that the abl.sg. ending *-āatcā* (and *-āt*), unlike the 3s.subj. ending *-āt*, was not disyllabic, so that the theory of PIE origin has now been given up, cf. Hoffmann-Forssman 1996: 71. They have put forward the idea that the *ā* in **-āt* was bimoric, and that in front of *-ca* the second mora was pronounced with an expiratory accent, i.e. [*áatca*].

The idea that *-āat-* represents a bimoric entity /aat/ seems attractive, but in view of the fact that not the second but the first vowel is spelled *ā*, one would rather expect the first mora to have been accented: [*áatca*]. As we have seen in the preceding sections, some of the vowel and consonant changes which occur when *-ca* is added to a given word can best be explained if we assume a stress shift to the syllable immediately preceding *-ca*. Yet it is difficult to see how a pronunciation [*-átca*] should have caused a change from *-ā-* to *-āa-*, since we have no evidence whatsoever for a similar influence of word stress, at whatever moment of the Avesta tradition, on the vowel *ā* elsewhere.

We must take into account that it is only *-ca* which causes preceding *-āt* > *-āat*; no change is attested in front of *-cit*: OAv. *ašātci*, YAv. *ahmāci*, *aētahmāci*. I am therefore inclined to regard *-ca* as the ultimate cause of the rise of *-āatca*. The spelling *-āatca* may well represent the effort of the text tradition to distinguish the ending **-ātca* from other sequences with which it was liable to be confused, especially *-āca*. The careful pronunciation of the implosive *t* in front of *c* apparently influenced the preceding *-ā-*, which moved towards *-a-*. The pronunciation *-āatca* was then canonized as the regular way to pronounce this ending, at some stage of the canonization of YAv. (for it seems unlikely that this was a feature of the living language), and was then also applied in the OAv. canon.

The only place where *-āa-* occurs outside the ending *-āatca* is in the YAv. particle⁸⁰ *āat* ‘then, and’. Caland 1893: 595 therefore suggests that *āat* has

⁸⁰ We may distinguish two different sentence particles in Avestan. The following overview mainly relies on Narten 1986a: 95f., 136, 257ff.: 1. *at* is restricted to OAv.: in sentence-initial position it is an introductory particle. This use is found mainly in the Gāthās. In second or third position, *at* stresses the preceding word, a use which is attested mainly in the YH. 2. *āt* (RV *āt* ‘then’, abl.sg. to *a-*) does not occur in the Gāthās. It appears 10x in the YH as an enclitic to the first word in the sentence, stressing the preceding word: *iθā āt yazamaidē* ‘thus(, now,) we worship’. The YAv. equivalent to *āt* is *āat*, which usually appears in sentence-initial position, just like RV *āt*: *āat mraoθ ahurō mazdā* ‘and Ahura Mazda said’.

been detached from an original form **āatca*, but there is no evidence from the texts to this effect. Narten 1986a: 257 has probably given the right solution, viz. that *āat* is due to a specific sentence-initial accentuation. The particle *āat* is used to connect consecutive actions, at the same time drawing attention to the action it introduces; compare *paiti dim pārəsaṭ zaraθuštrō ... āat mraoṭ ahurō mazdā* ‘Zarathustra asked him ... Ahura Mazdā (in his turn) answered’. It is not unlikely that the text redactors paid special attention to pronouncing sentence-initial **āt* in a clearly discernible way, and it was probably the effort to make a clear implosive *-t* which caused the vowel change **ā > āa*.

The YAv. form *āat* was so frequent that it influenced the medieval scribes of Avestan, so that YH *āt* has many v.ll. *āat* even in the good Yasna mss. (Narten 1986a: 258). Furthermore, OAv. *yāt* (Y 32.4, 36.6) is spelled as *yāat* or *yā.at* in the mss. of the IrPY and the IrVS.

§ 4.3 In front of *-ii-*

Shortening of **ā* in front of *-ii-* has a sporadic character. In the majority of cases, *-āii-* has been preserved in OAv. and YAv., e.g. in *pərənāiiu-* ‘grown up’, *āhišāiiā* ‘he has tied’, *°gāiiā-* ‘-paced’ (Skt. *urugāyā-*), *tāiiu-* ‘thief’, *pāiiu-* ‘shepherd’, *frāiiāh-* ‘more’ and *māiiu-* ‘skilled’. It is of no consequence whether *ā* is in antepenultimate syllable, cf. YAv. *apərənāiiuka-* ‘a minor’, *θrāiiāuuan-* ‘a thrāyavan’ or *pāiiušca* ‘and shepherd’.

It has been suggested by Szemerényi 1951: 159 that the shortening of **-āi-* was due to the stress placement in a prestage of Avestan: if the syllable containing **ā* was pretonic in Ir., this would yield a short vowel *a* in Avestan. Szemerényi adduces the examples of OIr. **sāyā(ka)* ‘shade’ (> Av. *saiiā-*, Sogd. *sayāk*, but MP *sāyag*) and **nāwāza-* ‘sailor’ (> Av. *nauuāza-*, Sogd. *navāz*, but MP *nāwāz*). A major problem with this hypothesis is the fact that Szemerényi adopts the thesis of Meillet and Gauthiot, viz. that Old Iranian had the ictus on the penultimate syllable if this was a heavy syllable, but on the antepenultimate if the penultimate was a light syllable; much like the Latin accent. Yet we simply do not know whether this accentuation has ever been present in Avestan; the only valid indications (**rt > ř*, **rk > hrk*) contradict it. In their teachings, Schindler (in 1994) and Klingenschmitt (1998) have claimed that pretonic **-āi-* was liable to get shortened in YAv.; thus they continue Szemerényi’s hypothesis, albeit in a restricted form. Klingenschmitt has published this suggestion in a little known 1990 publication.

Klingenschmitt regards *tāiiu-* ‘thief’ as an OAv. term which was borrowed in YAv., and *vaiiu-* ‘wind’ as a regular YAv. form; an example which he

gave in class was *pairištaiia-* < **pari-stāiá-*. Schindler adduced among other forms the ins.sg. *raiiia* (**rāyá*), the verb *gəuruuaiia-* (Skt. *gr̥bhāyāti*) and the noun *vaiiu-* (Skt. *vāyú-*). However, pretonic position cannot be regarded as a regular phonetic condition in view of counterexamples such as *tāiiu-* (Skt. *tāyú-*), *pāiiu-* (Skt. *pāyú-*) and *humāiia-* (Skt. *sumāyá-*). Furthermore, as I will explain below, the verb stems do not qualify as reliable evidence since their suffix may have been changed to *-aiia-* by way of analogy.

Several scholars have pointed to the occurrence of a shortening of prevocalic **-āi-* especially in eastern Middle Iranian languages, e.g. Tedesco 1926: 140, Henning 1942: 50, and Gershevitch 1954: 17. Unfortunately, the amount of evidence is rather small and heterogeneous. I ascribe the YAv. shortening of the nominal f.sg. endings *-aiia*, *-aiiā*, etc., and of the verbs such as *daiia-* < **dāiia-* to analogical origins (see §§ 4.9.1, 4.9.7); once these categories — which were often compared with the Middle Iranian languages — are removed, only a relatively small number of isolated forms remains, such as Av. *asaiia-* ‘without shade’ to Sogd. *sy’k*. The number of forms is too small to allow any conclusions, so that I have not systematically signalled East-Iranian cognates of Avestan words in *-aii-*.

The evidence comprises the following forms:

- Y 31.13 *aiiamaitē* ‘reaches’ < **ā + yamaite* contains the preverb *ā*. As the metre requires the line *ā mazištəm aiiamaitē* to have only seven syllables, viz. */*ā mazištām yamatai/*, the preverb in **ā yamatai* must have been added when OAv. was canonized in YAv. times, and the shortening of **āii-* must at least be dated after the addition of this preverb.
- The stem **ā-iasa-* ‘to take’ to *yam-* ‘to hold’ may be compared with OP *āyasatā* and Skt. *yāchatī* < **im-sé-a-*. Avestan preserves *ā-* in the frequent 1s.med. *āiiesē*, but in all other YAv. forms of **ā-iasa-*, initial **ā* is shortened: *aiiasata*, *aiiasōiš*, *aiiasaēša*, *aiiasaṣha*. This suggests that the shortening is due to an assimilation of the first **ā* to the following *-a-*, an assimilation which could not take place in *āiiese* because of the *e*-colour of the second vowel.
- *Aiiāθrima-* ‘deity of the fourth season’; the comparison with the two other *ima*-stems *aiβisrūθrima-* and *fraouruuaēštrima-* suggests that *aiiāθrima-* may have been built on a noun **āiāθra-*, derived from **ā* ‘toward’ + **yātra-* ‘the coming’, cf. Skt. *yātrā-*. In that case the preverb would have undergone shortening.
- The adj. **abi-gāiā-* has an unclear meaning, and it only occurs in relatively recent liturgical texts as an epithet of *aiβisrūθrima-*. The difference between the acc.sg. *aibigāim* < **abigāiam* (no shortening) and the dat.sg. *aibigaiiāi* and voc.sg. *aibigaiia* (shortened) suggests that the shortening took place at a

more recent stage in the tradition, after **-āiam* had become monosyllabic *-āim*.

- The acc.sg. *aēm* ‘egg’ (Yt 13.2) must derive from the Iranian stem **āia-* ‘egg’, as reflected in Pašto *hā*, *hōya*, Phl. *xāyag*, Khot. *āhā-*, and Oss. *ajkæ*. Some scholars have reconstructed **āwyā-* and **āwyakā-* for Iranian (Morgenstierne 1927: 30, Bailey 1979: 30), but Abaev 1958: 41f. and Schindler 1969: 160 have argued that at least some of the Iranian forms, e.g. Oss. *ajkæ*, cannot be derived from a form with **u*, and this is valid for Avestan too: **u* would not disappear from a sequence **āuia-* or **auia-*. Avestan apparently inherited a stem **āia-*, whence the acc.sg. **āiam* which underwent the YAv. shortening to **aiam*.

- The adj. *asaiia-* Y 57.27 = Yt 10.68 ‘without shade’ and the mountain name *asaiiā-* in Yt 19.4 can be compared with Skt. *acchāyā-* ‘without shade’. This implies that Avestan **asāia-* must have undergone a shortening at some stage. The basic noun **cāyā-* ‘shade’ retains its long first vowel in MP *sāyag* ‘shade’ and other West-Iranian cognates.

- As Kellens has convincingly argued, the stem *māiiā-* f. ‘joy’ has retained *-āii-* in OAv. *māiiā*, but was shortened to *maiībiiō* in Y 10.12 (YAv.)⁸¹. Since the context of Y 10.12 seems to indicate that the passage was inspired by the OAv. phrase with *māiiā*, Kellens suggests that *maiībiiō* may be explained by the more recent shortening in antepenultimate syllable. In any case, we can contrast this form with the preservation of *ā* in H 2.16 *māiiuuaitibiiasca*, abl.pl.f. of *māiiuuant-* ‘pourvu de prestige’. Retention of **ā* is also attested in Yt 10.52 *māiiuš* and Yt 13.123 *māiiuuu-* (Skt. *Māyavā-*).

- The adj. *humāiiā-* ‘gifted with good powers’ (Skt. *sumāyā-* ‘having good thoughts’) has retained its *-ā-* in YH 41.3 *humāim*. In YAv., *ā* remains in the gen.sg. *humāiihe* (Vr 9.2, Vyt 17) but is shortened to *-a-* in the nom.acc.pl. *humāiia* and *humāiaca* (Vr 12.4f.). The comparative is attested as *humāiiō.tara* and *humāiiō.taraca* in Y 27.7 and Vr 12.4, and a derived PN *humāiiā-* f. has the gen.sg. form *humāiiā* in Yt 13.139 but the ins.sg. *humāiia* in Yt 9.31. A m. PN **humāiiaka-* appears in Yt 5.113 acc.sg. *humāiakəm*. These data are interesting, because they suggest that the quality of the following vowel determines the shortening of **ā*: in front of *e*, *ō* and *ā*, the form *humāii°* is retained, whereas in front of short *a*, it becomes *humaii°*. This recalls the verb forms *aiiasa-* < **āiiasa-* as against *āiiese*. The form

⁸¹ I adopt the identification by Kellens 1974b: 88ff. of P 48, A 3.4, Yt 19.80 *maiīā* with Skt. *māyas-*.

humāiiō.tara-, which has undergone the secondary compound split, would then suggest that the shortening of *-āia- postdates the RCS.

The noun *āiiapta-* ‘benefit’ occurs with *āii°* in its three OAv. attestations and in all YAv. forms, except for Yt 8.49 *aiiaptanəm*, *aiiaptā* and P 49 *aiiaptō.dātəmasca*. Yt 13.135 *aiiaptanəm* in Geldner’s edition has *aii°* in F1+, but *āii°* in J10 and Mf3.K13.14.H5; we may restore *āii°*. The shortening is thus due to ms. errors in Yt 8 and P 49, and not to an earlier shortening.

The following forms are ambiguous; the shortening which we find in them may be phonetic, but it may also be due to the analogical introduction of *-ai-*:

The gen.sg. *aiiaoš* (Yt 8.14) must be derived from a stem **āiiu-* ‘age’, cognate with Skt. *āyu-* n.; this stem is attested in the OAv. nom.sg. *āiiū*. The YAv. gen.sg. **āiiaoš* must be an innovation since OAv. has the archaic gen.sg. *yaoš*. The form *āiiu* also occurs twice in the Yašts (8.11, 10.55) in the expression *frā nəruiiō ašauuaouiō θβarštahe zrū āiiu šušuiiəm* ‘I would have gone forth to the truthful men [with the age] of the allotted life-time’; translation according to Lubotsky 1998: 77. He proposes to regard *āiiu* as a gloss for *zrū*, in order to get an original eight-syllable line *θβarštahe zrū šušuiiəm*; in more detail Kellens 2000. If *āiiu* really is a gloss, it may have been based on the occurrence of *āiiū* in Y 31.20, rather than to have been a living element of the YAv. language. This would relieve us of the inner-YAv. difference between the initial vowels of *aiiaoš* and *āiiu*. Tremblay 1999: 191 has proposed an additional solution for *aiiaoš*. The form *aiiaoš* occurs in the line *tada aiiaoš yaθa paoirīm*, and he considers the possibility that final *-a* of *tada* inflected earlier **yaoš*, i.e. **tada yaoš* → *tada ayaoš*. Such a perseveration of final *-a* appears more often, e.g. in Yt 8.11 *aθβarštahe* which F1 spells in two of the three occurrences of *θβarštahe*.

The noun *upaiianā-* ‘doctrine’ may be cognate with Skt. *upāyana-* n. ‘coming near’. The shortening which has occurred may follow the example set by the verbs, cf. e.g. E 14 *upaiiaṭ* < **upa + aiiṭ* ‘he shall go to’. It is quite conceivable that this is due to the introduction of the form *upa°* on the model of the isolated preverb, rather than to a phonetic shortening.

Several derivatives of the root *tā-* ‘to steal’ are attested with retained *-āii-*: YAv. *tāiiu-* ‘thief’, and Y 12.2 *tāiiāṭcā* and P 21 *tāiiāšca* to *tāiia-* ‘theft’. Short *a* is attested in F 718 *taiiō* ‘stolen’ (or ‘theft’), which according to Klingenschmitt 1968: 229 must have been the first member of a compound in **taiia°*. Since the mss. of F contain quite some spelling errors, this form alone is not enough to prove that **tāiia-* underwent shortening. On the other hand, *tāiiu-*, *tāiiāṭcā* and *tāiiāšca* have *tāii°* in front of other vowels than *a*,

whereas *taiiō* reflects **taiia°*. Thus, it could still be the original YAv. shortening. Y 31.13 *taiiā* seems to be an adverb ‘in secret’ (Insler 1975: 186), but this is uncertain. The forms E 17 *tāiia* (Kotwal-Kreyenbroek 1992: **tanūiia*) and Y 8.3 *jīštaiiamna-* are unclear.

The verb forms of **fra-ai-* ‘to go forward’ all appear with a short vowel instead of expected *-ā-*, viz. *fraiīāi*, *fraiīōit*, *fraiīantu*, *fraiia*, *fraiīat* and *fraiīan*. It seems possible that **frāia-*, once it had contracted, was interpreted as a member of the category of derivatives from monosyllabic roots such as **dāia-* and **pāia-*, all of which yield *°aiia-* (see § 4.9.7 below), so that **frāia-* was also shortened to **fraia-* by way of analogy rather than by a phonetic shortening. The deviant form Yt 19.95 *frāiieinti* ‘they come forward’ is probably best explained as showing a recent lengthening of **fra°* in initial syllable, as per § 3.4.2.1 above. This same lengthening is also shown in Yt 19.95 by the form *frānāmāite*.

YAv. *fraiīara-* ‘early; morning’ < **fra-aiara-* has either been shortened phonetically from **frāiīara-*, or **°āiīara-* has been assimilated to the other daily period *uzaiīara-* ‘afternoon’.

The noun YAv. *vaiiu-* ‘air’ has undergone shortening, as appears from the comparison with Skt. *vāyú-* ‘wind, air’ and with the Avestan root *vā-* ‘to blow’. The attested forms are the nom.sg. *vaiiuš*, gen.sg. *vaiiaoš*, voc.sg. *vaiiō* and acc.sg. *vaēm* (for the ending of *vaēm* cf. § 12.3). This noun is different from most other shortened forms because *-ai-* is attested consistently in the whole paradigm. If *vaiiu-* were due to phonetic shortening it would have to be dated to the YAv. period, which is of course possible. Alternatively, we may consider analogical shortening on the model of the verb *vaiia-*, if this really is a *-iia-* derivative of *vā-* ‘to blow’; see § 4.9.7 for this verb.

The noun *raji-/rāi-* ‘wealth’ < **raH-i-* yielded a long vowel in the oblique cases, cf. Skt. nom.sg. *rayís*, acc.sg. *rayím* < **raH-i-* but gen.sg. *rāyás* < **raH-i-ás* etc. In OAv., we accordingly find the gen.sg. *rāiīō* (43.1), but in YAv., the first vowel is always short: ins.sg. *raiiā* (frequently), gen.pl. *raiiqm* (Y 60.4) and acc.pl. *raēšca* (5x). The shortening must have happened in YAv., and it is quite possible that we are looking at a linguistically real shortening, which was carried out in order to generalize one of the two root shapes **rāi-* and **rai-* which the IIr. paradigm yielded in Avestan by way of phonetic development. A YAv. date for the shortening is also suggested by the acc.pl. *raēš*, which contains the productive *i-* stem ending *-ēš* rather than original *-as* (Skt. acc.pl. *rāyás*), see Lubotsky 1995⁸²; this presupposes that

⁸² A form **rā(i)š* would have yielded *†rāiš*.

*rāi- was shortened to *rai- before the ending -īš was adopted, which must certainly have been a development of the living language.

The OAv. compound *māzā.raiiā-* ‘granting wealth’ (43.12), quoted in Y 27.6 and Vr 12.1 as *māzaraiiā*, does not necessarily contradict this assumption, since it may be an *a*-stem **māza-rai-a-*, built on the short vowel stem of the strong cases.

The etymology of YAv. *anumaiiā-* ‘sheep’ is uncertain. It is tempting to connect it with Skt. *māyú-* ‘bleating’ and especially with *anu-mā-* as attested in RV 1.164.28 *gaúr amīmed ánu vatsám mišántam* ‘the cow lowed to calf which blinked its eye’. This is an onomatopoeic root, for which it is less likely that it would partake in vowel shortening. On the other hand, if *anumaiiā-* has been lexicalized as ‘sheep’, it is conceivable that the onomatopoeic character of the root was lost, in which case the word might have participated in the phonetic shortening.

§ 4.4 In front of -uuā-

As a rule, Ir. *ā is preserved in front of -uu-. We can find this in different environments: in open initial syllable, e.g. in *āuuāēδaiiā-*, *āuuista-*, *kāuuaiiā-*, *drāuuaiiā-*, *snāuuarə*, *hāuuana-*; in second syllable, e.g. in *ayāuuarəz-*, *ašāuuarḡhu-*, *yūšmāuuant-*, *haiṭiiāuuarəz-*. Hoffmann-Forsman 1996: 58 have observed that *ā is sometimes shortened in front of a following -uu-. Indeed, there are occasional forms with such a shortening, but their number is so small that we cannot speak of an even partly regular shortening condition.

The preverb *ā ‘towards’ has been shortened in the forms *auuānt-* (Yt 8.50 2x) < *ā-bant- ‘shining towards’, in *auuāēnatā* (Y 30.2⁸³) ‘look towards’, in *auuāocāmā* (Y 38.5) ‘we invoke’, *auuarətā-* (YAv.) ‘(piece of) possession’, and in *auuazāite* (Y 57.31) ‘drives towards’ (if not **auā-yaža-*). The same preverb is also found shortened in front of other consonants (cf. § 4.7); therefore, the forms given here may not be due to -uu-.

⁸³ The form V 19.13 *auuāēn* is unclear, Y 46.2 *auuāēnā* has had the preverb added secondarily, as the metre requires only *vaēnā*, H 2.13 *auuāēnōiš* is probably augmented (cf. Hoffmann 1976: 613) and Yt 19.34 *auuāēnō* means ‘not seeing’ < **a-vaēnant-*, compare Skt. *āvenant-* ‘not enjoying’ (Hintze 1994: 192).

The other forms which probably underwent phonetic shortening are the ptc. *dauuāieintī-* (Y 10.15) of the prs.caus. **dāuuāia-* ‘to deceive’ (OAv. *dābaieitī*), and the noun *nauuāza-* m. ‘sailor’, cognate with Skt. *nāvājā-*, OP *nāvāza* and MP, Parth. *nāvāz*. Shortening is also attested in this noun in Sogd. *nw''z* [*nawāz*]. The Avestan form may be due to a dissimilation **ā_ā* > *a_ā*, cf. below.

The pronominal adjectives in *-uuant-* such as *auuant-* ‘so much’, *auuuauuant-* ‘so much, such’, *aētauuant-* ‘such’, *yauuant-*, *yauuat* ‘as much as’, have been formed in IIr. from the nom.acc.pl. in **-aH* of the pronouns plus a suffix **-uant-* (Klingenschmitt 1972: 108, Sims-Williams 1997). The expected long vowel which would result from contraction of **-a-H-* is preserved in the Skt. forms of these word (e.g. *etāvant-*, *yāvat*, *yāvant-*), but also in Old Persian *yāvā* ‘as long as’. It thus appears that the Avestan forms have suffered shortening in front of *-uuā-*. However, the suffix *-uuant-* occurs very frequently as a derivative suffix to *a-* and *ā-* stems, where it always yields a sequence *-auuant-*. This points to the possibility that the pronominal adjectives *auuant-* etc. have simply been remade in YAv. by reanalyzing **āuuant-*, **yāuuant-* etc. as containing the pronominal stems *a-*, *auuā-*, *aēta-*, *ya-* + *-uuant-*. These forms would then not testify to a phonetic shortening.

OAv. *mauuaitē* (44.1, 46.7), dat.sg. to **māuuant-* ‘like me’, may be compared with Skt. *māvant-*, and with the retained *-ā-* of OAv. *xšmāuuant-* ‘like you (pl.)’ and *θβāuuant-* ‘like you (sg.)’. Shortening is also attested in the derivative *mauuaiθiia-* in YH 40.1. In theory, *mauuant-* and *mauuaiθiia-* could be due to the same analogical shortening (if it is analogical) as in *auuant-* etc., but this is not attractive in view of preserved *ā* in *xšmāuuant-* and *θβāuuant-*. The forms *mauuaitē* and *mauuaiθīm* may therefore indeed be due to shortening of **-āuu-* of the type *nauuāza-*.

The adj. *ašauuan-* ‘righteous’ has been discussed by Tichy 1986. The cognate forms Vedic *ṛtāvan-* and OP *artāvā*, Phl. *'lt'y* [*ardā*], Man.-MP *'rd'w* [*ardāv*], Sogd. *'rt'w* point to IIr. **ṛtāuan-*. The expected outcome **ašāuuuan-* has been completely replaced by **ašauuan-* in YAv., but in OAv., **-ā-* is preserved in the preconsonantal weak stem forms **ártā-un-* in the dat.sg. *ašāunē* and the gen.pl. *ašāunqm*. These may be contrasted with the new stem **árta-un-* which appears in the OAv. acc.pl. *ašāonō*, and in all YAv. oblique case forms of *ašauuan-*⁸⁴. As the change of *-āun-* > *-aon-*

⁸⁴ The gen.pl. *ašāunqm*, as far as it occurs in YAv., usually co-occurs with the noun *frauuāši-*, and *ašāunqm* will therefore be an imitation of YH *ašāunqm*. The regular YAv. gen.pl. is *ašāonqm*.

cannot be due to a phonetic shortening (for the precise distribution cf. § 17.3), the form *ašaon*^o proves that the stem *ašauuan-* is due to analogy. We may follow Tichy 1986: 97, who suggests that **ašauuan-* has adopted the model of other adjectives in *-uuan-* such as *magauuan-*.

Tichy 1986: 104 regards the YAv. voc.sg. *ašāum* < **ártāuam* as a form from a different Avestan dialect, yet the text passages in which we find *ašāum* do not show any grammatical peculiarities. A more straightforward solution may be offered. It is quite possible that *ašāum* escaped the replacement of **ártāuan-* by **ártāuan-* because the voc.sg. usually occurs in stereotype addresses, to the gods and to Zarathustra (e.g. *ašāum ahura mazda, haoma ašāum*), which may have stood outside the living paradigm of *ašauuan-*⁸⁵.

The gen.sg.f. Y 58.4 *ašāuuairiīscā* corresponds to RV *ṛtāvarī-*, and may directly continue the Ir. vowel **ā*. Yet all mss. except Pt4.K5 spell *ašā.vairiīscā*, and since Y 58 is a text which lengthens final vowels, we cannot exclude the possibility that *-ā-* was retained in front of *-uu-* because of the compound split.

A dat.pl. *ašāuuaoiīō* is attested a few times in the Yašts, but this form can be dismissed as a recent corruption of **ašāuuaoiīō*, and does not continue the stem **ártāuan-*. The dat.abl.pl. of *ašauuan-* is mostly attested as *ašāuuabiīō*, both in OAv. and in YAv. In the Yašts, the ending *-biīō* underwent lenition of **-b-* to *-uu-*. We find the form *ašāuuaoiīō* in Yt 8.11, 10.55, and 10.74 *frā nəruiīō ašāuuaoiīō* ‘to righteous men’. In Yt 8.11, the ms. K15 has the v.l. *ašāuu[oiī]ō*, and since K15 is a copy of E1 which has *aša*^o, the v.l. *ašā*^o must be a recent corruption. In Yt 10.55, all mss. have *aša*^o, but in Yt 10.74 only the ms. M12 (of the line of J10; the reading of J10 is not provided by Geldner) has *aša*^o, whereas F1 has *ašāuuaoiīō*. It thus seems probable that a recent corruption of earlier **ašāuuaoiīō* also lies at the basis of Yt 3.4 *nəruiīō asti ašāuuaoiīō* ‘it is for righteous men’, where all mss. read *ōāuu(a)iiō*, including those of the IrKA.

The form *ašāuuaoiīō* is furthermore attested in Yt 13.86, where its function is that of a genitive; the preceding text is *yqmca zəmō yqmca uruuaraiīā yqmca gēuš yqmca gaiiehe* ‘and [we worship] that [Frauaaši] of the earth and that of the plant and that of the cow and that of life’. The

⁸⁵ The only exceptions are Kavi Vištāpa (Vyt 45, 53 *ašāum/ašaom vištāspa*), and the soul of the deceased when it crosses the Cinvat Bridge: V 19.31 *frauuaočaṭ vohu manō kaḍa nō ida ašāum aḡatō* ‘spoke Vohu Manah: how, o pious one, have you come here to us?’, H 2.16 *ā dim aoxta pərəsō pouruuō ašāuuā para.iriḍiīō kaḍa ašāum para.iriḍiīō kaḍa ašāum apa.jasō* ‘to him spoke a pious one, previously deceased, asking: how, o pious one, did you die? how, o pious one, did you get away [etc.]?’ (translation Haug-West 1872: 314).

following words are *yamca staoiiō ašāuuaoiiō* in the KA (Mf3.K13.14.H5), and this reading is adopted by Geldner in his edition; cf. also W3 *staiiō*. The ms. J10 reads *spāuuaiiō*, and F1+ *spāuuaoiiō ašāuuaoiiō*, which is the reading adopted by Bartholomae 1904: 1618. He reconstructs a stem **spāuuan-* ‘die des (ewigen) Glücks teilhaftig sind, selig’, while remarking that the reading *staoiiō* of Mf3 is “eine Lesung, die durch die häufige Verbindung von *stay-* mit *ašaonō* veranlasst sein wird.” This is very unlikely. Yt 13.86 does not have the form *ašaonō* but *ašāuuaoiiō*, and it is inconceivable that a recent copyist (of the IrKA line) took recourse to the connection of *sti-* and *ašaonō* to replace an existing form **spāuuaoiiō* by a completely different form. In fact, the reading *staoiiō* of the IrKA is the lectio difficilior vis-à-vis *spāuuaoiiō* of F1+, since the ending *-āuuaoiiō* may easily have been adopted from the following word *ašāuuaoiiō*. Furthermore, a stem **spāuuan-* is unattested elsewhere in Avestan; as a derivative of OAv. *spān-* < **span-*, we would expect at the most †*spauuan-*.

If we assume that the ancestral manuscript of F1+ and J10 mistook **st-* for *sp-*, we can trace the reading of the Yašt proper mss. back to the same *staoiiō* as is preserved in the IrKA mss. As this form must be a dat.abl.pl. form, it is clear that it cannot be equated with the adj. *staoiiāh-* ‘bigger’, which comes closest in form. Instead, I think that Bartholomae has pointed in the right direction with his reference to the noun *sti-* ‘being, creature; creation’. This noun is hitherto attested only in the singular, and frequently combines with *ašauuan-*: *vīspaiiā ašaonō stōiš* ‘of the whole creation of the righteous’, and especially Y 58.4 *ašaonascā ašāuuairiāscā stōiš* ‘of the righteous male and female creature’. It seems to me that Yt 13.86 may originally have read **stibiiō ašauuabiiō* ‘of the righteous creatures’, with a dat.abl.pl. form in the unusual function of a genitive. After the lenition of **b*, this gave **stiuuiiō ašauuaoiiō*, and subsequently the form **stiuuiiō* (or **stioiiō*) was corrupted into *staoiiō*, maybe through direct influence of **ašauuaoiiō*. Finally, **ašauuaoiiō* developed into *ašāuuaoiiō* by the same tendency seen in other Yašt attestations.

The present *dauua-* ‘to rub, flush’ in V 5.24 *frādauuaite* ‘washes along’ and V 9.29 *fradauuata* ‘he must rinse himself’ is compared with Skt. *dhāvati* ‘rinses, washes’ to the root *dhū-* ‘to shake’, Ir. **d^huH-*. This suggested to Kellens 1984: 112 that the Avestan forms have been shortened from **dāuuā-*, but this conclusion seems uncertain. The other Iranian languages show both **dava-* (Khot. *dav-*) and **dāva-* (Sogd. *δ’w-*, Khwar. *δ’w-*). Lubotsky 1995: 227f. has pointed to the fact that there is a complementary distribution in Sanskrit between the roots *dhav-* ‘to flow’ and *dhāv-* ‘to run’: *dhāv-* is usually found in the active voice, whereas *dhav-* always occurs in the middle.

Lubotsky concludes that *dhāv-* and *dhav-* belong to one single root PIE **d^heuH-* with a so-called proterodynamic present in Ir.: active **d^hāuH-*, middle **d^hauH-*; compare *stāuti* ‘praises’ vs. middle *stāve*. We see that both Av. forms of *dauu-* combine short root vowel with middle inflexion, which matches the Skt. distribution. Thus, it is likely that PIr. inherited the root ablaut **dāuH-* vs. **dauH-*, which was then differently leveled in the different Iranian languages.

The nouns *hāuuana-* ‘haoma mortar and/or pestle’ and *hāuuani-* ‘belonging to the haoma pressing’ are only very sporadically attested with spellings *hauu*⁸⁶.

§ 4.5 In front of *-na-*

Gershevitch 1959: 167 points to the sporadic shortening of *-āna-* to *-ana-*. Shortening is not regular in this position, since **-āna-* is usually retained, even in antepenultimate syllable (compare forms such as *daḍānahe*, *maidīiṇasci*, etc.) and also in the recent *-āna-* stems built on *n-* stem case forms in *-ān-*, such as *aršāna-* ‘male’ (to *aršan-*), *zruuāna-* ‘time’ (to *zruuan-*), *vīdruuāna-* ‘holding on to’ or *vīmitō.dan̄tāna-* ‘with his teeth moved apart’ (to **dan̄tan-*, cf. Klingenschmitt 1968: 52). Of the examples given by Gershevitch, the etymology of *upamana-* is uncertain, whereas the other forms *dāmana-*, *paitištana-*, *spanah-*, *(uz)uštana-*, *baēuuarə.spasana-* and *fraiiana-* are all due to recent, post-archetype shortening of the stems in question. We must assume that the distribution of *-ana-* and *-āna-* as reflected in the texts represents the PAv. situation. For instance, the stem *vayḍana-* ‘head’ cannot be due to an Avestan shortening of **vayḍāna-*, as one might expect in view of MP *waydān*; since it is spelled as *vayḍana-*, and never *vayḍāna-*, in all mss. and all attestations, it must rather reflect PAv. **vagdana-*.

To begin with, shortened forms are found in front of *-ca* ‘and’:

- V 17.9f. nom.pl. *asanasca* to *asan-* ‘stone’ (Skt. *aśāni-*, Gr. *ákmōn* ‘anvil’), which has *-ān-* in the acc.sg. *asānəm* and nom.acc.pl. *asānō* and *asānasca* (Yt 10.136). Since long *ā* has apparently been restored in Yt 10.136 *asānasca*, V 17.9f. *asanasca* is uncertain: either it is a corruption of **asānasca* in the

⁸⁶ Viz. in Y 1.20 *hāuuane* (to *hāuuani-*), spelled *hauu*^o in J2, J3 and the YS; in Y 24.2 du. *hāuuana* (to *hāuuana-*) spelled J2 *hauuana*, K5 *hāuuana*; V 14.8 *hāuuana* spelled L4.K1 *hauuana*; N 107 *hāuuanaēibiia* spelled *hauu*^o.

archetype, or it is due to the possibly more recent date of composition of V 17 with regard to Yt 10.

- The nouns *masan-* ‘greatness’ and *vaŋhan-* ‘goodness’ are attested with the suffix vowel *ā* in Y 58.4 gen.sg. *masānascā vaŋhānascā sraīianascā*, and in Ny 3.11 nom.pl. *masānā*, but with short *a* in the ins.sg. expression *masanaca vaŋhanaca sraīianaca* (YAv. passim) ‘by greatness and goodness and beauty’. This suggests that the *n*-stems *masan-* and *vaŋhan-* had generalized the form *-ān-*, which was retained in OAv. (Y 58). In YAv., the ending **-ānaca* was either phonetically shortened in antepenultimate syllable in front of *-ca*, or **-ānaca* followed the example of the following *sraīianaca*.
- Y 41.5 nom.pl. *mąθranascā* to *mąθrān-* ‘speaker of mantra’s’⁸⁷.

A few forms show a shortened vowel in antepenultimate syllable, without *-ca*:

- The gen.sg. *dəmanahiiā* (31.16) to *dəmāna-* ‘house’ has been shortened in the InVS and YS mss., whereas Pt4.Mf4, J3 and Mf2.Jp1 have *dəmnahiiā* which probably was **dəmanahiiā* too. J2.K5 and K4 spell *dəmānahiiā*, which at first sight seems to be the preserved original form. Yet J2.K5 often have ‘learned’ restorations, and *dəmāna-* was a known form to the copyists. Furthermore, K4 is a copy of Jp1 which spells *dəmnahiiā*; therefore, we can assume **dəmanahiiā* for the archetype.
- The noun *spānah-* ‘spiritual power’ is attested in the nom.acc.sg. *spānō* and the (secondary) acc.sg. *spānəm*, but in the ins.sg. we find *spanaŋha* (Y 9.27). The latter form must be due to shortening in antepenultimate syllable.

In a small number of forms, it is the penultimate syllable which undergoes vowel shortening. Often, some of the mss. still preserve the original length, thus showing the recent date of the shortening.

- The PN *usađan-* has the acc.sg. *usađanəm* in Yt 19.71, but the gen.sg. *usađanō* in Yt 13.132 has the v.ll. *uša.dānō* in J10 and *usađānō* in K37. In Yt 13.121, the same gen.sg. is transmitted as *usađānō* or *usađānō* by all mss. except J10 *usađanō*. Mayrhofer 1979: I/85 suggests that there are two different names, *usađan-* and *usađān-*, because in Yt 19.71 and 13.132, *usađan-* is an epithet to *kauui-*, whereas this noun is absent from 13.121; yet the context is not specific enough to allow this conclusion. Since a shortening of **usađānō* to *usađanō* is easily explained as an assimilation of **-ađā-* to

⁸⁷ The voc.sg. Yt 3.1 *mąθranaca* to *mąθrān-* may be left out of consideration (Hoffmann 1976: 378).

-ada-, and since -ada- is attested as a minority spelling in Yt 13.121, I assume that the other two attestations show the error of *usadān- > usadan-.

- The noun *uštāna-* ‘life, breath’ has an unknown etymology. The vacillation between the variants *uštana-* and *uštāna-* is peculiar. In OAv., the acc.sg. is attested as *uštānəm* (2x), but the dat.sg. as *uštānāi*, the ins.sg. as *uštānā* and the ins.pl. as *uštānāišcā*. In YAv., all forms present *uštān°*, even the acc.sg. *uštānəmca*. The only shortened forms are *uštānuuuant-* (Yt 13.129, 14.20, P 59) and the compound *uzuštana-* (V 5.45, P 59).

- The noun *paitištāna-* ‘support, leg, pole’ has the acc.sg.f. *bipaitištānqm* (Y 13.1) < *-ānām, which may be due to analogy with the gen.pl. ending -anqm, which the text redactors or later transmitters saw in **bipaitištānqm*. A post-archetype shortening of the gen.sg.f. *-ānaiiā has occurred in Y 19.8, where the mss. S1.J3, K4 and YS read *caṭṭbarə.paitištānaiiā* as against preserved *paitištānaiiā* in Pt4.Mf1, J2 and Mf2. The same has happened in Yt 13.41: F1+ read *bipaitištānaiiā*, which was adopted by Geldner’s edition, but the IrKA has *bipaitištāniā* < *-ānaiiā. Assimilation to the following *a* must also be the reason why we find the gen.pl. V 3.31 *paitištānanqm* (in the mss. Jp1.Mf2 and Dh1) for *-ānanqm. In the other mss., this gen.pl. has been reduced to *paitištānqm* (the form adopted by Geldner), whereas in Yt 11.17f., only this stage *paitištānqm* is attested.

It is uncertain whether V 15.19 *bipaitištānaca caṭṭbarə.paitištānaca* in the ms. L4 is due to an old shortening. The mss. of the VS have °*ānaca*, and in K1 and P2, °*paitištānaca* is corrected sec.m. to °*ānaca*. Geldner, who adopts the reading of L4, seems to think that the words in the following line *aēša bipaitištāna yā kaine aēša caṭṭbarə.paitištāna* have caused the replacement of °*anaca* by °*ānaca* in all mss. except L4, and this is conceivable. Yet it cannot be excluded that it is L4 which replaced older *-ānaca by -anaca as an assimilation of *ā to the following *a*’s.

- Yt 10.112 *friianā* has been explained by Herzfeld 1947: 427 as ‘friendly’, i.e. acc.pl.f. *friianā* (attested in J10) of *friiāna-* ‘loving’, prs.ptc.med. to *frī-*; Gershevitch 1959: 261 has endorsed this explanation. Yet the prs.ptc. is also attested as *frīnəmna-*, a thematicized form of an *n*-present, so that *friiāna-* will rather be the adj. **priH-ana-* ‘pleasing, loving’ which is also found in *vohu.friiāna-* (cf. § 3.1.3). Shortening in this noun is also found in the gen.pl. *friiananqm* (PN) in Yt 5.81, which is only attested in F1.J10, versus Yt 13.120 *friiānanqm* (J10 *friiananqm*).

- The compound *baēuuarə.spasāna-* ‘with ten thousand spies’ occurs in the nom.sg.m. in Yt 10 (8x) and Yt 17 (once). In Yt 10, the occurrences are evenly divided between °*spasanō* (4x) and °*spasānō*. In Yt 17.16, the ms. F1 spells °*spas^anō*, with *a* added secunda manu, but J10 has *spa.šānō*; the reading -ānō is lectio difficilior. In view of V 13.28 *spasānō*, nom.pl. to an

n-stem *spasan-* ‘watching’, we can assume that *-ān-* had spread through the paradigm of *spasan-*, so that when it was used in a compound and thematicized, it yielded *-spasāna-* (Friš 1953).

For a few stems, it is unclear whether we must reconstruct *-ān-* or *-an-*:

- The etymology of OAv. *kar[a]pan-* ‘karapan, désignation d’adversaires religieux’ is uncertain, so that it is unclear whether the nom.pl. *karapanō* (3x) had undergone shortening. If the word represents **kalpa-Hn-* ‘pertaining to arrangements’ (to Skt. *kālpate*), we would expect †*karapānō*, but a stem **kalp-an-* is also conceivable.
- *misuuān(a)-* ‘of the mixed’ (V 19.36, S 1.30, 2.30) is an adj. determining *gātu-* ‘place’. Tremblay 1999: 297 proposes to regard *misuuān-* as a possessive derivative of **misu-* ‘qui a du *misu-*’, to the root PIE **meik-* ‘to mix’. However, the Hoffmann suffix **Hn* presupposes a formation Ir. **mićua-Hn-* which would yield †*mispān-*, whereas a suffix **-uan-* (i.e. **miću-uan-*) seems hardly likely after a stem in *-u*. Thus, the etymology remains uncertain.
- For the hapax Yt 13.125 gen.sg. *zauuanō* we must posit a stem *zauuan-* (PN), but earlier **zauuān-* < **zaua-Hn-* to the noun *zauua-* ‘call’ is conceivable, cf. Mayrhofer 1979: I/106. Shortening of **zauuānō* could belong to the same category as the prs.ptc.med. to verbs in *-u*.

Other forms in *-an-*, which by virtue of their cognates may suggest **-ān-*, do not qualify as evidence for shortening:

- The YAv. acc.sg. *aδβanəm* to *aδβan-* ‘road’ may be compared with OAv. *aduūānəm* and Skt. *ádhvānam*, suggesting that *aδβanəm* underwent a shortening. This was probably analogical on the model of the *uuan-* stems with a regular acc.sg. in *-uuanəm*, such as *ašauuanəm*.
- The acc.sg. *asmanəm* to m. *asman-*, gen.sg. *ašnō* ‘heaven’, with *-an-* as against Skt. *aśmānam*, is probably due to analogical replacement of **asmānəm* on the model of the more usual *man-* stem acc.sg. in *-manəm*, e.g. *airiīamanəm*, *baēuuarə.cašmanəm*, etc. Note that other Iranian languages show **acmānam*, e.g. OP *asmānam* and Sogd. *sm’n* ‘sky, heaven’.
- According to Wackernagel-Debrunner 1954: 186, Av. *gaoδana-* (V 21.7, N 64) ‘milk-can’ contains a noun **-dāna-* ‘container’ (Skt. *°dhāna-*) to *d^haH-* ‘to put’. Yet we cannot exclude original Ir. **d^hana-* ‘vessel’, since this must also be assumed for Skt. *nidhāna-* ‘domicile, receptacle’. The etymology of the Skt. word is unknown; EWAia I: 772 considers secondary derivation from *ni-dhā-* or from *dhan-* ‘to run, flow’. A long-vowel origin **-dāna-* seems more probable for F 267 *yaoždanahe* gen.sg. ‘razor blade’. Klingenschmitt 1968: 95 reconstructs an original meaning ‘instrument for purifying’, which

is best compared with the noun *yaoždāni-* (V 14.7) ‘fire poker’, and the verb *yaož-dā-* ‘to purify’.

- The acc.sg. *stamanəm* ‘dog’s mouth or jaw’ (V 13.30,37, 15.4) is an isolated form, which makes it impossible to say whether it represents an *n*-stem *stam-an-* or *sta-man-*, or thematic *stamana-*. It may be connected with Gr. *stóma* ‘mouth’, Welsh *safn* ‘underjaw’, *sefnig* ‘palate’ < **stamn-*, Hitt. *ištaman-* ‘ear’, CLuw. *tūm(m)an(t)-* ‘ear, orifice’ and probably also Germanic **stemnō-* ‘voice’ (Goth. *stibna* etc.). The vocalism of the first syllable is problematic: Greek requires PIE **o* or **h₃*, but Celtic excludes **o* and Avestan similarly seems to dissuade from **o*, because **stomeno-* would normally have yielded †*stāmana-* via Brugmann’s Law. Rasmussen 1989: 241ff. therefore assumes a PIE ablaut **stom-* / **stam-*. However, this inflexional type is not generally acknowledged for PIE; the two other words for which Rasmussen reconstructs an ablaut *o/a*, viz. **mori*/**mari* ‘see, lake’ and **loku*/**laku* ‘lake’ are only attested in IE languages of Europe. Lubotsky 1997c: 56f. has proposed a different solution, viz. that *stamanəm* is the result of a shortening of **stāmanəm* < **steh₃-men-*. In that case, the Greek and Celtic words and maybe also Anatolian ‘ear’ (cf. Melchert 1994: 74; the different meaning renders possible a connection with **steh₂-* ‘to stand’ or **steh₂m-* ‘stem’) might reflect the zero grade **sth₃mn-*. However, the suggested shortening of *stamanəm* is uncertain. There are hardly any parallels for shortening of **ā* in this sequence (cf. the other forms discussed in this section), and it seems unlikely that we are dealing with a shortening before *vā* ‘or’, as Lubotsky assumes. *Vā* is not known to have such an effect in Avestan, and in **stāmanəm vā* the **ā* would be in *preantepenultimate* syllable, not in the antepenultimate as with the shortening in front of clitic *-ca* and *-ciŋ*.

It seems impossible to arrive at a final, compelling solution for this word, but a possible alternative may be proposed here. If we take *stamanəm* at face value, it matches the root vocalism **stem-* of Gm. **stemnō*. Greek *stóma* would have the *o*-vocalism of the root, and Celtic the zero grade **stm̥-*. We would have a root **stem-*/**stom-*/**stm̥-* ‘mouth’ or ‘(under)jaw’, with the derivatives **stemono-* (Av.), **stom-(m)n-* (Greek), **stem-neh₂* / **stm̥neh₂* (Germanic, Celtic).

- The acc.sg.n. *ərəduuō.āghanəm* of *ərəduuō.āghana-* ‘with an upright mouth’ might be suspected to reflect **-ānəm* in view of *āghan-* ‘mouth’, with the gen.sg. *āghānō* in the *Vīdēvdād*. This is uncertain, but if so, *ərəduuō.āghanəm* may have been influenced by the following form *vaydanəm* ‘head’. P2 has *āghānəm*.

- Gershevitch 1959: 167, following Wikander, claims that *upamana-* reflects **upamāna-* ‘likeness’ to Skt. *upamāna-* (Pān.). In that case, it is problematic that there are no v.ll. *upamān*^o actually attested, although the word is very

frequent. If shortened, the shortening would have been PAv. Bailey 1979: 327 considers a connection of *upamanah-* (sic) with Khot. *māja* ‘delightful’ < **mānači-*; alternatively, we may connect OP *framāna-* ‘order, command’, Sogd. ‘wm’n ‘pleasant’ < PIE **mono-* to **men-* ‘to think, care for’. The short vowel of *upamana-* might then be explained as the result of analogy with the verbal stem in PAv.

§ 4.6 In second syllable

Kellens 1984: 142 has drawn attention to the occasional shortening of **ā* in the root syllable of causative verbs with an aniṭ root. He observed that in all shortened forms the root ends in a voiceless stop, and the finite form is connected with a preverb in scriptio continua. The evidence for the relevant verb forms of *aiia*-stems, as given by Kellens loc.cit., is adequate. No other certain forms were found. I therefore simply repeat his findings:

Causative	No preverb	Preverb
* <i>tācaiiia-</i> ‘to make flow’	<i>tācaiiieṇti</i>	<i>frātaṭ.caiiaṭ</i> (V 2.34), <i>frātaṭ.caiia</i> (V 2.26)
* <i>pātaiia-</i> ‘to make fly, run’	-	<i>uspataiieni</i> (Yt 19.44)
* <i>yātaiia-</i> ‘to put into place’	<i>yātaiieiti</i> , <i>yātaiieṇti</i>	<i>frāiitataiiieṇti</i> (Y 57.29), <i>frāiitataiiiaṭ</i> (Yt 5.65)
* <i>hācaiiia-</i> ‘to make follow’	<i>hācaiiene</i> , <i>hācaiiiaṭ</i>	<i>upaṇhacaiieni</i> (Yt 5.8,124)

Although this seems little evidence, it is significant that there are no exceptions. All verbs in a resonant or a voiced stop or fricative preserve *ā* in the stem when a preverb is prefixed; examples are *vīkānaiiāṭ* to *kan-*, *frakāraiiieiti*, *frakāraiiōiš*, *frakāraiiiaṭ* to *kar-*, *frasnāḍaiiēn* to *snā-*, *nišāḍaiiiaṭ* and *nišāḍaiiōiš* to *had-*, and many others. This suggests that we must regard the lengthening of initial *fra-* and the shortening of the root syllable as two separate things. The first step was the shortening of the root vowel **ā*, since this did not take place in e.g. *frakāraiiia-*, which nevertheless retained *fra*^o. The resulting **fratacaiiia-*, **uspataiiia-*, **fraiitataiiia-* and **upaṇhacaiiia-* underwent the influence of a strong initial stress which caused the change of **fra-* > *frā-*, discussed in § 3.4.2.1. As we saw there, this lengthening occurs especially in front of a sequence of short vowels, as in *frānaiiieṇti* and *frānaiiata* to *naiia-* ‘lead’, or *frākərəṇt-* and *frāḍβərəsta-*. For the present problem, the forms of *tac-* are especially instructive. The adj. **fra-tacarəta-*

has yielded *frātaṭ.carəta-* (4x) which agrees with the lengthening of *frātaṭ.caiia-* (2x), but the simple thematic present *frataca-* (*fratacaiti*, *fratacinti*, *fratacaṭ*, *fratacin*), with less syllables, retains the short form *fra*^o.

The only additional forms which we might have to take into consideration are the prs.subj. *frazaiiāmi* and *frazaiiāhi* (V 5.16f.) to a causative which must have been **zāiaia-* ‘to lead, impel’ if we go by the IIr. anī reconstruction **^hai-* of the root (EWAia II: 803, Werba 1997: 269). Yet since the preverb in *frazaiiā*^o is not lengthened (except for P2 *frāzaiiāmi*), these forms do not necessarily belong to the same development as the preceding causative forms. Unfortunately, no forms of the causative without a preverb are attested, so that we cannot be sure that the caus. really was **zāiaia-*; it may have been **zaiāia-* all along.

Another form with shortening of **ā* in second syllable seems to be closely related to the preceding verb forms, viz. *ātarədra* (see § 3.4.2.2). As we have seen, it has undergone both the shortening of **a-ā-a-a > *a-a-a-a* and the following lengthening of initial **a > ā*.

Descriptively, shortening of **ā* in open second syllable in front of a voiceless consonant also appears in *frazahūt* (Y 60.7) 3s. opt.s-aor.act. of *zā-* ‘to abandon’, IIr. **pra-^hāHs-iH-t*. As the full or lengthened grade of the root is expected, we would expect †*frazāhūt*, especially with a monosyllabic root in *-ā* of the type *dā-*, a type which has generalized the full grade of the root in YAv. Hoffmann 1976: 607 has argued that *frazahūt* may be the reflex of a preform **za-h-ūt* resulting from contamination of the expected IIr. athematic root-aor.opt. IIr. **jaH-iHt* with indicative forms of the *s*-aorist **jaHs-*. This is problematic, because once the laryngeal of IIr. **^haH-iHt* had been dropped, contraction would have followed (as in attested YH 1p.opt. *zāēmā*) and it is doubtful whether a root form *za-* could have been restored. Therefore, I prefer to regard *frazahūt* as the reflex of **frazāhūt*. The *s*-aorist was surely extended to the optative forms in a prestage of YAv., cf. *nāšīma* and *raēxšīša*. Whether **frazāhūt* was shortened at the same time and by the same development as the preceding causatives, remains uncertain.

The element **ā-fraka-* ‘to the front’ which is present in the compounds Yt 13.100 *afrakauuant-* ‘who has the front row’, superl. Yt 13.26 *afrakauuastəma-*, and Yt 19.42 *afrakatac-* ‘who runs at front’, probably derives from the adj. **frāka-* ‘at front’ (IIr. stem **pra-Hk-a-*) as attested in *pərədu.frāka-* ‘having a broad front’, ‘far-spreading’. Yet the same stem **frāka-* is also attested in the adv. *frakəm* in N 74; for this reason, Kellens 1974a: 284 regards the original (PAv.) length of **frāka-* as ambiguous. But *frakəm* may be an error for **frākəm*, or it may be compared with *fraca* and *fraša*, also from **frāc-*, which possibly suffered analogy with *fra*. In that case,

it seems plausible that *afraka*^o ‘to the front’ in the compounds mentioned above does go back to **ā-frāka-*. One may suggest that *afraka*^o shows analogical influence of *fra*, but we cannot exclude a phonetic shortening.

The shortening of **spītāma-* (< **spita-ama-*), the name of Zarathustra, in the voc.sg. OAv. *spitamā*, YAv. *spitama* and the voc.pl. *spitamāṅhō* (Y 46.15) has been explained by Hoffmann 1975: 266 in a convincing way: since the vocative is characterized by retraction of the accent to the initial syllable (in Sanskrit but also in Greek), we may suppose an accentuation **spītāma* and **spītāmāṅhah* which caused shortening of **ā*. Hoffmann proceeds to explain the only remaining form with shortening, viz. the dat.sg. *spitamāi* (OAv. 1x, YAv. 17x) from shortening in front of a disyllabic dat.sg. ending **-āi* (/áai/), but this is unlikely, because the disyllabic character of this ending is not established for OAv. and even less for YAv. It seems more straightforward to explain *spitamāi* from dissimilation of **ā* in front of *ā* in the next syllable (see § 4.8 below). Note that the other forms of *spītāma-*, retaining *-ā-*, never have *-ā-* in the next syllable: gen.sg. YAv. *spītāmahe* (22x⁸⁸), OAv. *spītāmahiā*, acc.sg. *spītāməm*, nom.sg. *spītāmō*, voc.sg.f. *spītāmī* (Y 53.3).

§ 4.7 Initial **āC-*

Quite a number of forms show shortening of **ā* in anlaut. Although some of these forms are trisyllabic — and one could therefore argue that they underwent shortening in the antepenultimate syllable —, I have opted for a different classification. The main reason is the fact that most of these shortened forms appear to be, or in any case might be, rather recent, even post-archetype instances of shortening.

Initial **ā-* is found shortened in Y 51.4 *axštāt* for **ā xštāt* ‘it will arise’, Y 42.6 *paitī.ajqθrəm* < **ā-jqθra-* ‘return’, Y 40.1 *adāhū* and Y 52.3 *adā*⁸⁹,

⁸⁸ The gen.sg. *spitamahe* Yt 8.2 is a lapsus of the tradition: F1 *spitama* · J10 *spitma* · K15 *spētāmahe* · Pt1.E1 *spitamahe*. The mss. F1.J10 have replaced the entire form by the voc.sg. *spitama*; in fact, the facsimile of F1 shows that the lines in which *spitama* occurs have been added later by a different hand. K15 preserves the *-ā-* which has been shortened in Pt1.E1.

⁸⁹ For this form, Kellens 1974a: 210 assumed a shortening of initial **ā* in antepenultimate syllable, because of the originally disyllabic ending **-/āʔah/*. Yet the syllable count of the endings in YAv. is uncertain, and furthermore it is unknown at which moment the change from a disyllabic ending **-/āʔah/* to monosyllabic **-/āh/* would have taken place. Therefore, I prefer to look for a solution in the more recent history of Avestan.

loc.pl. and acc.pl. of *ā-dā-* ‘oblation’, Y 46.5 *adqs* for **ā dqs* ‘taking in’, Yt 14.45 *apātāra* ‘protectors’ < **ā-pātāra*, YAv. *afraka*^o in *afrakauuant-* and *afrakatac-* < **ā-frāka*^o ‘forward towards’ (cf. Kellens 1974a: 285), F 318 *amāta* ‘experienced’ (but *āmāta-* elsewhere), Y 71.17, P 36 *astarəman-* ‘affliction’ < **ā-stara-* ‘to commit a sin’, Y 42.2, S 1.7f. *aspan-* ‘profitable’ < **ā-span-*, Yt 14.42 *nəma.azbāitiš* ‘calling by name’ (**ā-zbā-*, cf. Y 15.1 *nāmaṇ azbāiia*). Another possible instance is F 116 *amqsta* ‘he pierced’ if from **ā-mqsta*; alternatively, this form might contain the augment (Klingenschmitt 1968: 47). Y 30.3 *asruuātəm* (3d. aor.med. of *sru-*) is also ambiguous: it may be an augmented ind. form, or it might be an inj. form *sruuātəm* with the preverb **ā*^o which was shortened. The form Y 30.10 *asištā* was translated as ‘fastest’ and derived from **āsišta-* by Humbach 1952: 6. In that case, the shortening would certainly be late and secondary, since YAv. attests the original form *āsišta-*.

The preverb **ā* is also found shortened in the forms *auuānt-* (Yt 8.50 bis) ‘shining towards’, *auuaēnatā* (Y 30.2) ‘look towards’, *auuaocāmā* (Y 38.5) ‘we invoke’, *auuarətā-* (YAv.) ‘(piece of) possession’, and *auuazāite* (Y 57.31) ‘drives towards’; compare their discussion in § 4.4.

In four forms, initial **ā*^o is not the preverb **ā* but part of the root *āp-* ‘to reach’, viz. prs. *apaiia-* ‘to reach’ (Kellens 1984: 138)⁹⁰, Y 41.2 *apaēmā* < 1p.aor. **āpaima* (Skt. pf. *āpa-*), Y 33.5 *apānō*, nom.sg.m. of the ptc.pf.med. **āpāna-* (Skt. pf. *āpa*), and the YAv. adj. *apanō.təma-* ‘having best arrived’, ‘superior’, which is derived from the same ptc. **āpāna-*⁹¹.

Some of the preceding forms may alternatively be explained from dissimilation of two consecutive *ā*’s, e.g. *adāhū*, *apātāra* or *apānō*. The same goes for Yt 13.95 *ārāstiiehe*, spelled *ar*^o in the mss. F1+.J10.

⁹⁰ The alleged prs.caus. *apaiia-* ‘to make reach’, which would occur only at Yt 10.86 *kaḍa nō arša gauuaitīim apaiiāt*, may be a mirage. The passus was translated by Gershevitch 1959: 115 ‘when will the hero make us reach the herd’ and by Kellens 1984: 151 as ‘quand le taureau (Miθra) nous fera-t-il atteindre l’étable?’; similarly De Vaan 2001. Thus, all translations regard *nō* ‘us’ and *gauuaitīim* ‘cow herd / stable’ as a double accusative to *apaiiāt*. Yet *kaḍa nō* is sometimes attested in YAv. with *nō* as a kind of datus ethicus which need not always be translated. The same seems possible in Yt 10.86 ‘When will the bull reach the herd?’; thus, we need to acknowledge only one stem *apaiia-* ‘to reach’.

⁹¹ Kümmel 2000: 622 has rightly argued that *apanō.təma-* can hardly be derived from an adj. **apana-* ‘removed’, as was assumed by Bartholomae 1904: 75.

The pf.ptc.act. of *ah-* ‘to be’ *ā̇ṇhuš-* ‘having been’ < **āh-uš-*⁹² provides the gen.pl. form Yt 13.21 *ā̇ṇhušqm*, but with a shortened initial vowel we find Y 65.6 *aṇhušqmca*. It is possible that Y 65.6 *a°* is due to the extra syllable which the form contains, thus by a possible shift of accent: **ā̇ṇhušámca*; but in other forms where *-ca* causes shortening, it is always the antepenultimate, which would be *-uš-* in this case. It may be preferable to assume an incidental shortening in *aṇhušqmca*. We have already noted that *aṇh-* changed to *ā̇ṇh-* in OAv. because of perseveration. The reverse may be at play here: in Y 65.5 *hātqmca aṇhušqmca, zātanqmca azātanqmca* ‘of those who are and those who have been, of the born and unborn ones’, the final *-a* of *hātqmca* may have imposed itself on **ā̇ṇhušqmca*.

An uncertain, but possible instance of shortening appears in the loc.pl. *x̣vāhuua aṇāhuua* in P 49. The sentence censures a lack of hospitality: *yō nōiṭ narəm ašauuanəm x̣vāhuua aṇāhuua jasəntəm x̣šnaošta vā x̣šnāuuaiieite vā* ‘who has not pleased nor pleases a righteous man who comes to his *aṇā* (pl.)’. It seems likely that the loc.pl. *aṇāhuua* means the ‘house’ of the host. JamaspAsa-Humbach 1971: 72 have connected *aṇā-* with Skt. *ātā-* pl. ‘door-post’, a noun generally reconstructed as **h₂nHt-eh₂* on account of Lat. *antae* etc., cf. EWAia I: 163. The plural use of *aṇā-* would match the pl. use of *ātā-*, and would moreover be natural if it is based on a sg. ‘door-post’: the extension of ‘door-posts’ to ‘house’ is trivial. If we accept that attested *aṇāhuua* is shortened from **ā̇ṇāhuua*, we may reconstruct a stem **ā̇ṇā-*, which differs from Skt. *ātā-* only in the dental. This problem may be solved if we assume with Beekes (p.c.) that *ātā-* represents an original hysterodynamic inflexion type in PIE: nom.sg. **h₂énHth₂*, acc.sg. **h₂nHtéh₂m*, gen.sg. **h₂nHth₂ós*, > Iir. **ánti*, **átám*, **átás*. The original meaning ‘door-posts’ has survived in Avestan in the derivative *qiṇiiā-* < **antiā-*.

§ 4.8 Dissimilation in front of *ā* or *q* in the next syllable

In a relatively small number of forms, the only possible explanation for shortening is dissimilation of **ā* to *a*, due to a vowel *ā*, sometimes *q*, in the next syllable. We can often compare forms with shortening in front of *ā* or *q* with forms with retained *ā* in front of *a*, *ə* or another vowel. This dissimilation of two *ā*’s must have been present in the archetype, since it

⁹² As **āhuš-* would yield Av. *ṭāhuš-* by regular sound change, we must assume that the part. adopted the stem *ā̇ṇh-* from the finite forms, ind. *ā̇ṇha* etc.

occurs in different texts; but it was only a tendency, since enough forms with retained *ā* are preserved: *θrātāra*, *pātārəm*, *vāstārəm*, etc.

The present *zāna-* ‘to know’ emerges as *zana-* in the subj. forms 3p. *auua.zanq̄n* (4x V) < **zānān* and Yt 13.50 *paiti.zanāt̄* < **zānāt̄*. Observe the retention of **ā* in e.g. the ind. *paiti.zānənti* and the ipv. *paitī.zānatā*. In the wake of Hoffmann 1975: 267, Kellens 1984: 179 ascribes the shortened subj. forms to shortening in the antepenultimate syllable, on the assumption that the subj. suffix vowel *-ā-* was originally disyllabic: **zānāan*, **zānāat*. Yet the hiatus which the subj. vowel *ā* shows in OAv. must have disappeared by the time of YAv., and it seems in any case likely that the stem form *zān-* would have been restored from the indicative and other moods during the time when Avestan was still a living language. Thus, I think that *auua.zanq̄n* and *paiti.zanāt̄* cannot be due to an early shortening.

The compound *nasu-pāka-* ‘cooking corpses’, with *-pāka-* < PIE **pokʷó-*, is attested in the acc.sg. *nasupākəm* and in the abl.sg. *nasupakāt̄*. Since no other conditions for shortening in the one form and retention in the other are available, we may ascribe shortening in *-pakāt̄* to a dissimilation from earlier **-pākāt̄*.

The subj. forms Yt 13.95 *frādāt̄* and Yt 13.68 *frādātaēca* to the present *frāda-* ‘to flourish’, and Yt 13.66 *naδātaēca* to the present *nāda-* ‘to be in agony’, have also shortened the stem vowel **ā*. Hoffmann 1975: 267f. is hesitant about the cause of the shortening: he suggests possible influence from a disyllabic subj. suffix *-ā-* (i.e. **frādāat*), but also considers a shortening in antepenultimate syllable. Since in **frādātaē-ca* this would mean that the subj. suffix **ā* would have been shortened, he argues that this shortening was avoided because the functional load of the suffix had to be retained. The latter argument is convincing (we have used it in § 4.1.1 above), but why would Avestan have ‘compensatorily’ shortened the preceding **ā*? We would rather expect unchanged †*frādātaēca* and †*nāδātaēca*. Fortunately, YAv. attests also an indicative form in *-ca* of this root, viz. *frādati-ca*; no shortening has occurred. Thus, I am inclined to explain the subj. *frādāt̄*, *frādātaēca* and *naδātaēca* from a dissimilation **ā* > *a*.

The noun *nauuāza-* ‘sailor’ < **nāuāza-* has been regarded as one of the few examples of shortening of **ā* in front of *uu*, see § 4.4 above. Yet the form, attested only as *nauuāzō* in Yt 5.61 and parallel texts, may also be ascribed to a dissimilation of **ā* in front of the *ā* in the next syllable.

The noun *nabānazdišta-* ‘closest relative’, cognate with Skt. *nābhānédiṣṭha-*, contains the loc.sg. **nābā* of Plr. **nābi-* (= Skt. *nābhi-* ‘navel; kin’) or of the OAv. equivalent of YAv. *nāfa-* ‘kin, family’. It is striking that we find the simplex in E 9, 15 as **naba* ‘kin’. Klingenschmitt

1978: 99ff. therefore argues that it is also possible to regard short *nab*^o as inherited from an ablaut PIE **Hnób^{hi}-* vs. **Hnéb^{hi}-*. Yet in view of YAv. *nāfa-*, it seems preferable to reconstruct PAv. **nābā*^o.

The acc.sg. *āsnatārəm* (Vr 3.1, G 3.5, F 369) of *āsnātar-* ‘priest in charge of the washing’ probably represents earlier **ā-snātārəm* in view of the occurrence of *-ā-* in the oblique cases *āsnāθrō*, *āsnāθre* and *āsnāθraŋ*. The only deviating form gen.sg. N 75,79 **āsnatarš*⁹³ shows a different inflexion, and may have generalized *ā-sna*^o from the verb *ā-snaīia-* (for the explanation of *-a-* in *snaīia-* see § 4.9.7). Note that the Pahlavī Vīdēvdād usually translates *āsnātar-* with *’snt’l* (Klingenschmitt 1968: 123), i.e. */āsnaðār/*, which seems to indicate that when MP borrowed this priest name, it had the form **āsnatār-* in Avestan liturgy.

It has been claimed by some (and disputed by others) that OAv. *sax^vārē* is the acc.pl. **sahuār* to the stem **sāhuar-/-n-* (Skt. *śāsus-* ‘order, command’) which is also attested in the ins.sg. OAv. *sāx^vānī*. If *sax^vārē* and *sāx^vānī* do belong to the same paradigm, we may assume that earlier **sāx^vār* yielded *sax^vārē* by dissimilation. This would have the advantage that all OAv. derivatives of *sāh-* ‘to command, teach’ had the long vowel just like the root present *sāstī*: *sāsna-* ‘teaching, command’, *sāstar-* ‘ruler’ and **sāhuar/n-* ‘doctrine, teaching’.

In two forms, we find shortening of **ā* in front of *q* in the next syllable. The noun *rasqstāt-* ‘quality of being someone who offers, donorship’ (attested only in the gen.sg. *rasqstātō* Y 1.14 etc.) must be derived from the ptc. *rāsant-* ‘offering’, as Hoffmann 1975: 266 has argued. This means that the preform **rāsqstātō* has shortened its **ā*, which may be due to a dissimilation in front of the following nasal vowel *q*. The same change may underlie Y 71.3 *aiβinasqstāma-*, the superlative to a ptc.aor.act. **nāsant-* ‘reaching’ (Kellens 1995a: 40). This word is a less certain witness for shortening, because its original **ā* is not attested, but can only be inferred on the basis of the 3p. prs.ind. *aiβi.nāsənti* (cf. Kellens 1984: 355).

An uncertain form is the OAv. adverb Y 48.4 *nanā* ‘separated’, which must be cognate with Skt. *nānā* ‘differently’. The original OAv. form may have been **nānā*, which was dissimilated in this one attestation of *nanā*. However, the same particle is attested in the YAv. *Ērbedestān* as *nana*, and this can only derive from **nanā* (if it is not an error of the E transmission).

A form in which phonetic shortening is only illusory is E 6 *anakāsə* ‘not openly’ < **an-ākās*^o. It seems as if **ā* has been dissimilated in front of *ā*, but

⁹³ Mss. N 75 *āsnatāra* and N 79 *āsnatārš*.

in view of the occurrence and apparent productivity of *ana*^o ‘not’ as a first member of negated compounds (cf. the examples in Bartholomae 1904: 120ff.), *anakāsə* may be due to a scribal error or an error in the oral transmission, introducing the frequent *ana*^o into the negated compound **anākāsə*. In N 63 *an.ākāsə*, the separation point has prevented this error.

§ 4.9 Linguistically real *a*

Some of the forms in which we unexpectedly find Avestan *-a-* instead of IIr. **ā* are nominal endings and verbal stems and endings, which form part of a paradigm in which related forms have inherited **-a-* from IIr. Here, I differ from most previous analyses by assuming that the shortening of **ā* is due to paradigmatic pressure; this yields a more economical view of the changes observed.

§ 4.9.1 The f.sg. endings *-aiia*, *-aiiāi*, *-aiiā*, *-aiiāt*

The f. *ā*-stem endings of the gen.abl.sg., the dat.sg., and the loc.sg. are characterized by the difference between the suffixal vowel *-ā-* which the endings display in Sanskrit, and the vowel *-a-* in the same position in Avestan. Thus, Skt. gen.abl. *śénāyās*, dat.sg. *śénāyāi*, loc.sg. *śénāyām* to *śénā-* ‘army’ correspond to Av. gen.sg. *daēnaiiā*, abl.sg. *daēnaiiāt*, dat.sg. *daēnaiiāi* and loc.sg. *grīuuaiia* to *dāenā-* ‘religion’ and *grīuuā-* ‘neck’. The Old Persian forms go along with Skt.: gen.sg. *taumāyā* to *taumā-* ‘family’, loc.sg. *aḫurāyā* to *aḫurā-* ‘Assyrian’. However, Tedesco 1926: 140f. has shown that the Khotanese and Sogdian endings of the f.sg. oblique cases presuppose **-ayāh*, with a short suffixal vowel like in Avestan.

There is one f.sg. ending which has a short vowel in Skt. too, viz. the ins.sg.: Skt. *śénayā*, compare Av. *daēnaiia*. For this reason, Lühr 1991: 79 concludes that the element *-ay-* was once also present in the whole f.sg. paradigm in Sanskrit, which later remade **-ay-* into *-āy-*, but retained the ins.sg. because it was supported by pronominal *táyā*. The IIr. paradigm may thus be reconstructed as **sainā*, **sainām*, ins. **sainayā*, gen. **sainayās*, loc. **sainayā*.

The original locus of the element *-ay-* will have been the loc.sg., the ending of which is reconstructed as PIE **-eh₂i* by Beekes 1995: 182. Extended with a postposition **ā* in IIr. (OP *-āyā*, Av. *-aiia*), this yielded **-aHi-ā* > **-aijā*/. The element *-aj-* then spread to the other case forms gen.abl., ins. and dat., and this seems the situation which is preserved by

Avestan and other East Iranian dialects: they may have never had $-\bar{a}i-$ in the paradigm of the $f.$ \bar{a} -stems. In Sanskrit and Old Persian, the element $-ai-$ was replaced by $-\bar{a}i-$ in each case except the Skt. ins.sg.

§ 4.9.2 The gen.pl. ending $-anqm$

A striking difference between the grammar of Skt. and OP on the one hand, and Avestan on the other hand, is found in the n -containing endings of the gen.pl. Schematically, these can be presented as follows:

	Skt.	OP	Avestan
a -stems	$\bar{a}n\bar{a}m$	$\bar{a}n\bar{a}m$	$anqm$
\bar{a} -stems	$\bar{a}n\bar{a}m$	$\bar{a}n\bar{a}m$	$anqm$
i -stems	$\bar{i}n\bar{a}m$	-	$inqm$
\bar{i} -stems	$\bar{i}n\bar{a}m, y\bar{a}n\bar{a}m$	-	$inqm$
u -stems	$\bar{u}n\bar{a}m$	$\bar{u}n\bar{a}m$	$unqm$
\bar{u} -stems	$\bar{u}n\bar{a}m$	-	$unqm$
r -stems	$\bar{r}n\bar{a}m$	-	rqm

It so appears that Avestan has short suffixal vowels every time Sanskrit and the other Iranian languages have a long vowel. The exceptions can easily be explained away: the form $ma\check{s}ii\bar{a}nqm$ has lengthening of $*a$ after the cluster $\check{s}ii$ (see § 3.1.3); the form $\gamma\bar{a}n\bar{a}nqm$ ‘of the women’ is the gen.pl. of the stem $\gamma n\bar{a}$ - ‘woman’, which may have been restored because it was a monosyllabic stem; the form $va\eta uh\bar{i}nqm$ has lengthening of $*i$ after a labial glide $[r^{\text{wh}}]$, cf. § 6.2.3.

As far as i - and u -stems are concerned, the evidence of the Iranian languages other than Avestan is ambiguous, so that it remains undecided whether Ir. had $*-in\bar{a}m$ or $*-\bar{i}n\bar{a}m$, $*-un\bar{a}m$ or $*-\bar{u}n\bar{a}m$. In the a -stems, there is enough evidence to assume that the Plr. ending was $*-\bar{a}n\bar{a}m$; cf. e.g. Khotanese $-\bar{a}nu$ and Sogdian $-’n$. This implies that Proto-Avestan shortened the ending of the a - and the \bar{a} -stems $*-\bar{a}n\bar{a}m$ to yield $*-an\bar{a}m$, as Bartholomae 1894-5: 136 assumed. He suggested that this shortening may have started in the a -stem neuters, where the acc.pl. was identical to that of the n -stems:

n-stem acc.pl. *taoxma* vs. gen.pl. *taoxmanqm* yielded *a*-stem *āiiapta* vs. **aiaptānām* → *aiiaptanqm*. From here, the short vowel preceding *-nqm* may have spread to the masculines, the feminines and to the *ī*-, *i*-, *ū*- and *u*-stem endings **īnām* and **ūnām*.

It has sometimes been assumed that the ending **-ānām* underwent phonetic shortening due to the fact that it was followed by disyllabic *-nām* = *-naam/*, so that the suffixal vowel was in antepenultimate position, a position liable to vowel shortening (e.g. Hoffmann-Forssman 1996: 60). This explanation is unlikely for the following three reasons. Firstly, it is based on the disyllabic scansion of the gen.pl. ending *-qm* in the Gāthās. It is unknown whether the gen.pl. ending was still disyllabic in YAv., and it is unlikely that it was disyllabic *after* YAv., during the period of text tradition. Secondly, why would only the gen.pl. forms of *a*- and *ā*-stems have shortened the vowel in antepenultimate position? We find the gen.pl. *vaḥhutātqm* of *vaḥhutāt-*, *hātqm* of *hant-*, *sāθraqm* of *sātar-*, *āθraqm* of *ātar-*, *rāšnqm* of *rāzan-*, all with retained predesinential *-ā-*. Thirdly, shortening in antepenultimate syllable is a very restricted phenomenon, which occurs only in a handful of the words with *ā* in antepenultimate position, and always when the word ends in *-ca* or *-ciṭ* (see § 4.1 above); this condition is not met by the gen.pl. forms.

Hoffmann-Forssman 1996: 60 also suggest that the pronominal gen.pl.f. forms *kaḥqm* N 37 (to *ka-* ‘who?’) and *aētaḥqm* (to *aēta-* ‘this’, Skt. *etāsām*) have been shortened from **kāhām* and **aitāhām*. As I have indicated in the preceding lines, a phonetic explanation seems unlikely to me. There are two different pronominal gen.pl.f. forms which have retained **-ā-*, viz. *yāḥqm* ‘whose’ (Skt. *yāsām*) and *āḥqm* ‘theirs’ (Skt. *āsām*). For *kaḥqm* and *aētaḥqm*, several possibilities are open. The form *kaḥqm* is only attested in N 37 *kaḥqm gāḥanqm* ‘of which Gāthās?’. In view of the frequent misspelling in the two mss. in which the Nērangestān is preserved, it is not impossible that the original text read **kāḥqm*. In the case of *aētaḥqm*, this explanation is not to be recommended. The form occurs several times, with f. *uruuarā-* ‘plant’ in V 8.75 *aētaḥqm uruuaranqm*, but also with n. *ast-* ‘bone’ in V 6.7.46 *aētaḥqm astqm*, with n. *dāman-* ‘creature’ in V 13.1f. *aētaḥqm dāmanqm*⁹⁴, and with m. *miiazda-* ‘oblation’ in N 63 *aētaḥqm miiazdanqm*, thus showing the beginning confusion of grammatical gender which characterizes the Vīdēvdād texts. We cannot take recourse to the gen.pl. of the m.n. since this ends in *-aēšqm* in the pronouns. The only possible — and in fact quite plausible — model for the analogical introduction of *-aḥ-* lies in the gen.sg.f. form of the pronoun, *aētaḥā*. Still, one wonders why the

⁹⁴ But note also *āḥqm dāmanqm* with the f. of *a-*.

replacement was not carried through in *āṇhqm* and *yāṇhqm*. I have no final solution for this problem, but I may point to the fact that a similar, incomplete spread of *-jḥ-* from the f.sg. to paradigms which originally had **h* is also found in the gen.sg.m. of several pronouns; these are discussed in § 20.2.

§ 4.9.3 Other nominal endings

The nom.du. *haxaiia* (Yt 11.16f, V 4.44, Vyt 10) and the nom.pl. *haxaiiō* (Yt 19.89,95) of *haxi-* ‘companion’ might be ascribed to a phonetic shortening of **haxāii°*, cf. OAv. *hušhaxāim* < **-haxāiam* and the Skt. nom.pl. *sákhāyah*. However, a good alternative for this explanation is a simple analogy with the usual *i*-stem endings.

§ 4.9.4 Athematic middle participles

The middle participle of athematic verb stems takes the suffix *-āna-* (*-qna-*) < IIr. **-mHna-*. The long vowel is usually retained regardless of the position in the word, in penultimate (e.g. *kuxšnuuqñāi*, *gərəzāñā*, *dadrāna*, *pāpərətāne*) or antepenultimate (*gərəzānahe*, *cašānqscā*, *daḍānahe*, *viānasca*) syllable.

Kellens (1984: 323) has pointed out that several verbs show a prs.ptc.med. in *-ana-* instead of **-āna-*. In view of the general retention of *-āna-*, it seems unlikely that they have undergone some kind of phonetic shortening. We must look for an analogical model, which can only be the deverbal adjectives and nouns in *-ana-* such as *°jamana-* ‘coming’ and *raocana-* ‘illuminating’. Five of the seven stems which show shortening continue **-iāna-* or **-uāna-*, and it seems likely that these forms may be compared with several verb forms of stems in *-iia-*, in which **-iā-* is sometimes analogically replaced by *-ia-* (e.g. 1p. *-aiimahī* instead of **-aiāmahi*, see § 4.9.5). Although the verbs from which **-āna-* is derived are athematic, it is conceivable that the later YAv. language made no distinction between thematic and athematic anymore, and simply strove to replace the verbal suffixes **-iā-* and **-uā-* by *-ia-* and *-ua-*. The evidence comprises the following forms⁹⁵:

⁹⁵ I exclude the gen.pl. form Y 8.4 *aiβi.zūzuiianqm*. Kellens (1984: 404) assumes haplology from **aiβi.zūzuiiananqm*, but still a perfect stem **zūzuiia-* would be strange in the sense that it would be the only perfect with a suffix *-iia-*. The form *aiβi.zūzuiia-* may be taken at face value as an adj. in *-iia-* derived from the perfect stem *zūzu-* (Skt. *juhuv-*).

- The frequent ptc. *aojana-* ‘saying’, which occurs in the forms *aojanō*, *aojana* and *aojanā*. The palatalization of the velar also points to a category switch, since a ptc.med. **Haug^h-mHna-* would yield †*aogāna-*. The shift to a different formal category may have been supported by the fact that the meaning of *aojana-* was ‘saying’, since *aoj-* is medium tantum: there was no middle connotation in the meaning of the ptc., which may have facilitated the analogy with the nominal stems in *-ana-*.
- The pf.ptc.med. **āpāna-* ‘having reached’ is only attested in the superlative *apanō.tāma-* (YAv. passim) < **āpānatama-* (cf. above). Note in support of the analysis as **āp-ana-* that the superlative suffix is usually added to adjectives.
- *saiiana*⁹⁶ ‘lying’ to *si-* ‘to lie’ (Skt. *śáyāna-*, but also subst.adj. *śáyana-*): nom.sg.m. *saiianō* (FrA 9), acc.sg.n. Yt 14.30 *aspaēm varəsəm zəmāda saiianəm* ‘a horse’s hair lying on the earth’. The meaning ‘lying’ is disconnected from a specific middle connotation. The adjective **caiana-* was also present in Ilr., and is reflected in Av. *dužakō.saiiana-* (V 1.9) ‘where the lair of the hedgehog is’; compare Skt. *śáyana-* ‘lair’.
- *stauuana-* to *stu-* ‘to praise’ (Skt. *stávāna-*): nom.sg.m. *stauuanō* ‘being praised’ (Y 10.6); *āstauuana-* ‘recommending himself to’ (V 3.40 dat.pl.m., V 3.41 gen.sg.m.); *frastauuana-* ‘pledging himself to’ (H 1.7 nom.sg.) to *stu-* ‘to praise’.
- *sraiiiana-* ‘leaning’ (V 3.29 nom.sg.m.) to *sri-* ‘to lean’. The absence of a specific middle connotation may have made the switch to the *-ana-* stems more easy.
- *(an)aiβi.sr(a)uuana-* ‘(not) being taught’ (V 3.40 nom.sg.m.) to *sru-* ‘to proclaim’.
- *hunuuana-* (Vr 9.3) ‘being pressed’ (Skt. *sunvāná-*) to *hun(a)u-* ‘to press’.

Three apparent exceptions can easily be explained away. The dat.sg. form Yt 13.88 *haṛhananāi* of *haṛhanāna-* ‘earning’ occurs not far from the dat.sg. *mamnānāi* ‘having thought’ in the same stanza; this suggests that *haṛhananāi* is due to assimilation of **ā* in a sequence of several syllables in *-a-*, rather than to shortening of **-ānāi* to *-anāi*. The form Y 35.2 *vāuuəṛəzananqmcā* for **vāuuəṛəzāna-* ‘having been brought about’ seems to be due to shortening in antepenultimate syllable, but note that it is preceded in Y 35.2 by *vəṛəziimnanqmcā*, so that *-anqmcā* may simply have been adopted from that form. Finally, shortening is also attested in H 2.14 *āṛhanqm* acc.sg.f. ‘seated’

⁹⁶ The restoration of N 37, P 10 *daḍānō* to **saiiānō*, suggested by Kellens 1984: 323, is very uncertain: Kotwal-Kreyenbroek 1995: 106 prefer to restore **padānō* ‘lying down’, as had been proposed by Bartholomae 1904: 841.

< **āhāna-*. Kellens 1984: 323 assumes that *-*ān-* was shortened in front of a disyllabic ending *-qm*, but as far as disyllabic endings *-qm* go, it is only the gen.pl. *-qm* which can be read disyllabically (at least in OAv.), not the f.sg. Therefore, it seems more likely that **āṅhānqm* was graphically assimilated to the frequent gen.pl. ending *-anqm* by the later text tradition; cf. Y 13.1 *bipaitištānqm* to *bipaitištāna-*.

§ 4.9.5 Thematic 1p. endings

The 1p. ind., inj. and subj. endings *-*āmahī*, *-*āmaide* and *-*āma* of thematic verbs usually retain the suffix vowel *-ā-* in front of *-m-*, compare YAv. *barāmahī*, *barāmaide* and *barāma*⁹⁷. However, verb stems in *-aiia-* always take the suffix vowel *-a-* (cf. Kellens 1984: 202, 252), viz. in the YAv. ind. forms *vaēḍaiimahī* and *auuaēḍaiimahī* (with pseudo-OAv. *-ī*), *āstāiimaide* (Vr 3.5), and *zbaiimahī* (Yt 12.3ff, 15.1), and in the opt.aor. *buiiama* (Y 70.4, Yt 10.75). There are also the forms *jimama* (Vyt 32) to the aorist *jama-* ‘to come’ and *daiḍiama* (Vyt 58) to the present *daiḍī-* ‘to see’, but the evidence of the Vyt spellings is less conclusive.

The shortening in front of *-mahī* and *-maide* may be interpreted as an analogical change, aiming at complete identity of the vowel connecting stem and ending, which was inherited in the indicative as *-a-* in the 23s. and 23p. but as *-ā-* in the 1s. and 1p. Shortening in front of *-mahī* and *-maide* did not cause homonymy with any other verbal category, and also in the opt. **buiāma*, there was no danger of confusing *buiiama* with any other form.

We furthermore find a few YAv. subj. forms in *-iiama* instead of *-iiāma*: *tauruuuiiama* (Yt 10.34), *daēsaiiama* (Vyt 32), *hqm.bāraiama* (V 19.44f.; uncertain: PV+InVS *-anta*), and *auuaspaiiama* (Vyt 44). However, there is no certain evidence that the thematic 1p. subj. ending *-*aiāma* had really been shortened to *-aiiama* in YAv., since all the four alleged subj. forms in *-aiiama* are uncertain. We may surmise that the appurtenance to the subj. caused the restoration of *-ā-*.

⁹⁷ The complete evidence comprises OAv. *išūidiimahī*, *juuamahī*, *fraēšiiimahī*, *nəmaxiiimahī*, *vərziiimahī*, *səṅghāmahī*; *isāmaidē*, *pairi.jasāmaidē*, *vīsāmaidē*, *vīsāmadaēcā*; *tauruuuiimā*, *nāšāmā*, *āuuuocāmā*, *frauuaocāmā*; YAv. *frīnāmahī*, *hqm.barāmahī*, *auua.miuuamahī*, *yāsāmahī*; *kāṅhāmaide*, *cinaḍāmaide*, *pairi.barāmaide*, *mainiiāmaide*; (ni)janāma, *nidaḍāma*, *darəsāma*, *bauuāma*, *barāma*, (fra)vaocāma, *vanāma*, *vindāma*.

Daēsaiiama and *auuaspaiiama* occur in the Vyt, a text which is well-known for its orthographic aberrancies. V 19.44 *hqm.bāraiianta* is under suspicion of being an error for original *hqm.bāraiianta*, the form attested at that passage in two of the three Vīdēvdād ms. classes. And finally, Yt 10.34 *tauruuuiiama* may well be a later addition to the original text:

yaθa vaēm (...) vanāma vīspā harəθə, yaθa vaēm (...) vanāma vīspā dušmainiiuš, yaθa vaēm (...) vanāma vīspā tbaēšā tauruuuiiama daēuuanqm mašiiānqmca yāθβqm pairikanqmca sāθrqm kaoiiqm karafnqmca ‘so that we may overcome all opponents, so that we may overcome all enemies, so that we may overcome all hostilities of daēvas and men, sorcerers and witches, tyrants, kavis and karpans’.

It is clear that one of the two verb forms *vanāma* ‘may we overcome’ and *tauruuuiiama* ‘may we conquer’ is redundant. The parallellism with the first two instances of *yaθa vaēm vanāma* suggests that also the third *yaθa vaēm vanāma* is original (pace Gershevitch 1959: 185). This implies that *tauruuuiiama* is a later insertion into the text after *vīspā tbaēšā*, on the model of other Avestan passages where *tauruua(iia)-* combines with *tbaēšah-*, especially of Y 9.18ff. *yaθa tauruuaiieni vīspanqm tbišuuatqm tbaēšā, daēuuanqm mašiiānqmca yāθβqm pairikanqmca sāθrqm kaoiiqm karafnqmca* ‘that I may overcome the hostilities of all hostile ones, of daēvas and men, sorcerers and witches, tyrants, kavis and karpans’.

In OAv., it is likely that none of the endings **-aiāmahi*, **-aiāmadai* and **-aiāma* had undergone shortening yet. The form Y 35.7 *vātēiiāmahi* ‘we wish to make known’ < **vātaīāmahi* shows the absence of shortening. The forms *auuaēdaiiamahī* (Y 36.6, 41.1) and *āuuaēdaiiamaidē* (Y 58.2f.) seem to contradict the retention of *-iiā-*, but the expression *(a)vaēdaiiamahi* was frequent in YAv. liturgy, and it may have influenced the OAv. text of the YH and of Y 58.

The ending **-aiāma* had, to all likelihood, also been preserved in OAv. The 1p.opt. **buiiāma* ‘let us be’ < **b^hHu-iaH-ma* is attested in Y 41.4: it appears as *buiiāmā* in the Indian ms. branches (S1.J3, InVS and YS) but as *buiiamā* in the Iranian sources (IrPY, IrVS and J2; K5 has *buiiemā*). As there are no forms in the close context from which *°āmā* could have been taken in the Indian ms. classes, it seems that the learned mss. have replaced *°āmā* by *°amā* on the model of the YAv. forms *buiiama* and 2p. *buiiata, dāiata*. The same seems to be true for Y 60.12, a text with a strong Gāthic flavour: the 1p. opt. *jamiīama* is spelled *jamiīāma* in the Indian mss., which may have retained the original form (Kellens 1984: 390); yet this time the 1p. form *darəsāma* occurs in the same verse, which may have influenced *jamiīāma*.

Y 28.6 *tauruuuiāmā* is unreliable, because the metre shows that the original form must have had one syllable less; it is generally agreed that the text originally had **tauruuāmā* (e.g. Kellens-Pirart 1988-91 II: 248, Beekes 1988: 173). This means that *tauruuuiāmā* was made by introducing the YAv. stem *tauruuuiia-* in front of the OAv. ending *-āmā*.

The only 1p. verb forms with a sequence **-am-* outside the *-aiia-* presents are *yazamaidē* (YAv. passim) and *yazamadaēca* (Y 71.11) ‘we worship’. Because of the latter form, it is uncertain that we can explain *yazamaide* from shortening of **ā* in antepenultimate syllable, as was proposed by Hoffmann-Forssman 1996: 59. Kellens 1984: 203 has made the interesting suggestion that *yazamaide* may be due to a wrong restoration by the Parsi scribes of the abbreviation *y°* or *yaz°* such as we often find in the liturgical mss. This would be an ultima ratio; it seems especially unlikely that such a frequent and important verb form would not have been preserved in the oral tradition of the Avesta. The retention of intervocalic *-d-* in YAv. runs counter to the sound laws: we would expect †*yazāmaidē*. Of the other four YAv. forms in *-āmaide*, two occur in Vr 12.4 (*mainiiāmaide* and *cinadvāmaide*), which shows OAv. quotations such as the forms *dadāmaide* and *cīšmaide*, which may have directly influenced the other two 1p. forms. The third one (*kāḡhāmaide*) occurs in the Vyt which is less reliable, and the last one (*pāiri.barāmaide*) in Yt 11.7, where *yazamaide* occurs in the same stanza. We may thus suggest that the retention of *-d-* in *yazamaide* had as a purpose to convey a Gathic flavour to the expression **yazāmaidē*. I have no explanation for the shortening of **ā*.

§ 4.9.6 Other verbal endings

The 2p. aor.opt.act. forms *dāiiata* to *dā-* and *buiiata* to *bū-* have analogically shortened the suffix **-iā-* to *-iia-*, just like the 1p. opt. *buiiama*.

The ending of the 3d. prs.opt.med. is attested in two forms, viz. Y 12.5f. *apərəsaiiatəm* to *pərəsa-* ‘to ask’, and N 79 *vicaraiiatəm* to *cara-* ‘to go’. The expected 3d.med. ending is *-aētəm* (Skt. *-etām*), but the ending has probably been assimilated to the ending *-atəm* in the thematic 3d.act. in forms such as *jasatəm* and *uruuisiitəm* (Kellens 1984: 296): **pərəsai-tam* → **pərəsaia-tam*.

§ 4.9.7 Verb stems in *-aiia-*

All YAv. *ii*-verbs derived from a monosyllabic stem in *-ā* have the structure *C(C)aiia-* instead of expected **C(C)āia-*. Often, the cognates of these *-aiia-* verbs in other Iranian languages have preserved the long vowel. In some cases, YAv. *-aiia-* corresponds to *-āiia-* in OAv., which suggests that the shortening in front of *-ii-* was a specific YAv. development. In view of the retention of *-āiia-* and *-āiiu-* in many YAv. forms (cf. § 4.3) it seems unlikely that the verbs in *-aiia-* would have undergone a phonetic shortening; rather, the suffix *-aiia-* will have spread analogically from other verbs. For the verbs in *-ā* like *dā-* and *stā-*, it is quite possible that they have adopted the structure *-aiia-* from the small number of inherited presents in *-aiia-* belonging to synchronic monosyllabic roots, viz. *xšaiia-* ‘to rule’ to *xšā-* (Skt. *kṣáyati*), *spaiia-* ‘to throw’ to *spā-* (Skt. *śváyati*, Khot. *paśś-*, OP *niyasaya* ‘has deposited’, Pth. *nyspy-*, Khot. *niśś-*; cf. Sims-Williams 1989: 257) and *zbaiia-* ‘to call’ to *zbā-* (*hváyati*). In general, we can observe that the suffix *-aiia-* is productive in YAv. for the formation of new verb stems, e.g. Av. *tbaēšaiia-* versus older *tbiš-* and *tbišaiia-* (for more examples cf. Kellens 1984: 136, 139).

The evidence comprises the following verbs:

- The root *dā-* ‘to put; give’ forms a prs.pass. **dāiia-* attested in YAv. (*upa.*)*daiiāt* and the stem *niđaiia-*; for the reconstruction **dāja-* see Kellens 1984: 128. Furthermore, the opt.aor. **dā-īā-*, attested with a retained long vowel in OAv. 2s. *dāiiā* and 3s. *dāiiāt*, appears in YAv. as *daiiā* (4x).
- The root *pā-* ‘to protect’ forms a prs. **pāiia-* in YAv. *nipaiemi*, in the act.ptc. **paiiaṅt-* (Kellens 1984: 138) and the med.ptc. *paiiamna-* (Kellens 1984: 195), but the long vowel seems to have been preserved in Yt 1.24 *nipāiiōiš*. The aor.opt. **pā-īā-* appears as *nipaiiā* in YAv. (2x).
- The root *mā-* ‘to measure’ forms a transitive present **māiia-* in V 7.36 *āmaiiānte* and V 7.37 *āmaiiāiānta*.
- The root *rā-* ‘to scream’ forms a present **rāiia-* (Skt. *rāyati*) attested in the YAv. compound *gāθrō.raiiānt-* ‘shouting the gāthās’. If MP *ghr’y* ‘to brag’ is from **gāθra-rāya-*, as Gershevitch 1964: 14 claims, it may preserve the original length.
- The verb *stā-* ‘to stand’ forms a transitive present **stāiia-* ‘to put upright’ attested in YAv. *staiiāt*, *staiiata*, *staiiāt*, *ā-staiiānta*, *auuastaiia*, *auuastaiiāt* and *ništaiieiti* (passim). The variant *ā-stāiia-* is also attested, but only in passages which imitate Gāthic language (Kellens 1984: 201): *āstāiiā* (Y 13.3), *āstāiia* (Vr 3.1-4), *āstāiiaide* (Vr 3.5). This suggests that the YAv. text composers may well have been aware of the morphological difference between OAv. *stāiia-* and YAv. *staiia-*. In any case, the match of YAv.

auua-staiia- with OP *ava-stāya* on the one hand and with the YAv. verbal noun *auuastāta-* on the other, proves that the shortening from **stāiia-* must be recent, but real.

- The root *snā-* ‘to wash’ forms a transitive present **snāiia-* ‘to clean’ (MP *’sn’y*, Sogd. *sn’y-*) attested in the forms *ā.snaiiāt*, *us ... snaiiaēta*, *frā ... snaiiaḡha*, *frasnaiiaiianta*, *frasnaiiōiḡ*⁹⁸ and *frasnaiieni*. The original long vowel has been preserved in the causative present *snāδaiia-*.
- The root *zan-* ‘to beget’ forms a *iia-*present IIIr. **jāiia-* (Skt. *jāyate* ‘is born’, MP *z’y-*, Parth. *z’y-*; shortened in Khot. *ysai-*) with a long vowel from PIE **ǵnh₁-ie-*. The present is attested as YAv. *zaiia-* in the forms *zaiieiti* etc.

The long vowel has been retained in the present *θrāiia-* to the root *θrā-* ‘to protect’, attested in the 3p.ind. *θrāiiente* and in the YAv. cpd. *θrāiio.driyu-*. The form Y 16.7 *šāiiente* or *šāiieinti* ‘they are rejoicing’ may contain a present stem *šāiia-* to the root *šā-* ‘be glad’. The form N 37 *šāimnō* ‘defecating’ may contain a present **šāiia-* ‘to defecate’, but it may also be a scribal error for **šāēmnō* < **šāiamnō*, or for **šāmnō* (Kellens 1984: 89) to a present **šā-*.

The retention of the sequence *-āii-* in OAv. is shown by the present form *dāiietē*, by the two aorist opt. forms *dāiīāt* (6x) and *pāiīāt* (1x), as well as by the YAv. aor.opt. forms *dāiīata* (Y 52.5, 65.11, 68.12f.) and *dāiīā* (Y 62.4, 68.5). The two last forms occur in solemn addresses to the Waters (*āpō*, *ahurānī-*), Fire (*ātar-*) and to Ahura Mazdā, in text parts which are YAv. but which show some more archaic traits. For instance, Y 52.5 *vasasca tū ... xšāēša; ... xšāiianmēm ašauuanēm dāiīata* ‘may you (sg.) rule at wish; make (pl.) the righteous one a ruler!’ contains the nom.sg. *tū* ‘you’, which has usually been replaced by *tūm* in standard YAv.⁹⁹ It seems possible that *dāiīata* was formed in connection with Y 43.1 *vasē.xšāiiqs mazdā dāiīāt ahurō*, where *dāiīa-* is also used in combination with **vasah xšāiia-* ‘to rule at will’. Although a similarly close model cannot be found for all instances of *dāiīata* and *dāiīā*, it seems unproblematic to assume that these verb forms were indeed formed to give the text passages a more Gathic appearance.

⁹⁸ In V 19.22. The InVS has *frasnāiī°*, which can be explained from the preceding form **frasnāna*, cf. § 4.10.

⁹⁹ For instance, the combination of *tūm* with the shortened verb form *daiiā* ‘may you make’ can be found four times in the Yašts, e.g. Yt 10.94 *aḡa nō tūm miḡra ... zāuuarē daiiā hitaēibiō* ‘now then, o Mithra, give strength to our teams’.

When *-āia- does not contain a part of the root, we similarly find it preserved in the OAv. present form *gəuruuāin* (< **gəuruuāiian*), whereas the verb stem PAv. **grbāia-* (Skt. *grbhāyāti* ‘grabs’) always appears with the suffix -*aiia-* in YAv. *gəuruuāiia-*. This might be due to phonetic shortening, but it seems preferable to assume analogy with the productive causative suffix -*aiia-*. Another YAv. form for which shortening from **āiá-* (< **nHíá-*) is attested is the 3s.ipv. *mitaiiatu* ‘he must dwell’, cf. Kellens 1984: 133. It is possible that OAv. *vādāiōit*, the etymology of which is uncertain, also continues an original suffix *-āia-.

The remaining forms are uncertain. The form Y 33.6 *kaiiā* has been interpreted as a 1s.act. to a present *kaiia-* of the root *kā-* ‘to take pleasure in something’, but the opinions are so divided that we had better leave this form out of the discussion.

The form Yt 10.122 *pairi.ākaiiāiānta*, 3p.prs.opt. to the caus. *kaiiāia-* of *ci-* ‘to expiate’, might be from **kāiāiāia-*, since causatives of anī roots usually take the structure *CāCaiia-*; in that case, the form must be the result of haplology from **kāiāiāiānta*. The lack of other attestations of *kaiiāia-* makes a decision impossible, especially since the form in Yt 10.122 is preceded in the text by *frasnaiiāiānta*, which may have caused a preform **ākāiāiāiānta* to change to *ākaiiā*^o.

The root *vā-* ‘to blow’ may have a present *vaiia-*, but it is also possible that the forms *vaiiemi* and *vaiieiti* belong to *viia-* ‘to chase’, cf. Kellens 1984: 138.

A participle **vasō.yaonāiia-* ‘granting a course at will’, containing *yaona-* ‘course’, may be preserved in Yt 10.60 acc.sg. ^x*vasō.yaonāiāntəm* (Kellens 1984: 132), if we restore this from F1 *yaō.nāi.intqm*, J10 *yō.nāiāntqm*, K12 *yō.nāiāntqm*. The v.l. *yō.nāiāntqm* is lectio difficilior in view of the nearby *fšuiiāntəm*. The context clearly demands an acc.sg. **vasō.yaonāiāntəm*, since all surrounding forms are in the acc.sg.: *miθrəm ... fšuiiāntəm vāstrīm vasō.yaonāi iñtqm* (**vasō.yaonāiāntəm*) *hudāghəm* ‘Mithra ... the cattle-breeder, the farmer, who grants a course at will, the beneficent one’.

§ 4.9.8 Reduplication and root syllable of perfect forms

There is only one verb for which we may safely assume an analogical replacement of the reduplication syllable **Cā-* by *Ca-*, viz. the perfect of *gar-* ‘to wake up’: N 19 *jaγāra* ‘he is awake’ and Yt passim *jaγāuruuah-*; compare Skt. *jāgār-/jāgr-* < **Hja-Hgar-*.

The root syllable of the active perfect sg. was subject to an alternation between *a* and *ā* if the root ended in a single consonant in Iir.: **a* in the 1s. and 2s., but *ā* in the 3s. Thus, from the root **kar-* ‘to make’, the original paradigm in Skt. is 1s. *cakāra*, 2s. *cakārtha*, 3s. *cakāra*; from *gam-*, we find *jagāma*, *jagāntha*, *jagāma*. This was due to Brugmann’s Law, the lengthening of PIE **o* > Iir. **ā* in open syllable. Roots ending in two consonants originally did not have this alternation, since the environment for lengthening was absent in the 3s.: they had *-a-* in all three sg. forms. Roots of the structure **CaRH-* originally also belonged to this type, but the loss of laryngeals left only one root-final consonant; the road was then open for analogical introduction of the vowel *ā* into the 3s. of such roots. Thus, we find Skt. 3s. *jajāna* ‘has created’ although we reconstruct Iir. **jajánH-a* which would have yielded †*jajāna* phonetically, and *bibhāya* ‘is afraid’ for **bi-b^haiH-a* (cf. Kümmel 2000: 24).

In Avestan, we also find two forms of *CaRH*-roots which have analogically introduced the vowel *ā* into the 3sg., viz. YAv. *buuāuuā*¹⁰⁰ < **bu-b^hauH-a* and YAv. *haḥhāna* ‘has won’ < **sa-sanH-a*. But YAv. also shows four instances of the reverse analogy, viz. generalization of the root vowel *a* in the 3sg. perfect of aniṭ roots, where **ā* was inherited (cf. Kümmel 2000: 27):

- *hušx^vafa* ‘has slept’ to **suap-* ‘to sleep’.
- *°bauuara* ‘has brought’ to **b^har-* ‘to bring, carry’.
- *yaiiata* ‘is placed’ to **iat-* ‘to place’.
- *vauuaca* ‘has proclaimed’ to **uak-* ‘to speak’.

We may ascribe these forms to analogical shortening on the model of the regular reflex *a* in seṭ-roots, such as *cakana* ‘is pleased’ to **kanH-*, *tūtauua* ‘is able’ to **tauH-* or *ādiḍaiiia* to **daiH-* ‘to see’, and in other roots in which an original consonant cluster came to be simplified, e.g. *tataša* ‘has fashioned’ to **takš-*.

§ 4.9.9 Recent and/or isolated analogies

A number of unexpected short vowels can be explained from the influence of other Avestan words with an original short vowel. We can a priori assume that some of these analogies took place when Avestan was a living language, whereas others may be due only to recent graphic analogies, introduced by

¹⁰⁰ Long *ā* in *buuā*^o might also be explained from lengthening after *Cuu-*.

scribes who imposed the more frequent spelling on deviating sequences. In individual cases, dating the analogy is impossible.

A first category consists of forms influenced by preverbs, in casu *auua*, *apa* and *fra*. The verbal forms *auuasiiāt* (Yt 1.18, 13.72) ‘should reach’, *auuazāt* (Yt 19.81) ‘drove down’ and *auuazōit* (V 18.12¹⁰¹) ‘would lead down’ represent the preverb *auua* plus a finite form in initial *a-, viz. **ašīāt* ‘should reach’ and **azāt* ‘drove’, **azait* ‘would drive’. Contraction of *-a a- would have yielded †*auuāsiīāt* and †*auuāzāt*, but apparently these forms were superseded by the introduction of *auua*^o. Another form with *auua*^o is the abl.pl.f. *auuabiiō* (V 13.22) which occurs instead of expected **auuābiiō*. If *auuabiiō* is not due to a simple mistake, it may also be the result of (a very recent) analogy.

The ins.sg.m. *apaša* ‘at the back’ (Yt 14.46) and the nom.sg.f. *apaši* (Yt 10.20) to the nom.sg.m. *apaš* ‘back(ward)’ are shortened from **apāš-* < **apāc-*, cf. Schmitt 1968: 137. The easiest explanation for *apaša* and *apaši* seems to be analogy with the preverb *apa* ‘away’.

Similar to *apaša* < **apācīā*, we find a short vowel reflex of the stem **frāk-* ‘forward, to the fore’ in the adverbs *frakəm* ‘forward’ N 74, *fraca* ‘forward’ and *fraša* ‘forward’, which represent frozen ins.sg. and acc.sg.n. forms to the nom.sg.m. *fraš*. In this case as well, I assume that the preverb *fra* influenced the original anlaut **frā*^o of *frakəm*, *fraca* and *fraša*.

The gen.sg. *fradəmnahe* (V 4.2 PTr.) of the prs.ptc.med. *fradəmna-* derives from the verb *frād-*, so that we would expect **frādəmnahe*. It seems that this form also fell victim to the analogical introduction of *fra*^o by the text transmission.

Hoffmann 1975: 265ff. has analyzed OAv. *fradaθa-* n. ‘increase, prosperity’ as **frād-aθa-*, derived from the root *frād-*. He considers YAv. *fradaθa-* a loan word from OAv., so that we must concentrate on the two OAv. instances of the dat.sg. *fradaθāi(ā)*. Hoffmann suspects that *fradaθa-* could reflect shortening in antepenultimate syllable, i.e. **frādáθa-* > **fradáθa-*; cf. Hoffmann-Forssman 1996: 59. Yet we have seen above that there are not many Av. forms in which an antepenultimate *ā is shortened, except for words in *-ca* and *-cit*. An alternative explanation may be analogy. It is possible that the speakers of Avestan, or later redactors, analyzed **fradaθa-* as a derivative of *dā-* ‘to put; give’, a verb with reduplicated forms of the structure *dath*^o in YAv. This analysis may have caused the replacement of **frā*^o by *fra*^o.

¹⁰¹ Whereas the mss. Jp1.Mf2 and K1 have *auuazōit*, the InVS mss. L1.2.Br1.M2.K10 all spell *auuāzōit*. The analogical introduction of *auua*^o may therefore be very recent.

YAv. *fradaḍafšu-*, the name of a *karšuuar-* ‘part of the world’, probably represents **frādat.fšu-* ‘who furthers the cattle’, cf. Bartholomae 1904: 982 and e.g. Kellens 1996: 65. The spelling *frādat.fšu-* has been preserved in Vr 11.17 Kh1, Mf2, and in all mss. in Y 1.4, 2.4 etc. Kellens rightly points to the fact that the presence of the anaptyctic vowel *-a-* always correlates with shortening of **frā°*: *fradaḍafšu-* but *frādat.fšu-*. Since in all its attestations *fradaḍafšu-* occurs in combination with another *karšuuar*, viz. *vīdaḍafšu-* (**vīdat.fšu-*), it is likely that the shortening of **frā°* to *fra°* is due to the analogical introduction of the preverb *fra°*: this could be interpreted in analogy with an interpretation of *vī°* as the preverb *vī*. This analogy took place only in the longer word form **frādaḍafšu-*, but not in **frādat.fšu-*.

The remaining forms do not form a specific category. They rather represent individual instances of analogy, although some may be quite old.

The compound *ašauuāzah-* ‘having respect for the truth’ occurs in the voc.sg. *ašauuāzō* (Y 10.14, Y 11.10) and in the gen.sg. *haomahe ašauuazarḥō* (Y 8.9, 10.1, S 1.30). Insler 1996: 174 has concluded that the form *ašauuazarḥō* represents a shortening of **ašauuāzarḥō*. Some of the mss. spell *ašauua.zarḥō* (J2 in Y 10.1, Pt4 and J3 in Y 8.9), and it seems possible that analogy with the frequent form *ašauua* was responsible for the shortening in **ašauuāzarḥō*. It is uncertain whether a shortening to *°uuazah-* is also present in Yt 13.117 gen.sg. *daēnāuuazarḥō* PN ‘who furthers the belief’: whereas the spelling *daēnāuuazarḥō* appears in F1 and K38.14, the mss. Mf3.K13 have *daēnauuāzarḥō* and J10 *daēnauuazdarḥō*. We must leave the matter at an undecided *daēnāuuāzarḥō*.

The adj. *aštaiθiuuānt-* ‘eightyfold’ only occurs in Yt 10.116 nom.sg. *aštaiθiuuā*, between the forms *haptaiθiuuā* ‘seventyfold’ and *nauuaiθiuuā* ‘ninetyfold’. In view of the cardinal *aštāiti-* ‘eighty’, the expected multiplicative is *†aštāiθiuuā*. Although it is possible to assume a phonetic shortening of **aštāiθiuuā* (e.g. like *frazahīt* < **frazāhīt*), it seems more probable that the hapax *aštaiθiuuā* is due to assimilation to *haptaiθiuuā*.

Two OAv. forms from the root *dā-* ‘to give; take’ have a shortened first vowel, viz. Y 34.13 *daθrəm*, acc.sg. of **dāθra-* ‘bestower, destined’ and Y 46.15 *daduiē*, 2p. aor.subj.med. **dāduai*. Since **dā-* was not in a position where shortening usually occurs, we may suggest that *daθrəm* and *daduiē* contain analogical short *a* on the model of the reduplicated (present) forms of *dā-* which all have short *dad°/daθ°*. Of course, *daduiē* is not a reduplicated form (the ending is **-duai*), but because of the sequence *dad°* it may have looked like one to later text redactors. The form *daθrəm* could follow the YAv. forms with (still unexplained) *-θ-*, such as *daθat*. This suggests that the analogy must be dated to YAv. or even later. Maybe the aor.inf.med. *daiθiāi*

(31.5, 51.20) belongs here too; but 44.8 with its v.ll. *dāid*^o beside *daid*^o rather suggests that this is a case of spelling *ai* for **āi* (see § 3.6 for the reverse phenomenon).

The noun *daēuuaiiāz*-¹⁰² (Skt. *devayāj-*), nom.pl. *daēuuaiiāzō*, is conspicuous because of the lack of lengthening in front of *-iiaz-*, cf. *frāiiaz-*; we may therefore consider original **daēuuāiīāzō*. However, in *daēuuaiiasna*- there is no lengthening either; it is therefore conceivable that the stem *daēuuā*^o was introduced into these compounds.

V 19.22 *frasnana-* ‘ablution’ in the sentence *catura frasnana frasnaiiōit* ‘he shall perform four ablutions’ was almost certainly spelled **catura frasnāna frasnaiiōit* in the archetype, with expected *frasnāna-* to *snā-* ‘to wash’, cf. Skt. *āsnāna-* ‘bath’. This is borne out by the preservation of K1 *frasnāna*, and by the spelling *frasnāiīōiš* in the InVS mss. As there can be no doubt that the present *frasnaiia-* had a short vowel in YAv. (see § 4.9.7), *frasnāiīōiš* can only have taken its *-ā-* from a preceding **frasnāna*.

§ 4.10 Uncertain etymology

First of all, we find a number of forms in initial *aC-*, a sequence which, as we have seen, is sometimes the result of shortening of **āC-*: *aiiažāna-* (V 14.10) ‘some kind of tool’, the daevī name *aiiehiie* (V 21.17), *auuašaiθī-* (Yt 14.30) ‘?’, *aku-* (Yt 1.18) ‘scissors’ vel sim., *akana-* ‘quiver’ (V 14.9), *apāiθiš* (V 4.54f.) ‘?’, *aḡhaiiā* (Y 32.16) ‘?’, *ahaxta-* (E 6, N 20) ‘authorized’, *amaiiāuuā-* (Y 71.17) ‘suffering’, *araēka-* (V 14.5) ‘?’, the disease names *astairiia-*, *ažana-*, *ažahuua-* and *ažiūuāka-* (all V 20.3ff.), and the PN *auuāraoštri-* < **auuāra* + *uštri-*. In the case of V 13.10f. *āfša-* ‘damage’, the length of the first vowel is uncertain; see fn. 74.

With short *-a-* in initial syllable but not in anlaut, we find the following uncertain forms: *ā(.)kasaṭ* (V 22.2f. (?), *kaiiaḡa-* ‘(with the) kayada-sin’ (YAv. passim), *gauuana-* some kind of fruit (N 101), *taxairiia-* adj. ‘?’ (V 8.91ff.), *dauuažah-* (V 19.1f.) ‘?’, *frauuitī-* ‘a cow which suckles nor bears’ (V 9.38, E 19), *frauui-* (Y 57.15, Yt 10.103) ‘prosperity (?)’, *brauuāra-* (V 1.6) ‘?’, *nipašnaka-* ‘angry’ (Yt 5.95), *yaonō.x^vata-* ‘?’, *vazaya-* (V) ‘frog’, *vixaḡa-* ‘to dig out’ (V 2; cf. Kellens 1984: 110), *razura-* ‘forest’, the lake name *frazdānauua-* (Yt 5.108, F 273) and the personal names *aošnara-* (Yt

¹⁰² According to Schindler 1979: 59f., the long vowel in *°iīāz-* is confirmed by Skt. nom.sg. *devayāṭ* (ŚB 1.2.1.5).

13.13, AZ 2), *tīrō.nakav̄βa*-¹⁰³ (Yt 13.126), *parāta*- (Yt 13.96), *vanāra*- (Yt 13.10) and *varakasāna*- (Yt 13.113).

The stem *hadanaēpāta*- was analyzed by Schwartz 1989: 132 as **hadānai-pāta*- ‘the (plant) contained in the pomegranate fruit’, with the loc.sg. of *hadānā*- ‘pomegranate tree’, and the verbal noun *pāta*- ‘protected’. This word presents an unexplained vacillation in the vowel of the second element: the form *°pāta*- appears in the nom.sg. *hadānaēpāta* (V 14.4, 18.72), but the acc.sg. *hadānaēpatqm* (10x), the gen.sg. *hadānaēpataiiā* (5x) and the derived adj. *hadānaēpatauuaitī*- f. ‘containing *h*.’ seem to show shortening of the **ā* of *°pāta*-. In the form *°patqm*, shortening could be interpreted as the dissimilation **ā_ā > a_ā*, whereas in *°patauuaitī*-, the context is similar to that of **fra-iiataiia*- and other long forms.

YAv. *hamaspaθmaēdaiia*-¹⁰⁴ indicates the last part of the year, which ends with the five leap-days; e.g. Yt 13.49 *frauuāšaiiō yazamaide yā vīsāda āuuaiieṇti hamaspaθmaēdāēm paiti ratūm; āaṭ aθra vīcarəṇti dasa pairi xšafnō* ‘we worship the Frauuaši’s, who arrive flying from their dwellings at the time of the *hamaspaθmaēdaiia*-; and here they go about for ten nights’. It was formerly assumed that the YAv. word could be connected with an OP noun *spāθmaida*- ‘camp, war’, but Gershevitch 1979: 291 has argued that this is a ghost word. The consistent spelling of *hamaspaθmaēdaiia*- with unlenited *-d-* makes it probable that it is a loan word which entered YAv. after the lenition of voiced stops had taken place (just like *hadiš(a)*-, see § 26.1.1). The meaning renders a connection with **ham-spā*- ‘to throw together’ → ‘to add’ attractive, but this remains speculation.

§ 4.11 Summary

We may now summarize the forms which present certain or possible evidence for the various phonetic lengthenings of *Ir*. **a > ā* which we have distinguished in Avestan. For every development, a short account of the phonetic causes will be given and, if present, the conclusions which they yield for the relative chronology of sound changes.

¹⁰³ Mayrhofer 1979: I/80 compares Skt. *nāka*- ‘heaven’.

¹⁰⁴ Many different etymologies have been proposed, most of which can be found in Biemeier 1992. I find none of them compelling.

1a. Antepenultimate syllable of forms in *-cā* and *-cīt*

Certain:

dātarasca *caθβarasca* *apəmca*
marəxštarasca *katarasciṭ* *aibiiascā*
θβarəxštarasca *katarəmcīṭ* *aīβiiasca*
aīβiīāxštarasca *starasca* *aibiiasciṭ*
nipātarasca *asanasca* *aḍaēca*
nišharətarasca *mąθranascā* *zauuarəca*
staotarascā

Uncertain:

masanaca
vaṛhanaca
apasca
vacimca

Phonetically, we may posit a linguistically real YAv. stress on the syllable preceding *-ca* (and *-ciṭ*), causing a shortening of a preceding *ā in open (except maybe for *āβias^o), pretonic syllable, e.g. **dātārāscā* > *dātarasca* and **zāūārca* > *zauuarəca*.

Chronologically, this shortening may be dated to the period of the living YAv. language, because of the analogical reshuffling which must have followed. The phonetic shortening due to *-ca* will have resulted in quite a number of length alternations between the forms with and without *-ca*, and also between forms with a closed and forms with an open syllable preceding the stressed penultimate. The resulting vowel vacillation was apparently tolerated in the case of *r*-stems, and the reason is clear: these stems already possessed both stem variants *-ār-* and *-ar-* in their paradigm. By analogy, it was also tolerated in *caθβār-* ‘four’ and in *katāra-*. We may similarly assume that the shortening survived in some forms of the *n*-stems because here too, stem alternations *-ān-* : *-an-* were commonplace. Shortened *apəmca* and maybe *apasca* of the noun *āp-* were tolerated because this had already inherited **ap-* in the weak case forms. In stems in which such an alternation did not already exist (e.g. in *-tāt-* stems, in the root syllable of nouns) or where *ā* was needed for morphological reasons (to distinguish the subjunctive from the indicative), *ā* was restored.

1b. Abl.sg. **-āt haca* > *-at haca* in YAv.:

Certain:

airiīō.xšudat *ahmat* *paṇtat* *rapiθβitarat*
aoniiat *ušastarat* *pisrat* *saire.hiiat*
aparat *xumbat* *nazdištāt* *spəntat*
apāxtarat *tanūrat* *vəhrkat* *hutaxtat*
aṇuhiiat *diβžat* *yahmat* *huš.həm.bəratat*
aṇhat *dištāt* *yimat*

It seems very likely that the shortening in **-ā́t haca* was a linguistically real feature of YAv., for the following three reasons: 1. The shortening applies in YAv. but not in OAv. If it were due to the later recitation, it might be expected in OAv. forms as well; 2. When *haca* does not function as a postposition to the preceding form in *-ā́t*, as in *dūrā́t haca ahmā́t nmā́nā́t*, no shortening applies. This implies that the stress placement at the time of the shortening was still faithful to the original syntax; 3. Only *haca* causes shortening¹⁰⁵, but the postpositions *paiti*, *paiṛi* and *parō* do not.

The last phenomenon suggests that the explanation may lie in the final *-ca* of *haca*; in other words, the shortening caused by *haca* may be the same as or at least related to the shortening in YAv. *dā́tarasca* vs. *dā́tarasca*, discussed above. Only if *haca* was pronounced as one accentual unit (this being determined by the syntax) with the preceding noun or adjective, did the latter lose its independent stress, and the stress on [*háca*] became the cause of the shortening of preceding **-ā́t*. Strikingly, the vowel **ā́* in the antepenultimate did not stand in an open syllable, as with the type *dā́tarasca*.

2. **-ā́tca > -ā́atca*

Strictly speaking, this change is not an instance of vowel shortening. It is presented in the wake of the two preceding shortenings of the type *dā́tarasca* and *aoniiat haca* because it seems to be due to the presence of *-ca*. The spelling *-ā́atca* was intended to disambiguate the ending **-ā́tca* from other sequences with which it was liable to be confused, especially *-ā́ca*. As to the chronology, it seems probable that *-ā́at-ca* arose after YAv. had ceased to be a living language, but well enough before the archetype was established.

3. **-ā́iV- > -aiiV-*

Certain:		Uncertain:	
<i>aiiamaitē</i>	<i>asaiia-</i>	<i>aiiaoš</i>	<i>vaiiu-</i>
<i>aiiasa-</i>	<i>asaiiā-</i>	<i>upaiianā-</i>	<i>raiiā</i>
<i>aiiāθrima-</i>	<i>maiīābiiō</i>	<i>taiiō</i>	<i>raiiāqm</i>
<i>aibigaiiāi</i>	<i>humaiia(ca)</i>	<i>taiiā</i>	<i>raēšca</i>
<i>aibigaiia</i>	<i>humaiiakəm</i>	<i>fraii(a)-</i>	<i>mązā.raiiā-</i>
<i>aēm</i> ‘egg’		<i>fraiiara-</i>	

¹⁰⁵ For this reason, it seems unlikely that this phenomenon was caused by the Ir. accentuation. The Skt. cognates *sácā* on the one hand and *prāti* on the other hand stress the same syllable; but Avestan *haca* causes shortening of *-ā́t*, while *paiti* does not.

Phonetically, these data suggest that the quality of the following vowel determines the shortening of *ā̄: in front of *e*, *ō* and *ā̄*, *-ā̄i- is retained, whereas in front of *a* and sometimes *ā̄*, it becomes -*aii*-.

Chronologically, there is no form showing a phonetic shortening which must with certainty be dated to the YAv. period. The form *humāiiō.tara-*, which has undergone the secondary compound split, suggests that the shortening of *-ā̄i- postdates the RCS. Contrastive pairs such as *aiiasa-* vs. *āiiese* and *aibigāiia* vs. *aibigāim* also show that the shortening must be rather recent and probably postdates the period of the living language. The bulk of the evidence comes from forms in -*aii*- which are attested beside other forms in retained -*āii*- from the same paradigm.

4. *ā̄uV > auV

Certain:

OAv.

*auuaēnatā**auuaocāmā**mauuaitē**mauuaiθīm*

YAv.

*auuarətā-**auuazāite**auuānt-**dauuaiieiptī-*

Uncertain:

Pron. adj. in -*uuant-*YAv. *nauuāza-*

Most instances of this shortening appear in front of a following syllable in short -*a*-; therefore, the shortening might be regarded as a kind of assimilation to that -*a*-. Its sporadic occurrence renders it probable that it must be dated to a recent phase; some shortened forms may even post-date the archetype.

5. *-ā̄nV- > -anV-:

In antepenultimate syllable in front of -*ca*:

Certain:

*asanasca**mθ̄ranascā*

Uncertain:

*masanaca**vaṇhanaca*In antepenultimate, not in front of -*ca*:

Certain:

dəmanahiīā (OAv.) *paitištananqm**spanaṇha**friiananqm*

In penultimate syllable:

Certain:

usaδanəm

usaδanō

uštanəm (OAv.)

uštanauuant-

uzuštana-

**friianā*

Uncertain:

bipaitištanəm

As we have argued in § 4.5, the form *asanasca* occurs beside *asānasca*, so that *asanasca* is probably a very recent form. The forms *masanaca* and *vaṇhanaca* being ambiguous, this leaves only *mąθranascā* as possible evidence for an early date of the shortening in antepenultimate syllable of a word in *-ca*, a shortening which is found more regularly in *r*-stems.

The other forms with shortening in antepenultimate all have a following syllable in short *-a-*, and it is quite conceivable that the shortening is in fact an assimilation of **ā* to *a*.

Many of the forms with *-an-* in the penultimate syllable can be due to a very recent, post-archetype shortening; others are analogical. The most problematic form is *uštanəm*; the only possible explanation I see is analogy with the *ana*-stems.

6. In second syllable

Certain:

frātaṭ.caiiaṭ

frātaṭ.caiia

uspataiieni

frāiitaiieinti

frāiitaiiaṭ

upaṇhacaiieni

ātaradra

frazahīṭ

spitamā

spitama

spitamāṇhō

Uncertain:

afrakauuant-

afrakauuastəma-

afrakatac-

frazaiiiaimi

frazaiiiahi

Most of the certain forms are derived from roots in a voiceless stop, and the finite form is connected with a preverb in scriptio continua. In view of the lengthening of the preverb **fra* in *frātaṭ.caiia-* and *frāiitaiia-* (cf. § 3.4.2.1), and Hoffmann's explanation of the voc. of *spitama-*, the shortening seems to be due to the fact that the vowel **ā* came to stand in an unaccented position; it may have been a decisive factor that in most forms, **ā* was followed by two syllables with *-a-* or *-e-* < **a*, to which **ā* could be assimilated. It is unclear why the shortening in the *aiia*-verbs has only applied in roots in a voiceless stop (also *afraka*^o would comply with this condition), but in general phonetic terms, shortening of a vowel in front of voiceless stops (as well as lengthening in front of voiced ones) is a trivial development.

As for the date of this shortening, it is probably post-YAv., since the long root vowel might otherwise have been restored from uncompounded forms.

On the other hand, the root morphemes *taca-*, *pata-* or *haca-* also occur in YAv., so that shortened forms might have been simply accepted even if the development *were* of YAv. date. For the explanation of the paradigm of *spitāma-*, see § 4.6.

7a. Preverb *ā- in front of C:

Certain:		Uncertain:	
OAv.	YAv.	OAv.	YAv.
<i>auuaēnatā</i>	<i>auuarətā-</i>	<i>asištā</i>	<i>amqsta</i>
<i>auuaocāma</i>	<i>auuazāite</i>		
<i>axštāt</i>	<i>auuānt-</i>		
<i>paitī.ajqθrəm</i>	<i>apātāra</i>		
<i>adāhū</i>	<i>afrakauuant-</i>		
<i>adā</i>	<i>afrakatac-</i>		
<i>adqs</i>	<i>amāta</i>		
<i>asruuātəm</i>	<i>astarəman-</i>		
	<i>aspan-</i>		
	<i>nqma.azbāitiš</i>		

7b. *āC- otherwise:

Certain:		Uncertain:
<i>apaiia-</i>	<i>apānō</i>	<i>aḡhušqamca</i>
<i>apaēmā</i>	<i>apanō.təma-</i>	<i>aθāhuua</i>

This shortening cannot be regarded as one homogeneous group. Many forms will have been shortened in the post-archetype period. In general, shortening occurs more often in front of a following long vowel, but not exclusively. In the case of the derivatives of *āp-* 'to reach', the existence of the inherited alternation between *ap^o* in some derivatives and *āp^o* in others, will have increased the chance of confusion in the later tradition.

8. Dissimilation in front of ā or q

Certain:		Uncertain:
<i>auua.zanqn</i>	<i>fraḍātaēca</i>	<i>nauuāza-</i>
<i>paiti.zanāt</i>	<i>naḍātaēca</i>	<i>^xāsnatarš</i>
<i>āsnatārəm</i>	<i>nabānazdišta-</i>	<i>sax^vārē</i>
<i>nasupakāt</i>	<i>aīβinasqstəma-</i>	<i>nanā</i>
<i>fraḍāt</i>	<i>rasqstātō</i>	

The tendency to shorten *ā in front of a following long vowel is part of the assimilations and dissimilations to which the text was subject after YAv.

had become an extinct language. Some comparable dissimilations have already been discussed in other sections, e.g. *spitamāi* < **spitāmāi*.

§ 5 Final *-a* and *-ā*

Final vowels in polysyllabic forms are always long (*-ā, -ī, -ū*) in Old Avestan but short (*-a, -i, -u*) in Young Avestan. In monosyllables, final vowels are long in Old and Young Avestan¹⁰⁶. The reason for this difference between OAv. and YAv. is still disputed. It seems to me that the search for the answer must also take into consideration the reflexes of final vowels in front of *-cā* ‘and’. Those reflexes will be discussed in more detail below, but we may survey the results (in polysyllabic forms) here:

	* <i>-ā</i>		* <i>-ī, *-ū</i>	
	final	in front of * <i>-ca</i>	final	in front of * <i>-ca</i>
OAv.	<i>-ā</i>	<i>-ācā</i>	<i>-ī, -ū</i>	<i>-īcā, -ūcā</i>
YAv.	<i>-a</i>	<i>-aca</i>	<i>-i, -u</i>	<i>-ica, -uca</i>

It appears that the opposition between OAv. and YAv. is imperfect in the case of final **-ī* and **-ū* in front of **-ca*, where final vowels are not lengthened in OAv. It is not very likely that this reflects a linguistically real situation: if the opposition between short and long final vowels had really been erased in OAv., why would the endings *-īcā* and *-ūcā* not have the forms †*-īcā* and †*-ūcā*? Furthermore, the OAv. form *ašā.yecā* is important, as it derives from **ašāia-ca*. The umlaut vowel *e* goes back to **a* and not to **ā*, and thereby proves that it was still a short vowel at the time of the split into **ašā.yacā*. This suggests that the lengthening of final vowels in OAv. was introduced by later, YAv. or post-YAv. redactors. It seems likely that they have deliberately lengthened all final vowels of the OAv. texts, including final **-a* in front of *-cā*, but without lengthening final **-i* and **-u* in front of *-cā*.

This conclusion implies that we cannot know what the length of final vowels in the living OAv. language was like. In addition, the YAv. distribution must be regarded as a true reflection of the linguistic situation of YAv. The absence of a length difference between etymologically short and long final vowels recalls the Old Persian habit of spelling word-final **-Ca* as <*Ca-a*>, i.e. as /-Cā/, regardless whether it represents IIr. **-a* or **-ā*, but

¹⁰⁶ This fact can be used as a criterium for YAv. forms with an ambiguous spelling. Thus, YAv. *zəmā* is analyzed as a monosyllable on the strength of its final *-ā*, whereas *kuua* must have been disyllabic because of its short vowel.

different from word-final <Ca> /-Ca/ < *-ah, *-at or *-an (Hoffmann 1976: 634ff.). It would thus appear that Ir. *-a and *-ā have merged in YAv. and OP, and the legitimate but unanswerable question arises, whether we may postulate the loss of the length distinction already for PIr.

The present section is divided into three subsections. The first one deals with the YAv. exceptions to the general rule, viz. YAv. forms with final -ā. The second subsection discusses the evidence for -a and -ā in the first member of compounds, because the relationship between this position and the position of auslaut in general has to be clarified, and because the developments in compounds yield evidence for the relative chronology. The third subsection turns to the final vowels in front of -ca and -ci̯t, a position which was open to analogical influence from the reflexes in auslaut, but which also shows its own peculiarities.

§ 5.1 Final -ā in YAv. simplexes

None of the apparent YAv. polysyllabic forms in -ā presents a real exception to the rule. We can distinguish between a few different categories.

Most of the polysyllables in -ā are Gathic quotations, or are intended to lend an OAv. character to originally YAv. texts. In some passages, final *-a has only been lengthened in a few words, whereas other passages have replaced all short final vowels by long vowels. The latter category comprises the following YAv. texts: Y 0.4-5, Y 4.26 (the *yej̥hē hātqm* prayer), Y 12, Y 13 (except for 13.2 *ašahe* and *ahurahe*), Y 14.1-2, Y 15.2, Y 42, Y 56.1,3-4, and Y 60.1.

The YAv. combination *aməšā spəntā* ‘the beneficent immortal ones’ was adopted from OAv., as Narten 1982b: 78f. has argued. It occurs in the voc.pl. *aməšā spəntā* in Y 0.5, 13.4, 14.1-2, 42.1 and Ny 1.1, where it replaces an expected YAv. voc.pl. **aməša spənta*. But we also find *aməšā spəntā huxšaθrā* as the object of *yazamaide* ‘we worship’ and of *āiiese yešti* ‘I approach in worship’ in liturgical passages. Since the acc.pl. is usually and regularly *aməšē spəntē* in YAv., this shows very clearly that the OAv. voc.pl. form **aməšā spəntā huxšaθrā* (unattested in OAv.) was transposed into YAv. as a formulaic combination (with *yazamaide* and with *āiiese yešti*), ousting an original acc.pl. Wherever YAv. *aməšā spəntā* is an acc.pl., it can only have been taken from the OAv. voc.pl.

The YAv. nom.pl., however, is encountered in more differentiated contexts, and its form *aməšā spənta* must go back to *aməšā(.).spənta*, with shortening of final *-ā; it shows the partial adoption of OAv. *aməšā spəntā*

to YAv. spelling. With Narten, we can explain the spelling *aməššā spənta* from the fact that the spelling *-ā* {𐬀} in the auslaut of a YAv. word was regarded by the scribes as incorrect, and replaced by *-ā̄* {𐬀̄}¹⁰⁷.

The introductory prayer of Y 0.3ff. shows a lengthened final vowel in all words except for *haca* and *ašauua*:

yaθā ahū vairiīō zaotā frā mē mrūtē

aθā ratuš ašātē haca frā ašauua vīduuā mraotū

Why these two forms have been excepted is unclear, but probably this discrepancy is due to a very recent aberration of one or a few Avesta scribe(s).

In other liturgical passages of the Yasna, final *-ca* ‘and’ is sometimes lengthened to *-cā*. This must also be a very recent phenomenon, which arose in the ‘learned’ ms. classes but hardly affected the Indian classes YS and InVS. In Y 1.19ff., we read *mainiiaoibiiascā gaēiθiiaēibiiascā* ‘to the spiritual ones and to the material ones’, whereas the other words in those passages (some of them in *-ca*) have a short final vowel. In Y 22.1ff., we find *imqmcā gəm* and *imqmcā uruuarqəm*, but no other words with final *-ā*. In Y 27.7 *aršuxdanqmcā*, the mss. Pt4.Mf4, J2.K5, S1.P6 spell *°cā*, whereas mss. of the YS spell *°ca*.

The acc.pl. *haṇdātā* ‘chapters’ in Vr 14.4 *ahunauuaitiīā gāθaiīā haṇdātā* ‘the chapters of the Ahunavaitī Gāthā’, 16.4 *yasnahe haptarhātōiš haṇdātā*, etc., must have been adopted from Y 42.1 *yasnahē haptarhātōiš haṇdātā* ‘the chapters of the Yasna Haptarhāitī’. In the two instances where Geldner provides v.ll., the old ms. K7a has the expected *haṇdāta*.

The form *zraiīā*¹⁰⁸ in the expression *zraiīā vouru.kašaiia* ‘in the lake Vourukaša’ is still under dispute. It occurs five times; in the passage *yaozənti vīspe karanō zraiīā vourukašaiia* ‘all sides¹⁰⁹ of the lake Vourukaša surge’

¹⁰⁷ The v.ll. of the nom.voc.pl. attestations are provided by Kellens 1974a: 312ff.

¹⁰⁸ Edited by Geldner as *zraiīā*, *zraiia* and *zraiīai*, cf. Humbach 1958: 73.

¹⁰⁹ The stem *karana-* means ‘part of a whole, one side of something’, and not ‘bank’. A translation ‘all the banks of the lake surge’ may be envisaged in a metaphorical way or as a result of optical illusion, but a literal translation as ‘surging banks’ defies common sense. The other attestations of *karana-* confirm that it means ‘side, part’: Yt 5.131 *haēnaiīā ... uua ... karana* ‘both wings of the army’, Yt 10.36 *vīspe karanō rasmanō* ‘all the flanks of the regiment’, Yt 10.99 *dašinəm upa karanəm aiṣhā zəmō* ‘over the right side of this world’. As for the lake *Vourukaša*, compare the continuation of the sentence in Yt 5.4 and 8.31: *yaozənti vīspe karanō zraiīā*

(Y 65.4, Yt 5.4, 8.31), in *upa yaozənta karana zraiiā vouru.kašaiia* ‘near the surging sides of the lake V.’ (Yt 5.38) and in *yā stārō kərəmā patənti antarə zqm asmanəmcā zraiiā vourukašaiia* ‘the worm stars which fall between earth and heaven in the lake V.’ (Yt 8.8). As the stem is *vouru.kaša-*, *vouru.kašaiia* can only represent a loc.sg. **vouru.kašai* + *ā*, which makes it very probable that *zraiiā* is a corruption of **zraiiahi*, the loc.sg. of *zraiiāh-* ‘lake’ (Bartholomae 1889: 668).

When we look at the attestations, it is clear that in ‘the worm stars which fall between earth and heaven in the lake V.’, *zraiiā vouru.kašaiia* can only be a locative. For ‘all sides of the lake V.’ and ‘the surging sides of the lake V.’, it seems more appropriate to have a genitive, as with other attestations of *karana-* (*haēnaiiā*, *rasmanō*, *zəmō*); nevertheless, ‘all sides [which are] in the lake V.’ does not seem semantically impossible. The reason why Avestan uses a locative here but a genitive in ‘both sides of the earth’ may be so subtle that it is now impossible to grasp for us, but the formal correspondence with Yt 8.8 is best accepted at face value¹¹⁰.

Turning to the ms. spellings of *zraiiā vouru.kašaiia*¹¹¹, we observe that in Y 65.4, where the most elaborate attestation in the mss. is found, the spelling *zraiiā kašaiiā* is best attested in most mss.; yet the good IrKA mss.

vouru.kašaiia, *ā vīspō maiḍiio yaozaiti* ‘all the sides of the lake V. surge, the whole middle surges’. The poet stresses the fact that the entire lake is affected, its ‘four corners’ as well as the centre.

¹¹⁰ Humbach 1953: 74 tries to explain *zraiiā vouru.kašaiia* from gen.sg. forms **zraiiāhah* °*kartahiah*. He suggests that these gen. forms underwent a different development than the usual YAv. gen. *zraiiāhō vouru.kašahe* (attested in Y 42.4, 5.42, 8.32, 46, 12.17, 19.56ff.), and is forced to assume a different Avestan dialect merely to explain a few strange forms within otherwise normal YAv. passages. He observes a parallel deviation in the forms *paḍanaiia* (Yt 19.41), *vaēsakaiia* (Yt 5.54), and *kaḥaiia bərəzantaiia ašauuanaiia* (Yt 5.54), which he interprets as gen.sg. Yet an easier solution is available for these forms: *paḍanaiia* and *vaēsakaiia* are nom.pl. of *i*-stem adjectives, as per Bartholomae (the ending *-a*, to which Humbach objects, is quite regular in later YAv.), and *kaḥaiia bərəzantaiia ašauuanaiia* are loc.sg. forms of *kaḥa-* and thematicized *bərəzant-a-* and *ašauuan-a-*.

¹¹¹ V.II. Y 65.4 Pt4 *zraiiā* °*kašaiiā*, Mf4 *zraiiāi* (with *i* struck out) °*kašaiiā*, Mf1 *zaraiiā* °*kašaiia* · J2 *zaraiiā* °*kašaiiā*, K5 *zraiiā* °*kašaiiā* · Jp1.K4 *zaraiiā* °*kašaiia* · H1 *zraiiā* °*kašaiiā* · F1 *zaraiiā* °*kašaiiā* · Mf3 *zaraiiō* °*kašaiia*, K36 *zaraiiō* °*kašaiia*, Pd *zaraiiō* °*kašaiiā*, W1.P6 °*kašaiiā*. Yt 5.4 F1 *zraiiā* °*kasiia*, Pt1 *zraiiāi* °*kašaiia* · M12 *zraiiō*, J10 *kašiiā*; Yt 5.38 F1+ *zraiiā* °*kašaiia* · J10 *zaraiia* °*kašiiā* · K12 *zairiio* °*kašiiāi*; Yt 8.8 F1 *zraiiā* · J10 *zaraiia*; Yt 8.31 F1.Pt1 *zraiiā* °*kašaiiā* (corrected to °*kašaiia*) · J10 *zaraiiā* *kašiiā*.

K36.Pd show a form ^o*kašahiia* which can hardly be a mere invention of these mss., because there is no form in *-ahiia* in the near context. The expected loc.sg. of *vouru.kaša-* is *vouru.kašaiia*, so that it seems that *zraiiā* must have been the original locus of the *-h-*. The final *-ā* is found especially in *zraiiā*, but final *-ā* in a disyllable cannot be old in YAv.¹¹², so that *zraiiā* must go back to a different preform. There are two possible solutions:

1. We might follow Bartholomae 1889: 668 and reconstruct a loc.sg. **zraiiahi* *vouru.kašaiia*. The corruption of **zraiiahi* to *zraiiā* recalls the spelling *-āi* for *-āhi*, which is sometimes found in the 2s.prs.subj., e.g. *aṇhāi* for **aṇhāhi*, *jasāi* for **jasāhi*, etc. (forms collected in Kellens 1984: 253). Corrupted **zraiiāi* would have an unusual final *-ai*, which could easily have been misread as *zraiiā*.

2. Hoffmann-Forssman 1996: 155 suggest that **zraiahi* may also have taken the postposition **ā*¹¹³, so that we would have **zraiiahiia* **vouru.kašaiia*. This explanation has the advantage that it directly explains the IrKA spelling *vouru.kašahiia* from an assimilation to a preceding **zraiiahiia*, but the disadvantage that we must assume a bigger corruption in all other ms. classes, changing **zraiiahiia* into *zraiiā*.

In any case, the different outcome in IrKA mss. on the one hand and the Yasna and Yašt proper mss. on the other indicates that the spelling of the archetype was still **zraiiahi(ia)* *vouru.kašaiia*.

In a few polysyllables, the spelling *-ā* is due to reanalysis of the original word as two words, the second of which became a monosyllable. This applies to *yōiθβā* (Y 27.6, Vr 12.1), which most mss. spell as *yō(i).θβā*, and to Yt 10.125 *upairispātā* < **upari-spāta*, which all mss. except H4 spell ^o*tā*. Since *spā* occurs as a separate word in Avestan, it is conceivable that the Yašt mss. had *upairi(.)spā.tā* at an earlier stage. Conversely, a polysyllable in *-ā* may be due to the merger in the mss. of two originally separate words, e.g. Yt 16.3 *aḍanā* and *yaḍanā*, which the mss. F1.J10 still spell *aḍa.nā* and *yaḍa.nā*, and similarly A 4.3 *yaḍanā*, spelled *yaḍa.nā* by Lb5.J10.

The analysis of Yt 2.13 *vitara.maibiiā* is uncertain. No other forms in Yt 2.13 take *-ā*. Another unexplained form is Yt 17.10 *friiā*, which cannot be due

¹¹² Which is why Mf4 and Pt4 (once) changed it to *zraiiāi*, Jp1.K4 to *zraiiā*, and the IrKA mss. replaced it by *zraiiō*.

¹¹³ This would mean that the loc.sg. **zraiiahiia* *vouru.kašaiia* would be constructed with twice *ā* 'in': **zraiahi-ā varukārtai-ā*.

to a monosyllabic count (like *zəmā* < */*zma*/), since we find the regular form *friia* elsewhere (Y 70.4, Yt 15.36, N 23f.).

In the more fragmentary texts *Nērangestān* and *Vištāsp Yašt*, a spelling *-ā* in a polysyllable is encountered more frequently. The reason must be that the mss. in which these texts are preserved are of a very recent date, and they may show misguided efforts to lend more solemnity to the texts.

Final *-ā* can also be the result of a recent corruption in the mss., or it can represent a Pāzand form. F 492 *murā* is a transcription in Avestan script of Phl. **mwl'n /mūlān/* 'belly' < **mṛdāna-*, and similarly F 685 *pasā* is a transcription of Phl. **ph'n* 'sheep, small cattle', cf. Klingenschmitt 1968: 150 and 204. Klingenschmitt 1968: 191 corrects F 655 *θrāθrā* to a dat. **θrāθrāi* 'for protection'. For F 671 *hacitā*, he (p. 197) considers original **hacita*, which acquired an extra stroke at the end which was cut off from the Phl. translation **p'kyh* 'being together', which is found as *p'kyh* in the mss.

§ 5.2 Final *-a* and *-ā* in the first member of compounds

PAv. **-a-* and *-ā-* at the compound boundary can be reflected as Avestan *-a(.)^o*, *-ā(.)^o* or *-ō.^o* in the auslaut of the first member of the compound. In many cases, we can still distinguish between etymological **a* and **ā*, but in some environments the difference has been blurred by later developments.

The most important change which took place was the redactional compound split (RCS). If a compound is left unsplit, and spelled as a single word in our Avesta (e.g. *vaṅhāpara-* < **vahā-para-*), we can assume that the Avestan length distinction between *-a-* and *-ā-* was preserved; of course, we must reckon with some secondary developments of shortening and lengthening which may have affected the word. If the compound was split into two parts, and if the first and the second member are spelled separately by means of a separation point (e.g. *apa.xšadθra-*), the first member was subject to the rule of final vowel length. OAv. (and pseudo-OAv.) forms always have a long final vowel, so that a compound such as OAv. *vīspā.hišas* does not allow a conclusion as to the original length of the *ā* in *vīspā*. In YAv., monosyllables obligatorily take *-ā* but polysyllables take *-a*, so that, in first instance, only a YAv. polysyllabic first member in *-ā* may contain etymologically relevant information.

The RCS was often accompanied by a replacement of final short **-a* by *-ō*; for a discussion of the formation types where this replacement took place, and of the relevant theories to explain this change, see § 22.5. This replacement by *-ō* was sometimes avoided by analogy with a simplex form

in *-a*, as for instance in *pañca.māhiia-* ‘lasting five months’ to *pañca* ‘5’. Note, however, that the compound split has sometimes taken place at a much later date than the canonization of OAv. or YAv. The split may even be the work of the medieval ms. scribes; in some such cases, we encounter YAv. polysyllabic first members in *-ā*, e.g. *hazaṅrā.yaoxšti-*.

We can resume the possibilities in the following table:

	Ir. vowel at the cpd. boundary	
	*-a-	*-aH-
unsplit	Av. <i>a</i>	Av. <i>ā</i>
	Av. <i>ā</i> (secondary lengthening)	Av. <i>a</i> (sec. shortening)
split	OAv. <i>-ā.</i>	OAv. <i>-ā.</i>
	YAv. <i>-ā.</i> (monosyll.)	YAv. <i>-ā.</i> (1. monosyll. 2. very recent split)
	YAv. <i>-a.</i> (no RCS replacement)	YAv. <i>-a.</i>
	Av. <i>-ō.</i> (1. RCS replacement 2. recent remake)	Av. <i>†-ō.</i> [unattested]

Below, we shall discuss the evidence for final *-a* and *-ā* in the first member. Forms in which final *-a* of the first member and initial *a-* of the second member have undergone contraction will be excluded. If such a compound is left unsplit, the expected long vowel is attested, e.g. *auruśāspa-* ‘having white horses’ < **aruśa + aspa-*. If such a compound is split, analogical reformation has taken place, e.g. in *hazaṅrō.aspa-* for **hazaṅrāspa-* ‘having a thousand horses’, *darəya.ārəšti-* and *darəya.aršti-* for **darəyārəšti-* ‘having a long lance’ (Tremblay 1999: 48), etc. These forms are included in the sections dealing with *a* versus *ā* in word-internal position.

As for the behaviour of the different ms. classes, I have not been able to detect significant differences. In general, forms in **-a-C-* which were originally not split (*-aC-*) can get split (*-a.C-*) in any of the mss., and apparently also vice versa. For these sequences, it is sometimes difficult to determine the situation in the archetype. The only text which really has split many words that are not so treated elsewhere is the Nērangestān, which spells e.g. *daēuua.yasna-*, *a.ratu.friia*, etc.

§ 5.2.1 YAv. $-ā(.)$, OAv. $-ā^{\circ}$ in the first member

In OAv., the spelling rules in auslaut imply that only OAv. forms which remained unsplit can be used as evidence. In YAv., $-ā^{\circ}$ has been inherited from Iir. in a number of forms where it shows final $*-aH$ or $*-ā$ of the first member, and in a few instances of $*-a-H-$, i.e. laryngeal anlaut of the second member. First member $-ā^{\circ}$ may also be due to the original status of the first member as a monosyllable.

§ 5.2.1.1 First member in Iir. $*-ā/-aH$

Two words have an exact cognate in Skt., which shows that they have retained Iir. $*-ā-$. These are YAv. *pañcāsat-* ‘50’ (Skt. *pañcāśát-*) and *nabānazdišta-* ‘closest relative’ (Skt. *nābhānédiṣṭha-*); for the latter, cf. § 4.8.

The following compounds are isolated Avestan formations, but do in all likelihood contain a first member in Iir. $*-ā/-aH$:

Yt 13.116 *uštāzanta-* ‘born as wished for’ probably contains the adverb $*uštā$ ‘at wish’ < $*uštaH$, ins.sg. of the past ptc. $*ušta-$ ‘wished’.

YAv. *vaṇhāpara-* ‘hedgehog’ probably contains Av. *vaṇhā-* ‘back’, cognate with Skt. *vāsā-* ‘fat, marrow’. While Bartholomae 1904: 1348 is hesitant about this connection, it is adopted by Benveniste 1931: 221 and Klingenschmitt 1968: 66. Klingenschmitt suggests that *vaṇhāpara-* may contain the verbal root *par-* ‘to fill’, so that the hedgehog is described as ‘filling its back’, scil. when putting up its spines. This seems a very recent type of compound, and since no Iranian cognates of *vaṇhāpara-* have been found, the word could well be an Avestan formation. In any case, final $*-ā$ of $*vahā-$ was retained in the compound.

If OAv. *zastāišta-* ‘setting in motion by hand’, which is attested unsplit in most mss., really contains the ins.sg. $*zastā$, this would show the retention of an ins.sg. in inlaut: $*zastā.išta-$.

YAv. *haṅrāniuuāiti-* ‘one-blow victory’ < $*satraH-ni-ṃ(H)ti-$ (cf. § 4.1.1) contains the adverb *haṅra* ‘at once’ which corresponds to Skt. *satrā* ‘together’. The long final vowel of $*haṅrā$ was retained within the compound. Spellings such as *haṅrā.n^o* must be due to a very recent split in the mss.; some mss. have accordingly changed it to *haṅra.n^o*.

The following compounds are less certain evidence for old $*-ā-$ on the compound boundary:

Yt 13.32 *anā.mqθβa-* ‘which cannot be pursued’ is spelled as two words in the IrKA, but as one word in F1.J10 *anāmqθ°*. If Bartholomae’s etymology (1904: 124) as **an-ā-mantua-* is correct, this form has retained Iir. **ā* in inlaut, and we must regard *†anāmqθβa-* as the spelling of the archetype.

Y 12.9 *nidāsnaidīš-* ‘who makes the weapon be laid down’ and *fraspāiaoxδra-* ‘who makes the attack be beaten off’ are probably very recent, YAv. univerbations of *nidā-* and *snaidīš-* and of *fraspā-* and *yaoxδra-*, which have retained *ā* word-internally.

V 13.44 *aštā(.)bifrām* either means *aštā bifrām* ‘there are eight bifras’, or is a compound *aštā.bifra-* ‘with eight bifras’. In both cases, *aštā* would be unexpected: *ašta* as the first member of a compound is not usually lengthened: *ašta.māhiia-* ‘with eight months’, etc. As a possible solution we may suggest that the original sequence was **ašta.ā.bifrām*. As *bifra-* is a hapax and has an unknown meaning, we cannot give a more definite answer.

It has sometimes been assumed that a final *-a* of the first member is regularly lengthened to *-ā* if the second member of the compound has initial *v-* or *uu-*, cf. Duchesne-Guillemin 1936: 11. The same claim has been made for Sanskrit; compare Wackernagel 1905: 130 and 1896: 46f., where the different subcategories in Skt. are enumerated. But as far as these Skt. forms do not have analogical lengthening in front of the suffixes *-van-*, *-vant-* etc.¹¹⁴, we now know that they contain etymological **-a-Hu-*, i.e. **a* was lengthened in front of a following laryngeal. The examples given by Wackernagel can all be explained in this way: the augment in *āvidhyat* < **a-Huid^h-*, and the compounds *gūrtā-vasu-* (PIE **h₁uesu-* ‘good’), *annā-vṛdh-* (**h₁ueld^h-* ‘to grow’) and *prā-vṛṣ-* (**Huers-* ‘to sprinkle’). Thus, there is no question of a general Iir. lengthening in front of **u*, regardless of the etymology, which could be reflected in Avestan.

In fact, the evidence does not even allow the claim of a general lengthening of **-a°* to *-ā°* in Avestan, since the number of exceptions would be much higher than the number of affected words. Compare compounds such as *darəγō.vārəθman-*, *druuō.vīra-*, *parštō.vacah-*, *pāpō.vacah-*, *baodō.varšta-*, *vīrō.vqθβa-*, *vīšō.vaēpa-*, *vīspō.vahma-*, *vīspō.vīduuah-*, etc.: all these words show the replacement of **-a.v-* by *-ō.v-*. Leaving aside the form Y 57.31 *huuā.vaēγəm* (for the first member *huuā* see § 28.2.2), *-ā(.)uu-* is securely attested in the forms *ašāuuarḡhu-*, *gaošāuuara-*, *frašāuuaxša-*, *mązdrāuuarḡhu-*, *srīrāuuarḡhu-*, and in the compounds with the root *varz-* in the second

¹¹⁴ The lengthening may in origin be due to Brugmann’s Law, i.e. PIE **-o-uent-* > Iir. *-āuant-*, according to Mayrhofer 1982: 190.

member. In all of these, *-āuu-* derives from **-a-Hu-*; see below for their discussion.

In two remaining compounds, we may have to do with a sequence *-āuu-*, but the evidence is ambiguous: Yt 13.113 *daēnāuuāzah-* PN and Y 37.3 *mazdā(.)vara* ‘who is the wish of Mazdā’ (cf. Narten 1986a: 179). *Daēnāuuāzah-* is uncertain because the v.ll. are contradictory: F1+, K38.14 *daēnāuuaz°*, Mf3.K13 *daēnauuāzahō* (cf. § 4.10). *Mazdā(.)vara-* may originally have been spelled unsplit, as still in Pt4.Mf4 *mazdāuuarā*; the spellings *mazdā.uuarā* of Jp1.K4 and *mazdā.uruuā* of Mf2 show that an unsplit sequence also underlies the IrYS; thus, the two best Iranian ms. classes agree on **mazdāuuarā*. The first member contains **mazdaH*, which usually yields a short vowel in the YAv. compounds (*mazdaiisna-*, *mazdađāta-*, etc.), but is retained with *-ā-* in OAv. *mazdāđa-*. If the compound was split *mazdā.vara-*, it cannot be used as evidence for **-ā-*.

§ 5.2.1.2 First member in Ir. **-a*

The following compounds provide plausible evidence for lengthening in front of an Ir. laryngeal:

- YAv. *aspāiiaoda-* ‘horse-fighter’ < **acya-Hi^haud^ha-* from the verbal root Ir. **Hi^hud^h-* ‘to fight’, cf. Mayrhofer 1979: I/22.
- The PN YAv. *ašāuuu^hu-* (cf. RV *rtāvasu-*), *maqdrāuuu^hu-* and *srīrāuuu^hu-* from **árta-*, **manzdra-* and **srīra-* in front of Ir. **Huasu-* ‘good’.
- OAv. *kamnānar-* ‘having few men’ < **kamna-Hnar-* and the PN YAv. *usmānara-* < **u^hma-Hnara-* containing **Hnar-* ‘man’ (Humbach 1954: 51f.).
- YAv. *gaošāuuara-* ‘ear-ring’. This is derived from *gaoša-* ‘ear’ and **bara-* ‘bearing’ by Bartholomae 1904: 486, who compares Skt. *ābharāṇa-* ‘ornament’; he reconstructs a form with a preverb **ā*, **gauša-ā-bara-*. Yet Lubotsky (p.c.) remarks that **gauša-bara-* would rather mean ‘bearing an ear’, which is less likely to indicate an ear-ring, compare *gađauuara-* ‘carrying a club’ < **gada-bara-*. Lubotsky proposes to reconstruct **gauša-Huara-* ‘ear cover’, to Avestan *var-* ‘to cover’ (Kellens 1995a: 50); for the reconstruction of an initial laryngeal in Ir. **Hu^har-*, see Lubotsky 2000: 317f.
- The PN *frašāuuaxša-* may be connected with the root *vaxš-* ‘to grow’ < Ir. **Hu^hacš-*: **prācīa-Hu^hacšā-* (Mayrhofer 1979: I/41).
- YAv. *hazaṇrā.yaoxšti-* ‘who has a thousand faculties’ (Y 9.8, Yt 19.35). We find the variant *hazaṇra.yaoxšti-* in Yt 10.35 and 107, but since the ms. tradition in Yt 10 is less trustworthy than that of the Yasna, I assume

hazaŋra^o in Yt 10 to be more recent: it will be the result of a split of archetype **hazaŋrāiiaoxšti-*, with subsequent shortening of final **-ā*. Narten's connection (1986a: 199) of *yaoxšti-* with OAv. *yaošti-* and *yaoš* 'salutary', Av. *yaož-dā-* 'to invigorate' is convincing. As Av. *yaoš* (Skt. *yóh*) is reconstructed with an initial laryngeal (EWAia II: 421), *hazaŋrā.yaoxšti-* may regularly derive from Ir. **sa^hasra-Hiaušti-*.

• There are eleven determinative compounds with a derivative of the verb *varz-* 'to do, make' as the second member: *ayāuuarəz-* 'who does evil', *gauuāstriiāuuarəz-* 'who does pastoral work', and its superl. *gauuāstriiāuuarštəma-*, *dužuuarštāuuarəz-* 'who does bad actions', *vāstriiāuuarəz-* 'who does field work', *sraošāuuarəz(a)-* 'who realizes obedience', *šiiəoðnāuuarəz(a)-* 'who does the deed', *haiðiiāuuarəz-* 'making real', *haiðiiāuuarəštā-* 'realization', and *huuarštāuuarəz-* 'who does good actions'; the hapax *haiðiiā.vərəziia-* (G 2.7) 'making real' may be a nonce formation caused by the word *vərəziia* preceding in the text of G 2.7.

It seems probable that *-ā-* in these compounds was caused by a lengthening which, to all appearances, had already taken place before the RCS; otherwise, we would certainly have found several forms in *†-ā.vəzəz-*. This excludes the theoretical possibility that *-ā-* is due to a lengthening of **-Cīa-* > *-Ciiā-* (viz. in *gauuāstriiāuuarəz-*, *gauuāstriiāuuarštəma-*, *vāstriiāuuarəz-*, *haiðiiāuuarəz-*, *haiðiiāuuarəštā-*, *haiðiiā.vərəziia-*), which might have analogically spread to the other forms (*ayāuuarəz-*, *dužuuarštāuuarəz-*, *s(ə)raošāuuarəz(a)-*, *šiiəoðnāuuarəza-*, *huuarštāuuarəz-*). As the lengthening after **-Cī-* probably post-dates the RCS, it is unlikely that these developments could have taken place.

In all these compounds except *sraošāuuarəz(a)-*, it is possible to interpret the first member as the object of the verb *varz-*, governing the acc.pl.n. in **-aH* of an adj. (*ayā-*, *haiðiiā-*) or of a n. noun (*šiiəoðna-*). Yet as we shall see below, there is no certain evidence for other determinative compounds with an acc.pl. as a first member in Avestan, but only with an acc.sg. (cf. § 5.2.2.2 below). A different solution would be to assume the preverb **ā* in these compounds, i.e. **aga-ā-urj-* etc.; yet in the absence of any indication that *varz-* was constructed with *ā* on a regular basis, this assumption is unfounded.

We are left with the possibility that the lengthening is due to the form **Huarj-* of the second member. As the PIE shape of the root was **uerǵ-*, this would imply the introduction of an initial laryngeal in Ir. times. As we have argued in fn. 45 above, Ir. possessed several roots of the structure **HuarC-*, to which **uarj-* may have been assimilated. An original anlaut **Hu-* would explain not only the vowel *ā* in the compounds discussed here, but also the lengthened reduplication syllable in the perfect stem *vāuuəzəz-* (cf. § 3.7.1).

• In Yt 13.23, five epithets of the Frauuāšis are mentioned: *uyrārət-* ‘moving strongly’, *taxmārət-* ‘moving fiercely’, *vazārət-* ‘moving flyingly’, *zaoiiārət-* ‘moving worthily of being invoked’ and *hūuārət-* ‘moving by itself’. The formation type has been clarified by Kellens 1974a: 127ff., who has discussed all important previous solutions: these compounds contain in their second member a root noun **r̥t-* ‘moving, who moves’ to the root *ar-* ‘to start moving’, and in their first member a thematic adjective: *uyra-*, *taxma-*, *vaza-*, *zaoiia-* and **hūa-*¹¹⁵.

The origin of *-ā-* in these compounds is disputed. Kellens opts for the solution offered by Duchesne-Guillemin 1962: 12, viz. that *-ā-* is due to the specific PIr. phonetic development of **r̥* to **ar̥*. A similar solution is proposed by Klingenschmitt 1968: 64 for F 174 *frārāzān* ‘front part of the fingers’, which he derives by sound law from **frārāzū-* < **fra-r̥zū-* ‘front part of the finger’. This solution is unsatisfactory in the light of the rival reflex *frār̥* in *frārətata-* < **fra-r̥ta-* and *frārənaot̥* < **fra-r̥naut̥*, where there is no other way to explain *-ār-* than via a phonetic development. In fact, the second members of *uyrārət-* and of *frārətata-* belong to the same root.

The reflex *-ār-* is probably the older one (cf. § 24.1.4, where *frār̥* is explained). The root *ar-* ‘to move’ can be reconstructed as IIr. **Har-*. Assuming that the initial laryngeal was preserved until the compounds in **-Hr-t-* were formed, we may reconstruct **Hugra-Hrt-* etc., which developed into **ugrārət-* at the loss of laryngeals. The tricky part of this scenario is the assumption that the second member **Hrt-* would have preserved or rather restored consonantal *r*, instead of becoming **Hugra-Hərt-*. There is no independent proof to support this, but it may be noted that we also find *fraorət̥* ‘zealously’ (cf. Schindler 1979: 58) < **fra-urt̥*, with zero-grade of the root *vart-* ‘to turn’, instead of †*frauuərət̥*.

Less certain, but certainly possible, is an initial laryngeal in the second member of the following compounds:

• The compound *kauuārasman-* (PN) is explained as containing the nom.sg. **kauā* of the stem *kauui-* ‘Kavi’ as a first member, cf. Mayrhofer 1979: I/58. As *rasman-* ‘battle rank’ must have had an initial laryngeal in IIr. **Hraǵ-man-* < PIE **h₃reg-*, we could also try to explain *ā* from a sequence **-a-H-* on the cpd. boundary. We might connect Yt 5.93, V 2.29f. *frakauua-* ‘who has a hunch in front’ and *apakauua-* ‘a hunchback’, so that **kauā-Hraǵman-* would mean ‘having a curved phalanx’, which does not seem impossible semantically.

¹¹⁵ See § 28.2.2 for the reflex *hūu* in *hūuārət-*.

- For V 13.47 *xšapāīiaona-* ‘who has the night as a home’, a connection with Skt. *yóni-* ‘seat, womb’ seems attractive. Lubotsky 1988: 38 has suggested that *yóni-* might be derived from **Hīauni-*, with an initial laryngeal; this remains uncertain. In view of Avestan *huiiaona-* beside *huuāīiaona* < **hu-ā-īauna-* ‘having a good home’, it is also conceivable that *xšapāīiaona-* goes back to **xšap(a)-ā-īauna-*, with *ā* ‘in’.
- The PN *grauuāratu-* is of uncertain origin (Mayrhofer 1979: I/48), but if it does contain *ratu-* ‘order’ as the second member, the preceding **-a* may have been lengthened because IIr. *Hratu-* had an initial laryngeal: e.g. **grab^ha-Hratu-*. Alternatively, it cannot be excluded that we are dealing with a recent lengthening of **uua* > *uuā*, cf. § 3.2.1 above.
- Yt 13.122 PN *daβrāmaēši-* ‘who has dark sheep’ < **daβra-maiši-*. Although there is no other positive evidence, we cannot exclude that the word for ‘sheep’ (Skt. *meṣá-* ‘ram’, *meṣī-* ‘ewe’) had an initial laryngeal, IIr. **Hmaiša-*.
- The compound *zastā.maršta-* ‘touched by hands’ = ‘agreed’ (V 4.2ff.) was interpreted by Bartholomae 1904: 1686 as the ins.sg. **zastā* of *zasta-* ‘hand’ and the past ptc. of *marəz-* ‘to touch’. We may alternatively suggest that the compound originally read **zastāmaršta-* < **j^hasta-Hmaréta-*, since the IIr. root had the form **Hmarj-* (cf. Werba 1997: 356).

The compound Y 9.27 *vaēdiīā.paiti-* derives from **vaidīa-pati-* via the lengthening of **-Cīa-* to *-Cīā-*, cf. § 3.1.3.

§ 5.2.1.3 First member treated as a monosyllable

We find a number of YAv. polysyllabic first members in *-ā* which consist of a preverb and the root *-štā*, e.g. *pairištā*. It seems that the preverb was treated as a separate word at some moment during the tradition (probably before the replacement of first member **-a* by *-ō*), which made the following **-šta* a monosyllable, e.g. **pairi.štā*. In the extant mss., however, there is no indication that *pairištā* was spelled as two words, so that the alleged preform **pairi.štā* may already have merged into *pairištā* before or ultimately in the archetype. The forms with etymological **-šta* < **-stā* conditioned by RUKI are Yt 13.153 ⁺*aṅtarəštā*¹¹⁶ ‘standing in between’ and Yt 17.54, V 3.19f., 13.50 *pairištā.xšudra-* ‘whose seed has dessicated’. For Y 9.32

¹¹⁶ We must thus combine the readings F1 *aṅtarəstā* and J10 *aṅtarəšta*; erroneous *-st-* for **-št-* is frequent in F1.

upaštā.bairiiāi, Duchesne-Guillemin 1936: 63 has suggested that it contains **upastā*- ‘womb’ (Skt. *upāstha*- ‘uterus’), so that *upaštā-bairiiā*- would mean ‘offering her womb’. He therefore prefers the v.l. *upastā*^o, but we must accept *upaštā*^o as the best attested form in the mss. Lubotsky (p.c.) suggests to me that *upaštā* may contain secondary ^o*štā*-, on the model of the compounds where *š* was regular because of RUKI. In any case, **upaštā* could have been analyzed as /*upa* + *štā*/ at any time, thus causing the long final vowel in the same way as in *aṅtarəštā* and *pairištā*. In V 13.50 *naštā.zəmanasca*¹¹⁷ ‘who has lost his merits’, final *-ā* is probably due to the influence of the following word *pairištā.xšudrasca*.

§ 5.2.1.4 OAv. *-ā*

Although it is impossible to say whether OAv. *-ā* derives from **-a* or from **-ā*, we must try to answer the question why a first member in *-ā*^o of an OAv. compound was not changed to *-ō* (cf. Kellens-Pirart 1988-91 I: 63). The following forms are involved: *ašā.aojah*- Y 43.4, *išā.xšaθrīm* 29.9, *ciθrā.auuaḡhəm* 34.4, *tušnā.maiti*- 43.15, *θβā.išti*- 44.10, *dərəštā.aēnaḡhəm* 34.4, *mązā.xšaθrā* 49.10, *mązā.raiiā* 43.12, *mōiiāstrā.baranā* 30.9, *yā.šīiaoθana*- 31.16, *vīspā.hišas* 45.4, *rāmā.dā*- 47.3 and *hātā.marāni*- 32.6.

Most of these forms have been discussed by Humbach 1954: 53ff., to whom I owe part of the explanations below. With Humbach (p. 61), we may assume that the absence of contraction in the compounds *ciθrā.auuah*- (not †*ciθrāuuah*-), *dərəštā.aēnah*- and also *ašā.aojah*- is due to a secondary split of an originally contracted sequence. Therefore, these forms must be disregarded. For *tušnā.maitiš* and *θβā.ištiš*, Humbach 1954: 62 has argued that these actually represent sequences of two independent words *tušnā* and *maitiš*, and *θβā* and *ištiš*. For Y 29.9 *išā.xšaθrīm*, we can similarly assume two independent words, *išā* being the ins.sg. of the root noun *iš-* (with Humbach 1954: 56).

The remaining compounds contain **-a*^o or **-ā*^o. Just like the YAv. compounds in *-a*(.)^o, where we must for many forms simply accept the fact that they were not split, it seems that we must do the same for these OAv. forms. Their **-ā*^o was not replaced by *-ō*^o, but they were split at a much later stage, e.g. when the archetype was written. Their newly separated first

¹¹⁷ V.ll. L4 *naštā*, K1a *ništa* · Jp1.Mf2 *ništā* · L1.2.Br1.M2 *naštā*. Geldner edited *ništā*^o, but Bartholomae 1904: 1061 has argued that the meaning demands an original form *naštā*^o.

member received the obligatory long final vowel, and that is all. The noun *rāmā(.)dā-* could represent two separate words, as Humbach p. 63 claims, but it could also be the unsplit counterpart **rāmadā-* of YAv. *rāmō.dāiti-* ‘granting peace’. The presence of an ins.sg. in the first member of *yā.šīiaoθana-* ‘with what actions’, as advocated by Humbach 1954: 57, seems very likely. The compounds *mōiiāstrā.barana-*, *vīspā.hišat-* and *hātā.marāni-* probably contain the bare *a*-stem in the first member, or they are not compounds at all. OAv. *māzā.raīia-*¹¹⁸ ‘granting wealth’ and *māzā.xšaθra-* ‘granting power’ contain the verbal stem **mam^ha°*. Whether *-ā°* is due to a rhythmic lengthening of **māzaraīia- > *māzāraīia-*, as Humbach claims, is impossible to say.

§ 5.2.1.5 Gathicisms, errors, unclear etymology

A few YAv. forms show influence of the Gāthās. Final *-ā* of YAv. *spəntā.mainīiu-* shows the unaltered adoption of the OAv. expression *spənta-mainīiu-* in YAv. liturgy. The personal name Yt 13.139 *tušnāmaiti-* can be linked with Y 43.15 *tušnā maitiš* ‘quiet mind’. If, as Humbach 1954: 62 argues, the Gathic words do not represent a compound but merely an adj. *tušnā* and a noun *maitiš*, Yt 13.139 *tušnāmaiti-* may be the YAv. adaptation of a Gathic sequence as a personal name in YAv.; it would not prove anything for our purpose. F 140 *guzrā.sarhō* is under the suspicion of being a calque on Y 48.3 *guzrā səngāghō*.

The compounds *ušta.bəṛəti-* and *vaṇta.bəṛəti-* usually occur in this form in YAv., but in Y 62.7, a number of mss. spell *uštā.°* and *vaṇtā.°* The distribution of the readings *-a* and *-ā* cuts across ms. classes, so that it is impossible to say which of the two variants was the original spelling. But since this passage shows no signs of pseudo-OAv. spellings, there must be some particular reason why only Y 62.7 shows *uštā* and *vaṇtā*; influence by the form *uštā* of the frequent *aṣəm vohū* prayer seems very likely.

The grapheme *-aor-* was sometimes replaced by the grapheme *-āur-*, due to the confusion between the diphthongs *ao* and *āu* among part of the Avesta scribes; cf. also § 17.4.2. This has occurred at the compound boundary in a few forms. In Y 1.21 *auuā.urūraoḍa* ‘I have been neglectful’, *-ā* is securely attested in the good Yasna mss. It is ignored by Bartholomae in his dictionary (1904: 1494), where he edits *auua.urūraoḍa*. Yet in 71.18 *auuāurusta* <

¹¹⁸ The stem cannot be **māza.rāji-*, since *māza.raīiā* is an ins.sg. form.

**aua-rusta*, we similarly find °*āur*°. This suggests that the split of Y 1.21 **auuāurūraoda* in two words may be very recent. As Ir. **rud*^h- ‘to obstruct’ did not have an initial laryngeal (EWAia II: 467), the lengthening must be analogical. It is absent from *auua.raodənti* and *auua.raodaiieiti* in the N. It is therefore likely that Y 1.21 originally read **auuaorūraoda* and Y 71.18 **auuaorusta*. Similarly, Vr 3.3, G 4.8 *daijḥāuruuaēsa*-¹¹⁹ ‘going about within the country’, lit. ‘having his going around within the country’ < **dah̥ja(u)-uraisa*-¹²⁰ is still spelled as *daḥhao(u)ruuaēsa*- in the older Iranian mss., which points to an original spelling *daḥhaoruuāēsa*-. For Yt 13.116 PN *ašāuruuaḍa*-¹²¹ < **arta-ruaḍa*-, we must similarly restore **ašāoruuāḍa*- on the strength of the spelling -*aōur*- in Mf3.K13.

Yt 10.141 *hazaḥrā.gaoša*- ‘having a thousand ears’ must be a lapsus of the tradition, since we find *hazaḥra.gaoša*- in four other passages. Note that the mss. in Yt 10.141 are divided between *hazaḥrā*° F1.Pt1+.H4 and *hazaḥrāi*° E1.K15.12.H3. The v.l. of J10 is not mentioned by Geldner.

The attestation of Yt 3.4 *ašāiiaonəm* is too uncertain, cf. Bartholomae 1904: 256; the original spelling may have been very different. Also, a plausible etymological solution for the forms *duuācina* (Yt 10.84), *baramāiiaonahe* (Yt 17.55) and *fraspāuuarəš* (Yt 2.13; cf. *fraspāiiaoxədra*-?) is lacking.

§ 5.2.2 YAv. -a(.) and OAv. -a in the first member

The redactional replacement of final short *-a by -ō in compounds was not comprehensive. The arbitrary character of the compound split is shown by forms such as *ašō.mižda*-, *ašō.raocah*-, *ašō.stūiti*-, and *ašō.zušta*- on the one hand, but *ašax^vāḍra*-, *ašaoxšaiiant*- and *ašasauuah*- on the other. Next to a majority of forms *ašaciḍra*- ‘having aša as an origin’, we find *ašō.ciḍra*- at

¹¹⁹ V.II. Vr 3.3 °*hāur*° K7a, °*hāur*° J15 · °*hāur*° Mf2, °*haōur*° K4, °*hur*° Jp1 · °*hāur*° S2.O2.; G 4.8 Pt1 *daḥhāu*°, K12 *daijḥā*° · J10 *daḥhā*° · L11 *daijḥu*°, L18 *daḥhu*° · Mf3.K36 *daḥhaōruu*°.

¹²⁰ Klingenschmitt (1968: 245) assumes that the stem of **dah̥ju*- was replaced by **dah̥ja*- for «euphonic reasons», but it seems unlikely that stem-final -u would have been lost; rather, **dah̥ju*- was replaced by **dah̥jau*-. In view of the meaning of the compound, a form **dah̥jau-uraisa*- with the loc.sg. of *dah̥ju*- cannot be excluded.

¹²¹ V.II. F1 and J10 °*āur*°, but IrKA Mf3.K13 *ašāōur*° with short a.

Yt 11.3 and P 26. It seems impossible to determine what triggered the replacement or the retention of **-a* in every individual case (cf. § 22.5).

Apart from the replacement of **-a* → *-ō*, the RCS can in part of the compounds also be recognized by phonological characteristics. If a compound is split, the initial consonant of the second member is treated as if in anlaut, and does not undergo the YAv. intervocalic lenition of **b/d/g* > *β/δ/γ*; compare its absence e.g. in *hadō.gaēθā-*, etc.¹²². However, the original consonant may also have been restored. The doublet *spārō.dāšta-* (Yt 13.35) / *spāra.dāšta-* (Yt 19.54) shows that there must have existed a form **spāradāšta-* ‘granting prosperity’ at the time of the RCS, in order to yield *spārō.dāšta-*. Attested *spāra.dāšta-* must then continue **spāradāšta-*, with restoration of initial *d-*. The form *haomō.aṅharšta-* ‘having filtered haoma’ must be based on **haomaṅharšta-*, i.e. the compound split must postdate the development **-h-* > *-ṅh-* (cf. Caland 1893: 590).

§ 5.2.2.1 First member in IIr. **-a*

The clearest examples of the retention of **-a* are provided by unsplit compounds with a phonological development that suggests treatment as a single word. The forms are *aspaṅhād-* < **aśua-sād-* ‘maltreating horses’ (cf. Kellens 1974a: 320), *aštraṅhād-* < **aštra-hād-* ‘driving with the whip’, *ašṅhāc-* ‘accompanied by aša’, *ahuraδāta-* ‘created by Ahura’ < **ahura-dāta-*, *uxdašnan-* ‘who understands the speech’ < **uxθa-ṅnan-*, *gaḍauuara-* ‘carrying a club’ < **gada-bara-*, *caṅraṅhac-* ‘accustomed to pastures’ < **cahra-hac-*, *taradāt-* ‘who sets aside, who overcomes’ (Hintze 1994: 102) < **tarHa-dāt-*, *baēšazaδā-* ‘curing’ < **baišaza-dā-*, *mazdaδāta-* ‘created by Mazda’ and *vīraṅhād-* ‘maltreating men’ < **vīra-hād-*.

If the first member in **-a* of a compound was identical with a simplex form in *-a*, this seems to have blocked the replacement by *-ō*; in other words, *-a* was retained by analogy with simplex forms. The first member may occur either with or without separation point. This category consists of prepositions, adverbs and numerals. The analogical retention of *-a* in these compounds is further stressed by the treatment of the following consonants such as **h* and **b*, **d*, **g*, which have the form they normally have in word-initial position: *ana.x^varəθa-*, *ašauua.dāta-*, *upa.bəṛəiti-*, *para.haoma-*, *nauua.hāθra-*. Forms such as *auuaṅhāna-* < **aua-hāna-* or *haptaṅhāiti-* < **hapta-hāiti-*, which

¹²² Except for the special cases OAv. *aojōṅhūuaṅt-*, *cazdōṅhūuaṅt-* and *raocōṅhūuaṅt-*, cf. § 22.5.4.

combine the absence of a compound split with the retention of *-ṛh-*, show that the development of **-h- > -ṛh-* took place before the RCS. Therefore, forms such as *para.haoma-* are due to the restoration of initial *h-* and the non-replacement of *para°* by *parō°*. The relative chronology of these developments will be: 1. **parahaoma- > *paraṛhaoma-*, **haomaharšta- > *haomaṛharšta-* (by sound law), 2. **paraṛhaoma- → para.haoma-*, **haomaṛharšta- → haomō.ṛharšta-* (by RCS replacement).

The preverbs *apa*, *ana*, *upa*, *fra*¹²³ (also *frā*), *haca*, the adverbs *yaθa* and *haθra*¹²⁴ and the numerals *duua*¹²⁵ ‘2’, *dasa* ‘10’, *pañcāsata* ‘50’¹²⁶, *nauua* ‘9’ and *vīsata*¹²⁷ ‘20’ are always attested with final *-a*. With *auua* ‘down, towards’, the forms *auuō.dāta-* and *auuō.x^varəna-* stand against a majority of *auua°*; with *haða* ‘together’, *haðō.gaēθa-* ‘of the same household’ and *haðō.zāta-* ‘of the same descent’ stand against 12 compounds with *haða(.)*¹²⁸. With *ašta* ‘8’, we find five times *ašta°* but once *aštō.kāna-*. With *θrisata* ‘300’, we find *θrisata.gāiia-* but *θrisatō.zim-*; with *pañca* ‘5’, we find 6 times *pañca°* but once *pañcō.hiia-*; with *hapta* ‘7’, we find 5 times *hapta°* but *haptō.karšuuar/-n-* and *haptō.iriṅga-*. As for *para°* and *parō°*, it is impossible to distinguish exactly between original **parā* and original **parah* in the first member, since *para* (Skt. *purā*) and *parō* (Skt. *purāh*) both occur as simple preverbs meaning ‘before; in front’, and both may have influenced the compound forms. More forms in *-ō* occur with *sata* ‘100’ and *hazaṛra* ‘1000’: 4x *sata°*, 8x *satō°*, 4x *hazaṛra°*, 10x *hazaṛrō°*.

¹²³ For OAv. *frō*, cf. § 22.6.

¹²⁴ Here, one may also consider the fact that the attested forms *haθrauuaata-*, *haθrauuaana-* and *haθrauuanant-* were not analyzable as compounds with a second member **vata-* etc.

¹²⁵ Only in *duuadasa-*.

¹²⁶ Only in *pañcāsata.gāiia-*.

¹²⁷ Only in *vīsata.gāiia-*.

¹²⁸ Lubotsky suggests to me that the meaning may have interfered with the morphological replacements. Thus, it is imaginable that e.g. *haða°* was retained when the meaning of the simplex *haða* was recognized in the compound, e.g. *haða.zaoθra-* ‘containing libations’, quasi ‘with.libation-’. The form *haðō* was only created where **haða°* did not have the meaning ‘with’, as in the possessive compounds *haðō.gaēθa-* and *haðō.zāta-*.

Analogy seems also to have caused the retention of *ašauua*^o as the first member of all compounds with this word: the nom.sg. *ašauua* of *ašauuan-* is a frequent word in Avestan.

We now turn to those compounds with a first member in *-a* and a second member in *d-*, *g-*, *b-*, *x^v-* or *hā-*. The retention of these consonants serves as an indication that the separation of the two members took place before the developments which those consonants otherwise undergo. These compounds also usually show a separation point, and we may assume the separation to have been present from the canonization of YAv. onwards. This is especially clear for those compounds that have variants with *-ō*^o, e.g. *hama.gaona-* and *hamō.gaona-*. This vacillation also shows that it would be hazardous to assume a temporal differentiation between the split which yielded *-ō* and that which yielded *-a*; rather, they may be due to the same redaction. The 14 compounds belonging to this category are *auuarəθrabah-* PN (< **a-uartra-bah-*), *auruša.bāzu-* ‘having white arms’ (**aruša-bāzu-*), *aθβadāiti-* ‘abandonment’ (**adūa-dāti-* < **Hṇd^huṇ-d^haHti-*), *asabanā-* PN, *aša.x^vāθra-* mountain name (spelled 25x *ašax^o*, 6x *aša.x^o*), *uγra.bāzu-* ‘with strong arms’, *paouruša.gaona-* ‘having grey hair’ (but *vīspō.gaona-*), *vəṛəθra.baoda-* ‘the scent of victory’, *vīspa.x^vāθra-* ‘granting all well-being’ (Yt 1.14), *spāra.dāšta-* (but also *spārō.dāšta-*), *spita.gaona-* ‘having a white colour’, *haoma.x^varəti-* ‘the consumption of haoma’, *hama.gaona-* ‘of the same colour’ (but also *hamō.gaona-*) and *haiθiia.dātəma-* ‘who is the best in giving truth’ (Yt 11.3 *haiθiia.dātəma*). In the case of *spāra/ō.dāšta-*, the actual forms are Yt 19.54 *spāra.dāšta* and Yt 13.35 *spārō.dāštā*, which seems to suggest that the difference may have been caused by an assimilation of the first member auslaut to that of the second member. Yet this assumption is not possible for other forms, so that I am reluctant to adopt it.

For the remaining forms, there are no phonological clues to determine the date of the separation. It is not immediately apparent why they have retained *-a*^o in the first member, and probably there are different causes for different forms. In some cases, e.g. *vīspabda-* ‘an all-embracing bond’, the absence of separation is understandable, because a word *bda-* is unknown. The separation is often due to very recent scribal practice, as in *aēθrapaiti-* (3x) against *aēθrapaiti-* (26x). Compare also the reflexes of **miθa-uxta-* ‘falsely spoken’: 3x unsplit *miθaoxta-*, but *x^vmiθō.uxta-* in Vr 20.2; the latter has clearly been influenced by the surrounding forms *miθō.mata-* ‘falsely thought’ and *miθō.varšta-* ‘falsely acted’.

There is a separation point attested in the forms *aša.paoiriia-* ‘having aša as the first’ (note the PN *ašō.paoiriia-*), *aša.ratu-* ‘having aša as a ratu’,

aša.stəmbana- mountain name, *aša.šiiəoθna-* PN, *ahura.tkaēša-* ‘having ahura as a teacher’ (25x; 4x *ahurō.tkaēša*)¹²⁹, *uyra.zaoša-* ‘having a strong will’, *udra.jan-* ‘killing otters’, *jiia.jata-* ‘propelled by the bow-string’, *dāstra.masah-* ‘with the size of a *dāstra-*’, *frā.uruzda.paiiah-* ‘whose milk is obstructed’, *mazda.xšaθra-* ‘having his rule from Mazdā’, *vairiia.stāra-* ‘more preferable’ (see § 3.1.3), *varənauuu.viša-* ‘having a spider’s poison’, *vərəθra.tauruuān-* ‘overcoming the resistance’, *vīspa.tauruuairī-* PN ‘who overcomes everything’ (cf. Skt. *viśva-tūr-*), *raθa.kairī-* ‘made like a vehicle’, *zaraniiapaxšta.pāda-* ‘having legs which are bound in gold’, *hauruuu.paoiriia-* ‘?’ (a very recent cpd.), ⁺*haoma.hūiti-* ‘the pressing of haoma’, *haoma.stūiti-* ‘the praising of haoma’, and *hama.nāfaēnī-* ‘of the same breeding’.

The following forms are spelled as one word: *aēθrapaiti-* ‘teacher’ (26x; 3x *aēθra.paiti-*), *aparazāta-* ‘born afterwards’ (Skt. *aparajā-*), *aniiatkaēša-* ‘of a different faith’ Vn 34, 78, 82 (*ainiiō.tkaēša* V 12.2, Vn 25, 30), *aruuuoštra-* PN < **araṃa-uštra-*, *arənauuācī-* ‘denouncing injustice’ < **arna-uācī-*, *aspa.vīrajan-* ‘striking horses and men’ (cf. *udra.jan-* and *vərəθrājan-*), *ašaciθra-* 20x (3x *aša.°* in H), *ašaoxšaiiant-* ‘increasing aša’ < **aša-uxšaiiant-*, ⁺*ašanəmah-*¹³⁰ PN, *ašasairiiānc-* PN, *ašasauuah-* PN, ⁺*ašasara-*¹³¹ ‘united with aša’, *ašasarəda-* PN, *ašastū-* PN, ^x*ərəduuafšniia-*¹³² ‘with upright breasts’ (cf. Skt. *ūrdhvastamī-*), *upaošaṃhuua-* ‘eastern’ < **upa-ušahya-*, *kamnafšuuu-* ‘having few cattle’, *kərəsaoxšan-* PN < **kṛsa-uxšan-*, ^x*aṇdrakara-* ‘who does what is pleasant’, *gaiiədā°* in the PN *gaiiədāstaiiana-* and *gaiiədāsti-* (compare the adj. *gaiiō.dā-* ‘giving life’ < **gaiiə-d^haH-*), *daēuuaiiasna-* ‘who worships the daēvas’ (Skt. *devayajñā-*), *daēuuaiiāz(a)-* ‘id’ (Skt. *devayāj-*), *frašaoštra-* PN < **fraša-uštra-*, *mazdaiiasna-* ‘who worships Mazdā’, *mazdaoxta-* ‘said by Mazdā’, *māzdaiiasni-* ‘belonging to a Mazdayasnian’, *miθaoxta-*, ⁺*yahmiiajatarasca*¹³³ mountain name, *vərəθrajan-* ‘victorious’ (Skt. *vrtrahān-*) which is discussed in § 5.2.3, *vīspataurušī-* PN, *vīspataša(n)-* PN,

¹²⁹ The distribution is: nom.sg. *ahura.tkaēšō*, acc.sg. *ahurō.tkaēšqm*, *ahurō.tkaēšəm*.

¹³⁰ Yt 13.127; I adopt unsplit *aša°* from Mf3.

¹³¹ Yt 11.4; edited as *aša.sara* by Geldner, but F1 *ašašara* may preserve the older spelling.

¹³² In H 2.9, where the mss. have *ərəd°*; the error *-duu-* for **-duu-* also occurs in the mss. of the N.

¹³³ Yt 19.6; spelled unsplit in F1+.

vīspabda-, *rāmašaiiana*¹³⁴ ‘bestowing peaceful dwellings’, *spaciθra-* ‘belonging to the species of dogs’, *srīraoxšan-* PN < **srīra-uxšan-*, *zaraniiapaxšta.pāda-* (against 19 compounds in *zaraniiō.*°), *hauruuafšu-* ‘having healthy cattle’ < **harūa-fšu-*. The spelling of *zaraniiapaxšta*° without a separation point is remarkable. It may be due to a rule that every compound may have only one split, as in the Rigveda padapāṭha; however, a few Avestan compounds break this rule, e.g. *huš.hqm.bərəta-*. Note that the word is a hapax in Yt 17.9, and that it is attested only in J10 and K12, but not in F1+, because the scribe of F1 made a mistake while copying.

§ 5.2.2.2 First member in Iir. *-aH?

We must now review the possible evidence for YAv. forms with a first member in *-a* from original **-ā*. In fact, no certain forms with this reflex exist.

There are forms in *-a(.)* which must certainly go back to a sequence **-a.H-*. The words *aša.nāsa-* ‘who makes reach Aša’ and *vahišta.nāsa-* ‘who makes reach the best’ derive from the root **Hnac-* ‘to reach’, but compounds with *aša-* and the superlative *vahišta-* as a first member may well be recent formations. Also, the long vowel in *°nāsa-* is unexplained, cf. § 3.7.3.

It has been suggested that the adverb **uštā* ‘at will’ represents the first member of *uštāzanta-* (see § 5.2.1.1), and one may consider its presence in *ušta.x^rarənah-* mountain name ‘who has Xvarnah at will’ and *ušta(.)bərəiti-* ‘oblation at will’. But instead of a frozen adverb **uštā*, these forms may simply contain the stem of the ptc. *ušta-*, i.e. *ušta.x^rarənah-* ‘who has the wished-for Xvarnah’ and *ušta.bərəiti-* ‘the wished-for oblation’ (Bartholomae 1904: 420 and 418 resp.). The latter compound occurs together with *vanta.bərəiti-*, which can accordingly be translated as ‘the gained oblation’. There is no evidence in Avestan for an adverb **vantā*, which supports the view that *ušta.bərəiti-* too does not contain an adverb.

I have found no Avestan compounds with a first member in *-a(.)* which must be explained as an acc.pl.n. (or an acc.du.m.)¹³⁵. Humbach 1954: 53

¹³⁴ Yt 10.4; spelled *rāma.šaiiana-* in Yt 8.2, Ny 2.13.

¹³⁵ It is very uncertain that such compounds ever existed in Iir. Unlike compounds with an acc.sg. in the first member, an acc.pl. is very rare in Skt., cf. Wackernagel 1905: 204.

suggested that the YAv. names *vīspa.hišat-* ‘noticing everything’ and *hāta.marəni-* ‘who remembers the merits’ in Yt 1.8 might contain the neuter pl. forms **vīspā* and *hātā*. Yet it is clear that these names are calques of OAv. *vīspā.hišat-* (Y 45.4) and *hātā.marāni-* (Y 32.6), cf. Bartholomae 1904: 1465 and 1802; therefore, they cannot be used as evidence.

The compounds with *mazda*^o as a first member are conspicuous, because *mazdā-* is expected to retain its stem **mazdaH-* in composition; in fact, this is attested in the OAv. (substantivized) adj. *mazdāθa-* ‘commemorabilis’ < **mazdaH-^ha-*. However, *mazdāθa-* seems to preserve the original, abstract meaning of **mazdaH-* ‘knowledge’, cf. Skt. *medhā-* ‘wisdom’. The YAv. compounds, which all show the short reflex (*mazdaiiasna-*, *mazdaoxta-*¹³⁶, *māzdaiiasni-*, *mazda.xšaθra-*, *mazdaδāta-*), contain the deified name *Mazdā-*, which is indistinguishable in its inflexion from a f. *ā*-stem noun. Therefore, we may suggest that *mazdā-* was treated in these compounds as a normal f. *ā*-stem, taking short *-a* in the first member. There is no need to assume that compounds such as *mazdaiiasna-* show the result of shortening of **ā* in antepenultimate syllable, as Kellens 1974a: 202 suggests.

In passing, we may note that there is also no certain evidence for compounds with an acc. *singular* in the first member as being inherited from IIr. There are no cognate forms shared by Sanskrit and Avestan. Rather, Avestan shows several clear examples of the recent introduction of an acc.sg. into the first member. The evidence suggests that this replacement of the uninflected first member by an acc.sg. form took place when the text redactors recognized the second member as a separate word (e.g. *°jan-* ‘who slays’). When they did not recognize the second member (e.g. *°γn-*, the zero grade stem of **jan-*), such an intervention did not occur. Thus, the introduction of the acc.sg. was carried out on purpose and may be equated with the RCS (compare also § 22.5.3 on the RCS in front of endings such as *-tūm*, *-dūm* and *-hu*). I give examples from three different verbs:

¹³⁶ The readings *mazdā.uxδa-* in FrW 9.1 and *mazdāi.uxδa-* in F 679 go back to **mazdaoxta-*, which developed into **mazdāxta-* and was then restored to **mazdā.uxδa-*. This is borne out by the v.ll. of Y 19.16 *mazdaoxta-*: Pt4 *mazdā.xtəm*, Mf4 *mazdā.xδəm*, Mf1 *mazd^o.xtəm* · J2 *mazdōxtəm*, K5 *mazdā.uxtəm* · *mazda.oxtəm* S1, *mazdā.uxtəm* J3 · *mazdāxδəm* Mf2, *mazdō.uxδəm* K4 · *mazdaoxtəm* J6b.7.H1.K11.L13, *mazdauxδəm* Lb2, *mazda.uxδəm* C1 · *mazdaoxtəm* K10.L1.2.B2.O2. The ms. K5, which is less original than J2, has restored the second member *uxtəm* which had become opaque in J2; the same relationship exists between Mf2 and its more recent descendant K4.

- From the verb *kart-* ‘to cut’, we find *nasu.kərət-* ‘who cuts corpses’ in V 7.26 but *nasūm.kərət-* in Yt 4.7, which is a very recent and grammatically deficient text.
- Compounds in *°jan-* ‘slaying’ provide most of the clear examples. The compound **vrtra-jan-* ‘slaying the shield’ (Skt. *vrtrahán-*) occurs as nom.sg. *vərəθraja*, gen.sg. *vərəθrājanō* in YAv. (for its *-ā-* see § 3.4.2.3), but the only OAv. occurrence is the nom.sg. *vərəθrəm.jā*, with an acc.sg. of *vərəθra-* as the first member. The compound *kamərəδa-jan-* ‘slaying the head’ appears as nom.sg. *kamərəδaja* (V 4.49), but its acc.sg. and gen.sg. have the form *kamərəδō.janəm* and *kamərəδō.janō*. This proves that the redactors who introduced the vowel *°ō* into **kamərəδa°* were able to analyse *°jan°* as a separate word. Another example is provided by the compound **vīra-jan-* ‘slaying men’ (Skt. *vīrahán-*), attested in the nom.sg. *vīraja* (3x) but in the gen.sg. as *vīrəjanō* (Yt 13.136), i.e. **vīram-janah*, with the acc.sg. of *vīra-* as a first member. Another pair of forms is offered by the compound **vāra-γna-/°vāram-jan-*, the name of a bird of prey, which has tentatively been explained as ‘who breaks the defense’ by Benveniste in Benveniste-Renou 1934: 34¹³⁷. Whereas the uninflected stem **vāra°* is preserved¹³⁸ in the gen.sg. *vārəγnahe* (Yt 14.19, 19.35-38), the form *vārəjjanahē* (Yt 14.35)¹³⁹, probably for **vārəjanō*, shows the strong stem *°jan-* accompanied by the introduction of an acc.sg. form into the first member. Our impression that a full grade stem *-jan-* goes along with an inflected form of the first member is also confirmed by Yt 10.40 *ašəmnō.janō* ‘striking no wounds’, V 19.40 *daēum.janəm* ‘slaying the daēva’ and Yt

¹³⁷ Benveniste showed that the stem **vāra-γna-* is preserved in Sogdian *w’rγn’k* ‘falcon’; the stem **vāram-jan-* may be reflected in the Armenian borrowing *varužan* ‘male bird’, according to Hračik Martirosian (p.c.).

¹³⁸ Alternatively, one might with Humbach 1957: 299 consider **vāraγna-* to be the result of an IIr. dissimilation of a sequence **-nCn-*. As argued by Hoffmann 1952/57: 130f. (= 1976: 366), such a dissimilation may have been an IIr. sound law, yielding among other forms OAv. *aməhmaidī* for **ā-ma[n]smadi* (cf. § 22.4) and Skt. *rudhmaḥ*, *yujmahe*, *agasmahi*. The same dissimilation may underlie the Av. int.prs. *jaγna-* < **janγna-* to *jan-* ‘to slay’, cf. Kellens 1984: 195. Note that there are also exceptions, viz. Av. *qxnah-*, *qxmā(n)-* and *qγmō.paidiš* (§ 19.1); these may be due to restoration of the roots **ank-* and **ang-*.

¹³⁹ In Yt 14.19, Jm4 has *vārənznahe*, the only variant in this passage which does not point to **vārəγnahe* but to *vārəj-janahē* as in Yt 14.35. Compare the discussion of *sraošāuuarəz-* (§ 5.2.1.2). V.II. Yt 14.35 *vārəjjanahē* F1.E1, *vārəjjanahē* L18.K40 · *vārənzanahe* J10 · *vārəjjanahē* Pt1.O3.Jm4 · *vārəjjanahē* K36.37.

10.38,45 **haiθīm.janasca*¹⁴⁰ ‘who slay Truth’. The form *daēum.janəm* betrays its later origin by the absence of the development acc.sg. **daiuəm > dōiūm*. The only exception is V 13.55 *udra.janō* ‘slaying otters’, which may have acquired a separation point only recently (**udrajanō*). No compound with the weak form *°γn-* and an inflected first member is attested, which confirms the conclusion about the role of the text redactors which we have drawn above.

• The noun *šīiaoθnāuuarəz-* is attested as *šīiaoθnāuuarəza* in V 13.38 and 15.1, and as *šīiaoθnāuuarəzəm* in V 13.23. In this passage, L4.Pt2.K1 spell *šīiaoθnəm.vərəzəm*, which must clearly be due to the surrounding acc.sg. forms in *-əm*. Schindler 1979: 58 has rightly argued that there is no need to posit a separate adj. *šīiaoθnəm.vərəz-* (pace Bartholomae 1904: 1713, Kellens 1974a: 69).

§ 5.2.2.3 Errors, ambiguous spellings, unclear etymology

The following words are spelled as a compound in Geldner, but must or at least can be read as two separate words:

- Y 60.5 *aša.drujim* (Bartholomae 1904: 240).
- Y 19.1, 52.5 *ahura.mazda* = voc.sg. *ahura mazda*.
- V 21.3 *baēšaza.kəša-*, translated earlier as ‘who does healing’, is explained by Hoffmann 1992: 844f. as *baēšaza kəša* ‘ready medicines’ or ‘healing medicines’.
- *rāma.x^vāstra-* (Vr 2.9) is *rāman- x^vāstra-* ‘Rāman who grants good pasture’ as anywhere else.
- Yt 4.8 *apāxədra.naēmāt* is for **apāxədrāt naēmāt*, on the example of *ađara.naēma-* next to *ađara- naēma-* etc. Similarly, *ništara.naēmāt* and *pa(o)uruua.naēmāt* may represent original **ništarāt naēmāt* and *pauruuūt naēmāt*.
- V 13.47 nom.sg. *apišma.x^varō* ‘eating unseen’ (Gershevitch 1959: 255) displays the development of **h₁-* in anlaut. Since *apišma* can be the nom.sg. of *apišman-* ‘unseen’ (as it is in Yt 10.105), *x^varō* could simply be the nom.sg.m. of the prs.ptc.act. *x^varañt-* ‘eating, drinking’, which is also attested in N 30 *x^varō*. The line *apišma x^varō yaθa tāiuiš* in V 13.47 then means ‘unseen, eating like a thief’.

The auslaut *-a* of the first member is not original in Yt 14.20 *išuuu.vasma* ‘arrow’s flight’, since a first member *išuuu* to a stem *išu-* ‘arrow’ would be

¹⁴⁰ Thus restored for attested *haiθīm.ašauua.janasca* by Duchesne-Guillemin 1936: 72.

very strange; the original form may have been **išu.vasma*, which was later misread (i.e. in the oral tradition) as **išuva.vasma*. On the other hand, there are good v.ll. with a *-t-*: K36 *vasat*, K38.M12 *vasata*, K16 (sec.m.) *vasta*. If they have retained an older situation, we may propose to read a syntagm **išauua asta* or **išūš asta* ‘thrown arrows’, with a YAv. *a*-stem acc.pl. in *-a*.

The following compounds did not have a first member in *-a*, or are corruptions of unknown origin:

- In Yt 3.14-15, we find the compounds *anāxšta.anāxštōtəma-*, *ažiciθra.ažiciθrōtəma-*, *duždōiθra.duždōiθrōtəma-*, *bizəngrō.ciθra.bizəngrō.ciθrōtəma-*, *mašiiō.sāsta.sāstōtəma-* and *spazga.spazgōtəma-*, which cannot be genuine Avestan.
- In the form *kadruua.aspa-* (Yt 19.6), we must assume an original unsplit compound **kadruuaspa-*, cf. § 22.5.5.
- Vn 51 *maxša.bərətō* represents **maxši.bərəta-* ‘carried by flies’, as attested in V 5.3f.
- The form *sraota.gaoša-* in Vyt 14 is judged "wertlos" by Bartholomae 1904: 1649. It seems a recent, Late YAv. or even post-YAv. derivation from *sruṭ.gaoša-*.

Because of an unclear etymology, it is impossible to decide to which category belong the following words: *anāxruiida.dōiθra-* (Yt 15.54), *kərəsauuazdah-* (Yt 19.77), *bastauuari-* (Yt 13.103 ‘with a tied *vari*’), *bərəγmīia.šaēta-* (Yt 10.77; possibly **bərəγmi-ā-šaiti-*), *yuxtauuari-* (Yt 13.10), *vīspa.θauruua-*.

§ 5.3 The length of final vowels in front of *-cā* and *-cī*

The bulk of the evidence shows the same reflexes of final vowels in front of clitic **-ča* ‘and’ and **-čid* ‘even’ as in auslaut: a short vowel in YAv. polysyllables, but a long vowel in YAv. monosyllables and in OAv. forms. The most important exceptions are YAv. polysyllables in *-āca* and *-ācī*, and OAv. short vowel reflexes OAv. *-icā* and *-ucā*. The following subsections will therefore discuss the YAv. and the OAv. evidence separately. We will start with the YAv. reflexes of **-ā* in polysyllables and in monosyllables, and continue with the OAv. reflexes of **-ā*. The reflexes of **-ī* and **-ū* will be discussed in the final subsection.

§ 5.3.1 Iir. *-a and *-ā in YAv. polysyllables

There are ± 70 polysyllabic forms in *-āca/-āciṭ* against ± 140 forms in *-aca/-aciṭ*¹⁴¹. The numerical preponderance of the latter group in itself does not guarantee its primacy, but it can be shown that *-āca* and *-āciṭ* mostly appear in two specific phonetic environments:

1. in the auslaut of an originally disyllabic word.
2. in the auslaut of an originally tri- or polysyllabic word after a preceding cluster of consonant plus *-ii-*.

The first environment recalls other phenomena which we observe in forms with enclitic *-ca* or *-ciṭ*: the rise of *-š-* as in OAv. *-ahiiā* versus *-axiiācā* (cf. § 28.3), and the shortening of a penultimate long vowel as in YAv. *dātārō* versus *dātarasca* (§ 4.1.1). We can now add the lengthening of final **-a* in trisyllables as another effect: *xšaθra* and *aiβiiāxštaca* against *xšaθrāca*. To my surprise, I found a hint at this phenomenon in Hübschmann 1879: 332: "Auslautendes *a* wird manchmal vor *ca* gedehnt: *apā-ca*, instr. von *ap* (wasser) + *ca*." Hübschmann does not elaborate on this subject, however.

The second environment is probably a subcategory of the first; see below.

In order to show the recent nature of the changes which have occurred to YAv. *-āca*, we will deal with Iir. **-a* and **-ā* separately. The forms in Iir. **-ā* will be discussed first, because they by far outnumber the forms in **-a*. We can split the first group in the surface forms *-āca*, *-āciṭ* on the one hand, which presumably are due to lengthening, and the endings *-aca*, *-aciṭ* on the other.

§ 5.3.1.1 Iir. **-ā* > YAv. *-āca*, *-āciṭ*

After other consonants than **-Ci-*, final *-āca* and *-āciṭ* are attested in the penultimate of a trisyllabic form in the following forms: *aētāciṭ* (nom.sg.f. V 3.40), *^xaorāca* (adv.), *apāca* (ins.sg. to *ap-* 'water' V passim), *ašāca* (ins.sg. Y 8.2, FrW 1.1), *ərəδβāca* (nom.sg. Yt 10.120), *ižāca* (nom.sg.f. V passim),

¹⁴¹ The forms *apāca* 'to the back' (if from **apāča*; the syntax of V 15.48 is unclear), *caṅraṅhāca* (acc.pl.), *parāca* 'to the front', *vāca* acc.pl. (Skt. *vācaḥ*), and (*frā*)*vauuaca* 'has said' (cf. § 4.9.8 for the analogical shortening in this form) are left out of the discussion, because they contain stem-inherent *-c-*, not *-ca* 'and'.

⁺*uṛāca* (ins.sg.)¹⁴², *uštāca* (ins.sg.), *kərəθβāca* (nom.sg. Yt 10.120), *xradθβāca* (ins.sg. Yt 1.26), *xšadθrāca* (ins.sg. FrW 1.1), *θrātāca* (nom.sg. Yt 1.12, V 2.4f.), *darəγāciṭ* (nom.du.m. Yt 10.104), *dātāca* (nom.sg. Yt 1.12), *puθrāca* (nom.sg.f. V 15.49f.), *miθrāca* (ins.sg.)¹⁴³, *vaṇtāca* (ins.sg. Y 15.1, Vr 6.1), *varšnāca* (nom.pl.m. Y 11.6), *vəθβāca* (acc.pl. Yt 5.26, 19.32), *vīspāca* (acc.pl.n. Y 71.6,7), *rātāca* (nom.sg.f. Vyt 8), *saokāca* (acc.pl. Yt 5.26, 19.32), *staorāca* (nom.pl. Yt 5.89, 8.5, V 2.8ff.), *staomāca* (acc.pl. Yt 13.157), *žnātāca* (nom.sg. Yt 1.12), *hanāca* (nom.sg.f. V 15.14, Vyt 28), *harətāca* (nom.sg. V 2.4f.) and *hūxtāca* (acc.pl.n. Y 4.1,3).

The form *huuarštāca* in Y 4.1,3 is ambiguous: originally it had four syllables *hu-uar-šta-ca*, but in the post-archetype period it may have counted only three (*hwar-štā-ca*), as is suggested by the sequence *huuar*^o instead of *hu.var*^o. Furthermore, it occurs in the same line as *hūxtāca*, and may have been influenced by it. A similar ambiguity is present in the forms with anaptyctic *-ə-*: we have assumed trisyllabic value for *əradθβāca*, *kərəθβācā*, *darəγāciṭ* and *harətāca*, i.e. [*ər-δβa-ca*] etc. Yet other forms such as *pərəsaca* and *bərətaca* show the same structure, but do not undergo lengthening.

A relatively small number of forms (11) contains more than three syllables. Six of these occur in a series of words in **-aca*, some of which have phonetic *-āca* in a trisyllable. In these cases, the ending *-āca* may have been introduced by the Avesta scribes from those surrounding words. These six forms are: V 15.49f. *aiiatāca* (nom.sg.f.) in the sequence *barəθrica puθrāca paēmainica aiiatāca*; Y 11.6 *dahakāca* and *mūrakāca* in the sequence of nom.pl.m. forms *dahakāca mūrakāca pouru.sarəða varšnāca*; Y 15.1 *rafnaḡhāca* (ins.sg.) in the sequence *sastica vaṇtāca rafnaḡhāca*; Y 4.1f. *humatāca* and *huuarštāca* (acc.pl.n.) in the sequence *humatāca hūxtāca huuarštāca*.

Five tetrasyllabic forms do not fit into any of the previous categories: Vr 13.3ff. *afsmanāca* (acc.pl.), Y 65.14 *āsuiiāca* ‘fast’ (Skt. *āsuyā*), Yt 19.3 ⁺*iškatāca* (nom.pl.), V 1.8 *driβikāca* (acc.pl.n.?) and Vr 7.3 *vīgərəptāciṭ* (nom.sg.f.; two words **vī gərəptāciṭ?*).

¹⁴² In Yt 10.66 we find *uṛaca*. In Yt 13.47f., Geldner also edits *uṛaca*, but the v.ll. *uṛāca* K13.E1.J10 and F1 p.m. (corrected p.m. to *uṛaca*), K14 *ugarāca* are opposed to Mf3.Pt1+ *uṛaca*. Of course, the original form may well have been *uṛaca*, which changed to *uṛāca* under the influence of the form *miθrāca* in the text of Yt 13.47.

¹⁴³ Yt 13.47 F1.E1 *miθrāca*, Pt1.L18.P13 *miθraca* · J10 *miθrāca* · K13.H5.Mf3 *miθrāca*, K14 *miθramca*; Yt 13.48 F1.E1.Pt1+ *miθrāca* · J10 *miθraca* · K13.14.H5 *miθraca*, Mf3 *miθrāca* corrected by erasure to *miθraca*.

The grammatical analysis of *auruuat. aspāca* (Vyt 34,46), *anahunāca* (Vr 10.2), *vaēθāca* (Yt 1.26) and *jāmāca* (Yt 4.7) is unclear; but as for the form, three of them would fit in well since they are trisyllabic.

In the case of *naomaiiaciṭ*, ins. or loc.sg.f. of **nauama-* ‘ninth’ (in Yt 14.32, 16.9,12) and adverb ‘nine times’ (in V 8.18), which was edited as *naomiiāciṭ* ‘ninth’ and as V 8.18 **naomaiiaciṭ* ‘nine times’ by Bartholomae 1904: 1045 resp. 1038, the v.ll.¹⁴⁴ point to the rise of the spelling *-āciṭ* where it is directly preceded by *-mii-*, and the retention of *-aciṭ* when preceded by *-mai-*. This is especially clear in Yt 14.32 and in V 8.18, where an old and trustworthy ms. branch (the IrKA in Yt 14.32, the IrVS in V 8.18) combines the retention of *-mai-* with the retention of *-aciṭ*.

§ 5.3.1.2 Iir. **-ā* > YAv. *-aca*, *-aciṭ*

In order to establish the conditions for the proposed lengthening of **-aca* and its scope, we must review the forms in which this lengthening did not take place. It appears that *-aca* is attested in the overwhelming majority of forms with four or more syllables (*-ca* included). In trisyllabic forms, an important number of forms in *-aca* can be explained from contextual analogy; but even then, a substantial number of trisyllabic forms in *-aca* is left which we cannot explain away. It seems to me that these forms in particular show the order of developments: 1) all Iir. endings **-ā* were shortened to (or: merged with) **-a* in front of *-ca*; 2) the subsequent lengthening to *-āca* and *-āciṭ* in the transmission period did not affect all potential input forms. Strikingly, there are only three trisyllabic forms in *-āciṭ*, versus five trisyllables in *-aciṭ*. Thus, whereas with *-ca* a majority of the forms has *-āca*, with *-ciṭ* this lengthening is found in a minority of forms. This may point to a further (phonetic? grammatical?) condition of the proposed lengthening, which was fulfilled more by *-ca* than by *-ciṭ*. It is a further indication against a possible retention of the old quantity.

Except for the eleven polysyllabic forms discussed above in which *-āca* may be due to analogy with surrounding forms (*aiiatāca* etc.), forms with

¹⁴⁴ Yt 14.32 K38.M12 *nāmaiiaciṭ* · Jm4.J10.L18 *naomaiiāciṭ* · F1.Pt1.E1.O3.L11.K16.40.M4 *naomiiāciṭ*; Yt 16.9 F1.E1 *naomiiāciṭ* · Pt1.L18.O3.Jm4.J10 *nqmiiāciṭ*; Yt 16.12 F1.E1.Jm4 *naomiiāciṭ*, Pt1.L18.O3 *numiiāciṭ* · J10 *nāiiāciṭ*; V 8.18 K1.P10 *nāumaiiaciṭ*, Pt2 *nāumiiāciṭ* · Jp1.Mf2 *naōmaiiaciṭ* · L2 *nāumaiiaciṭ*.

more than three syllables do not lengthen final *-aca*, if preceded by another sequence than *-Cii-*. The evidence consists of the forms *aiaṅhaēnaca* (acc.du.m.), *aiβiiāxštaca* (nom.sg.), *aēuaiiaciṭ*, *aētadaaca*, *aurunaca* (nom.pl.m.), *ajastaca* (acc.pl.n.), *aparaciṭ* (nom.pl.m.), *anayraca* (acc.pl.n.), *astarətaca*, *asmanaca* (acc.du.m.), *ašauua.jaciṭ* (nom.sg.)¹⁴⁵, *ahuraca* (nom.pl.m.), *upastaca* (nom.sg.f.), *upəmaca* (ins.sg.), *x^vadātaca* (nom.pl.n.), *x^varənaṅhaca* (ins.sg.), *x^varəzištaca*, *caḍβarə.paitištanaaca* (acc.pl.f.), *caḍrušāmrūtaca* (nom.pl.), *ḍriuuataaca* (acc.pl.), *ḍrišāmrūtaca* (nom.pl.), *daṅhauuaca* (loc.sg.), *dašinaca* (ins.sg.), *dušmataaca*, *dužuuarštaca*, *dužūxtaca*, *draējištōtəmaēšuuaca* (loc.pl.), *paiti.duuāēšaiiaṅtaca* (ins.sg.), *barəzištəšuuaca* (loc.pl.), *barəzištaca*, *bipaitištanaaca* (acc.pl.f.), *bišāmrūtaca* (nom.pl.), *fratəmaca* (ins.sg.), *frasāstaca* (nom.sg.), *naotaraca* (nom.pl.), *nāirikaca* (nom.sg.f.), *nəmaṅhaca* (ins.sg.), *niuuaxtaca* (nom.sg.), *xⁿī.uruzdōtəmaēšuuaca* (loc.pl.), *nitəmaciṭ* (nom.sg.f., nom.pl.), *nmānaiiaca* (loc.sg.), *mainiiuuaca* (acc.pl.m.)¹⁴⁶, *madəmaca* (ins.sg.), *masanaca* (ins.sg.), *mazištaca* (nom.pl.n.), *vaṅhanaca* (ins.sg.), *varəšiiamnaca* (acc.pl.n.), *vazayaciṭ* (nom.sg.f.), *vahištaca* (nom.pl.n.), *vəṛəḍraṅnaca* (ins.sg.), *vəṛəḍrajastaca* (nom.sg.), *raēšaiiaca* (loc.sg.), *saocaiiaca* (acc.pl.), *stiḍātaca* (nom.pl.n.), *sraiiianaca* (ins.sg.), *zantauuaca* (loc.sg.), *zōiždištaca* (acc.pl.n.), *haozqḍβaca* (ins.sg.), *haṅdarəzaciṭ* (acc.pl.m/n.), *hazaṅrō.təmahuuaca* (loc.pl.), *hāuuanaaca* (acc.pl.m.), *huuarštaca*, *huuaspaca* (nom.sg.f.), *hubaoiḍitaca* (nom.sg.), *hubaoiḍitəmaca*, *humaiiaca* and *humataaca* (acc.pl.n.).

In the case of *zarštuuaciṭ* (nom.pl.), it is unclear whether this counted as trisyllabic [*zar-štua-ciṭ*] or as tetrasyllabic [*zar-štu-ua-ciṭ*].

There are quite a number of trisyllabic forms in *-aca* which seem exceptions to the proposed lengthening. Twenty-one of them, however, occur in a series of two, three or four forms in *-aca*, some of which have regular *-aca* (i.e. not in a trisyllable or after *-Cii-*); therefore, these seeming exceptions may have adopted the ending *-aca* from surrounding forms:

- *aoštaca* and *dumnaca* (acc.du.) in V 7.59 *aoštaca paiti dumnaca ḍriuuataaca*.
- *amaca* (ins.sg.) in Y 57.23 *amaca vərəḍraṅnaca haozqḍβaca vāēḍiiāca*.

¹⁴⁵ Yt 10.2; the spelling *jaciṭ* instead of *†jāciṭ* shows that the split cannot be old; cf. also Y 65.8 nom.sg. *ašauuaja*.

¹⁴⁶ This form occurs in the same sentence as *gaēḍiiāca*, and has in two attestations adopted *°ā(i)ca* from that form in many mss. Ny 1.14 Mf3.F2.L12 *°aca* · O3.K18a *°āca* · F1.Pt1.P13.J15.L9.11.Lb1.K18c.19.E1 *°āica*; Yt 6.4 F1.Pt1 *°aca* · L18 *°āca* · J10.P13.K40 *°āica*.

- *xšudraca* (acc.pl.n.) in Yt 19.58 *vīspa taršuca xšudraca masanaca vaṇhanaca sraiiianaca*.
- *x'āstraca* (nom.sg.f.) in Yt 19.67 *x'āstraca huuaspaça*.
- *taštaca* (acc.pl.m.) in V 5.39 *ātrəmca barəsmaca taštaca haomaca hāuuanaça*.
- *daēnaca* (ins.sg.) in H 1.4 *urunaca daēnaca*.
- *baxtaca* (nom.sg.) in Vyt 38 *baxtaca niuuaxtaca*.
- *mąđraca vacaca šīiaoθnaca* (ins.sg.) in Ny 1.16 *haoma yō gauua barəsmāna hizuuō daṇhaṇha mąđraca vacaca šīiaoθnaca*.
- *vaṇtaca* (ins.sg.) in Yt 10.6 *vaṇtaca nəmaṇhaca*.
- *varštaca* (acc.pl.n.) in YAv. *varštaca varəšiiamnaca*.
- *voiiaca* (ins.sg.) in V 13.9 *xraosiiāca voiiaca*¹⁴⁷.
- *siždraca* (nom.pl.m.) in Yt 8.36 *ahuraca xratugūtō aurunaca gairišācō siždraca rauuascarātō*.
- *sraēštaca* (nom.pl.n.) in YAv. *mazištaca vahištaca sraēštaca*.
- *haomaca* (acc.) in V 5.39 *taštaca haomaca hāuuanaça*.
- *harətaca* (nom.sg.) in Yt 10.103 *harətaca aiβiiāxštaca*.
- *hūxtaca* (acc.pl.) in Vr 17.0, H 1.7 *humataça hūxtaca huuarštaca*.

Some of the trisyllabic forms in *-aca* are not found in the immediate vicinity of a regular form in *-aca*, but of forms in *-a*; we must allow for the possibility that those have influenced the scribes in preserving or restoring *-aca*, e.g. in *yaθa kaθaca*:

- *aθaca* (adv.) in V 13.47 *yaθa tāiiuš aθaca dužniđātō yaθa tāiiuš*.
- *abdaca* (nom.sg.f.) in V 2.24 *abdaca iða yima*.
- *uyraca* (nom.sg.f.) in Yt 10.66 *raoraθa uyraca naire hąm.varəitiš*.
- *kaθaca* (adv.) in *yaθa kaθaca*.
- *tauuaca* (gen.sg.) in Vr 10.2 *tauuaca barəsmānō ašaiia frastarətahe*.
- *bərətaca* (nom.sg.) in V 2.3 *vīsaṇha mē yima srīra vīuuāṇhana mərətō bərətaca daēnaiiāi*.
- *vīspaca* (acc.pl.) in Y 22.3ff. *vīspaca vohu mazdađāta*, 57.4ff. *vīspaca huuaršta šīiaoθna*, V 3.36 *vīspaca auui tiyra nimata*, F 116 *vīspaca yō mastraṇṇąm amqsta*.
- *rātaca* (nom.sg.f.) in V 19.19 *rātaca vaṇuhi mazdađāta*.
- *sraošaca, mąđraca* (ins.sg.?) in Yt 13.146 *aomna ahura mazda sraošaca ašiiā sūra mąđraca spəṇta vīđuša*.

¹⁴⁷ Bartholomae (1904) regards these forms as loc.sg.m., for which we would expect *†xraosiiāiaca voiiāiaca*. Yet I see no problem with assuming an ins.sg.

The remaining 25 forms do not appear in the immediate vicinity of a regular form in *-aca*, and therefore represent the core of counterexamples: *abdaca* (Yt 19.10 acc.pl.n.), *aršaca* (nom.sg.), *astaca* (acc.pl.n.), *aspaciṭ* (nom.pl.), *āsnaca* (acc.pl.n.), *kaētaca* (nom.pl.m.), *karətaciṭ* (nom.pl.), *gauuaca* (ins.sg.?), *gaonaca* (acc.pl.), °*jataca* (nom.pl.m.), *daiiaca* (ins.sg.?), *dərəβdaca*¹⁴⁸ (acc.pl.), *paiti.fraxštaca* (nom.sg.), *paraca* (adv.), *paraciṭ* (adv.), *pərəsaca* (ipv.), *frašaca* (acc.pl.n.), *naēδaca* ‘and not’, *naraciṭ* (nom.pl.), *yauuaca* (nom.pl.m.), *yaḍaca*, *vazraciṭ* (nom.pl.), *vāstraca* (nom.pl.n.), *staotaca* (nom.pl.n.), and *srīraca* (acc.pl.n.).

The forms Vr 12.4 *humāiiōtaraca* *īziiōtaraca* and V 13.8 *xraosiiō.taraca* and *voiiō.taraca* are ambiguous. Final *-ō* of the first member shows that *taraca* was a separate second member from the RCS onward, which would make *taraca* an exception to the lengthening in trisyllables. But *humāiiōtaraca* and *īziiōtaraca* are spelled as one word, and since the lengthening to *-āca* in trisyllables may be very recent, these forms may also be regarded as regular pentasyllabic forms retaining *-aca*.

§ 5.3.1.3 Iir. *-a in YAv.

Only a small number of forms contains *-*aca* or *-*aciṭ*. Four forms show a lengthened reflex *-āca* or *-āciṭ*, and they fit into the two categories in which *-*aca* is usually lengthened. In the gen.sg. *kahiiāciṭ* (Y 61.4, V 16.12, *N 40, 65, P 43), we find lengthening after the cluster *-hii-*. The three forms *dātāca* ‘you must give’, *pañcāca* ‘and five’ (5x; †*pañcaca* is nowhere attested¹⁴⁹) and *upāca* ‘and up (to)’ < **upa* + *ca* have *-ā-* in the penultimate of a trisyllable.

The short reflex *-aca* is attested in tetrasyllabic *xšuuazaiiaciṭ* ‘6 times’, and furthermore in five trisyllabic forms. Of these, only *kuuaciṭ* represents reliable evidence. The other four forms can be due to contextual analogy:

¹⁴⁸ In Yt 13.11, where Geldner edits *drəβdaca*. Such a sequence is impossible, and Bartholomae 1904: 742 rightly corrects to *dərəβdaca*, as is spelled in K13.38.E1.H5. This points to an original trisyllabic form **dṛbdaca*.

¹⁴⁹ Whereas in V 12 one may assume that *pañcā-ca* was influenced by the following form *pañcāsātəm* ‘50’, this is impossible for A 3; we must accept the reality of *pañcāca*.

- *barəsmaca* (3x) is due to the influence of surrounding forms in *-a*; see § 5.3.1.5.
- The form *nauuaca* ‘and nine’ occurs in the vicinity of *sata* and *hazaŋra*: *nauuaca nauuaitišca nauuaca sata nauuaca hazaŋra nauuasāšca baēuuqñ* ‘and 9 and 90 and 900 and 9000 and 9 times 10000’.
- *yaθraca* occurs in the vicinity of *yaθra*: Yt 13.25 *yaθra narō ašauuanō ašəm hənti zrazdātəma yaθraca mazištā frərəiā yaθraca atbištō ašauua* ‘where pious men are most believing in aša, and where the biggest offerings [are offered], and where the righteous one is unthreatened’.
- The *n*-stem acc.sg. form *rāmaca* ‘and Rāman’ in the expressions V 3.1 *miθrəmca ... jaidiiq rāmaca x’āstrəm* ‘asking Mithra and Rāman who grants good pasture’ and G 1.7 *miθrəmca ... yazamaide rāmaca x’āstrəm yazamaide* ‘we worship Mithra and we worship Rāman who grants good pasture’ may have been calqued on Y 6.2ff. *miθrəm ... yazamaide, rāma x’āstrəm yazamaide* ‘we worship Mithra, we worship Rāman who grants good pasture’.

It is disputed at which point the sequence **-āuuia* became trisyllabic *-āuuaiia^o*, and therefore its testimony for or against the lengthening in trisyllables is ambiguous. We find the forms *māuuaiiaca* (Y 68.2, 12) and *māuuaiiaciṭ* (Yt 14.38, V 18.31 (dat.sg. **maβia^o* ‘to me’) and *hāuuaiiaca* (ins.sg. of ‘left’); they may still have been **māuuaiiaca, ^ociṭ* and **hāuuaiiaca* in the archetype (cf. § 3.4.1). In that case, their *^oaca* must be explained from contextual analogy; this is unproblematic in the case of *hāuuaiiaca* (next to *dašinaca*), and not impossible in the case of *māuuaiiaciṭ* (after *auuaθa* and after *bāda*); there is no obvious model for *māuuaiiaca*.

§ 5.3.1.4 Iir. **-āca* after *-Cii-*

Nearly all YAv. forms in which **-āca* is found after a preceding cluster **-Ci-* (forms in **-Ci-aca* do not occur) are attested as *-Ciiāca*. In view of the possible development **-iia- > -iā-* which we have seen in § 3.1.3, we must investigate whether *-Ciiāca* is due to lengthening in front of *-ca*, to lengthening after **-Ci-*, or to both phenomena together.

The trisyllables are ambiguous because *-āca* also arises without preceding **-Ci-*. The relevant evidence consists of:

- *īziāca* (Vr 12.4), acc.pl.m. of *īziia-* ‘stärkend, labungsreich’ (translation by Narten 1986a: 290, fn. 12), which must be derived from *īzā-* ‘libation’.
- *xraosiiāca* (V 13.9), ins.sg. of *xraosii-* m/n. ‘cry’, a noun derived from the presents *xraosa-* and *xraosii-* ‘to cry’.

- *gaēiθiiāca* (Y 71.5ff.), acc.pl.m. of *gaēiθiia-* ‘material’, an adj. derived from *gaēθā-*.
- *taožiāca* (V 1.19), acc.pl. of *taožiia-*, the name of a people; no etymology.
- *paoiriiāca* (Yt 11.18), ins.sg. of *paoiriia-* ‘first’ < **pauriā-* < **paruiā-*.
- *bāmiāca* (Yt 19.10), acc.pl. of *bāmiia-* ‘radiant’, a derivative of *°bāma-* ‘light, radiance’.
- *mašiiāca* (Yt 5.89, 8.5, 15.12, 19.29, V 2.8ff.), nom.acc.pl. of *mašiiā-* ‘man’; for the analysis as trisyllabic **mārtiā-*, cf. the discussion of its gen.pl. *mašiiānqm* in § 3.1.3.
- *yasniāca/yesniāca* (Y 1.19ff.), nom.pl.m. of *yasniia-* ‘worthy of being honored’ (Skt. *yajñīya-*).
- *yahmiiāca* (Y 71.6), loc.sg. **īahmi-ā-ca* of the relative pronoun *ya-*, plus the adverb *ā* ‘in’.
- *vaēiθiiāca* (Y 57.23), ins.sg. of *vaēiθiia-* ‘knowledge’; for the trisyllabic reading **vaidiā-*, compare the discussion of *vaēiθiāpaiti-* in § 3.1.3.
- *vayžibiiāca* (Vr 14.1ff.), ins.du. **vaxš-biā-ca* of *vac-* ‘word’.
- *vahmiiāca* (Y 1.19ff.), nom.pl.m. of *vahmiia-* ‘worthy of being glorified’.

There are three forms for which a preform in **-iā-* seems certain, viz. *mašiiāca*, *yahmiiāca* and *vaēiθiiāca*; in addition, the stems *yesniia-* and *paouruiiā-* (the OAv. correspondence of *paoiriia-*) have a disyllabic suffix in the metre of the Gāthās. The other stems lack positive evidence for **-iā-*. Note that the gen.pl. of the stems *gaēiθiia-*, *paoiriia-* and *ya/esniia-* has the ending *-anqm* with a short vowel, which separates it from the lengthened form *mašiiānqm*.

Only one (seeming) trisyllabic form has *-iāca*, viz. Vr 12.5 *vīsiāca*, loc.sg. **ūīsi-ā* of *vīs-* ‘village’. However, *vīsiāca* occurs in a sequence of loc.sg. forms *nmānaiiāca vīsiāca zaṅtauuāca daiḡhauuāca*, from which it may have adopted (or retained) *-aca*; it is therefore ambiguous.

The sequence *-Ciiāca* is found in the following tetrasyllabic forms:

- *anairiiāca* (V 1.17), acc.pl. of **an-ariā-* ‘non-Aryan’.
- *araθβiiāca* (V 1.17), acc.pl. of *araθβiia-* ‘disorderly’.
- *āxštibiiāca* (Vr 11.16), ins.du. of *āxšti-* ‘peace’.
- *x^vaēpaiθiiāca*¹⁵⁰ (V 6.46), ins.sg.n. of *x^vaēpaiθiia-* ‘own’.

¹⁵⁰ The mss. are divided: K1.Pt2 *°aca* · Mf2.Jp1 *°āca* · L1.2.Br1.B2.K10 *°aeca*. Bartholomae 1904: 1861 claims that *°aca* is the oldest form, but it seems that the ending *°aca* of the PV can easily have been adopted from the context: *hauuaēibiia pādaēibiia x^vaēpaiθiāca varsa*.

- *dužiāiriāca* (Yt 8.36), nom.pl. of *dužiāiriia-* ‘with a bad year’, derived from **iār-* ‘year’.
- ⁺*manaxiiāca*¹⁵¹ (Y 71.3), acc.pl.m. of *manahii-* ‘spiritual’.
- *huiiāiriāca* (Yt 8.36), nom.pl. of *huiiāiriia-* ‘with a good year’.

The suffix of *aradβiia-*, *huiiāiriia-* and *dužiāiriia-* is ambiguous: it may be *-*ia-* or *-*iā-*. The adj. *manahii-* almost certainly contains *-*iā-*, see §§ 3.1.3 and 29.3. Skt. *árya-* (only once **aria-*) suggests that *anairiia-* continues **an-ariā-*. The stem *x^aaēpaiθiia-* must continue *-*ti-*, as is shown by the fricativization of **t > θ*. This matches the evidence of the stems *aradβiia-* and *anairiia-*, which are attested with a gen.pl. in *-anqm* unlike *mašiiānqm*. Thus, the only compelling evidence for a tetrasyllabic forms in which *-iāca* continues *-*iāca* is ⁺*manaxiiāca*, which does not suffice to prove that disyllabic *-*iā-* is the cause of *-ā-*.

There is only one form with more than four syllables, viz. *uštātāitiaca* (Y 21.4, Vr 18.2), loc.sg. **uštātāi-ā-ca* to f. *uštātāt-* ‘good luck’. The ending

¹⁵¹ Bartholomae 1904: 1134 regards this as a gen.sg. form of the stem **manah(i)ia-* ‘spiritual’; since the expected preform is **manahīāhīa* (actually attested in Vyt 32 *manahīieheca aḡhēuš*), he argues that ⁺*manaxiiāca* is due to haplology. The syntax is strange, however: *ašāunqm vaḡ^hhīš sūrā spəntā frauuašaiiō yazamaide astuuatō manahīiāca*. Bartholomae takes *astuuatō manahīiāca* to be gen.sg. forms referring to a form **aḡhēuš* which has disappeared from the text; the translation would then be ‘we worship the good, strong, bountiful Fravaši’s of the righteous; (those) of the material and of the spiritual (creation)’. Yet instead of positing a lost form **aḡhēuš*, we can simply assume that *astuuatō manahīiāca* are acc.pl. forms referring to *frauuašaiiō*, just like *vaḡ^hhīš* etc.: ‘we worship the good, strong, bountiful Fravaši’s, the material and the spiritual ones’. The forms *astuuatō* and **manahīia* can be regular YAv. acc.pl.m/n. forms of the respective stems *astuuant-* and *manahīia-*. The remaining problem is the fact that *frauuašai-* is a feminine noun, and the adjectives *vaḡ^hhīš*, *sūrā* and *spəntā* are also feminine. However, *frauuašaiiō* itself is not a regular acc.pl. of *frauuašai-* (this would be †*frauuašīš*), but rather the nom.pl. form used as an acc.pl. Such a ‘mistake’ may be due to the simplification of inflexional categories, which took place in later Avestan times, and which is attested many times in more recent text layers; by its content, Y 71 certainly belongs to such a layer. In the present passage, we can assume that the text composers used the m. acc.pl. forms *astuuatō* and **manahīia* to refer to *frauuašaiiō*; within the framework of our knowledge about the Avestan texts, this is much more probable than an unverifiable ellipsis. The syntactical interpretation proposed here is also given by the Pahlavī translation *ahlawān wēhān abzārān abzōnīgān frawahr yazēm kē-z astōmandān kē-z mēnōgān* ‘we worship the righteous, good, powerful, bountiful Frawahr who are material (and) who are spiritual’.

-aca cannot be ascribed to contextual influence, so that we must take its evidence seriously. *Uštātāitiaca* also represents another clear case of original disyllabic **-iā-* which does not yield *-iā-*.

We may conclude that the ending **-C(i)īāca* yields YAv. *-Ciiāca* in tri- and tetrasyllabic forms. In longer forms (of which we have only one example), it yields *-Ciiaca*. It does not present unambiguous evidence for lengthening of the type **-iā- > -iā-*. Thus, the lengthening which took place in **-aca* in trisyllables was simply strengthened by the occurrence of preceding **i*.

§ 5.3.1.5 Context-dependent variants

Several forms are attested with two variants, one in *-āca* and one in *-aca*; all of them have already been included in the preceding lists. They can be interpreted in agreement with the rules proposed here, and therefore they in fact strengthen the probability of those rules. This concerns:

- Yt 12.3-6 *barəsmāca* against *barəsmaca* elsewhere. This form is ambiguous because of anaptyctic *-ə-*: must we start from trisyllabic *bar-sma-ca* or tetrasyllabic *ba-rə-sma-ca*? We would expect to find lengthening in the first instance but not in the second. A comparison of the contexts shows that Yt 12.3-6 *barəsmāca* occurs without other forms in *-āca* in the immediate surroundings: *auui imaṭ varō uzdātəm auui ātrəmca barəsmāca auui pərənqm vīḡžāraiiēintīm*. The form *barəsmaca* is attested in three different contexts, each time with one or several other forms in *-a* or *-aca* in the vicinity: Y 4.1ff. *barəsmaca ašaiia frastarətəm*; V 5.39ff. *ātrəmca barəsmaca taštaca haomaca hāuuana*; V 14.8 *hauuana dāitiiō.kərəta tašta haomiia barəsmaca*. Therefore, we may assume trisyllabic [*bar-sma-ca*] > *barəsmāca*, which suggests that the lengthening in general preceded anaptyxis of *ə* in a cluster *-rC-*.
- Y 71.6f. *vīspāca* has lengthening in a trisyllable, but elsewhere we find *vīspaca*. In the context, *vīspāca* is the lectio difficilior: 71.6 *vīspāca dāma mazdadāta ašaonīš yazamaide*, 71.7 *vīspāca staota yesniia yazamaide*. We have already seen the occurrences of *vīspaca* (Y 22.3ff. *vīspaca vohu mazdadāta ašaciθra*; etc.), which may all be due to a neighbouring form in *-a*. The contrast between those forms and Y 71.6f. *vīspāca* shows the arbitrariness of the analogical replacement.
- The form *rātaca* in V 19.19 *rātaca vaḡuhi mazdadāta* may have *-aca* because of *mazdadāta*, but in Vyt 8 *ašiš vaḡuhi rātāca vouru.dōiθra*, *°aca* has not been restored.

- The sequence **humataca hūxtaca huuarštaca* would, after the operation of lengthening in trisyllables, yield **humataca hūxtāca huuarštāca*. Analogical levelling has occurred in both directions: Y 4.1,3 *humatāca hūxtāca huuarštāca*, but Vr and H *humataca hūxtaca huuarštaca*.

§ 5.3.1.6 Irrelevant forms

In Yt 19.4, in a list of mountain names, F1+ reads *aṇtarə.kəṇhaca* but J10 reads *aṇtarə.kəṇhašca*. Since *kəṇhaca* is the lectio difficilior in the context, all scholars have assumed this to be the original form. They posit a stem *aṇtarə.kəṇha-* ‘which has metal in it’ (Hintze 1994: 81) or ‘which lies in Kəṇha’ (Bartholomae). The form would be the nom.du. of the stem. Now it is true that Yt 19.4 contains other mountain names in the nom.du. case, but the name preceding *aṇtarə.kəṇha* is *kakahiiušca*, a nom.sg. of *kakahiiu-*. There would thus be no grammatical problem in assuming another nom.sg. **aṇtarə.kəṇhasca* in the text. This would explain the absence of lengthening in this trisyllabic form.

The grammatical analysis of Vyt 51 *aiiaca*, Yt 2.13 *framəṛəθβaca frajəθβaca*, Vyt 15 *viḍiiaca*, and Vyt 46 *hadβaca* is unclear. Vn 43,66 *yauuaca yauuatātaca* is a corruption of **yauuaēca yauuatātaēca*.

§ 5.3.2 IIr. **-a* and **-ā* in YAv. monosyllables

In disyllabic forms, which by definition contain an original monosyllable, the long vowel reflex is the rule. This cannot be due to a *phonetic* lengthening in disyllabic forms ending in *-ca* or *-ciṭ*, since an inherited short vowel in **-ača* is preserved in disyllabic *hacā* ‘with’ (Skt. *sácā*) and the ins.sg. *vaca* of *vāc-/vac-* ‘voice’.

The forms that occur are *āca* (*ā* ‘towards’), *kāciṭ*, *tāca*, *tāciṭ*, **ptāca*¹⁵² (nom.sg. of *ptar-* ‘father’), *nāca* (*nar-* ‘man’), *māca* (*mā* ‘not’) and *yāca*. In theory, these forms may be viewed as retaining the IIr. long vowel, but since there are no monosyllables in IIr. **-a-ca/*-a-ciṭ* to contrast them with (except for *fraca*, which is ambiguous), we cannot be certain. Therefore, these forms may also post-date the redistribution of vowel length in absolute final position in YAv., whereby vowels in monosyllables were lengthened; the long final

¹⁵² In Yt 19.16 and Yt 13.83. In the latter attestation, only *pataca* is attested, but this must also reflect **ptāca* of the archetype.

vowel of the simplex may simply have been introduced in front of *-ca* and *-cī* by the YAv. speakers themselves.

The only form with a short vowel in front of *-ca* is *fracā* ‘and to’ < **pra-ča*, which is homonymous with the adv. *fracā* < **prāčā* ‘forward’; it is often difficult to distinguish syntactically between these forms, and it also seems that the forms *fra^o* and *frā* of the preverb have influenced each other (cf. § 3.4.2.1). Thus, although *fracā* seems to contradict the proposed explanation for the original monosyllables, its evidence is ambiguous.

§ 5.3.3 IIr. **-a* and **-ā* in OAv.¹⁵³

Both vowels are reflected as *-ācā* and *-ācī* (total 86x). The majority of the 82 forms represent a word in **-ā* (61x), e.g. the ins.sg. *ašācā*, but these cannot be contrasted with **-a*, which equally yields *-ācā* (25x).

It has been assumed that **-āca* and **-aca* are also reflected by OAv. *-acā*, but it seems to me that the eight forms showing this reflex *-acā* are the result of an even more recent development, probably analogical, which assimilated the formerly long **ā* in **-ācā* to a preceding short *a*. The forms in question are *aniīadacā* < IIr. **aniādā-ca*, *iīadacā* < **iādā-ca*, *kauuacā* < **kauā-ca*¹⁵⁴, *tauuacā* < **tauā-ca* (2x), *paracā* < **parā-ca*, *vaocacā* < **vaucā-ca* and *sauuacā* < **sauā-ca*. Seven of these forms have the structure *-aCa-cā*, *-C-* being a single consonant in each case. I think that these forms originally formed part of the group of forms in *-ācā* < **-ā-ca*, but subsequently replaced *-āca* by *-aca*. This replacement is difficult to date, but for some forms it may belong to the separate ms. branches. One example of this kind is the spelling *tauuacā* which J2 has for *tauuācā*; similarly Y 7.25 *tauuācā* Mf2.3, but *tauuacā* in Pt4.Mf1 and J2.K5.

One form has escaped the change of final **-aca* to *-ācā*, viz. *ašā(i).yecā* (Y 30.1, 51.2) < **ašāja-ca*, dat.sg. of *aša-*. Since **yā-* never undergoes *i*-mutation (cf. § 20.5), this form goes back to **ašāja-cā* (see also Hoffmann 1976: 650), and it proves that the unetymological split into **ašā.yaca* took

¹⁵³ The essential facts of the distribution have been provided by Kellens-Pirart 1988-91 I: 67. To the evidence, I add Y 58.4 *ašācā*, *vāstrācā*, *vīdīšaiīcā* and *āḍrācā* (ins.sg.).

¹⁵⁴ YS and InVS *kauuācā*.

place before a sequence $-\ddot{a}c\ddot{a}$ had arisen¹⁵⁵. This form forces us to assume that in OAv. too, all long final vowels have gone through a stage of shortening (cf. Beekes 1988: 49). In my view, this claim does not apply to the living OAv. language itself, but to the canonization of OAv. by YAv. speakers: the merger of vowel quantities in auslaut, which took place in YAv. (and which left its traces in OAv. $-ic\ddot{a}$, $-uc\ddot{a}$, see below,) also affected $*a\check{s}\ddot{a}i\ddot{a}-ca$, and the subsequent split into $*a\check{s}\ddot{a}.yac\ddot{a}$ preceded the redactional lengthening of all final $*-a$'s in Gāthic. This suggests the following relative chronology:

1. YAv. distribution: $-aca$ in polysyllables, $-\ddot{a}c\ddot{a}$ in monosyllables.
2. OAv. $*a\check{s}\ddot{a}i\ddot{a}-c\ddot{a} \rightarrow *a\check{s}\ddot{a}.yac\ddot{a}$.
3. *I*-mutation: $*a\check{s}\ddot{a}.yac\ddot{a} > a\check{s}\ddot{a}.yec\ddot{a}$.

Even though the available evidence is limited, it seems that the so-called pseudo-Old-Avestan texts agree with the developments observed in OAv. Thus, we find with $*-\ddot{a}-ca$ in Y 0.4 *humatācā hūxtācā huuarštācā*, and *dušmatācā dužūxtācā dužuuarštācā*, in Y 12.7 *tā.varəṇācā tkaēšācā* (ins.sg.), in Y 12.9 *mazištācā vahištācā sraēštācā* (nom.sg.f.) and in Y 42 *aspəṇācā*. The reflex of $*-a-ci\check{t}$ is attested in Y 12.4 *kahiiācī*.

§ 5.3.4 IIr. $*-i$, $*-u$, $*-\bar{i}$ and $*-\bar{u}$ in YAv. and OAv.

In YAv., the vowels $*-\bar{i}$ and $*-\bar{u}$ always yield a short vowel reflex $-ica/-icī$, $-uca/-ucī$. For $*-ica$, we find e.g. *aīβica*, *aīβicī*, *pairica*, *nica*, and 3s. verbal forms such as *astica* and *baēšaziatica*. Only the form *vīca* ‘and apart’ has the reflex $-\bar{ica}$, but here $-\bar{i}$ is due to the preceding *v-* (cf. § 6.2.3). Similarly, all the forms in $*-\bar{i}-ca$ yield $-ica$, viz. the f. nom.sg. *ərazica*, *uštāuuaitica*, *kainica*, *xʷarənaŋhaitica*, *paēmānīca*, *barəθrica*, *pārəṇdica*, *vərəzuuaitica*, *vīspa.tauruuairica* and *zarənumaitica*; and the ins.sg. forms *aīβi.nitici* ($*nīti-$), *axtica*, *ašica*, *aš.frabəraitica*, *aš.fraīiaštica*, *aš.yeštica*, *āhītica*, *cistica*, *piuuaitica*, *frəraiticā*, *sastica*, *huiieštica*, *hufrabəraitica*, *hufrāīiaštica* and maybe Yt 1.27 *ārmaitica*. It is important that the two original monosyllables in $*-\bar{i} < *-\bar{i}H$ also take $-ica$, viz. V 3.41 *cica* and V 2.41 *strica* (*strī-* ‘woman’).

¹⁵⁵ If Y 33.14 *ašā(i).yācā* is interpreted as a dat.sg., it may represent a form which was split much later. It would first have regularly developed into $*a\check{s}\ddot{a}i\ddot{a}c\ddot{a}$, with lengthening of $*-ac\ddot{a}$ as in all OAv. forms, and could have been split shortly before or even after the archetype.

The endings *-uca* and *-uciŋ* reflect **-u-* in loc.pl. forms such as *qzahuciŋ*, *uruuarāhu* or *pəšanaēšuca*, in the acc.sg.n. *vohuca* and *maḍuca*, and in the adverb *mošuca*. Original **-ū-ca* yields the same reflex: ins.sg. *uzdarŋhuciŋ* and *rašnuca*, acc.du. *minuca* and nom.acc.pl.n. *taršuca*, *pouruca*, *mərəzuca*, *vaŋhuca* and *vohuca*. The only monosyllable is reflected as *-uca*, viz. the acc.pl.n. *druca* (Yt 13.99, 19.85; cf. Janda 1997: 32ff.).

The YAv. polysyllables with a short vowel reflex *-ica*, *-uca* from an original long vowel show that the YAv. shortening of final **-ī* and **-ū* also applies in front of *-ca*. These forms are thus completely parallel to those in *-aca*. On the other hand, the YAv. lengthening of final vowels in monosyllables does not apply to *strica*, *cica* and *druca*, which seems to contradict the evidence of YAv. *yāca*, *tāca* and other monosyllables in **-āca*. But we must be cautious, since the evidence consists of only three forms, none of which is attested in the Yasna. Therefore, we cannot exclude that *strica*, *cica* and *druca* are due to ms. corruptions.

In OAv., all polysyllabic forms show a short vowel reflex *-icā* or *-ucā* (cf. Kellens 1987: 170). With Ilr. **-i* we find *usmahicā*, *cišmahicā*, *jəŋghaticā*, *tanušicā*¹⁵⁶, *dadəmahicā*, *pairicā*, *buuąnticā*, *būiricā*, *mainimadicā*, *manahicā*, *vacahicā*, *hənticā* and *huuąnmahicā* (2x); with PAv. **-ī* we find the ins.sg. forms *ainiticā*, *ašicā*, *frārāticā* and *x'ūtīcā*. The ending **-ucā* is attested in *našucā*, *mošucā* and the acc.sg. *vohucā* (2x); **-ūca* in the ins.sg. *vohucā* (3x).

Long vowel reflexes are attested once for each of the vowels **i*, **ī*, **u* and **ū*, but in all these forms *-cā* is suffixed to a monosyllable. The forms *cīcā* and *nūcīŋ* contain an originally long vowel (**cī-ca*, **nū-ciŋ*). *Vəṛəziio.tūcā* < **vṛzīatu-ca* has been split in two words and underwent the RCS replacement of **-a* by *-ō*; from that moment on, **tu-ca* may have been treated as a monosyllable, receiving the long vowel which regularly stood in this position. The same applies to *varəcā.hīcā* < **varcahi-ca*, for which we can also assume a split early enough to provoke the monosyllabic treatment of **hi-ca*.

§ 5.4 Summary

In tabular form, the distribution of vowels in auslaut of originally polysyllabic forms can be summarized as follows:

¹⁵⁶ Analyzed as a loc.sg. **tanušī* of a stem **tanuš-* 'self' by Humbach 1991 II: 139.

PAv. final vowel	YAv. + clitic	OAv. + clitic
*-a	-a 1. -aca 2. -āca	-ā -ācā
*-ā	-a 1. -aca 2. -āca	-ā -ācā
*-i	-i -ica	-ī -īcā
*-ī	-i -ica	-ī -īcā
*-u	-u -uca	-ū -ūcā
*-ū	-u -uca	-ū -ūcā

In monosyllables, the distribution is as follows:

PAv. final vowel	YAv. + clitic	OAv. + clitic
-ā	-ā -āca	-ā -ācā
*-ī̄	-ī -ica	-ī -īcā
*-ū̄	-ū -uca	-ū -ūcā

The vacillation between the endings *-aca* and *-āca* in YAv. polysyllables may be ascribed to two recent lengthenings of earlier **-aca*:

1. in auslaut of an originally disyllabic word, e.g. in *xšaθrāca* and *aētāciṭ*.
2. in auslaut of any polysyllabic word after a cluster **-C_i-*, as in *anairiāca* < **anariāca*. The second environment probably forms part of the first one.

The condition ‘in auslaut of an originally disyllabic word’ does not match any of the previously established environments for vowel lengthening. Of course, one is reminded of the shortening of antepenultimate **ā* when *-ca* is affixed, e.g. in *dātarasca* for **dātārasca*, where we assume a strong stress on the syllable preceding *-ca*: **[dātārásca]*. Yet if *xšaθrāca* etc. were due to a pronunciation **[xšaθráca]*, we wonder why tetra- and polysyllabic forms did not lengthen *-aca*, but remained short: *ahuraca*. Therefore, the lengthening in

trisyllables must also be due to the rhythmic structure of trisyllabic forms, which apparently was different from words with more syllables.

Having traced back YAv. *-āca* to *-aca*, we find that the tables show regular agreement between the vowel length of endings with and without *-ca/-ciť*: short vowels in YAv. polysyllables, long vowels in YAv. monosyllables and in all OAv. forms. At two points, this distribution is broken:

1. YAv. monosyllables take *-ica* and *-uca* instead of *†-īca* and *†-ūca*. As noted above, the YAv. monosyllables with unexpected short vowel are the three forms *cica*, *strica* and *druca*, and it cannot be excluded that they are due to recent corruptions of **-īca* and **drūca*. Therefore, their evidence is best dismissed.

2. OAv. polysyllables take a short vowel in *-icā* and *-ucā* versus a long vowel in *-ācā*. This second group of exceptions is more meaningful: it suggests that the endings *-ī* and *-ū* of OAv. may once have had the same short quantities **-i* and **-u* as in front of *-cā*. The same may then have applied to the ending which is reflected in OAv. *-ā* and *-ācā*: they formerly had the forms **-a* and **-aca*. After the originally short **-a*, **-i* and **-u* had (artificially) been lengthened to *-ā*, *-ī* and *-ū*, the same quantity was also introduced in front of OAv. *-cā* in the case of final *-ā*, but not in the case of *-ī* and *-ū*.

We can now posit the following relative chronology:

Early YAv.

1. IIr. **-ā* and **-a* merge in YAv. *-a* in polysyllables, *-ā* in monosyllables; IIr. **-ī* and **-i* merge in YAv. *-i* in polysyllables, *-ī* in monosyllables; IIr. **-ū* and **-u* merge in YAv. *-u* in polysyllables, *-ū* in monosyllables.
2. In front of enclitic *-ca* and *-ciť*, the same form is implemented as in the simplex: a long vowel in original monosyllables (certain for **-ā*, uncertain but likely for **-ī* and **-ū*), a short vowel elsewhere.

Canonization of OAv.

The YAv. length distribution of final vowels is introduced into the OAv. texts.

Late YAv.

1. All final vowels in auslaut are lengthened in OAv.: → *-ā*, *-ī*, *-ū*.
2. Final **-acā* and **-aciť* are replaced by *-ācā* and *-āciť* in OAv.; *-icā* and *-ucā* remain.

Late YAv. or Post-YAv.

1. a. YAv. **-Ciaca* > *-Cīāca*, **-Ciaciť* > *-Cīāciť*.
- b. YAv. **#_Śaca* > *#_Śāca*; much less in front of *-ciť*.

III. AVESTAN *i* AND \bar{i}

§ 6 *i* and *ī* in an- and inlaut

This section covers all Avestan words with syllabic *i* and *ī*, except for the endings *-ī* (§ 7), *-īm* (§ 8) and *-īš* (§ 9). It has always been assumed that the Pr. quantity of *i* and *ī* was retained in Avestan, see e.g. Bartholomae 1894-5: 170 or Reichelt 1909: 67; nevertheless, everybody agrees that there are quite some exceptions¹⁵⁷. A quotation from Morgenstierne 1942: 52 may summarize the general opinion: "There appears, after all, to be a certain statistical preponderance of cases, in which the ancient distinction of quantity is preserved, even with regard to *ī* and *ū*. And it does not seem probable that the original system had already been altogether abolished."

In the following subsections, the evidence will be discussed according to the etymology of *i* and *ī*. We will begin with the vowel **i*, which has been preserved as *i* in most positions in Avestan (§ 6.1). The next subsection discusses the environments in which **i* has been lengthened to *ī*; this concerns the following positions in the word: 1. In open initial syllable, especially in reduplication syllables (§ 6.2.1), and sometimes in front of *s*, *š* and *t* (6.2.2); 2. After a labial glide (*v*, *uu*, *ṛ^h*, *x*'), when in front of a single consonant or *št*, *šm* or *sp* (6.2.3); 3. In front of sibilants, especially the clusters *-žC-* and *-štī-* (6.2.4). Two additional changes occurring in OAv. are the lengthening of **-iṭ* in monosyllables (6.2.5), and the change of **-iṭ-* > *-aiṭ-* (§ 6.3). The fourth subsection (§ 6.4) shows that Pr. **ī* has been preserved in nearly all positions. The fifth subsection discusses the phonetic shortening of **ī* in the sequence **-īuV-*, and some forms with analogical shortening of **ī* (§ 6.5).

Compounds with the prepositions *aibi*, *aīβi*, *a(i)pi*, *ni*¹⁵⁸, *pairi* or *paiti* as a first member always have short *-i* at the end of the preposition, which could be due to restoration of the preverb form during the transmission. Therefore, these forms are ambiguous and need not be discussed¹⁵⁹. The

¹⁵⁷ Small collections are provided by Beekes 1988: 41-42, Kellens-Pirart 1988-91 I: 62, Hoffmann-Forsman 1996: 55, 72-73.

¹⁵⁸ With the possible exception of Yt 13.101 *nījara-* PN. This is the reading we find in F1, while no v.ll. are offered by Geldner. Probably, this is the exception confirming the rule that the preverb *ni* is always spelled *ni-*; that is, if the preverb **ni* is involved at all.

¹⁵⁹ Among the examples of forms in which the contraction of *-i* of the preverb plus *i* of the following word should have yielded *-ī-* are *paitišāt* (Y 44.2) < **pati išāt*, *paitita-* (V) 'compensated', *paititi-* 'compensation' < **pati + *ita/i-* (Skt. *prātīti-* f. 'going against, countering'), *paitiša-* (Yt) < **pati + iša-* 'to provide with' or 'to move towards' (cf. Kellens 1976a: 98), *paitiša-* (Yt) 'in front of, opposite' if from

same goes for compounds with an *i*-stem noun as a first member, and those with *bi-* ‘two’ or *θri-* ‘three’. The few exceptions will of course be discussed.

We will base our syllable count on the make-up of the text after the RCS. For instance, the syllable *-sux-* in *upa.suxtō* will count as an initial syllable, even if the compound was one word earlier in the transmission.

PHILOLOGICAL REMARKS

In the Yasna, *ī* of the archetype has been preserved in the overwhelming majority of cases. We sometimes find short *i* in the InVS, and in places where immediately preceding or following spellings have exercised their influence, e.g. in the sequence *iriri-* for **irīri-* or in *-išt-* for **-īšt-*. The mss. K5 and J2 seem to have more divergences than the IrPY, the IrVS or the SY. Conversely, *i* of the archetype is transmitted as *ī* in many instances in the YS and the InVS, which is due to the pronunciation of the Avesta in the second millenium in India.

The Vīspere mss. K7a and K7b rather often replace *ī* by *i*, and the same replacement is found several times in the InVS, e.g. in *mīždam*. The mss. of the InVrS (H1 etc.) and the InVS have a preference for *ī*, which has superseded *i* in several attestations. This confirms the Yasna behaviour of these mss.

In the Vīdēvdād, the vowel *ī* has been preserved quite faithfully in the IrVS (Jp1.Mf2), but *ī* is often replaced by *i* in the InVS and in the PV. The fact that the two main PV mss. K1 and L4 mutually differ in this respect, but without a clear pattern, suggests that it was the scribe of L4.K1 or (one of) his immediate predecessor(s) who introduced the aberrant spellings into the mss. Original *i* is spelled as *ə* several times in the IrVS, especially in front of *š* and *ž*. Long *ī* for *i* is found mainly in the InVS, sometimes also in the PV.

The retention of *ī* in the IrVS is confirmed by the Yašt spellings of corresponding forms, but the number of deviations is larger than in the other texts, and this is basically due to the kind of mss. in which the Yašts are

**pratīc-īa-*, *pairiša-* ‘to search around’ = ‘to gather’, cf. Kellens (1976a: 91f., 1984: 21), *pairikā-* < **parīkā-*, cf. MP *parīg* ‘witch’, *pairiθna-* (Yt 8.54) ‘due lifetime’, lit. ‘going round’ < **pairi-iθna-* according to Hoffmann 1964: 270 = 1975 I: 160-61, *nirat* (Yt 8.38) ‘fell down’ < **ni-īrat*.

transmitted¹⁶⁰. For instance, the stem *kainīn-* is attested as *kainin-* on many occasions, although there is no doubt that *ī* is original. In F1, we find *i* for *ī* in most cases from Yašt 13 onward.

§ 6.1 **i* yields *i*

Short **i* is usually preserved as such in Avestan. The aim of the following sections is to show that this preservation can be observed in open and in closed syllables, in initial and non-initial syllables.

§ 6.1.1 In a closed syllable

In a closed syllable, **i* remains a short vowel. Examples in initial syllable include *cixšnuša-* (to *xšnu-* ‘to satisfy’), *diβža-* (to *dab-* ‘to deceive’), Y 48.7 ⁺*didrayža-* (to *drang-* ‘to consolidate’), *zixšnáḡhəmna-*¹⁶¹ (to *zan-* ‘to know’, cf. Skt. *jījñā-*), *həmiθiiāt* (**ham-miθ-iāt*), *hišc-* (to *sac-* ‘to follow’), *hišta-* (to *štā-* ‘to stand’), *hišmāiriia-*, *hišmara-* (**smar-* ‘to remember’) and *hispōsa-* (to *spas-* ‘to look’ < **si-spać-a-*).

Hardly any examples in second or third syllable were found, and even *həmiθiiāt* may have been **həm.miθiiāt*. Most of the forms with **i* in second or third syllable belong to the categories of **-ui-* and **-ižC-*, which are discussed separately in § 6.2.3 and § 6.2.4.

§ 6.1.2 In open syllable

A random selection of Yasna examples may serve to show the validity of the claim that **i* is generally not lengthened in open initial syllable: *itē* ‘to

¹⁶⁰ Compare for example the v.ll. of the adj. *srīra-*: Yt 9.3 *sriraiiā* F1.Pt1.E1, *srīra°* L18.P13 · *srīra°* Jm4 · *sūraiīā* K18; Yt 10.124 *srirəm* F1.E1.Pt1.K15.H4, *srīrəm* L18.P13; Yt 13.101 *srīraoxšnō* Mf3 · *srēr°* K13 · *srir°* F1.Pt1.E1.L18 · *srairi°* J10; Yt 17.6 *srīre* F1.Pt1.E1 · *sairē* J10; Yt 17.60 *srīre* J10, *srīre* F1.Pt1.E1; Yt 19.67 *srīra* D · *srira* F1.

¹⁶¹ The spelling *zīr°* which is attested in most mss. seems to be due to the separation into **zi.xšn°* at an early date in the ms. tradition: Yt 13.49 v.ll. *zīr°* F1+ · *zīr°* Mf3.K13.H5; Yt 13.73 *zi°* F1.E1.Pt1, *zīr°* L18.P13 · *zīr°* Mf3.K13.H5. *Zīr°* may also be due to lengthening of **i* > *ī* in front of the cluster *šn*.

go', *idūm* 'go!' (pl.), *idī* 'go!' (sg.), *iθā*, *iða* 'here, now', *ima-* 'this', *iriθənt-* (*riθ-* 'to die'), *isa-* 'to be able' < present **iš-ća-* (*isōiiā*, *isōiūt*, *isəmma-*), *cinah-/cīš-* 'to provide', *ašacinah-* 'longing for *aša*', *vīcinaoŋ*, *ciṇuuənt-* (cf. Skt. *cinóti*), *θritiia-* 'third', *daēnō.dis-* 'teaching the religion', *x'āθrō.disiia-* 'indicating the place of well-being', *drigu-* 'poor', *pitar-* 'father', *pitu-* 'food' (cf. Skt. *pitú-* 'food'), *fraidiiuā* 'continuously' (Skt. *pradivī* 'every day again'), *bitiia-* 'second', *paiti.biši-* 'antidote', *mitaiiatu* 'must stay', *miθahuuacah-* 'whose words are false', *miθahiia-* 'false', *miθaoxta-* 'spoken falsely' (cf. Skt. *ámithita-* etc. to *mith-* 'to change'), *minas̄* 2s. prs.inj.act. of *minaz-/miz-* 'to take care of'¹⁶², *sifa-* 'to whip', *spita-* 'white' (cf. Skt. *śvitrá-*), *spitāma-* (< **spita-ama-*), *vasē.iti-* 'prosperity' (< **vasah-iti-* 'going at wish'), *sinā-* 'destruction' (Skt. *chidyáte* 'to split', *chinná-* 'cut off', Ilr. **ścid-ná-*), *zināt* 'destroys' (root *ziiā-*, Ilr. **jinaHt*), *hita-* 'tied; team' (to *hi-* 'to tie', Skt. *sitá-*), *hizuuā-* 'tongue'.

There is not much evidence for the development of **i* in open second or third syllable of the word. A clear case is the present stem V *nišhiða-*¹⁶³ 'to sit down' (to *had-* 'to sit'), in which *-šh-* suggests that this was treated as an unsplit word. Other forms are *huzāmitō* (Y 62.5, Yt 5.2, 13.15), nom.pl. of *huzāmit-*¹⁶⁴ 'having good birth', 'easily giving birth to', and *hušiti-* '(a) good dwelling' (cf. Skt. *sukṣití-*). In forms such as *vīciθa-* 'decision' (root *ciθ-*), *vīcidiāi* 'to discern', and *vīcira-* 'deciding' (cf. Skt. *nicirá-* 'attentive, wakeful'), it is possible that they once counted as *vī.ciθa-* etc., so that *ci*^o would be the initial syllable.

¹⁶² According to Humbach 1959 II: 72, cf. Kellens 1984: 165.

¹⁶³ Ilr. present **si-žd-a-*, compare Latin *-sīdō*. Humbach (1972: 987) has argued that *nišhiða-* instead of expected †*nišhižda-* may be due to the dissimilatory loss of **ž*, from **ni-šižda-* to **ni-šida-*. As Lubotsky 1999: 311 notes, the finite forms of the root *had-* in Old Persian and in Avestan are only attested with the preverb *ni-*. Moreover, from the occurrence in Avestan of the perfect opt. *ni ... hazdiiāt* we may deduce that only a directly preceding *ni* has caused this loss of the second sibilant.

¹⁶⁴ Connected with *huzāmi-* 'good birth' and Skt. *jāmi-* 'brothers and sisters'.

The possessive adj. in Ilr. **-ín-*¹⁶⁵ (cf. Skt. *hásta-* ‘hand’ - *hastín-* ‘with a hand’) is found in *fraxšnin-* ‘careful’, *parəñīn-* ‘the feathered one’ to *parəna-* ‘feather’, *miiezdin-*¹⁶⁶ ‘sacrificer’ to *miiazda-* ‘oblation’ and *yəuuīn-* ‘corn field’ to *yauua-* ‘corn’, and in a few more uncertain forms (cf. Hoffmann-Forssman 1996: 146). All stems except *parəñīn-* are attested in case forms where we cannot distinguish between **i* and **ī*: the nom.sg. *-i* (**-ī*), the gen.pl. *-inqm* (**-īnqm*) and the acc.pl. *yəuuīnō*, in which preceding *-uu-* would lengthen **i* anyway (see § 6.2.3).

The only stem with diagnostic case forms is YAv. *parəñīn-* ‘the feathered one’, which is cognate with Skt. *parñín-*. It occurs in the nom.pl. *parəñīnō* (Yt 10.119) and the dat.sg. *pəṛəñine*¹⁶⁷ (Yt 14.38), which Hoffmann-Forssman 1996: 146 restore to **parəñine* although the majority of the mss. points rather to **parəñīne*. There is a clear discrepancy between the reconstruction **parn-in-* and the twofold attestation with *-īn-* in the Yašts. Although a corruption of **i* to *-ī* is rare in the Yašt Proper mss., it seems that we must in this case seriously consider such a corruption. Alternatively, one might assume that the stems in **-in-* analogically adopted *-īn-* on the basis of the nom.sg. **-īn*, or on the model of the *-ān-* stems derived from *a-* stems, which have the suffix form *-ān-* throughout. However, this yields more complications than the assumption of short **-in-*.

Finally, we find **-i-* in non-initial syllable in the suffix *-ina-* < PIE **-ino-*, which is used in temporal adjectives indicating parts of the day or seasons of the year: Greek *eiarinós* ‘in the spring’, *opōrinós* ‘in autumn’, Latin *vērnus*, etc. In YAv., this suffix appears in:

- *rapiθβina-* ‘the part of the day from noon till afternoon’. Derived from *rapiθβā-* ‘midday’, which can be connected with Av. *pitu-* ‘meal’ and OAv. *arēm.piθβā-* ‘noon’, i.e. ‘which has the correct meal’.
- *uzaiieirina-* ‘the part of the day from afternoon till sunset’, derived from Av. *uz-aiiara-* ‘end of the day’.

¹⁶⁵ It seems unlikely that *-in-* is due to vocalization of a laryngeal from the possessive (‘Hoffmann’-)suffix **-Hn-* after a consonant, pace Kuiper 1976: 246; cf. gen.pl. Av. *hazasnqm* ‘of the robbers’ from **seg^hes-Hn-ōm*. The form *airime*, which was also regarded as a case of **H > i* by Kuiper, does not contain a vocalized laryngeal but epenthetic *i* from *i*-epenthesis: **arme > *aⁱrⁱme*, cf. § 26.1.3.

¹⁶⁶ Only attested in the gen.pl. *miiezdinqm* (Yt 13.64, V 18.12). The gen.pl. of both *i*-stems and *ī*-stems is *-inqm*.

¹⁶⁷ V.II. Yt 10.119 F1+ and J10 *parəñīnō*; Yt 14.38 *pəṛəñine* F1.E1 · *paranūne* Pt1.O3 · *pəṛəñine* M4 · *paranīne* Jm4, *pəṛəñine* L11 · *frašnīne* K38.MI2, *frašnīna* K36.

- *ušahina-* ‘the part of the day from midnight till sunrise’, derived from *ušah-* ‘dawn’.
- *vīspaiieirina-* (Y 19.17) ‘of all day’, restored by Benveniste 1964, derived from an unattested stem **vīspaiiara-*.
- *hąmina-* ‘summerly’ (V 2.41 PTr.) to *ham-* ‘summer’, cf. § 3.7.2.

§ 6.2 **i* yields \bar{i}

Lengthening of **i* occurs in four different environments. Firstly, **i* becomes \bar{i} in open reduplication syllables in OAv., and in YAv. reduplication syllables in the environment of **r* or **z*. A few other cases of lengthening in open, non-reduplication syllable are also found, especially in front of *t*, *s* and *š*. Secondly, lengthening of **i* appears regularly in open syllable if preceded by a labial glide (*v*, *x^v*, *uu*, *ŋ^h*). Thirdly, **i* > \bar{i} is found in front of *ž*, and also often in front of *-š-* or *-šti-*. Finally, monosyllables in **-it̄* take *-it̄* in the OAv. texts.

§ 6.2.1 In reduplication

The usual retention of **i* in open and closed syllables is broken in one specific environment, viz. in reduplication syllables. As reduplication is a morphological process, I have tried to sift the evidence according to morphological criteria, but this has yielded no satisfactory results. The alternation between *i* and \bar{i} in reduplication cuts right across the relevant categories of the reduplicated present, the desiderative, the perfect and the corresponding reduplicated adjectives.

A superficial survey of the lengthened forms yields a twofold distinction. Firstly, \bar{i} -reduplication is attested in a larger percentage of the evidence in OAv. than in YAv.; for this reason, I have opted to split the discussion of the forms in an OAv. and a YAv. part. Secondly, \bar{i} -reduplication only takes place in an open syllable, i.e. if **i* is followed by only one consonant.

I disregard all forms with an initial sequence *vī-* because they are ambiguous: **vi-* was regularly lengthened to *vī-* in open syllable, cf. § 6.2.3 below.

§ 6.2.1.1 The OAv. evidence

The following forms show \bar{i} < **i* in the reduplication syllable:

- *jīgərəzaṭ* (Y 32.13) < **ji-gṛj^h-at*, 3p. prs.inj.act. of *garz-* ‘to complain’.
- *jījiša-* < **ji-ji-ša-*, des.prs. to *ji-* ‘to win’; attested are Y 39.1 3p.ind. *jījišəntī*, and the derived abstract noun *jījišā-* (Y 35.8, 21.2) ‘the desire to gain something’.
- *dīdaṅhē* (Y 43.11) < **di-dṃs-ai*, 1s. prs.ind.med. of *dah-* ‘to know’. Of the same stem, the 3s. inj. *didqs* has short *i* in OAv.
- *dīdarəšatā* (Y 46.7), 3s. des.inj.med. **di-dar-ša-ta*, to *dar-* ‘to hold’. In view of the usual zero-grade of the root in the desiderative, a form **di-dṛ-ša-ta* > OAv. †*dīdarəšatā* would be expected. It is possible that *dīdarəšatā* took over the YAv. reflex *-arš-* < **-rš-* at the canonization of OAv.¹⁶⁸; a similar replacement OAv. **rž* → YAv. *arž* may be assumed for OAv. *ϑβarōždūm*, see § 24.6.
- *dīdarəžō* (Y 44.15), 2s. des.inj.act. **didṛžah* < **di-dṛj^h-ša-*, to *darz-* ‘to fasten’.
- *°mīmaθā* (Y 32.4) < **mī-mH-at^ha*, 2p. prs.ind/subj.act. to *mā-* ‘to determine’. This form occurs with the preverb *fra°* as *framīmaθā*. It would be an exception to the rule that only initial syllables get lengthening, except if the transmitters were conscious of the preverbal status of *fra°*, and treated **mi-* as a word-initial syllable.
- *hišasaṭ* (Y 32.13) is metrically /*hišsaṭ*/, 3s. des.inj.act. of **hišsa-* < **si-šd-sa-*, to *had-* ‘to sit down’. In view of the usual absence of lengthening in closed syllable, it seems that anaptyctic *a* in *-š^as-* must have arisen before the lengthening of **i*.

The following three forms with short *i*-reduplication in open initial syllable represent genuine counterevidence to the lengthening observed in the forms above:

- *cikōitərəš* (Y 32.11), 3p.pf. **ci-kait-rš* to *cit-* ‘to appear’; this form was formerly analyzed as a 3p.pf.ind., but Jasanoff 1997 has proposed to regard it as a 3p.pf.inj. (plupf.) Although this analysis is met with scepticism by Kümmel 2000: 635f., I see no viable alternative.
- *didqs* (Y 49.9), 3s. prs.inj.act. **di-dams-t* to *dah-* ‘to teach’.
- *mimaγza-* (Y 45.10) ‘trying to grant’ is mostly interpreted as an adjective derived from a des. present IIr. **mi-mag^h-sa-* ‘to try to present’ to Skt. *maṃh-* ‘to spend’ (Beekes 1988: 75, 189, Kellens-Pirart 1988-91 II: 288, Humbach 1991 II: 173).

¹⁶⁸ It might be suggested that the suffix of the desiderative of roots in *-*R* was generalized as *-*Hsa-*; compare Skt. *cikīṛṣati* ‘wants to make’ < **k^wi-k^wrH-sa-* to *kar-* ‘to make’ (Beekes 1995: 231). A reconstruction **d^hi-d^hrHša-* would yield *dīdarəšatā* directly. Since *dar-* is the only Avestan root in *-r* from which a des.prs. is attested, there is no way of verifying this hypothesis.

One more form lacks lengthening, but the reduplication syllable is not the initial syllable of the word:

- *āhišāiiā* (Y 29.1) 3s. pf.ind.act. *^o*si-šāi-a*, to *hi-* ‘to bind’. Lengthening is only attested in one ms., Pd *āhišāiiā*.

To conclude the evidence of reduplication in open syllables, we find one form for which the spelling in the archetype is uncertain:

- *cīcīθβā*¹⁶⁹ (Y 43.2), ins.sg. of *cicitu-* ‘attentive’, cf. Skt. *cikitú-*. Geldner’s form *cīcīθβā* was corrected to *ciciθβā* by Bartholomae 1904: 585 on the basis of the spelling *ciciθβā* in the InVS; this is possible but not compelling. The best mss. write *cicī.θβā*, which might be explained from a split **ciciθβā* → **cici.θβā*, with obligatory lengthening of the final vowel to *cicī*. But in a sequence **cicī.θβā* (as attested in J2.K5), it is also conceivable that a dissimilation to *cicī.θβā* took place. Therefore, a spelling **ciciθβā* in the archetype is not completely ruled out.

In a closed syllable, the usual retention of *-i-* is attested in:

- *cixšnuša-* (Y 49.1) ‘to try to please’ < **či-kšnu-ša-*, des. to *xšnu-* ‘to satisfy’. The OAv. adj. *cixšnuša-* (3x) ‘trying to please’ (cf. Kellens 1984: 196) has been derived from this verb.
- *dibžā-*, des. to *dab-* ‘to deceive’.
- *hišcamaidē* (Y 40.4), 1p. subj.med. of the present **si-sc-a-* ‘to follow’.

The last OAv. form to be discussed has **i* in a closed reduplication syllable. It was edited as *dīdrayžō.duiiē* by Geldner, Bartholomae 1904: 772 and all subsequent scholars, but in reality the mss. disagree. I restore ⁺*did*^o with a short vowel, which is more in line with the distinction between open and closed syllables otherwise observed:

- ⁺*didrayžō.duiiē* (Y 48.7), 2p. des.ind.med. of **di-drag-ša-* to *drang-* ‘to consolidate’. The reading ⁺*did*^o is suggested by the v.ll. of the IrPY (*did*^o Pt4.Mf4.Br2, *dīd*^o Mf1; contrary to Geldner’s *dī*^o, I found the reading *di*^o in the important ms. Pt4), the InPY (*dīd*^o J2, *dād*^o K5; they derived from a common ancestor, for which the easiest reconstruction would be **did*^o), the SY (*dād*^o J3) and the IrVS (*did*^o Jp1.K4, *dīd*^o Mf2). The long vowel is attested in the InVS and YS, of which we know that they often replace *i* by

¹⁶⁹ V.ll. *cicī.θβā* Pt4.Mf1, *cicīθβā* Mf4 · *cīcī.θβā* J2.K5 · *cicī.θβā* S1, *cīcī.θβā* J3 · *cicī.θβā* Mf2.K4, *cicī.θβā* Jp1 · *ciciθβā* B2.Bb1.S2.O2.L1.2, *cīcī.θβā* L3.Dh1 · *cicī.θβā* C1, *cicī.θβā* J6.K11.H1, *cīcī.θβā* J7, *ciciθβā* L13 s.m. in margine, *cīcīθβā* O1 s.m.

ī: InVS *dīd°* in L2.Dh1.O2.S2, *dī.d°* B2.L1; YS *dīd°* in J6.H1.K11.L13, *dī.d°* J7.C1.

§ 6.2.1.2 The YAv. evidence

We find *ī*-reduplication in three groups of YAv. forms: in the present *zīzana-*, in the des. *jījīša-*, and in the sequence **ririC-*.

The YAv. present stem *zīzana-* ‘to beget’ < **jī-jnH-a-* always has long *-ī-*. It is well attested in YAv.: 3p.ind. *zīzanənti* (Yt 13.15), 3p.inj. *zīzanən* (Vr 1.3f.), subj. *zīzanānt* (Yt 13.142), and the ptc.act. *zīzanant-* occurring in the gen.pl. *zīzanatəm* (Yt 5.129), ins.pl.f. *āzīzanāitibiš* (Y 9.22) and nom.pl.f. **zīzanāitīs*¹⁷⁰ (Yt 5.87).

I also include 3p.ind.act. V 3.5 **us.zīzanənti*. Geldner edited *us.zīzənti*, the reading of Mf2.Jp1. This was corrected to **us.zazənti*, a 3p. subj., by Bartholomae 1904: 1658, because this reading is found in the PV and because *zīzənti* cannot derive from *zan-*. Yet the surrounding forms *kāraiieiti* (V 3.4) and *maēzənti* (V 3.6), occurring in identical sentences, let us expect an indicative form. Kellens 1984: 214 and 1995a: 68 tries to solve the problem by assuming a form of *zā-* ‘to abandon’, but I think that the semantics of the text really suggest a form of *zan-* ‘to beget’.

The best solution is to assume a regular 3p. prs.ind.act. **zīzanənti*, as it can be combined from our v.ll.: *zīzənti* Mf2.Jp1 · *zazənti* B1.M13.P2.L4a.M3, *zanta* Pt2 · *zənti* P10.B2.L1.2.Br1.Dh1.K10, *zizənti* M2. There is no way that the IrVS could have acquired *zī-* from the surrounding forms, thus it must be original. The root syllable with *-zan-* has been preserved in the PV. V 3.5 thus attests the same form *zīzanənti* as Yt 13.15 (see the discussion of *huzāmitō*), where we find a similar reduction of the word in the mss. P13 (*zīzənti*) and K38 (*zīzənte*, corrected sec.m. to *zīzanənte*). Note that the form of K38 is quite similar to that of Jp1.Mf2 in V 3.5, and that all three mss. belong to the Iranian transmission.

YAv. *zīzana-* must be cognate with the reduplicated aorist of Skt. *ájījanat*. In view of the Greek present *gígnomai*, it is likely that this stem originally was a present stem in Īr. too. Strunk 1986: 444 argues that the imperfect and injunctive of that present were probably metanalyzed in Skt. as an *i*-reduplicated aorist (a category absent from Avestan), belonging to the

¹⁷⁰ In 5.87, only v.ll. from F1 and descendants are available: they have *ziz°*. I assume that the ms. tradition is corrupt, and that the original form was **zīz°*.

causative present *janáyati*. This seems a very plausible explanation. Unfortunately, the \bar{i} of *ájjjanat* does not help to explain Avestan *zīzana-*, since the reduplicated aorist in Skt. prefers a quantative sequence of a long reduplicative and a short radical vowel; in order to achieve this sequence, short $*i$ has been lengthened in most red.aor. forms if it stood in open syllable (cf. MacDonell 1916: 173). Hence, it is uncertain how old the \bar{i} of *ájjjanat* may be. At any rate, it is unlikely that $*i$ of the reduplicated present had already spread as \bar{i} - to all non-laryngeal-initial verbs in a prestage of Avestan, since we find other presents without lengthening: *cikaii-*, *titara-*, *diđaii-*.

A second verb showing lengthening is *jījīša-* ‘to try to gain; ask’. We have already seen its occurrence in OAv., but it is also attested twice in YAv.: 2s.ipv. *jījīšaṅha* (V 15.13) and 3s.subj. *ˆjījīšāite* (V 15.14). The context of these forms seems independent from the OAv. ones, so that I am reluctant to explain *jījīša-* as a borrowing from OAv.

Actually, the ms. evidence for the two V forms is ambiguous: Jp1.Mf2 spell *jījīš^o* but the PV and the InVS have *jījīš^o*. This leaves two possible explanations: 1. the IrVS preserves the older stage (as it often does), so that we must posit $*jījīša-$ for the archetype; in that case, *jī-* would be another case of lengthening of $*i$ in the reduplication syllable, on a par with YAv. *irīri-* and *zīzan-*; 2. PV and InVS *jījīša-* preserve the original spelling, whereas Jp1.Mf2 have undergone an idiosyncratic lengthening. It seems that we must classify *jījīša-* among the uncertain evidence.

The remaining forms with lengthening all contain the sequence $*riri-$, which yields *irīri-*. The sequence $\dagger iriri^o$ is unattested in Avestan.

Firstly, we find two forms from the root $*ric-$ < PIE $*lik^w-$ ‘to leave’, of which we are certain that it did not have an initial laryngeal; it seems, then, that the lengthening cannot be explained from the IIr. preform (but see the evaluation below):

- *airīricinam* (Y 65.7), gen.pl. of $*a-ririci-$ ‘not leaving behind’, an adj. which was probably derived from the perfect stem $*riric-$ (cf. *caxri-* to *cakar-/caxr-*; Skt. pf. *riréc-/riric-*).
- *irīrixšāite* (Y 65.7), 3s. des.subj.med. $*ri-rik-ša-atai$ to *ric-* ‘to leave’.

Strikingly, lengthening in *airīrici-* has occurred in the second syllable instead of the initial, where it is found in the other forms; we have seen the same exception in OAv. *framīmaθā*¹⁷¹.

Secondly, *ī*-reduplication surfaces in a few forms of the roots *rit-/riθ-* ‘to die’ and *riθ-* ‘to blend’. For these roots, we have no Sanskrit cognates, and also no certain related words in Greek. Therefore, it is uncertain whether the root originally contained an initial laryngeal (Hr. **Hrit-* and **Hrit^h-*) or not; if it did, the long reduplication would have arisen by means of phonetic development:

- *irīriθuš-* (Y, Vr) ‘having died’, pf.ptc.act. of *rit-/riθ-* ‘to die’¹⁷². On the basis of the gen.pl. *irīriθuśqm* attested in Y and Vr in all good text traditions, the exception VPTr. 3.40 gen.sg. *iririθuśō* may be corrected to **irīriθuśō* without hesitation.
- *irīritāna-* (P 23) or *irīriθāna-* (P 34) ‘dead’, pf.ptc.med. of *rit-/riθ-* ‘to die’. The original form of the dental (*t* or *θ*) cannot be determined, cf. Kümmel 2000: 664, fn. 140.
- *irīriθarə* (Y 10.12¹⁷³, V 5.4ff.), 3p. pf.ind.act. ‘they have mingled; they are lying’ to *riθ-* ‘to blend, stick to’.

The ptc. *irīriθuš-* and *irīrit/θāna-* clearly belong to the same root. It seems likely that also *irīriθarə* belongs here; in other words, ‘to die’ is a specialized meaning of ‘to mingle’, as was argued by Hertel 1927: 19. He assumed that ‘to die’ was imagined as a process of ‘mingling’ with or ‘sticking to’ the previously deceased so that all forms belong to one same root *riθ-* ‘to blend, stick to’. Especially the 3p. pf. *irīriθarə* may be adduced in favour of the identity of both meanings. In one passage (Y 10.12) this verb clearly means ‘they are mixed with’:

*ā tē baēśaza *irīriθarə vaṅhāuś manaṅhō maiiābiiō*

¹⁷¹ Another form with apparent lengthening in second syllable is a mirage. The form *zaozīzuiiē* (G 1.6) can hardly represent anything else than **zaozuiiē* (Kellens 1984: 210) < **zau-zuH-ai*, intensive prs. to *zū-* ‘to invoke’. As *-zī-* is transmitted by all the good mss., it must be accepted for the archetype. It is probably an early mistake for **zao-zūzuiiē*, a form with an erroneous double reduplication.

¹⁷² I exclude from the evidence ViD 17 *irīraiθiiāt*, apparently a 3s.pf.opt. ‘if he should have died’, because of the uncertain status of the text it occurs in (cf. § 2). The form may rather be a mistake for prs.opt. *iriθiiāt* (V passim).

¹⁷³ For the reading *irīriθ^o*, see Kellens 1984: 403f. with references; v.ll. *irīraθ^o* in the PSY, but *iraēriθ^o* in Mf2 and *irīriθ^o* generally in the YS and InVS.

‘Your healings are joined with the joys of Good Thinking’ (tr. Josephson 1997: 93),

whereas in the other passage (V 5.4ff.), it indicates corpses lying on the ground:

fr̥āna āṇḥam nasunam yā paiti āiia zəmā ir̥iriḍarə

‘by the mass of corpses that are lying on this earth’.

The translation ‘they are lying’ is clearly intended to comply with the root meaning ‘to stick, mingle’, but ‘they have died’ seems a more natural translation, and it was in fact proposed by Lommel 1922: 270f.

Note also that the verbal systems of both assumed roots *riḍ-* are largely identical:

riḍ- ‘to die’: prs. *iriḍiia-*, pf. *ir̥iriḍ-*.

riḍ- ‘to mingle’: prs. *iriḍiia-*, prs. *raēḍβa-*, prs. *raēḍβaiia-*, pf. *ir̥iriḍ-*.

If we assume a single root **(H)riḍ-* ‘to mingle with, stick to’, we may assume the following verbal system: present I *iriḍiia-*; present II *raēḍβa(iia)-*; perfect *ir̥iriḍ-*. We have already discussed the probable identity of the perfect forms. Most of the forms of the present *iriḍiia-* belong to only one of the two meanings: V 6.10 **iriḍiieite* ‘is sticking’, Yt 16.10 *auua.iriḍiint-* ‘sticking to’; *iriḍiint-* ‘dying’, *para.iriḍiia-* ‘to die’. Only the prs.opt.act. *iriḍiiaūt* is attested with both meanings, but the syntactic construction is different. The meaning ‘to mingle’ occurs only once and takes an object, viz. in V 16.14: *yō nāirikaiiā ... tanūm iriḍiiaūt* ‘who mingles with the body of a woman’ = ‘who has sexual intercourse with a woman’. ‘To die’ occurs frequently in the V, e.g. in *spā vā nā vā iriḍiiaūt* ‘if a dog or a man should die’. In this meaning, *iriḍiiaūt* never takes an object. I conclude that there is no formal problem in assuming original identity of *iriḍiia-* ‘to mingle’ and ‘to die’.

The vowel **i* in open reduplication syllables other than **zizan-*, **jiji-* or **riri-* always yields *-i-* in YAv.:

- *cikaii-/cici-* (viz. *cikaiiat̥, cikaiiatō, cikaiiən, cici*), red. present to *ci-* ‘to do penance’ < **či-kaj-*.
- *aiβi.cicišəmna-* (N 63) ‘wanting to do penance’, prs.ptc.med. of the des. **ci-ci-ša-* to *ci-*.
- *ciciḍuš-/cikituš-* ‘having noticed’, pf.ptc.act. to *ciḍ-* ‘to notice’. We find the acc.sg.f. as *c̥iciḍušīm*¹⁷⁴ (V); Geldner edited this as *ciciḍušīm*, and it seems indeed that the sequence *c̥ici*^o shown by the VS may be due to a very recent lengthening. The nom.sg.m. occurs as *ciciḍβā* (V 18.68,75) and as *cikiḍβā* (V

¹⁷⁴ V.II. 18.67 and 69 *ciciḍušīm* L4.K1 · *c̥iciḍ*^o Mf2.Jp1 · *ciciḍušīm* L1.2.Br1.

18.67,69¹⁷⁵) ‘having observed’. The form *ciciθβā* is transmitted without v.ll., whereas in *cikiθβā*, it is clear that the InVS has recently undergone lengthening to *cikiθβā*.

- *jiyaēša* (Y 62.10), 2s. opt.med. of the red. present or perfect (see for a discussion Kümmel 2000: 628) of *jī-* ‘to live’.
- *tītara-* (Yt 13.77, G 1.6), red. present to *tar-* ‘to overcome’.
- ^x*didərəzuua-* (P 40¹⁷⁶), red. adj. ‘attached to’ to *darz-* ‘to attach’. JamaspAsa-Humbach 1971: 61 suggest original **didərəzuuan-* ‘holding onto’, which could be derived from an unattested present **di-darz-*.
- *dīdaii-*, strong form of the red. present **di-d^haiH-* to *dī-* ‘to look at, consider’.
- *ādidaiia* (Y 62.8), 3s. pf.ind.act. **di-daiH-a*, to *dī-* ‘to look at, consider’¹⁷⁷.
- *°didāra-* occurs in the prs.part.med. *vīdidārəmnō* (H 2.7) and in the probably nominal form *vīdidāra* ‘supporter(s)’ (Yt 13.28). Although the origin of long *-ā-* in the root syllable remains unclear (cf. Kellens 1984: 193), it seems likely that *vī-didāra-* means ‘to hold apart, to support’, whence middle ‘to distinguish’ (in H 2.7); compare the discussion of both forms in De Vaan fthc. The stem *°didāra-* represents a red.prs. to *Īr. *d^har-* ‘to hold’.
- *biβiuuah-* (Yt 11.5, 13.41) ‘afraid of’, pf.ptc.act. to *bī-* ‘to be afraid’, cf. Skt. *bibhīvāms-*. It is unclear whether Yt 19.48f. **biβiuuāḡha*¹⁷⁸ ‘terrifying’ belongs here too. It seems agreed upon that we are dealing with a reduplicated form of *bī-* ‘to be afraid’, but opinions differ as to the exact analysis. Kümmel

¹⁷⁵ V.ll. *ciki°* L4.K1 · *ciki°* Jp1, *cika°* Mf2 · *ciki°* L1, *cīka°* L2.Br1.K10.

¹⁷⁶ The ms. has *didrəzuuō* (nom.sg.).

¹⁷⁷ I exclude Yt 14.13 *vīdiduuā*, which is commonly regarded as the nom.sg.m. of *vī-dīduuah-*, the pf.part.act. **vī-didī-uuah-* of *dī-* ‘to look’. Firstly, the meaning ‘having looked’ or ‘considering’ does not make sense in the context. Secondly, the disappearance of **ī* would be strange; this otherwise only happens after a palatal, e.g. *juua-* ‘alive’ < **jīuua-* (cf. § 6.5). Thirdly, it is possible to connect Yt 14.13 *yō hištaite vīdiduuā* (said of *Vərəθrayna*) with Yt 5.126 *yā hištaite frauuaēdōmma* ‘who stands self-providingly’ (said of *Anāhitā*), with a derivative of *vaēda-* ‘to find’. In that case, Yt 14.13 *vīdiduuā* may be a corruption of **vīduuāḡh* ‘knowing’.

¹⁷⁸ V.ll. Yt 19.48 *ažin....uuāḡha* F1, *ažīnuuāḡha* Pt1, *biβiuuāḡha* E1, *ažīniuuāḡha* H3, *biβiuuāḡha* M12 · *bā.vāuuāḡhe* J10, *baβauuāḡhe* D; 19.50 *biβiuuāḡha* F1+, H3 *biβiuuāḡha*, M12 *biβiuuāḡha* · *bā.vaiiāḡhe* J10, *beβauuāḡhe* D · *baizauuā.ḡha* K12. The spelling in K12 *baizauua* will go back via **baizauua* to **b(a)īβauua*, since *ž* and *β* look much alike.

2000: 651 points to the v.l. $b\bar{\delta}^{\circ}$ in J10; in fact, this seems to point to original $*b\bar{i}$ -, since i does not often get replaced by $\bar{\delta}$, whereas \bar{i} does.

- *mimarəxša-* (V 15.14), des. present $*mi$ -mark-ša- to *marc-* ‘to destroy’.
- $^{\circ}(\check{s})hi\delta a$ -, dissimilated from $*-šizda$ - < $*si$ -žd-a-, red. present to *had-* ‘to sit’.
- *hisiδiūāt* (Yt 8.54) 3s. pf.opt.act. ‘would have cut off’ to *sid-* < $*s\acute{c}id$ - (Hoffmann 1975: 71).
- *hišāra-* (Y 57.17) ‘watching over’ < $*si$ -šār-a-, an adj. derived from *har-* ‘to watch over’.
- *išāṅhaēta* (Yt 19.53) for $*hišāṅhaēta$ ‘may he try to gain’ (cf. Kellens 1984: 197 with references), 3s. opt.act. of the des. present $*si$ -šā-sa- to *han-* ‘to gain’.

A few forms are ambiguous because the second syllable starts in a stop or fricative plus a glide; it is uncertain at which moment these formed a consonant cluster, making the preceding syllable a closed one:

- *diduuaēša* (Y 1.21f.) and *diduuišma* (Y 68.1), 1s. and 1p. pf.ind.act. $*di$ -duiš- to *duuiš-* ‘to offend’¹⁷⁹. If we take the spelling *-duu-* instead of $-\delta\beta$ - at face value, the sequence *-uu-* must have been syllabic: *di*-du- $\check{u}i$ š-.
- $(a)pipiiūš\bar{i}$ - (V 15.8), ptc.act.f. $*pi$ -piH-uš- \bar{i} - to *pi-* ‘to feed, fatten’.
- *zizi.yūšatca* (Yt 13.71), abl.sg. of *ziziuš-* < $*zi$ -ziH-uš-, pf.ptc.act. to *ziā-* ‘to destroy’. The parallel passage Yt 1.19 has the form *zizi.yūšatca* in Geldner’s edition, but the reading $zizi.^{\circ}$ occurs in several good mss., viz. F2.Jm4, Pd, K36.Mf3.

A closed initial syllable always yields *i*-reduplication in YAv.:

- *tixša-*, des. to *tac-* ‘to run’.
- *sixša-* ‘to learn’ des. to *sac-* ‘to be able’.

¹⁷⁹ Both forms are suspect in the YAv. texts in which they occur, because of unlenited intervocalic *-d-* and because the usual YAv. reflex of the verb $*dui$ š- is $\check{t}bi$ š- in anlaut (cf. also *aṭbišta-* ‘not hated’), whereas in inlaut one would expect $\check{t}di$ δβ- in YAv. Therefore, it is conceivable that *diduuaēša* and *diduuišma*, which occur in more recent additions to the Yasna (on Y 1 cf. Kellens 1996), are nonce forms on the basis of OAv. *duuaēš-*.

- *sispa-* (3s.inj.med. *sispata*, ptc.med. *sispəmna*-¹⁸⁰), red.prs. to *spā-* ‘to throw’.
- *zixšnāṅhəmna-* (Yt 13.49,73)¹⁸¹ ‘to proclaim’ < **ji-ṅnaH-sa-*, des. to *zan-* ‘to know’ (cf. Skt. *jñāsa-*).
- *hixša-*, des. to *hac-* ‘to accompany’.
- *hispōsa-* ‘to look’ < **si-spac-a-*, red.prs. to *spas-*.
- *hišta-* < **si-štH-a-*, red.prs. to *štā-* ‘to stand’.
- *hišmara-* (Yt 10.45) ‘to remember’, red.prs. **si-smar-a-* to *mar-* < **smar-*.
- *hišmāiriia-* (Y 19.11) ‘to be remembered’ < **si-šmār-ja-*¹⁸², adj. derived from the preceding red. present.
- *hišhaxti*, 3sg. ind.act. of the red.prs. **si-sak-/si-sk-* to *sac-* ‘to follow’.

Four YAv. forms with *ī* in open reduplication syllable are too uncertain to be used:

- *afracīcīš* ‘not instructing’ (P 45) might be a reduplicated stem **ci-ciš-* derived from *ciš-* ‘to provide; teach’ (cf. JamaspAsa-Humbach 1971: 69), but it seems strange that it would be a root formation without any suffix.
- *cīcarəna-* (Vyt 54) ‘trodden’ < **ci-car-ana-* to *car-* ‘to go about’. The Vyt spellings are too uncertain to base a conclusion on, especially in the case of a hapax.
- *cīcašānā-* (Y 10.18) ‘statement, teaching’ seems to be built on *cašāna-*, prs.ptc.med. of *caš-* ‘to teach’, which is attested in Y 13.3 as ‘teacher’. The reduplication is unexpected, since the present *cašte* historically already contains reduplication: **ča-kš-tai* (Skt. *cāšte*). Initial **ci-* may have been added on the model of *hišāra-*, *hišmāiriia-* or other nominal forms with *i*-reduplication.
- *sīsrāiia* (Vyt 51), possibly a perfect form of *sri-* ‘to lean’, but the interpretation of the text is unclear, and the ms. spellings of the Vyt are less trustworthy.

¹⁸⁰ Yt 17.10 nom.pl.f. ^s*sispəmna* for **sispəmnā*; original **-ā* was replaced by *°a* because of the preceding form *gaošāuuara* or because of the nom.sg.f. *sīspəmna* in the parallel passage in Yt 5.127; Yt 19.67 nom.sg.m. ^s*sispəmnō*; Yt 5.127 *sīspəmna* must be a lapsus of the transmission for **sispəmna*: v.ll. F1 *sīspəmna* · J10 *šīispe.mana*.

¹⁸¹ The spelling *zī°* which is attested in most mss. seems to be due partly to the separation into **zi.xšn°* at an early date in the ms. tradition, partly to lengthening **i* > *ī* in front of the cluster *šn*. V.ll. Yt 13.49 *zī°* F1+ · *zīš°* Mf3.K13.H5; Yt 13.73 *zi°* F1.E1.Pt1, *zī°* L18.P13 · *zīš°* Mf3.K13.H5.

¹⁸² For a possible explanation of **ā* in *hišmāiriia-*, cf. De Vaan fthc.

§ 6.2.1.3 Evaluation

The preceding subsections have clearly shown that **i* is not lengthened in a closed syllable. Therefore, we may concentrate on the evidence in open syllables. Let us first summarize the results.

OAv.:

lengthened	not lengthened	uncertain
<i>jīgərəzət</i>	<i>cikōitərəš</i>	<i>čičīθβā</i>
<i>jījīša-</i>	<i>didqs</i>	
<i>dīdarjḥē</i>	<i>mimayža-</i>	
<i>dīdarəšatā</i>	<i>āhišāiiā</i>	
<i>dīdərəžō</i>		
<i>framīmadā</i>		
<i>hīšasat</i>		

YAv.:

lengthened	not lengthened	uncertain
<i>zīzana-</i>	<i>cikaii-/cici-</i>	<i>°didāra jījīša-</i>
<i>airīricinqm</i>	<i>aiβi.cicišəmna-</i>	<i>biβiuuah- diduuiš-</i>
<i>irīrixšāite</i>	<i>ciciθuš-/cikituš-</i>	<i>mimarəxša- (a)pipiiūšī-</i>
<i>irīriθuš-</i>	<i>jīyāēša</i>	<i>°(š)hiḍa- zizīuš-</i>
<i>irīri' / āna-</i>	<i>tītara-</i>	<i>hisiḍiiāt</i>
<i>irīriθarə</i>	<i>^xdidərəzuua-</i>	<i>hišāra-</i>
	<i>diḍaii-</i>	<i>išāḥhaēta</i>
	<i>ādiḍaiia</i>	

We may now attempt to explain this distribution. The certain YAv. evidence for lengthening is restricted to the present *zīzana-* and two roots in initial *(*H*)ri-. As we have seen, *zīzana-* is matched by Skt. *ájījanat*. There is no guarantee that the lengthening in Skt. goes back to Ir. but, on the other hand, this cannot be excluded. Although the reason for the *ī*-reduplication remains unclear, it is possible that Av. *zīzana-* has a lengthening which goes back to Indo-Iranian.

The form *airīricinqm* is the only one of all reduplicated forms which does not have **i* in initial syllable, or in the second syllable after a preverb which might have been analyzed as a separate word, as in the case of *fra-mīmadā*, *ā-hišāiiā* and *ā-diḍaiia-*. The *i*-epenthesis and the general fact that negating *a-* ‘not’ is not usually dissected from the rest of the word, suggest that *-ī-* in *airīricinqm* cannot be explained from a recent lengthening in initial syllable,

a solution which would be possible for all other forms. Therefore, it is conceivable that *ric-* had the form **Hrič-* in PIr. In fact, we find a lengthened augment in the Rigveda in two forms of the root *ric-* ‘to leave’, viz. ipf. *ārinak* (1x) and *s-aor. āraik* (5x). As argued by Wackernagel 1896: 46 (cf. also EWAia I: 36), the long vowel¹⁸³ may have been adopted analogically from roots in *v-* where *ā-v°* was inherited from **a-Hu-*. It now seems conceivable that this analogy took place in IIr., and explains both the lengthened augment in Skt. and the lengthened reduplication in the Avestan perfect of *ric-*. The model may have been more direct, viz. several verbs which inherited **Hr-* from PIE, such as **Hrud^h-* ‘to grow’ and **HriH-* ‘to whirl’¹⁸⁴; cf. the index in Werba 1997: 490ff. The same analogical sequence **Hr-* must then be considered possible for the root *riθ-* ‘to mingle; die’, if this did not inherit an initial laryngeal in the first place.

All the remaining lengthenings are only found in OAv. We find seven forms with lengthening against four without. If we adopt as a condition the fact that **i* must be in an open syllable, the form *hīšasaṭ* < **hišsaṭ* shows that the lengthening must be fairly recent, because the anaptyctic vowel *-a-* must still have been absent when the texts were composed.

The four unlengthened forms are not all equally strong evidence. The form *āhišāiiā* has **i* in the second syllable instead of the initial. The form *didqs* is the only disyllabic form among the *ī*-reduplicated forms; since all the others have three or four syllables, it is conceivable that the accentuation or — if the lengthening happened at a recent date — rhythmic status of *didqs* may have been different from the other forms. The form *cikōitərəš* contains a unique root or stem *kōit-*, which may have rendered the fact that *ci-* was a reduplication syllable unclear to later users of the texts; compare the v.l. *cikō.tərəš* in some of the good mss.

What remains, then, is the form *mimayža-* on the one hand, and the lengthenings in *jīgərəzaṭ*, *jījiša-*, *dīdaiñhē*, *dīdarəšatā*, *dīdərəžō*, *framāmadā* and *hīšasaṭ* on the other. In each case except *hīšasaṭ*, the initial consonant of the reduplication syllable and that of the root are identical or nearly identical (*j-g*, *j-j*, *d-d*, *m-m*). This fact may have strengthened the pronunciation of the initial syllable, causing vowel lengthening. This may have happened quite late. We may compare the lengthening of vowels in open initial syllable which

¹⁸³ It is not necessary to assume that the anlaut **Hr-* was adopted in all forms of such roots; the verbs might for instance have copied the long augment or the long reduplication in verb formations, without other derivatives of the root being affected.

¹⁸⁴ For the reconstruction of form and meaning of this verb see Praust 2000b: 1ff.

applies to **u* (§ 10.2) or to **i* if preceded by a labial glide (§ 6.2.3). The fact that it is here restricted to OAv. must be explained by the slower and more careful pronunciation of the OAv. texts in the recitation; we have already seen other evidence for lengthening especially in OAv. initial syllables (e.g. **a*- > *ā*-, § 3.4.3). It seems plausible that this *ī*-reduplication belongs here too.

§ 6.2.2 In open initial syllable elsewhere

In non-reduplication syllable, lengthening sometimes appears in front of *-t-*:

- *daēuuō.γnīta*¹⁸⁵ (G 2.6, Vr 20.1), acc.pl.n. of *daēuuō.γnit-* ‘smashing the daēvas’. Although Geldner edits Vr 20.1 *°γnīta*, the v.ll. of G 2.6 point to *°γnīta* in the archetype.
- *nīsrīta* (Y 65.11), 3s. aor.inj.med. of *ni-sri-* ‘to transfer’, viz. **ni-ćri-ta* (Skt. *śrītá-*). We can only assume lengthening in initial syllable if the form was originally split as **nī.srīta*, but this is problematic since we would expect *nī.srīta* (→ *nīsrīta*), with lengthening of **i* in a monosyllable.
- *nīsrītāt* (V 5.26), abl.sg. of *ni-srita-* ‘delivered’, is found as *nīsrītāt* in Jp1.Mf2. The short reflex *°srita-* appears in N 78 *apa.srita-* and E 10,11 *nīsrīti-* ‘restoring’, *ainīsrīti-* ‘not restoring’, but this may be due to the poor ms. attestation.

In front of *-s-* and *-š-*:

- Yt 5.78 *vīspō.pīsa*, Yt 10.13 *zaraniīō.pīsō* are ins.sg.f. of *vīspō.pis-* ‘with all kinds of ornaments’ and acc.pl.m. of *zaraniīō.pis-* ‘gold-painted’ to the root *pis-* ‘to paint’. Note with short *i* 17.10 *zaraniīō.pisi* acc.du.f., where J10 *paēšə* stands against F1 etc. *pisi*. It is quite conceivable that *aē* replaces **ī*, and that **ī* was shortened in F1; in that case, we may posit Yt 17.10 *°zaraniīō.pīsi*.
- P 40 *pīsa-*, secondary thematization of **pis-* ‘ornament’, cf. Kellens 1974a: 316f.
- OAv. *sīša-* (2s.ipv.act. *sīšā*, 3s. opt.act. *sīšōi*) is a thematic root aorist to *sāh-* ‘to teach’, IIr. **ćHsa* and **ćHsaiHt* respectively; cf. Skt. aor. *śīṣat*. It is possible that the first syllable gave the impression of a reduplication syllable

¹⁸⁵ V.ll. Vr 20.1 *γnīta* K7a · *γnīta* K7b · *γnīta* H1.J8.Pt3.Jm5.P12.L27.K11 · *γnīta* L2.Br1.O2.S2, *γnīta* L1.B2 · *γnīta* F11.Kh1 · *γnīta* Jp1.K4.Mf2; G 2.6 *γnīta* Pt1.L18.11.O3.E2, *γnīta* E1 · *°γnīta* J10 · *°γnīta* Mf3 · *°γnaēxta* K36.

at a later stage, and experienced the same lengthening as found in *jīgəṛəzət* and other reduplicated forms.

A case of lengthening in closed syllable is the following:

- V 18.16,24 *nīsta* ‘scorn!’ to *nīd-* occurs with *ī* in the IrVS (both times) and in the InVS (once)¹⁸⁶.

Lengthening may be found sporadically elsewhere in the mss., as in V 18.61 *inaoiti* ‘feeds’, attested with *in^o* in L4.K1 and L1.2.K10, but with *m̄^o* in Jp1.Mf2.

In § 3.4.1 we have seen that **a* is lengthened to *ā* in initial syllable if followed by **uī* and a vowel *-a(-)*. The same kind of lengthening may explain the forms of the f. adj. **driguī-* to *drigu-* ‘poor’, viz. Y 57.10 gen.sg. *drīuuiāśca*¹⁸⁷ and P 25 acc.sg. *drīuūimca*. The gen.sg. goes back to **driguiHāśca*, with subsequent lenition and assimilation of **gu* > **γu* > *-u-* yielding **driuiāśca*. The acc.sg. has passed through the stage **driguūmca* > **driūmca*, and never possessed a sequence **-uī-*.

Two other forms in *-īuui-* are ambiguous, viz. *ādīuuiieiptī* and *jīuuiiqm*. They reflect Ir. **ī*, and will therefore be discussed in § 6.4. However, it is conceivable that *dīuuiia-* and *jīuuiia-* have first undergone the general shortening of **-īu-* > *-iuu-* which appears e.g. in *auua.miūūāmahi* (§ 6.5), and which has probably also applied to *juua-* ‘alive’, the unenlarged basis of *jīuuiia-*. In that case, they join the evidence of *drīuuiāśca* for recent lengthening of **i* in front of *-uui-*.

§ 6.2.3 After *v-*, *x^v-*, *-uu-* and *-ŋ^hh-*

When **i* is preceded by one of the consonants *v-*, *-uu-*, *x^v-* or *-ŋ^hh-*, and is followed by a single consonant or by *sp*, *št*, *šm* or **šn* (> *-xšn-*), it is lengthened to *-ī-*. Lengthening may also occur in a monosyllable in *-š*. These conditions of lengthening have already been recognized for OAv. Beekes 1988: 44 observed that “an *i* preceded by *v* is mostly long”, and also considers the further condition that this lengthening of **vi* only occurred in open

¹⁸⁶ V.ll. 18.16 *nīsta* L4.K1 · *nīsta* Jp1.Mf2 · *nīsta* L2.3.Br1.K10.M2.O2, *nīsta* L1.Dh1; V 18.24 *nīsta* L4.K1 · *nīsta* Jp1.Mf2 · *nīsta* L1.2.Br1.K10.M2.O2.L1.Dh1.

¹⁸⁷ V.ll. *drīuuiāśca* Mf1, *drīuuiāśca* Pt4.Mf4 · *drīuuiāśca* J2.K5 · *drīuuiāśca* Jp1, *drīuuiāśca* K4 · *drīuuiāśca* K36.Pt1 · *driūiāśca* J15 · *driūiāśca* J6.7.H1.Jm1.

syllable. Kellens-Pirart 1988-91 I: 61 claim that *i* was lengthened to *ī* after *v*, *uu*, *x*^v if the syllable was open in the liturgical pronunciation. The forms *vīfīia-*, *uruūsiia-* and *vīduuanōi* show that a cluster of consonant plus yod or **u* does not impede the lengthening of **i*; since there are no counter-examples, we may conclude that **i* and **u* had already become [*i̯*] and [*u̯*] at the time of the lengthening, or else that the clusters **C_i* and **C_u* did not close the preceding syllable.

It is important to note that **i* is never lengthened after *β*. In open syllable, we find *driβikāca*, *bīβiuuah-*, *rapiθβina-*, and all compounds in *aiβi* (*aiβiθūra-*, *aiβišac-*, *aiβiδāna-*, etc.); in front of *št*, *-βi-* is preserved in *xradβišta-* ‘wisest’ and in *anaiβišti-* ‘not studying’. This implies that the sound *β* must have been phonetically different from *v*, *uu*, *x*^v and *ŋ^h* at the time of the lengthening. Probably, *β* was labio-dental while the others were bilabial; this is suggested by the fact that voicing of labio-dental **f* yields *-β-*, not *-uu-*: *āfš* but *aβždāta-*.

§ 6.2.3.1 **i > ī* in open syllable and before *sp*, *št*, *šn*, *šm*

After *v-*, lengthening is found in the following forms¹⁸⁸:

• *vī* ‘apart’. In all Avestan texts, the preverb **vi* is realized as *vī* when prefixed to a verb or a noun¹⁸⁹. The distribution of v.ll. follows the pattern

¹⁸⁸ Wherever initial *vī^o* is followed by a noun or a verb in *-uu-*, it cannot be said beforehand whether such a form contains the preverb *vī-* or a reduplication syllable (e.g. **vi-van-*). If a form in *vī^o* exists which is not discussed below, the reader may assume that it contains the preverb *vī-*.

¹⁸⁹ Y 53.7 *uuūzaiiāθā* is usually analyzed as */vī zaiiāθa/*, 2p. aor.subj.act. to the root *zi-* ‘to set in motion’ (Kellens 1984: 385) or to the verb *zā-* ‘to leave’ (Insler 1975). A number of important mss. reads *auu^o* (Pt4.Mf4 *auuəzaiiāθa* and J3 *auuizaiiāθā*), and there are indications that both the SY and the PY base their Sanskrit (*yat upari karaṇīyaṃ*) and Pahlavī (*u-š abar kunēnd*) translation on a spelling **auuizaiiāθā*. The preverbs Phl. *abar* and Skt. *upari* usually translate OAv. *aibī*, YAv. *auui*. It thus appears that the Pahlavī and Sanskrit translators thought that they were dealing with *auui* in their text. *Auui* must be due to a corruption, because **vīzaiiāθā* would fit best in the metre, and because **aibi* would not change to *auui* in OAv.

described in the introduction to § 6¹⁹⁰. In most of these forms, *vī* is followed by a single consonant or by clusters of the type *ST* (such as *sp* and *št*), but there are also forms in which *vī* occurs in front of two different consonants: *vīxruməntəm*, *vīγžāraiiēiṅtīm*¹⁹¹, *vīγžāraiiēiti*, *vīδβōžən*, *vīdrušš*, *vīmruiiē*, *vīsrascāiən*, *vīsrūtārahe*. We may assume that these have been provided with the majority reading *vī*^o by the text redactors, or that *vī*^o is due to graphic analogy with the form of the preverb in isolation, *vī*.

• *ašəmnō.vīδō* (Yt 10.39 3x), nom.pl.m. of *ašəmnō.vīδ-*, contains in its second member the root *vid-* ‘to pierce’ (Gershevitch 1959: 192). The connection of the first member with Yt 10.24 *šanman-* ‘blade, sharp point’ and Skt. *kṣádman-* ‘blade’ (Kellens 1974a: 69) or Skt. *kṣan-* ‘to strike’ (Gershevitch) is problematic, because of the assumed metathesis of **šanman* to **šamnan* and because of the meaning: both ‘striking a non-wound’ (G.) and ‘who does not pierce with the blade’ are strange in their use of the negation.

• *vīθiši* (Yt 10.80), loc.sg. of *vīθiš-* ‘trial’, derived from *vid-* ‘to know’ or from *vid-* ‘to pierce’ (Skt. *vidhyati*).

• *vīdūiē*, *vīdiiāṭ*, *vīduuanōi* (OAv.), inf.pf.med., 3s.opt.pf. and inf.pf. of *vid-* ‘to know’.

• *vīdarə*, *vīduuāh/vīduš-* (OAv.), *vīduuāh-/vīduš-/vīθuš-/vīθušī-* (YAv.), pf. of *vid-* ‘to know’. The adj. *vīθušā-* (Vr 6.1) ‘of confession’ and *vīθušāuuant-* (V 4.54f.) have probably been derived from the ptc. *vīθuš-* ‘knowing’.

• *vīda-* (OAv.), *vīda-* (YAv.), aor., *vōiuuīdāitī* (OAv.) 3s. int.subj.act. of *vid-* ‘to find’.

• *vīdāṭ*, *vīdāitī*, *vīdqm*, *vīdant-* (OAv.) belong to the aorist *vīda-* of *vid-* ‘to devote oneself’.

¹⁹⁰ E.g. in the following Yt forms with short *vi*^o which occur, with two exceptions, in the second part of the Yašts. In all cases but one, the ms. tradition is based on F1 and J10: 2.13 *vītarə*, 5.62 *viuuaiṅtīm*: F1 and J10 *vi*^o, 15.31 *vimaiδəm*: F1.Pt1.E1 *vimaiδəm* · J10 *vaemidəm*, 15.46 *viδaēuuō.karə*: *viδ*^o F1 and J10, 15.47 *viuuaozō*: F1.Pt1.E1 *viuu*^o · J10 *vaēuu*^o, 15.55 *vicināθbarə*, 19.8 *višastarə*: *viš*^o F1 etc., *vis*^o K12 · *vas*^o J10, *vis*^o D. For Yt 15.53 *vimanəkarə* (F1.E1.Pt1 *vim*^o · *vā*. J10, *vī*^o K40) and Yt 19.4 *višāuuāēca* (F1.E1 *vi*^o, K12 *vaē*^o · *vā*^o. J10, *vae*^o D, *vi*^o M12) there is evidence for **vī* in J10 *vā*.

¹⁹¹ In V 19.40, Geldner edits *vi*^o, but the IrVS spells *vī*^o: *vi*^o L4.K1 · *vī*^o Jp1.Mf2 · *vi*^o L2.Br1.

- *vīfīia*¹⁹² (V 8.26f.), prs. to *vīp-* ‘to practice homosexuality’ (Kellens 1995a: 55), cf. Skt. *vīpāya-* ‘to shake, agitate’. Geldner edits *vī^o*, but we find the spelling *vī^o* in the IrVS.
- *vīnastī*, 3s. ind.act. to the present *vin(a)d-* ‘to find’. For the finite verb forms in *vinḍ-*, with retained *i* in a closed syllable, see below.
- *vīuuarəša-* (Y 45.8) ‘wishing’, verbal noun to the desiderative **uiuarša-*.
- *vīuuəṅgha-* (Y 53.5) des. present **vivanha-* to the root *van-* ‘to win’.
- *vīspa-* ‘all’, cf. Skt. *vīśva-*.
- *vīsa-* ‘to serve’, cf. Skt. *vīśāti*.
- *vīs-* ‘dwelling; clan’, cf. Skt. *vīś-*; with **vīc-* in open syllable, we find the forms *vīsqmca*, *vīsō*, *vīsi*, *vīse*, *vīśəm*, *vīsaṭ*, *vīsa* and *vīsahe*. In Yt 13.2, the nom.sg. *vīš* occurs.
- *vīsiia-* ‘from the village, from the clan’, cf. Skt. *vīśyā-*.
- *vīspaiti-* ‘lord of the village, lord of the clan’, cf. Skt. *vīśpāti-*.
- *vīšānō*¹⁹³ (Yt 13.151), acc.pl. of *vīšan-* ‘who has won the clan’ < Ilr. **vīc-šan-*.
- *vīš* (V 2.42), nom.sg. of *vi-* ‘bird’, Skt. *vī-*.
- *vīša-* ‘poison’ (Y 9.30 *vīšō.vaēpa-*, Yt 5.90 *varənauuu.vīša-*), cf. Skt. *viśá-* ‘poison’. Even if the cognate forms Lat. *vīrus*, Greek *iós*, OIr. *fī* ‘poison’ may point to a PIE preform **vīśó-* (Schindler apud Griepentrog 1995: 315), the comparison with Skt. *viśá-* suggests that Ilr. had **vīša-*, not **vīšá-*.
- *vīšauuaṇt-* ‘poisonous’, cf. Skt. *viśávant-* ‘poisonous’. No *-ī-* is attested in H 2.36 *višaiia-* ‘poisonous’ and ⁺*viš.gaiṇtaiia-* ‘of poisonous stench’, but this is probably only due to the fact that this text is only attested in two mss.

The preverb *vī* is also found in the form *vīndaiθīia*¹⁹⁴ (sic) (G 2.7), acc.pl. of *vī-nidaiθīia-* n. ‘which has been laid down, law’. The presence of a vowel between *n* and *d* in J10 and E1, together with the absence of *ṇ* in the other mss., points to archetype **vī-nidāiθīia*. Bartholomae 1904: 1448 regards the form as an ins.sg. of a noun ‘spread’. He translates *mazišta mąḍra mazišta vərəziia mazišta uruuait/θīia mazišta haiθīiā.vərəziia mazišta vīndaiθīia daēnaiiā māzdaiiasnōiš yazamaide* “die grössten durch das Bedenken, die grössten durch das Betätigen, die grössten durch das Festhalten,

¹⁹² V.II. 8.26 *vī^o* in PV and InVS, but *vī^o* in Jp1.Mf2; 8.27 all mss. *vī^o* except Jp1 *vī^o*.

¹⁹³ V.II. *vīšānō* F1.Pt1.E1, *vīšānō* L18.P13 · *vīsō.šānō* J10 · *vīsušānō* K13.38.Mf3. Bartholomae’s correction to ⁺*vīšānō*, on the basis of F1, is unwarranted.

¹⁹⁴ V.II. *vīnadaiθīia* J10 · *vīnaēdaēθīia* E1 · *vīndaiθīia* Pt1.L18.E2 · *vīndaiθīia* O3.L11 · *vīn.dāiθīia* Mf3, *vīn.dāiθīia* K36.

die grössten durch das Erfüllen, die grössten durch das Verbreiten der mazdayanischen Religion verehren wir" (Wolff 1910: 147). Yet a meaning 'thinking' for *mąθra-* and 'operation' for *vərəziia-* is ad hoc, being posited only for this passage. Formally, the forms *mąθra* etc. could be ins.sg. forms of *a*-stems, but they could also be n.pl. forms of *a*-stems, co-ordinated with *mazišta*; the translation would then run 'we worship the greatest mantras, the greatest deeds, the greatest bonds, the greatest fulfilments, the greatest laws of the mazdean religion'.

After *uu*, lengthening of **i* is found in the following forms:

- *āuuīšīia-* adj. 'manifest', probably derived from the adv. **āuiš* 'apparently' as attested in OAv. *āuuīš* and Skt. *āvīṣ* 'id'.
- *əuuīδuuah-* 'unfamiliar, not knowing' < **a-uiduāh-*.
- *əuuīsəmna-* (P 57) 'not accepting'.
- *uruuīnaitīš*¹⁹⁵ (Yt 13.33), acc.pl.f. of *uruuinaṇt-* 'compressing' < **ulinant-*.
- *+uruuīsīia-* 'to turn' < IIr. prs. **urīcīa-* as attested in ind. *^xuruuīsīnti* (Yt 12.25), inj. *^xuruuīsīiatəm*¹⁹⁶, subj. *^xni.uruuīsīāni* (Yt 17.57ff.), *vī.uruuīsīiāt* (V 19.7), ipv. *^xni.uruuīse* (Yt 17.60). The root **urīś-* also occurs in the adj. *+afrō.uruuīsuuat* (Yt 13.26) 'unable to turn towards' and *hqm.uruuīsuuant-* (V 3.32) 'fleeing away'.
- *uruuīsarəm*: cf. § 7.1.
- *^xuruuīzō.maiδīia-* (Yt 17.11¹⁹⁷) 'with a narrowly laced waist' < PIr. **urīza-*. No ms. has *uruuīzō°*, but we may see a remnant of **-ī-* in J10 *uruuaē°*, cf. *zaraniīō.uruuīxšna-* 'with golden laces'.
- *+kasuuīka-*¹⁹⁸ 'very tiny' < *kasu-ika-* 'small', cf. Skt. *kaśú-* PN (EWAia I: 330) and the suffix *-ika-* discussed in § 6.5. Geldner edits *kasuuika-*, but in both attestations, the IrVS spells *-uuīk-*, which we may regard as the older reading.
- *kəuuītāt-* f. 'Kavi-hood', IIr. **kauHi-tāt-*, cf. Skt. *kavī-*.

¹⁹⁵ For the recognition of *uruuīnaitīš* as lectio difficilior and its IIr. reconstruction see Hoffmann 1976: 506-8. *ī* is attested in K13.H5.Mf3.K14 and J10, as opposed to *i* in F1 etc.

¹⁹⁶ F1.Pt1 *uruuisaiiatəm*, B27.R115 *uruūsaiiatəm*.

¹⁹⁷ V.II. *uruuizō* F1+ · *uruuaējō* J10, *uruuizō* M12.

¹⁹⁸ V.II. V 18.34 °*uuik*° L4.K1 · °*uuīk*° Jp1.Mf2 · °*uuik*° L2.Br1 ; V 18.37 °*uuik*° L4.K1 · °*uuīk*° Jp1.Mf2 · °*uuik*° P1.L1.2.M2.

- *xruuīšiiant-* ‘bloody’¹⁹⁹ (Y 9.30, Yt passim), prs.ptc.act. to a verb **xruuīšiiā-* which has probably been built directly on a noun **xrəuuīš-* ‘raw meat’, cognate with Skt. *kraviṣ-* n. ‘id’. Kuiper 1976: 250 proposes to reconstruct **xruvīš-* < **kruHš*, but the latter would have yielded Av. †*xrūš*. We may safely posit Ilr. **xraṃHš-*, which developed into **xrəuuīš-* (cf. *təuuīš-* < **tauHš-*). The loss of *-ə-* between *xr-* and **-u-* is conspicuous in view of its retention in OAv. *srəuuīm* and YAv. *rəuuīm*, *rəuuīš*. It may be due either to the longer duration (usually four syllables) of the word **xrəuuīšiiant-*, or to analogical influence of the frequent compound *xruuī.dru-* (§ 7.1), where *xruuī°* reflects **kruHi-*.
- *xšuuīd-* (in *xšuuīdəm(cā)*, *xšuuīdāēca*, *xšuuīda*) ‘milk’ or rather ‘liquid’ (Bartholomae 1904: 562). Most mss. transmit *-uuīd-* and *-uuīδ-*. The nom.sg. *xšuuīs* in V 13.28 suggests that the stem has an etymological short vowel **(k)šuid-*²⁰⁰.
- *cəuuīšī-* (Y 51.15), 3s. aor.inj.pas. of *ciš-* ‘to provide’. As Narten 1975: 82 has argued, this form must derive from **cəišī-* which was then changed by Avesta redactors to **cəuišī-*, at the latest before *əi* became *ōi*. This form may provide a terminus post quem for the lengthening after *uu*.
- *təuuīšī-* ‘power’ (OAv., Y 55.1), cf. Skt. *táviṣī-* ‘id’ < Ilr. **taṃHs-iH-*.
- *diduuīšma* (Y 68.1), 1p. pf.ind.act. of *duuīš-* ‘to hate’ < Ilr. **duīš-*; cf. fn. 179.
- *parō.kəuuīdəm*²⁰¹ (Yt 10.102, 17.12), acc.sg. of *parō.kəuuīd-* ‘piercing afar’ < **paraka-vid-* with ‘wrong’ compound split, cf. Kellens 1974a: 72 and § 22.5.4.
- *†fəuuīnuīiā-*²⁰² (V 18.70), 3s. prs.opt.act. of *vinao/vinu-*, present to *vi-* ‘to slaughter’.

¹⁹⁹ Yt 15.49 *xrūšīieitiš* (acc.pl. of f. **xruuīšiiatī-*) must be emended to *†xruuīšīieitiš*, in the view of the v.ll. F1+ *xrūšīieitiš* · J10 *xarəuuaišiiantiš*; compare Yt 19.54 F1+ *xruuīšīieitiš* · J10 *xrauuaišīieitiš*. The v.l. *ūi* for **uui* is also attested in Yt 10.8 L18 *xrūšīieitiš*, L18 belonging to the offspring of Pt1.

²⁰⁰ Possibly connected with Av. *x'id-*, PIE **suid-* ‘to sweat’, although the meaning is not quite the same. It is also possible that **suid-* was remade into Ilr. **kšuid-* for a specific kind of liquid, on the analogy of other verbs in Ilr. **kšū-*, e.g. Skt. *kṣip-*, Av. *xšuuip-* ‘to throw, swing’ or Skt. *kṣubh-*, Av. *xšuf-sa-* ‘to quake’.

²⁰¹ *-uuī-* is not attested in Yt 17.12: v.ll. *kəuuīdəm* F1.Pt1.E1, *kiuuīdəm* H3 · *kaeuuaedəm* J10.

²⁰² V.ll. *°uuin°* L4.K1 · *°uuan°* Jp1, *°uuin°* Mf2 · *°uuīn°* L1.2.Br1.K10.Dh1.O2. For the reading *fra°*, cf. § 3.4.2.1.

- *frauuōiuuīdē* (Y 44.11), 1s. prs.ind.med. of the prs.int. **pra-ūai-ūidai* to *vid-* ‘to find’.
- *+niuūzaiti*²⁰³ (Yt 14.57), 3s. prs.ind.act. of *viz-* ‘to pay homage to’.
- *vī.uruuīšti-*²⁰⁴ (Y 55.2, V 8.81ff, 9.43) ‘separation’ < **ūrićti-* to Av. *uruuis-* ‘to turn’ (EWAia II: 598).
- *səuuīšta-* ‘strongest’²⁰⁵ < **ćauHišta-*, cf. Skt. *śaviṣṭha-*. The spelling *-īšt-* can safely be regarded as the original one, but the amount of mss. with *-īšt-* is strikingly high. As the superlative suffix is usually *-išta-*, this may have exerted influence on original *səuuīšta-*, especially in mss. by ‘learned’ scribes, such as the PY mss.
- *zaraniīō.uruuīxšna-* (Yt 5.64) ‘with gold laces’ with *uruuīxšna-* ‘string’ < PIr. **urizna-*, compare *+uruuīzō.maiδīia-*. Both forms in PIr. **-z-* can hardly be separated from Av. *uruuaēs-*, *uruuīsiia-* ‘to turn’ < **uraiš-* < PIE **ureik-* (Pokorny 1959: 1158).
- *zəuuīštiia-*²⁰⁶ ‘quickest’ < **jauHišta-*, cf. Skt. *javiṣṭha-* ‘id’.

The explanation of V 2.4 *vīuuīse* is controversial, and quite possibly it is a corruption. The best proposal so far has been that of Geldner, who suggests that the form originally was **vīse*, as required for an eight-syllable metre, and that the second *vī°* was added later, during the transmission. He does not comment on the formal status of **vīse*. As the context requires a second person verb form, we could assume the use of the 1s. prs.ind.med. *vīse* ‘I serve’ for the 2s., just like the 1s. subj. *vīsāi* is used for the 2s. subj. in the same stanza (unless *vīsāi* is a corruption of **vīsāhi*).

²⁰³ V.ll. *niuui°* F1.E1 · *niuū°* Pt1 · *niuū°* O3.Jm4 · *naiuuā°* J10, *niuui°* M12 · *nīuuā°* K36.37 · *niuua°* M4.

²⁰⁴ V.ll. 8.81 *vīuruuaēštīm* M13 · *vī.uruuīštīm* Jp1.Mf2 · *vīuruuīštīm* L2.Br1.M2; 9.43 *vī.uruuīštēm* K1a, *vī.uruuāēštīm* L4 · *vī.uruuīštīm* Jp1.Mf2 · *vī.uruuīštīm* L1.

²⁰⁵ V.ll. Y 15.3 (1) *°īšt°* Mf1 · S1 · K4.Mf2 · H1.L13.C1.J6, *°išt°* Pt4.Mf4 · J2.K5; (2) *°īšt°* Mf1 · J3 · Mf2.K4 · J7.L13.H1.C1, *°išt°* Mf4 · J2.K5. 28.5 *°īšt°* S1.P11 · Mf2.K4 · J6.7.H1.L13.K11, *°išt°* Mf1.Pt4.Mf4 · J2 · K37. 56.1 *°īšt°* Pt4.Mf1.Mf4 · Mf2.Jp1.K4 · L1.B2, *°išt°* J2.K5 · H1.L13. Yt 1.15 *+səuuīšta*: v.ll. *səuuīstəma* F1.Mb1 · *səuuīšt°* Pt1 · *səuuīšt°* L11.H2, *səuuīšta* Jm4 · *səuuīšta* F2.Mf3. In Vr 11.1 *səuuīštēm*, there are no v.ll. of the second syllable.

²⁰⁶ Apart from the forms already edited as *zəuuīšt°* by Geldner, we may add Yt 13.21 **zəuuīštīiā* (v.ll. *zīəuuīštīiā* F1.E1.Pt1 · *zəuuīštīiā* K13, *zūuīš°* Mf3.K38) and **zəuuīštīianqm* (v.ll. *zəuuīštīianqm* F1.E1.Pt1 · *zūuīštīianqm* Mf3.K13.38.H5).

In a number of forms, the reflex *-uuī-* is absent, probably only because of the poor ms. attestation:

- *uruδiδiei* (F 451) should be corrected to *uruuīδiiei* with Bartholomae 1904: 533.
- *niuuika-* (Yt 19.41), PN without etymology, cf. Mayrhofer 1979: I/65. The Dēnkard form of the name *nīwīg* (Humbach-Ichaporā 1998: 120) shows that the real Avestan form may have been **niuuīka-*.
- **nī.uruuīδiīāt* (V 16.7) for Geldners *niuruīδiīāt*, 3s. prs.subj.act. of *uruuid-* ‘to perish’.
- *stāuuīšta-* (Yt 17.59) ‘strongest’, superl. to **stūra-*.
- *huuīdāta-* (Yt 17.8²⁰⁷) ‘well-founded’ < **hu-vi-dāta-*, cf. *vīdata-* ‘founded’. Possibly, the spelling J10 *hauuāē*^o is a remnant of expected **huuī*^o.

In the following forms, the ms. evidence points to *-uuī-*, but the short vowel may be a recent corruption of *-uuī-* under the influence of related forms in *-uuī-* (thus in the case of *cəuuīštā*, *hāuuīšta-*) or of a neighbouring vowel *-i-* (*xšuuīβi*, *xštəuuīβiīō*):

- *xšuuīβi*^o ‘fast’ (7x in the Yašts), compound form of *xšuuīβra-*. The *-i-* may have arisen in the transmission under the influence of the final *-i*; otherwise, *xšuuīβi-* is unexplained.
- *xštəuuīβiīō* (Yt 13.37²⁰⁸), dat.abl.pl. of *xštəuuī-*, name of a clan, with unknown etymology.
- *cəuuīštā*²⁰⁹ (Y 34.13) < **cəištā*, 3s. aor.inj.med. of *ci-* ‘to provide’. The labial glide has been inserted during the transmission, cf. Narten 1975: 82, fn. 6. In view of *cəuuīšī* and *səuuīšta-*, one would expect a spelling **cəuuīštā*, but this is unattested in the mss. Only Jp1 spells *-īšt-*, but in view of the fact that all the other good mss. have *ciuu*^o preceding *°išt*^o, it seems best to assume that the first *i* has influenced the spelling of **-īštā*. Alternatively, it is possible to assume influence of the spelling *-išt-* of the superlative suffix at late stages of the transmission.
- *hāuuīšta-* (Y 68.12, Yt 10.116), an adjunct-priest. The mss. have only *°uuīšt*^o.

²⁰⁷ V.II. *huuī*^o F1+ · *hauuāē*^o J10, *huuī*^o M12.

²⁰⁸ V.II. *xštəuuī*^o F1+ · *xštai*^o J10 · *xštəuuī*^o Mf3.K13.38.H5.

²⁰⁹ V.II. *ciuuīštā* Pt4.Mf1.4 · *ciuuīštā* J2, *cəuuīštā* K5 · *ciuuaištā* J3, *ciuuīštā* P11 · *ciuuīštā* Jp1, *ciuuīštā* Mf2.K4 · *cəuuīštā* L1.2.O2, *ciuuīštā* Dh1, *cəuuīscā* B2 · *ciuuīštā* C1, *ciuuīštā* H1.J7, *cəuuīštā* L13 · *ciuuīštā* K37.

After *x^v-*, lengthening is found in *x^vīti-* ‘well-being’ < **hu-Hiti-* ‘good going’, and in the inchoative prs. *x^vīsa-* ‘to start to sweat’ to *x^vid-* ‘to sweat’, cf. Skt. *svid-* ‘to sweat’.

After *-ḡ^h-*, lengthening is found in *vaḡuhīnqam* and *vaḡuhībiiō* (YAv.), gen.pl. and dat.abl.pl. of *vaḡ^hhī-*, the f. of *vaḡhu-* ‘good’. These forms were edited *vaḡuhinqam* and *vaḡuhibiiō* by Geldner and Bartholomae 1904, but Hoffmann-Forssman 1996: 126 give *vaḡuhībiiō*. A closer look at the v.ll. shows that they are right. In each case, the Iranian mss. preserve the reading *-īnqam*, *-ībiiō*, while the Indian mss. (in the Yasna J2.K5, in the Vīspereḍ K7ab, in the Yašts F1) spell *-inqam* and *-ibiiō*²¹⁰.

Even though *vaḡuhīnqam* and *vaḡuhībiiō* go back to the PIr. endings **-īnām* and **-ībīah*, other feminine *ī*-stems show that these endings were once shortened, probably on analogy with the *i*-stems, e.g. *ašaoninqam*, *ašaonibiiō* to f. *ašaonī-*. This indicates that *ī* in *vaḡuhīnqam* and *vaḡuhībiiō* is conditioned by the preceding *-ḡ^h-*: PIr. **vahūīnām* > Avestan **vaḡ^hhinqam* > *vaḡ^hhīnqam* in the archetype.

§ 6.2.3.2 **i* remains in closed syllable

Short *-i-* remains in a syllable closed by a consonant cluster other than *sp*, *št* or *šm*.

After *v-*:

• *viṭkauii*²¹¹ (Yt 13.126), PN of uncertain etymology. The spelling *-aē-* in the IrKA mss. might point to earlier **viṭkaēuii* which could be a corruption of **viṭkaēši-*, a patronymic of **viṭkaēša-* ‘against the *ṭkaēša-*’, but that meaning would not fit the expected positive meaning of a believer’s name. Whatever the solution, the cluster *-ṭk-* must have existed at the time of the lengthening **vi* > *vī*.

²¹⁰ Compare for example Y 3.3 *vaḡuhīnqam* Pt4.Mf1, *vaḡhīnqam* Mf4 · °*īnqam* J2, °*inqam* K5 · °*inqam* J3 · °*īnqam* K4.Mf2 · °*inqam* J6, Y 1.12 *vaḡhūibiiō* Pt4.Mf4, °*ibiiō* Mf1 · °*ibiiō* J2.K5 · °*ibiiō* J3 · °*aēibiiō* K4 · °*ibiiō* J6, Vr 21.1 *vaḡhinqam* K7a · *vaḡuhinqam* L2 · *vaḡhīnqam* F11.Kh1 · *vaḡhīnqam* Mf2.Jp1.K4, Yt 13.46 *vaḡhuuibiiō* F1 etc. · *vaḡhībiiō* Mf3.K13.38, *vaḡuhibiiō* H5.

²¹¹ V.ll. *viṭ*° Mf3.K13.H5, *vəδ*° K38, *vaēδ*° K14 · *vət*° F1 etc. · *vaēδ*° J10.

- *viṭbaēšah*-²¹² (Y 54.2, G 1.6) ‘hostile’, the YAv. equivalent of OAv. *viduuāēšah*-.
- *vidcōišta*²¹³ (Yt 12.7) < **vicōišta* according to Bartholomae 1894-5: 158, who compares Yt 13.11 *uruuat.caēm* for **uruuacaēm*. In *vidcōišta*, we must assume that at the time of the lengthening **vi* > *vī*, -*dc*- had already arisen, because apparently the form was not perceived as containing the preverb *vi*. We have seen above that the preverb **vi* was lengthened to *vī* even when followed by a consonant cluster other than *sp*, *št*, *šm*.
- *vidbaoiie*²¹⁴ (Yt 15.52) is termed "wertlos" by Bartholomae 1904: 1445. Nevertheless, if we assume *vidbaoiie* to have existed at the time of the lengthening **vi* > *vī*, it fits the rule, because it was probably analyzed as *vid-baoiie* and escaped lengthening.
- *caθbarō.viδβana*-²¹⁵ (Yt 19.3), name of a mountain. It is possible to suggest an etymology on the basis of **vi* ‘apart’ and Av. *duuan*- ‘to rush, fly, blow’ or Skt. *dhvan* ‘to sound’, but in any case a syllable division *viδ-βa-na*- must be posited to explain the absence of lengthening of **vi*-.
- ⁺*vīpta*-²¹⁶ (V 8.32), verbal adj. of *vip*- ‘to commit homosexuality’. Short *vīptō* is preserved in the spelling *vīstō* of the IrVS, the branch which often has preserved *i* against the other two ms. branches. The *s* of *vīstō* cannot be due to the surrounding text forms, and must represent a **p* { *Ϸ* } that was misread for *s* { *Ϸ* }.
- *vifra*- (Yt 5.61) ‘clever, able’, cf. Skt. *vīpra*-.
- *viṇd(a)*- ‘to find’, cf. Skt. *vindāti*.
- *viṇdix^varəna(h)*- PN (Yt 15.45) derives from *viṇd(a)*-; cf. OP *Vīⁿdafarnah*-. For the inflexion, see § 22.7.
- **viṇdat^xarənah*- (PN) may be attested in Yt 13.128 gen.sg. *vidat^xarənaḡhō*²¹⁷, if K38 *vəṇdat* is regarded as the most original spelling.

²¹² V.II. *vəṇt°* Pt4.Mf1 · *vəṇt°* J2.K5 · *vəṇd°* Jp1, *vəṇt°* K4, *vəṇt*. Mf2 · *viṭ°* L2, *vəṇt°* L1 · *vəṇd°* K11.J6.7.H1.Jm1, *vaiṭ°* L13. Although the evidence for this passage overwhelmingly points to *vəṇt°*, the v.ll. of the parallel passage in G 1.6 leave no doubt that we must posit Y 54.2 *viṭbaēšaḡhəm* for the archetype. *Vəṇt°* will be due to the preceding form *vəṇəθrājanəm*, with its anlaut *və°*.

²¹³ V.II. F1+ *viδ°* · J10.M12 *vaiδ°* · O3 *vaδ°*.

²¹⁴ V.II. F1.E1.Pt1 *viδ°* · *vaēδ°* J10, *vaiδ°* K12.

²¹⁵ V.II. *viδβana* F1+, *vaiδβana* H3 · *vaedana* J10, *vīdana* D.

²¹⁶ V.II. *vīptō* K1.Pt2 · *vīstō* Jp1.Mf2 · *vīptō* L2.M2.O2.Dh1, *vīptō* Br1.

²¹⁷ V.II. *vidat°* F1.Pt1.E1 (in E1 *rə* appended above the line s.m.), *virədat* L18 · *vaēdaḡa°* J10 · *vəṇdat* Mf3.K13.14.H5, *vəṇdat* K38 (s.m. in margine).

It is also possible that the original form was *varədaṭ.xʰarənah-* (MP *Varədaṭ.farrah-*), cf. Mayrhofer 1979: I/94. The reading *vidaṭ.°* of F1+ is probably due to the preceding name *frādaṭ.xʰarənah-*.

- *vista-* ‘known; found’ < **vid-ta-* ‘known’.
- *aīfi.visti-* (Vr 9.3) ‘consecration’, < **vid-ti-* ‘knowledge’.
- *vistaru-*²¹⁸, a PN which Bartholomae 1904 edits as *vīstaru-*, < *vī-staru-* ‘against the sinners’ (cf. Mayrhofer 1979: I/97). This etymology is very uncertain. In Yt 13.102 all mss. have *vi°*, also those of the IrKA. Maybe a connection with V 10.10 and 19.43 *tauruui-* ‘a demon’ is possible, or *vistaru-* may be a short name for original **vispatarua-* ‘overcoming everything’, cf. Mayrhofer 1979: I/95.
- *viš*²¹⁹ (Y 9.11, Yt 19.40), nom.sg. of *viš-* ‘poison(ous plant)’. The v.ll. show that *ī* arose in those mss. which spell the sequence *viš raodaṭ* ‘poison grew’ as one word, such as K4 *vīšaraōdaṭ*.
- *višpaṭa* (Y 10.4,11), adv. which Bartholomae 1904 translates as ‘round about, everywhere’. The PTr. has *vyšptyh/všpts* (or *vyšptym*, Mf4), which seems to be a mere transposition of the Avestan word into MP. The Skt. version has *bahupathisu*, a loc.pl. form which indicates that Neriosangh, the Sanskrit translator, interpreted the Avestan form as an adverb of place. For the meaning he probably compared Pahlavi *vyš /wēš/* ‘more’ and Avestan *paṅtā-/paṭ-* ‘road, path’; thus Unvala 1924: 56, fn. b. To us, the most obvious etymological connection for *višpaṭa* is that with OP *vispadā* ‘everywhere’ and Skt. *viśvādhā* ‘in all ways’ < Ir. **vićua-d^ha*. The replacement of YAv. *-*δ-* by *-ṭ-* has many parallels (though still without satisfactory explanation), but the palatal should have yielded *s* in Avestan, thus †*vispaṭa* or rather †*vīspaṭa* would be the expected outcome. As a solution, we may consider a possible contamination of Ir. **vićuada* with the adv. **višu* ‘to all sides’, which forms the basis of Av. *vīžuaṅca* (see below) and Skt. *viśvañc-*.
- *viš.hauruua-*, a kind of dog. Bartholomae 1904: 1475 derives this compound from **vić-* ‘home’ and **sarua-* ‘protecting’, i.e. a dog which ‘protects the home’. This demands a preform **vić-šarua-*, which would not normally yield the RUKI **š* needed for the development to *-šh-*. Lubotsky (p.c.) therefore suggests that **višarua-* may have been formed analogically after *pasuš.hauruua-*, the dog protecting the sheep. Short *vi°* in *viš.hauruua-* must be due to the fact that *-šh-* closed the preceding syllable. This yields a

²¹⁸ V.ll. Yt 5.76 *viš°* F1+, *viš°* K12 · *vīš°* M12, *viš°* J10.

²¹⁹ V.ll. Y 9.11 *viš* Mf1.4.Pt4 · *vīš* J2, *viš* K5 · *vīš* J3 · *vīšaraōdaṭ* K4 · *viš* J6.L13, *vīš* J7.H1; Yt 19.40 *viš* F1+ · *visa.raodaṭa* J10, *visaraodaṭ* D.

terminus post quem for the lengthening of **i* after *v-*, viz. after the rise of *-šh-*; cf. also *hišhaxti* (§ 6.2.1.2).

- *višharəzana-* ‘leaving’ or ‘driving away’ (? Bartholomae 1904: 1475) contains **harzana-*; the first member could be either **vić-* ‘home’ (then **vić-šarjana-* with the same phonetics as *viš.hauruuu-*) or **vi* ‘apart’ (**vi-šarjana-*).
- *viš.huška-* ‘dried out’ (V 5.36). Lubotsky 1999: 318f. has shown that this form must be a corruption of simple **huškō* ‘dry’, and he argues that the text may have read **vā hiškuš vā*. Since both the age of the corruption and the age of the lengthening **vi- > vī-* are unknown, we may include this form in our evidence.

After *-uu-*, the preservation of **i* is attested in the following forms:

- *āuuista-* ‘consecrated’ < **ā-uid-ta-*.
- *āuuisti-* ‘indication, consecration’ < **ā-uid-ti-*.
- *əuuindāna-* (V 13.28) ‘not finding’, to the prs. *viṇd-*.
- *əuuisti-* (Y 34.9) ‘lack of, poverty’ < **a-uid-ti-*, cf. Skt. *āvitti-* f. ‘non-possession’.
- *əuuista-* adj. ‘not knowing’ and ‘not having received’ < **a-uid-ta-* to *vid-* ‘to know; to find’.
- *uruuištra-*²²⁰ (Yt 8.23) ‘mischief’, derived from the root *uruuis-* ‘to turn’ (Bartholomae 1904: 1547).
- *xšuuip̄tauuant-*²²¹ (V 21.7ff) ‘containing milk’. Compare for **xšuipta-* ‘milk’ Khot. *švīdā*, Paštō *šaudə*. A spelling *-uuip̄-* is attested only in the InVS, the least trustworthy of the three V ms. branches.
- *xšuiβra-* ‘fast’ < **kšuib-rá-*, cf. Skt. *kṣiprá-* ‘fast, hurrying’.
- *xšuuisca*²²² (V 13.28) nom.sg. of *xšuid-* ‘liquid’, of which the oblique case forms have been discussed above.
- *⁺xšuuisti*²²³ (V 2.31f.). Bartholomae 1904: 555 explains Geldner’s *xšuuisti* as *⁺xšuuisti*, a loc.sg.f. (sic) of *xšusta-* ‘liquid’. The v.ll. indeed point

²²⁰ V.ll. *uruuiš*^o F1+ and M12, J10 not mentioned.

²²¹ V.ll. 21.7 *xšuuip̄*^o L4.K1 · *xšəuuī*^o Jp1.Mf2 · *xšuuip̄*^o L2.Br1.K10.O2; 21.11 *xšuuip̄*^o L4.K1 · *xšiuui*^o Jp1 · *xšūip̄*^o Br1, *xšuuip̄*^o L2.M2; 21.15 *xšuuip̄*^o L4.K1 · *xšiuui*^o Jp1.Mf2 · *xšuuip̄*^o L2.M2.

²²² V.ll. *xšuuasca* L4.K1 · *xšuuīšca* Mf2, *xšuuisca* Jp1 · *xšuišca* L2.K10.Br1.

²²³ V.ll. 2.31 *xšōišti* B1.M13.P2, *xšōišta* Pt2, *xšuuisti* L4a · *xšiuuisti* Jp1.Mf2 · *xšūēste* L1.2.Br1.B2.K10.Dh1.O2; 2.32 *xšauuisti* Jp1, *xšauuista* Mf2 · *xšuuiste* L2.Br1.B2.O2.M2, *xšuuisti* L1.

to ⁺*xšuuisti* as the original spelling, but Bartholomae's interpretation is hardly possible: the regular feminine of *xšusta-* would be *xšustā-*, or at the most *xšustī-*. We may rather connect the stem *xšuuid-* 'liquid': a *ti*-abstract of the root **kšuid-* would yield *xšuuisti-* 'liquid'. In the text, *xšuuisti* is followed by *zəmē*, loc.sg. of 'earth', of which v.ll. *zəme.nī* and *zəmaēnī* exist in the InVS. Kellens 1974a: 396 regards the latter ones as lectiones difficiliores and interprets the phrase *xšuuisti* ⁺*zəmaēni* as a dvandva compound 'that which is liquid and that which is earthen'.

- *parakauuista-* (Yt 12.7), superlative of **paraka-vid-* which is attested in *parō.kəuuīdəm*.
- *frauista-* (Y 68.21) 'obtained', from *fra* + *vista-*.
- *snāuuīdka-* (Yt 19.43), a PN of unclear etymology; the suffix *-īdka-* occurs in several names.
- *huniuuixta-* 'well-brandished' < **hu-ni-uixta-* to the root *vij-* 'to stir', IIr. **uīg-*.

§ 6.2.4 In front of a sibilant

When **-iž-* is followed by a stop, it yields *-īž-*; the same reflex sometimes appears in front of *-ii-* and *-uu-* too. This probably implies a rule **-ižC- > -īžC-* at a certain point in the text tradition, which is matched by the rule that **-užC-* yields Avestan *-ūžC-* (see § 10.2.4 below).

We also find some cases of lengthening in front of *-š-* and especially in front of the sequence *-šti-*. This is less regular than the development of **-iž-*, but may still be due to one and the same tendency to lengthen the vowel in front of a postalveolar fricative.

§ 6.2.4.1 In front of *ž*

The reflex *-īž-* is attested in the following forms:

- *cīždī* < **cinždi*, 2s. prs.ipv.act. of *ciš-* 'to convey, provide'. This form is ambiguous, because IIr. **-inš-* yielded Av. *-īš-* regardless of the following sound: cf. the other forms of the present *cīš-* (§ 6.4), and the *i*-stem acc.pl. *-īš* (§ 9.5).

- ⁺*tīžiiaršti-* PN ‘with a sharp spear’ (gen.sg. Yt 13.101 ⁺*tīžiiarštōiš*, nom.sg. Yt 15.48 ⁺*tīžiiarštə*, ⁺*tīžiiarštīš*²²⁴). These forms must be compared with *tīži.arštīm* in 10.102 and 17.12. The fact that lengthening is attested (but not with certainty for the archetype) in the forms with scriptio continua may point to a very recent date of the lengthening. It seems almost certain that *tīžiiaršti-* also goes back to (pre-)archetype **tīži.aršti-*.
- *mīžda*²²⁵ ‘wages, prize’. The Skt. cognate *mīdhá-* < **mīždhá-* and Greek *misthós* point to PIE **mizdʰó-*. A derivative **mīžda-uant-* ‘rewarded’ is attested in *mīždauuant-*. A few forms of this stem were edited with short *i* by Geldner: Y 55.2 *humiždā* nom.pl.f. ‘yielding a good prize’, Y 55.2 *aš.miždā* ‘yielding a big prize’, *ašō.miždā* ‘yielding the prize of aša’, 62.6 loc.sg. *mižde*. Indeed, it is striking that these forms show a spelling *mižd°* in nearly all mss., and that they occur only in Y 55 to 62. Maybe they are due to a very recent aberration of the Yasna canon.
- *vīžibiūō*, dat.pl. **vīžbiūō* of *vis-* ‘house’, with anaptyxis in *-žib-*. Naturally, this form is ambiguous because of initial **vi-*; it may therefore also be classified as a case of lengthening according to § 6.2.3 above.
- *vīžuuānca* (Y 10.11), nom.pl.m. of an adj. ‘turning to different directions’, cognate with Skt. *vīsvañc-*. It is probably derived from an adverb **višu-*, ‘to several sides’, which is also attested in Skt. *vīsu-*. The voicing of **š* in this position may be of IIr. date (cf. Av. *tīžā-*, *dužita-* and Skt. *īdā-*, *duritá-*), which would imply that *š* has been restored in Skt. *vīsvañc-*.
- *sīždiia-* ‘to repel’ (in Y 32.4 *sīždiiamnā*), prs. to the root *siiazd-*.
- *sīždra*²²⁶ ‘shy’ must be connected with *sīždiia-* and *siiazd-*, suggesting IIr. **cíždra-*.
- *snaiθtīžbiia* (Y 57.29), ins.du. of *snaiθiš-* ‘weapon’.

The reflex *-iž-* is attested in the following forms:

- *tīži-* ‘sharp’ (in *tīži.arštīm*, *tīži.dātahe*, *tīži.dqsurəm*, etc.), the compound form of *tīyra-* ‘sharp’.

²²⁴ V.II. Yt 13.101 *tīž°* F1+ · *tīž°* Mf3.K13.38; Yt 15.48 *tīžiiarštə*: *tīž°* F1+ · *taēž°* J10; Yt 15.48 *tīžiiarštīš*: *tīž°* F1+ · *taej°* J10. The spelling *aē* in J10 may continue **t*.

²²⁵ In Vr 20.1 and 24.1, Geldner edits *miždəm*, but *tī* is well-attested: 20.1 *miždəm* K7a.P14 · *miždəm* K7b · *mīždəm* H1.Pt3.L27 · *miždəm* L1.2.Br1.O2.S2 · *mīždəm* F11 · *mīždim* Mf2, *miždəm* K4.8. V.II. 24.1 *miždəm* K7a · *mīždəm* H1.Im5 · *mīždəm* F11, *miždəm* Kh1 · *mīždəm* Jp1, *miždim* K4.

²²⁶ V 13.2ff. *sīždrəm*, Yt 8.36 **sīždraca*. Geldner has *siždraca*, but provides only v.II. of F1 and its descendants.

- *niž-* ‘down’ in compounds²²⁷. The retention of **i* in these forms as against e.g. *mīždām* or **vīžbiiō* must be due to analogy with the form *ni* ‘down’, which also never undergoes lengthening in YAv. compounds when written in scriptio continua (Ny 1.11 *nīpāraieinti* must be **nī.p°*).
- *bižuuat* ‘twice’, *θrižuuat* ‘three times’, derivatives of *biš* ‘twice’ and *θriš* ‘three times’. Short *i* may have been retained in analogy with *biš* and *θriš* and with the prefixes *bi-* and *θri-*. An exception is F 12 *θrišuuā* ‘one third’, which may be due to the poor ms. attestation of F.
- *naēniža-* (Yt 8.43), int.prs. to *nij-* ‘to clean’.

The original quantity of *-i-* is unknown in *kundiža* (V 11.9ff.) and *būiḍiža* (V 11.9ff.), two names of *daēuuīs*, and in the unclear form Vyt 4 *tižuuantəm* (Bartholomae 1904: 654).

§ 6.2.4.2 In front of *-š(ti)-*

Although the evidence is small in number and sometimes questionable, there seems to be a tendency to lengthen **i* in front of *-š-*, especially if it is followed by *-ti-* or *-tī-*.

- *aiθišcī* (Y 32.16), nom.sg. of *āiθi-* ‘?’, has been explained by Kellens-Pirart 1988-91 I: 61 as a case of lengthening of **-i-* in front of *-šcī-*; the nom.sg. of what seems to be the same stem *āiθi-* is attested as *āiθiš* in Y 48.9.
- *asīštiš* (Y 44.9), nom.sg. of *asīšti-* ‘commander, instructor’ is traditionally connected with Skt. *śiṣṭi-* ‘instruction’, *āśiṣ-* ‘request’ < Ir. **śHs-* ‘to command’. Insler 1971: 575 and 1975: 246²²⁸ assumes original **aš.īštiš* ‘one of great power’ (S1 *ašīštis*), which would still imply original **-išt-*. His

²²⁷ Attested are V 17.3 *nižgaḥḥanti*, V *niždarāt*, V 18.38ff. *niždarə.dairiāt*, Yt 8.21 *nižduaraiti*, Yt 11.3 *nižbairištiō*, Yt 19.93 *nižbarāt*, V 7.24 *nižbaranti*, Yt 4.5 *nižbarəm*, V 6.29ff. *nižbāraian*, V 6.31ff. *nižbərəta*, V 8.37f. *ainižbərəta*, V 8.37f. *nižbərətāt*, V 6.32ff. **nižbərəti*.

²²⁸ Insler assumes that **aš.īštiš* would have been dissimilated to *as°* in most mss. This is a possibility, since the preceding word *θβāuuqs* ends in °*s*, which could have helped a change from **°qs aš.īštiš* to °*qs as.īštiš*. We seem to get confirmation of Insler’s hypothesis from the Skt. translation *mahājñāninaḥ* ‘knowing much’, but this is not compelling: it exactly reflects the plural ending of S1’s *ašīštīš*, which we assume to be secondary against the ending *-iš* of the other mss.

explanation has the advantage that the lengthening would then have occurred in initial syllable.

• *īšti-* f. ‘will, power’ < Ir. **Hić-tí-*²²⁹ (cf. Skt. *iṣṭí-*) is attested with *ī-* in the nom.sg. *īštišca* (Y 34.5, 48.8, 53.1, Yt 19.32) and the acc.sg. *īštīm* (Y 32.9, 46.2), and in the derivative **īštiuuant-*²³⁰ (Yt 7.5, Ny 3.7); on the other hand, we find initial *i-* in the gen.sg. *ištōiš* (46.18, 51.2, 18) and the dat.sg. *ištōe* (60.4), where a different vowel than *ī* follows *-št-*. The only exception is the loc.sg. Y 49.12 *īštā*²³¹.

• *mīšti* (Yt 5.120, 7.4, Ny 3.6) ‘together’ is probably the ins.sg. of **mišti-* ‘mixture’, cf. Bartholomae 1904: 1187 and Kellens 1974a: 302. It is spelled as *mīšti* in Yt 5.120, but as *mišti* in Yt 7.4, Ny 3.6. Oettinger 1983 translates Yt 5.120 *mīšti* as ‘mit Harnen’ to the root Skt. *mih-*, Av. *maēz-*; this seems possible, but it would not change the PAv. reconstruction **mišti-*.

Two forms with uncertain or unknown etymology have initial *jīštaiia*^o which may reflect **jīštiia*^o:

• Y 8.3 *jīštaiiamnō*. Humbach 1961: 107 has proposed to read a root "*tā-* ?" here, a proposal dismissed by Kellens 1974: 323 but apparently re-endorsed by Kellens 1995a: 25. The form *taiiamna-* would be the prs.ptc.med. of a stem *taiia-*. The relevant passage in Y 8.3 reads: *mazdaiiasnō aojanō ašahe rāθma jīštaiiamnō yāθβa gaēθā ašahe mərəγənte* ‘calling himself a Mazdayasnian, *ašahe rāθma jīštaiiamnō*, by witchcraft the world of Aša he wrecks’. For *ašahe rāθma jīštaiiamnō*, the Pahlavī translation has *pad ān-ī ahlāyīh bahr zī(w)ād* ‘(that?) he lives in the share of righteousness’, glossed *ku bahr ud dāsar-ī wehān xwarād* ‘that he consumes the share and reward of the better’. Apparently, the translator associated *jīštaiiamnō* with the noun *jīti-* ‘life’. It is possible to link *jīš*^o with compounds like *ərəžəjīš* ‘living justly’, and to assume original **ašahe rāθma(.jīš taiiamnō* (Lubotsky, p.c.), ‘living like a thief in the *rāθma* of *aša*’. It seems that Bartholomae made a similar

²²⁹ The oldest verbal formation of the root in Ir. is a perfect **Hi-Hić-*, yielding Skt. *īśe*, Av. *isē* ‘to be able’. All Skt. nominal derivations seem to have introduced the *ī-* of the verb (*īśāna-* ‘powerful’, *īś-* m. ‘lord’, *īśvará-* ‘powerful’, cf. EWAia I: 207), but most of these forms are post-Rigvedic and are therefore probably secondary within Skt. In Avestan, it seems that the verb forms in **ī-* have secondarily introduced short *i-* (e.g. *ise*, *isāna-*) from the nominal forms.

²³⁰ As corrected by Bartholomae 1904: 377 for Geldner’s *īštauuantəm*, cf. v.II. *īštīuuantəm* F1.Pt1.L18.K40.

²³¹ V.II. *īštā* Pt4.Mf1 · *īštā* J2, *ištā* K5 · *ištā* Jp1.K4 · *ištā* Dh1.MI1.O2.L3 · *īštā* J6.H1.Jm1.L13.

analysis of this passage when he translated (1904: 610) ‘sich fälschlich ausgebend für einen Anhänger des Aša’, with *taiiamnō* as ‘fälschlich’.

• *jīštaiiana-* (Yt 13.113) PN. The combination of the v.ll. *jīštianahe* in F1+ and *jīštaiianahe* in Mf3.K13.38.H5 offers the possibility to read ^h*jīštianahe*.

A few forms have *īš-* and *īž-* in an open initial syllable, and may thus belong to the lengthening of the type *sīša-* < **siša-* and *pīsa-* < **pisa-*, cf. § 6.2.2:

- *īš-*²³² (Y) ‘power, strength’ (acc.sg. *īšəm*, nom.pl. *īšō*, gen.sg. *īšō*), cf. Skt. *īṣ-* ‘libation, power’ < Ir. root **Hiš-*² ‘to stir’. The ins.sg. *īšā* surfaces in Y 29.9 *īšā.xšaθriia-* ‘powerful’, lit. ‘having lordship by power’.
- *ašō.īšō* (Y 42.6), acc.pl. of *ašō.īš-* ‘seeking aša’, compare Skt. *gav-iṣá-* ‘going after cows’; to Ir. **Hiš-*¹ ‘to desire’.
- *īžā-*²³³ ‘libation; zeal (Skt. *īdā-* ‘id’) from **iš-* ‘offering strength’. The voicing of **š* to **ž* may be due to intervocalic position, or to the *bh*-cases **iž-b^hiš* etc. (EWAia I: 187); in that case, it would have spread through the paradigm independently in Avestan and Skt. Since *īš-* ‘power, strength’ shows a long vowel throughout, it cannot be excluded that *ī*^o in *īžā-* is not due to the following *ž*, but was already present at the stage **īšā-*.
- *īžīia-* ‘stärkend, labungsreich’ and its comparative *īžīiō.tara-* are derived from *īžā-*.
- *θrišuuu* (F 12) ‘one third’, although this text has a feeble ms. attestation.

This leaves the following forms with uncertain or unknown etymology:

- Y 65.8 *īša* ‘?’ adv. The connection with Skt. *īṣát* ‘a little, slightly’ (Mayrhofer 1956-82 I: 96) is possible but gratuitous.
- Y 32.12 *īšanqm* ‘?’; metrically, this is disyllabic /*īšnqm*/.
- *vīdīšā-* f. ‘generosity’ (55.3 ins.sg. *vīdīše*, 58.4 *vīdīšaiiāca* 58.4, *vīdīšāscā* P 35). This noun may be connected with Skt. ins.sg. *dhiṣā* ‘out of desire for action’ (Humbach 1959 II: 86), which can be the ins.sg. to a noun **dhiṣā-* or **dhiṣ-*. A different possibility is to connect *vī-dīšā-* with PIE **d^hh₁s-* ‘deity’ (Gr. *theós*, *thés-phatos*, Lat. *fānum*), cf. Humbach 1958: 42. Finally, it might simply be a deverbal noun derived from a verb *dīša-*, compare the next entry.

²³² The stem *īš-* is sometimes replaced by *aša-* or *aēša-*, especially in K5, the SY and the YS mss.

²³³ There is no need for Geldner’s *ižāca* in the V forms, v.ll. 9.53 *īžāca* K1a, *ižāca* L4 · *īžāca* Jp1.Mf2 · *ižāca* L2.K10.M2; 9.54 all mss. *īžāca* except L4 *ižāca*; 9.55 *ižāca* K1a, *īžāca* L4 · *ižāca* Jp1; 9.57 *ižāca* L4, *īžāca* K1 · *ižāca* Jp1, *īžāca* Mf2 · *īžāca* L1.2; 13.52 *ižāca* K1, *īžāca* L4.

• Y 51.1,23 *vīdīšəmna-*, prs.ptc.med. of *dīša-*. The explanation as a desiderative **d^hi-d^hH-sa-* to *dā-* ‘to give, put’ as proposed by Humbach 1959 II: 86 (with dissimilation from earlier **vī-dīdīša-*, cf. Kellens 1984: 197f.) is unlikely because roots in **CaH-* have generalized the full grade in Avestan (Insler 1971). Therefore, we may propose as an alternative solution that *°dīša-* was built on the basis of the present **d(a)ia-* (OAv. *d(a)ia-*, Skt. *dáyate* ‘takes part’) < Ir. **dH-aiā-* (EWAia I: 700). The present **d(a)ia-* may have seemed to contain a root **d(a)i-*, from which a des. **di-di-ša-* would have been formed, which then yielded **dīša-* by dissimilation.

Lengthening is absent from the unexplained forms *iškata-* (Y 10.11, Yt 19?), a mountain name, which may also reflect *išata-* or *išiiata-* (cf. Hintze 1994: 77); V 18.28 *baēuuarə.mišta-*; *hāirišī-* ‘female’ (gen.pl. *hāirišinqm*, acc.pl. *hāirišīš*).

§ 6.2.5 **-it > -ī̄t* in OAv. monosyllables

The regular YAv. reflex of **-it* in a monosyllable is *-it̄*, viz. in *jī̄t*, *it̄* and *cīt*. Since other endings in vowel + consonant are not lengthened in OAv. (e.g. *-iš*, *-uš*, *-at̄*), it is unlikely that there ever was a phonetic tendency to lengthen **-it* to *-ī̄t*. The three OAv. monosyllables in *-ī̄t*²³⁴ < **-it* may therefore share the (conscious) lengthening of word-final vowels in OAv. which took place during the transmission of the texts, or we may ascribe it to a later, graphic effort to give the Gāthā text an even more Gathic appearance. The three forms are:

- *ī̄t*, enclitic acc.sg.n. of the personal pronoun, YAv. *it̄*, Skt. *id*.
- *°cīt* ‘even’ (YAv. *°cīt*, Skt. *cid*).
- *dā̄jī̄t.arəta-* ‘violating Arta’ (nom.pl.m. *dā̄jī̄t.arətā*, dat.pl.m. *dā̄jī̄t.arətaēibiī̄d*). OAv. *dā̄jī̄t* is a monosyllable, as the OAv. metre and the YAv. counterpart *jī̄t.aša-* ‘violating Aša’ show. It contains the root noun **djit-* to the root YAv. *ji-* ‘to violate’, cognate with Skt. *kṣiṇāti/kṣiṇóti*.

Finally, a different sequence appears in OAv. *nīš* ‘out’ (Y 44.13). This has an original short vowel (Skt. *nís*), and will have been lengthened in OAv. in much the same way as the monosyllables in *-ī̄t*.

²³⁴ Also found in Pursišnīhā *ī̄t*, thus confirming the probable OAv. origin of the Avestan quotations in this text.

§ 6.3 OAv. **-it̄-* > *-ait̄-*

In a few instances, Geldner has edited a sequence **-it̄-* as *-aiti-* or *-ait̄-*. This is often regarded as *i*-epenthesis, but it would be strange to have *i*-epenthesis on a vowel *i*. A closer look at the mss. reveals that the archetype had **-it̄-* in all of these cases. The change observed (**i* > *ai*, sometimes via **ai*) seems to be due to a preceding *š* or *n*, rather than to *i*-epenthesis. The cause of this phonetic change may well have been the chanting pronunciation of the Gāthās. This has yielded *ə*-quality vowels in other cases too, such as *əḏānū* < **anu* and *əḏāuuā* < **āuā*.

For Y 12.3 *vasə.šaitīm*, we find *šaitīm* or *šaēitīm* in the Iranian branches IrPY and IrVS, but the InPY has J2 *šaitīm* versus K5 *šaitīm*. The SY preserves the original form in S1 *šitīm*, whereas J3 *šaitīm* probably imitates K5. The form *šaitīm* is also attested in the InVS.

At Y 29.10 *hušəitīš*, *°ai°* has intruded in all ms. branches except the SY ms. S1 which has preserved *hušitīš*, and probably also its descendant J3 where only the letters *huši* are readable. Furthermore, the YS mss. P11.J5.6.7 and InVS L3 have *hušitīm*. In Y 48.11, the spelling *hušəitīš* is again characteristic of the Iranian mss., but *hušitīš* has been preserved in K5, J3, the YS mss. C1.L13 and InVS L1.3.Dh1.

In Y 30.11 *ənəitī*, the original form *ənitī* is attested in K4 and in H1.Lb2 and L3. Whereas the v.l. of K4 is not necessarily old (Jp1 has *ənəitī* and Mf2 *ənəitī*), H1 and Lb2 are among the best YS mss. The spelling *ənəitī* of Pt4.Mf4 may represent the intermediate stage between *-it̄* and *-ait̄*, as with *šitīm/šaitīm/šaitīm*.

YH 38.5 *vīspō.paitīš* acc.pl. ‘who have drinks for all’ or ‘who have all kinds of drinks’ can hardly represent **μič̣uā-piHti-* (Skt. *pīti-* ‘drink’) with the zero-grade abstract PIE **pih₃-ti-* ‘drink’, because **pītiš* would hardly corrupt to *°paitīš*. In view of Av. *pitu-*, Skt. *pitú-* ‘juice, food’, it seems more likely that *°paitīš* is a corruption of *°pitiš*; note that J2 spells *°pitiš*, which may be interpreted as the original spelling.

§ 6.4 **ī* yields *ī*

Except for one specific environment, Ir. **ī* is retained as *ī* in Avestan. The full evidence will be provided below; v.ll. will only be given when the decision on **i* or **ī* in the archetype is doubtful, or when the v.ll. are in some

way relevant to the discussion of the forms. Forms in *vī-/uuī-* are ambiguous and will be discussed separately.

- *apaxšīrā-* (Yt 13.127), the name of a country. The word *xšīra-* recalls Skt. *kṣīrā-* n., MoP *šīr* ‘milk’, so that Bartholomae 1904: 73 assumes an adj. *apa-xšīra-* ‘milkless’; yet the connection is not self-evident, cf. EWAia I: 433. In particular, ‘milkless’ seems a strange name for a country which at the same time is called *paršaṭ.gauua-* ‘with spotted cows’ and *dāzgrō.gauua-* ‘with dark-coloured cows’. One, admittedly speculative alternative is that the word means ‘from which the milk flows away’ with *apa* ‘away’, cf. *apa-γžāra-* ‘outlet’.
- *ādūuuieīntī* (Y 44.13), 3p. prs.ind.act. of *dūuuia-* ‘to endeavour’, cf. Skt. *dīvyati* ‘to gamble’²³⁵.
- *āfrītar-* (Yt 3.1f.) ‘saying prayers’, from *āfrī-* ‘prayer’ + *-tar-*.
- *-ītā* < **-iH-ta*, the ending of the athematic 3s. prs. and aor.opt.med., which occurs in *aojīta* (*aoj-*), *daidītā*, *°daiθīta* (*dā-*), *drītā* (*dar-* ‘to hold’), *paiti.γnīta*²³⁶ (Yt 13.67) (*jan-* ‘to kill’), *mərəncīta* (*marc-* ‘to destroy’), *viiāmruuītā* (*mrū-* ‘to say’) and *+vindīta*²³⁷ (Yt 17.54) (*vind-* ‘to find’).
- *-ītəm* < **-iH-tam*, the ending of the athematic 3d. prs. and aor.opt.act., which occurs in *daiδītəm* (*dā-* ‘to give; put’).
- *-īt* < **-iH-t*, the ending of the athematic 3s. prs. and aor.opt.act., which occurs in *daidīt*, *daiδīt* (*dā-*), *vainūt* (*van-* ‘to overcome’), *sāhūt* (*sāh-* ‘to teach’) and *frazahūt* (*zā-* ‘to abandon’).
- *-īma* < **-iH-ma*, the ending of the athem. 1p. aor.opt.act., attested in *nāšīma* (*nas-* ‘to reach’).

²³⁵ Werba (1986: 336) has conjectured **ādīdiei(n)ī* here, 3p. prs.ind. to *dī-* ‘to think’. He noted a striking semantic parallel between Avestan *nōit ašahiā adūuuieīntī* ‘they do not ... truth’ and Skt. *ā yé ... dīdhayann rīāsya* ‘who think of truth’. His query, why this «evidente Korrektur» was not even suggested by Kellens 1984 must be answered by the observations that 1) the present reduplication of *dī-* ‘to think’ is normally **da-* in Avestan, not **di-*, 2) the ending *-eīntī* is transmitted by all mss. except H1.Jm1 *-eīt*, and must therefore be original, 3) the Vedic active forms have a full grade of the root, as in *dīdhayan*, 4) the ‘variantenreichheit’ of *ādūuuieīntī* mainly concerns anaptyxis between *uu* and *ii* (in J2, Mf1.Pt4) and association with the stem *daēuuā-* (in Jp1 and J2), but not the spelling *uu*, which means that a possible mistake **d/δ → uu* would have taken place before the archetype, and 5) by the absence of other instances of interchange between *uu* and *d/δ* in Avestan.

²³⁶ V.II. *γnīta* F1+ · *γnīta* Mf3.K13.38.

²³⁷ V.II. *vindīta* F1+, H3, *vandātəm* K12 · *vīndaiti* J10, *vīndīta* M12.

- **rīta-* ‘having shit upon’ in V 5.1 *auui ... irita*, V 7.12f. ^x*aiβi.iritīm*²³⁸, and V 13.48 ⁺*airītō*²³⁹ (< **ā-rīta-*). The form *airitō* is nom.sg.m. rather than loc.sg. (pace Bartholomae 1904: 189). EWAia II: 437 connects Skt. *riṅāti* ‘to whirl’, *rītī-* ‘whirling movement’; see Praust 2000b: 22ff. for the semantics of the Skt. forms, and ibidem p. 21 for an explanation of the Iranian meaning ‘to soil; defecate’.
- *īra-* n. (Yt 10.14 acc.pl. *īrā*, 13.26 acc.sg. *īrəm*) ‘attack’, probably derived from the reduplicated present *īra-*, see next entry.
- *īra-* ‘to reach’, reduplicated prs. **Hi-Hr-a-* to *ar-*.
- *-īšā* < *-iH-ša*, the ending of the athematic 2s. prs.opt.med., which occurs in *āhīša* (*āh-* ‘to sit’), *daiθīša*, *dīšā* (prs. and aor. of *dā-* ‘to give; place’), *raēxšīša* (to *raēc-* ‘to leave’). In the forms *kuxšnuuīša* and *xšnəuuīšā*, *-ī-* could be due to the preceding *-uu-*. Due to poor ms. attestation, ^o*uuīša* instead of ^o*uuīša* is attested in *framruuīša*²⁴⁰ (Yt 10.119), 2s. prs.opt.med. of *mrū-* ‘to say’. Hoffmann-Forssman 1996: 204 give the form as *mruuīša*.
- *uzīrah-* (V 21.3) n. ‘afternoon’. The noun must clearly be connected with the present *uz-īra-* ‘to go up’ (of the sun), occurring in the same text V 21. The translation ‘afternoon’ is suggested by the co-occurrence of E 9, 47f. *fraiiara-* ‘the day-light day before noon’ and *uzaiiara-* ‘the day-light day after noon’. It is striking that the text of V 21 contains several attestations of the ipv. *uz-īra* ‘go up!’, whereas *uzīrah-* seems to be based on a meaning ‘going down’. However, Bartholomae 1904: 410 has already pointed to Skt. *ūditi-*, which can mean either ‘sunrise’ or ‘sunset’. It is therefore conceivable that both opposite meanings were also present in Av. *uz-īra-*.
- *kainīnəm*, *kainīnō*²⁴¹, acc.sg., gen.sg. and nom.pl. of *kainīn-* ‘young girl’, Πr. **kani-Hn-*, cf. Skt. gen.pl. *kanīnām*.
- ^x*aβrīra-* ‘fertile, fruitful’, an epithet of plants. Geldner 1890: 522 suggests ^x*a-βrīra-*, with *hu-* ‘good’ and **brīra-* ‘what is cut’ to *brī-* ‘to cut’, i.e.

²³⁸ An emendation of *aiβi.ərətīm*: *vərətīm* K1, *ərətīm* Pt2 · *ratīm* (a corr. to *i*) Jp1, *iritīm* (first *i* above the line) Mf2 · *ərətīm* L1.2.Br1.

²³⁹ V.II. *airitō* L4.K1 · *airītō* Jp1.Mf2 · *airitō* L1.2.

²⁴⁰ V.II. ^o*mruuīša* F1+. No v.II. from J10.MI2 are available.

²⁴¹ Due to the poor ms. attestation of the Yašts, the following forms seem to have *-in-* but they can be assumed to have had *-īn-* in the archetype: *kaininō* 5.78ff., 17.11, *kainina* 15.39, 17.54ff: nom.pl. of *kainīn-* ‘girl’. V.II. 5.78 *kaininō* F1.Pt1.E1 · *kainīnō* K12; 5.87 and 17.11 *kaininō* F1 etc. · *kaininō* J10; 5.126 *kaininō* F1+ · *kainiinō* J10; 15.39 *kainina* F1.E1.Pt1, *kainene* K16 · *kainine* J10.MI2; 17.54 *kainina* F1.Pt1.E1.H3 · *kainina* J10 · *kainainō* K12.

‘fruitful’ in the sense of having a good crop. Short *a* in the first syllable is problematic²⁴², inasmuch as **hu-ā-* usually yields *x^vā°* (cf. § 28.2). Initial *x^va-* may therefore rather derive from **h_ua-* ‘own’, i.e. **x^va-brīra-* ‘with a crop of its own’.

- *cīš-* (*cīšiiāt*, *cīšmahī*, *-ica*, *cīšmaide*), prs. **cīš-* < **cīš-* to *cīš-* ‘to convey, provide’.
- *jīuuīia-* adj. ‘alive’, or rather ‘belonging to the alive’ with Klingenschmitt apud Hintze 1994: 112, fn. 112, derived from Ir. **jīHuá-* ‘alive’ > Av. *juua-*. This word only occurs in the acc.sg. *jīuuīiāq* as an epithet of *gām* ‘cow’. The retention of *ī* as opposed to the assimilation in **jīuuā-* > *juua-* can be explained neither by the “great antiquity of the ritual phrase” (thus Schwartz 1989: 134) nor as a dialectal phenomenon (Hoffmann-Narten 1989: 78). It may rather be due to the phonetic context: **ī* is lost between a palatal and **u* unless *ī* or **i* follow (see § 6.5 below).
- *jūti-* ‘life’ (*darəγō.jūti-*, *parājūti-*, *mərəzu.jūti-*, *hujūti-*) < Ir. **jīH-tī-*, to PIE **g^wih₃-* ‘to live’.
- *jīra-* ‘vivid, quick’ < **jīra-* (Skt. *jīrá-*) occurs in Yt 14.12 *jīrō.sāra-* ‘with a vivid head’ and Yt 19.42 *jira-* (no v.ll. *jīr°* attested). The same adj. is used as a noun in the compound *pouru.jīra-* ‘having a lot of intelligence’ (Yt 5.93 nom.pl.m. *^xpouru.jīra*²⁴³, Yt 13.131 gen.sg. *pouru.jīrahe*).
- *⁺tarōidīti-* ‘surmounting’ (Bartholomae 1904: 642); the first member contains YAv. *tarō* (Skt. *tirás*) < Ir. **trHas* ‘aside’. According to Insler 1971: 579, the second member may correspond to Skt. *dhīti-* f. ‘insight, thought’; following Insler’s convincing semantic analysis we can translate Plr. **tarah-dīti-* as ‘superiority in insight’, rather than ‘opposition’ (cf. Narten 1982b: 41, fn. 39).
- *tīrō.nakavβa-* PN (Yt 13.126), if this contains the preform of the MP deity *Tīr*.
- *paiti.dīti-*, *paiti.dīta*²⁴⁴ ‘notice, regard’, cognate with Skt. *dhīti-* ‘insight’.
- *pairīšta-* ‘chosen’, a compound of the preverb *pairi* and *išta-* ‘sought’, Skt. *ištá-*.
- *frīnāspa-* (Yt 13.122), PN ‘having dear horses’.
- *frīna-*, thematicized form of the original nasal present *frīnā-/frīn-* to *frī-* ‘to please’. The cognate Skt. verb *prīṇā-/prīṇī-* has also introduced *ī* into the

²⁴² Duchesne-Guillemin’s solution (1936: 27), assuming a wrong vocalisation of **hu-wrīra-* ‘with a good crop’ in the supposed Arsicid archetype, must be dismissed.

²⁴³ V.ll. *jira* F1+ · *zərē* K12; K12 *zərē* may contain *ē* < **ī*.

²⁴⁴ In Yt 7.1, *°dūāi* is not attested (F1 and J10 *°dūā*), but it is in the parallel passage Ny 3.1.

stem. According to Narten 1986a: 228, fn. 112, this replacement of **i* by **ī* was probably caused by the noun **āprī* ‘blessing, placatio’, hence the meaning ‘to please by speaking an *āprī*’ which applies to the Vedic and Avestan attestations of **prīn(ā)*-²⁴⁵.

- V *brīna-* ‘to shave’, cf. Skt. *bhrīṇánti* ‘they wound’ to the PIE present **b^hri-n-H-* ‘to shave, cut’.
- *vīmūtō.dantānō* (V 2.29f.) ‘with lost teeth’. Insler 1971: 577 has connected the participle *vīmūta-* with Skt. *mī-* (*mīyate*) ‘to diminish, lessen to extinction’, which is the best proposal so far. The participle would reflect **miH-tá-* < PIE **miH-tó-* ‘diminished’. This Avestan form has escaped the attention of EWAia II: 316, which quotes only Nērangestan *vīmīti-* (transmitted as *vīmati-*) ‘destruction’ and doubts the IIr. character of the root.
- *srīra-* ‘beautiful’, cf. Skt. *ásrīra-* ‘ugly’.

The following forms which have preserved *-ī-* are ambiguous, because *-ī-* is preceded by *v-* or *-uu-*:

- *kəuuīna-* ‘belonging to a kavi’ may represent a thematization of an earlier adj. **kaṷīn-* < IIr. **kauHi-Hn-*, with the same suffix as in *kainīn-* ‘girl’ < **kani-Hn-* (Hoffmann 1976: 381).
- *xšnəuuīšā*, cf. above.
- *viiāmruuītā*, cf. above.
- *vīra-* ‘man’, *huuīra-* ‘with good men’ (rather than Bartholomae’s ‘intelligent’), *frauuīra-*, cf. Skt. *vīrá-* ‘man’, *suvīra-*.
- *vīti-* (V 9.11) ‘separation, distance between’ < **vi-iti-* ‘going apart’.
- *vītāp(a)*-²⁴⁶ (Yt 19.82). An attractive etymology was offered by Hintze 1994: 348f., who reconstructs **vīta-āp-* ‘wide water’, from **vi-ita-* ‘gone apart’ and *āp-* ‘water’. Her claim that we are dealing with a determinative compound ‘water which went apart’, which would entail an athematic formation *vītāp-*, is not compelling. We might as well opt for a bahuvrīhi *vītāpa-* (cf. *uruuīāpa-*) ‘with waters that are wide’.
- *vītar-* ‘chaser’ < IIr. **uiH-tar-* to *vī-* ‘to chase’, Skt. *véti*, *vyánti* ‘to trace’, *vītá-* ‘turned towards’ (EWAia II: 509f.).

²⁴⁵ The resignation in Kellens’ remark (1984: 178) «La voyelle radicale longue de *frī* : *frīn(ā)*- et de *brī* : *brīn-* n’est pas plus significative que la voyelle radicale brève de *hū* : *hun(ā)*» is unwarranted. It is indeed necessary to assume secondary introduction of an **ī* into IIr. **prīn*^o. For the 1p. *frīqnmahī*, see § 19.2.

²⁴⁶ V.II. *vitāpəm* F1+ · *vītāpəm* J10.M12, *vī.tāspəm* D.

- *vīsaiti-*, *vīsata*^o, *vīsant-* ‘twenty’, *vīsastəma-* ‘twentieth’, and *vīsaitiiuant-* ‘twentyfold’ all contain the cardinal **uīcāti-* ‘20’, cf. Skt. *viṃśatī-* (which has hypercorrect *im*, cf. EWAia II: 551).
- *vīš* ‘poison’, nom.sg. of *vī-* (cf. § 6.2.3).

§ 6.5 **ī* yields *i*

A sequence **-īu-* yields *-iuu-* if no further changes occur; thus, there must have been a shortening of **ī* in front of *-uu-* at a certain point. The certain instances are *auua.mīuuāmahi*²⁴⁷ ‘we remove’ < **aua.mīua-* (Skt. *mīvati*), *āfriuuacah-*, *āfriuuana-* ‘saying the *āfri*’, *piuuah-* ‘fat’ (Skt. *pīvas-*) and *bīβiiuuah-* ‘afraid’ (Skt. *bibhīvāms-*). This development may be linked with the development of **-ūi-* to Av. *-uui-*, see § 10.4. Thus, there may have been a phonemic merger of *i + ī* and *u + ū* in front of the glides *u* and *i* respectively.

In view of the generally observed shortening, the retention of *-ī-* in the hapax *grīuuā-* ‘neck’ (Skt. *grīvā-*) would be unexpected. However, it is not certain that its *-ī-* is an immediate reflex of Ir. **ī*. The form occurs in V 3.7, being a loc.sg. given as *grīuuaiia* by Geldner. The mss. are divided: PV *grīuuaiia* all mss. (in some mss. changed to *grəuuaiia*) · InVS *grīuuīia* Br1.L2.K10, *gairīuuīia* L1.B2.O2 · IrVS *grīuuaiia* Jp1.Mf2. It is quite possible that *grīuuaiia* was the form of the archetype, which lost *-a-* in the mss. of the VS (**grīuuīia*) and lengthened **i* in front of *-uui-*. For a similar recent lengthening in front of *-uui-* in the Vīdēvdād, compare the v.l. *hāuu*^o of *hauuaiiāsə* (§ 3.4.1).

The forms *ascuua-* ‘shin bone’ (Skt. *aṣṭhīvā(nt)-*, Lubotsky 2002), *juua-* ‘alive’ < **jīua-*, *juuaiiant-* ‘making alive’ and *cuuant-* ‘how much’ (Skt. *kīvant-*) have lost **ī*, which must be due to the preceding palatal consonant. It seems most economical to assume that these forms shared the first step **-īu- > *-iuu-*, before **i* was ‘swallowed’ by *c-* and *j-*. No loss of **i* or **ī* has occurred between a non-palatal consonant and **u*, as is shown by e.g. *drīuuīāsca* < **drigūiāsca*, *dīuuīia-* ‘to gamble’ and by words with initial **vīuu-* such as *vīuuarəša-* and *vīuuəṅgha-*. The only form with *i* or *ī* surviving after a palatal is *jīuuīia-* (see above), which may have retained **-īu-* due to the following **-i-*, which supported it.

²⁴⁷ Bartholomae’s tacit restoration (1904: 1190) of this form as *mīuuāmahi* is not supported by the mss.

The long vowel *ī* in *dīuīia-*, *drīuīiā̄sca* and *jīuīia-* is remarkable, because **-īu-* has been shortened elsewhere. In theory, *dīuīia-* and *jīuīia-* might continue IIr. **ī* unchanged, but since *drīuīiā̄sca* reflects IIr. short **i*, it rather seems that all three forms are due to a later lengthening. This lengthening must be specific of the sequence **-iūi-* in initial syllable. The forms in *vīuu-* have lengthening of **i* due to initial **ūi-*. This yields the following relative chronology:

1. shortening of **-īu-* > **-iu-*.
2. **ciū-*, **jiū-* > *cuū-*, *juū-*, except when *-iī-* followed.
3. a. **i* > *ī* / *ūi-* in initial syllable.
b. **i* > *ī* / *#ū-*.

One form remains to be discussed, viz. *amūiamna-* ‘immovable’. It is often explained as **a-mīūiamna-*, but a stem **mīūia-* ‘to move’, which would match Skt. *unmīvyamāna-* (1x KS) ‘in die Höhe geschoben’ (thus defended by Narten 1965: 59) is not further attested in Avestan. Since Avestan does possess a present *miuuu-* which exactly matches Skt. *mīvati*, it is more likely that we must reconstruct only IIr. **miHua-* ‘to (re)move’, and that Skt. *°mīvyā-* is a more recent formation. Moreover, even if a form **(a)mīūiamna-* did exist in PIr., it is uncertain that it would yield *(a)mūiamna-*. One might envisage a complete assimilation of **ī* (or **i*) to *u* in the position between *m-* and a following labial consonant (**u*), but this is highly speculative: all other forms in which **ī* disappears involve a preceding palatal consonant. It seems more probable that *amūiamna-* is derived from one of the forms of the PIE verb **mīeuh₁-* ‘to move’ in which **i* was already lost in PIE or ultimately in IIr., yielding IIr. forms with a zero grade **muH-*, such as Skt. *kāmamūta-* ‘impelled by love’ (RV) and Skt. *mūtra-*, Av. *mūθra-* ‘urine’ (cf. Rasmussen 1989: 117 and *Lexikon der indogermanischen Verben*² s.v.).

Shortening of **ī* may be due to analogy in the following forms:

- The *ī*-stem endings *-inqm*²⁴⁸ (gen.pl.), *-ibiiō* (dat.pl.), *-ibiiā* (ins.dat.pl.), *-ibīš* (ins.pl.), and *-išu* (loc.pl.). It seems that *ī*-stems have merged with

²⁴⁸ Regular exceptions are *vajuhīnqm* and *vajuhībiiō*, with lengthening after *ŋ^h* (cf. § 6.2.3). The remaining two exceptions are Yt 13.144 *dāhīnqm* (*dāhī-* f. adj. ‘dāhic, hostile’, cf. Skt. *dāsa-*), with the v.ll. *dahīnqm* Mf3.K13.H5 · *dāhīnqm* F1+ · *dāhīianqm* J10, and Yt 9.31 *xiiaonīnqm* (*xiiaonī-*, f. adj. ‘Chionic’), with the v.ll. *xiiaonīnqm* F1.E1 · *haiiōnanqm* Pt1 · *xiiaonīnqm* J10 · *hiiaonanqm* Jm4, *haiiō.nanqm* O3. It seems that *-īnqm* is a peculiarity of F1; the IrKA mss., which usually in Yašt 13 preserve the older readings, spell *-inqm*.

i-stems in all oblique cases of the dual and plural; the same goes for *ū*-stems and *u*-stems, cf. § 10.4.

• The Avestan suffix *-ika-* sometimes corresponds to Skt. words in *-īka-*, but we cannot assume a phonetic shortening of **-īka-* in these forms. Rather, the Avestan forms have acquired *-ika-* analogically after words which had *-ika-* all along, for instance the diminutives. Etymological **-īka-* may be assumed when the corresponding Skt. word has *-īka-*: Avestan *ainika-* n. ‘face’ (cf. Skt. *ánīka-* n. ‘face’ < PIE **h₁eni-h₃k^wo-*, EWAia I: 73), *mərəždika-* n. ‘mercy’ (Skt. *mṛḍiká-* ‘id.’), *marždikauuant-* ‘merciful’; or when the Avestan word is derived from a feminine *ī*-stem, viz. in *carāitīkā-* to *carāitī-* ‘young woman’, *jahikā-* ‘whore’ to *jahī-*²⁴⁹, the daevic word for ‘woman’, and *nāirikā-* to *nāirī-* ‘woman’.

The line Y 23.3

˘dahme nāirike apərənāiuke kainike ˘vāstriiāuuarəze upašaēiti

‘she dwells with the initiate, with the woman, with the child, with the girl,
with the farm labourer’

consists of several loc.sg. forms ruled by *upašaēti* ‘dwells with’. The m. *a*-stem ending *-e* has replaced the original f. endings of *nāirikā-* and *kainikā-*. Geldner, Bartholomae (1904: 705) and Kellens (1974a: 68) edit *dahma* instead of *˘dahme*, but *dahma* is only attested in the YS, as against *dahmi* in Pt4.Mf1.4, J2.K5, K4, Mf3, J7.L13 and Bb1.L3. Since an ending *˚i* is impossible with a thematic noun, we must ascribe *˚i* to the form *iristi*, which precedes it in the text of 23.3; we may assume original loc.sg. *˘dahme*.

As for *˘vāstriiāuuarəze* (v.ll. Y 23.3: *˚zi* Pt4.Mf1.4 · J2.K5 · H1.L13.C1 · K38, *˚ze* K37.Mf3 · K4, *˚za* J7), although the ending *-i* is better attested than *-e*, the gen.pl. *vāstriiāuuarəzanqmca* in Y 68.12 (pace Kellens 1974a: 68, who writes *˚uuarəzqmca*) suggests that we are dealing with a thematic formation *vāstriiāuuarəza-* ‘working in the field’, the loc.sg. of which can only be *˚uuarəze*. Alternatively, one may prefer to ascribe the gen.pl. ending *˚anqm* in 68.12 to the influence of the preceding gen.pl. forms in *-anqm* in the text of 68.12; in that case, the reading *vāstriiāuuarəzi* in Y 23.3 can be accepted, being the loc.sg. of a root noun *vāstriiāuuarəz-* (as per Kellens 1974a: 68).

• The verbal adj. *frita-* ‘joyful’ (also *hūāfrita-* Yt 5.130 ‘having a good blessing’) and the corresponding abstract *friti-* ‘satisfaction’ (*āfriti-* ‘blessing; curse’, *usəfriti-* ‘consecration’, *ratufriti-* ‘satisfaction of the ratu’) are derived from the verb *frī-* < **priH-* ‘to satisfy’, compare Skt. *prītá-* and Skt. *prīti-*; yet

²⁴⁹ This is connected with Skt. *hasṛá-* ‘girl, whore’, which is derived from the root *has-* ‘to laugh’. For Av. *jahī-*, this suggests Ilr. **^has-iH-*.

they are only attested with a short first vowel *frit*^o. As we have no reason to assume phonetic shortening of **ī* in this position (e.g. *tarōidīti-*, *frīna-*), we must assume an analogical origin of the shortening of **ī*. As a possible model, I can only suggest the adj. *friia-* ‘dear’ (Skt. *priyá-*), which is quite frequent already in OAv. In *friia-*, the sequence **priHá-* did not yield *-ī-* because **iH-* occurred in hiatus. It must be pointed out that the forms *°frita-* and *°friti-* only occur in the liturgical parts of Yasna, Vīdēvdād and Vīspere; these are more recent text parts than e.g. the Yašt, which makes it possible that these compounds were created in Avestan and do not directly continue Ir. forms. The adj. *friθa-* ‘beloved’ is also only attested in religious contexts, mostly in combination with *xšnūta-* and *paiti.zaṇta-*, or following *friia-*. *Friθa-* may also be an Iranian formation, since there is no exact Skt. counterpart (cf. EWAia II: 182).

- The present stem *is-* ‘to be able’ (ind. *isē*, *ište*, subj. *isāi*, *isāmaidē*, opt. *isaēta*, ptc.med. *isāna*) corresponds to Skt. *īśe*; they go back to a middle perfect Ir. **HiHić-*, to PIE *h₂eik-* ‘to be able’. Since initial position does not usually cause phonetic shortening, and since *is-* is a frequent verb so that occasional corruptions also disqualify as an explanation, the short vowel of the Avestan forms will have been introduced analogically after the nominal forms in *is-*, e.g. Y *isuuān-* ‘ruler’ < **h₂ik̄-uen-*.

- *irimant-* (V 14.6) ‘full of dirt’ is never attested with *iri*^o; this may be ascribed to the tendency to generalize the grapheme *iri*^o. The adj. must derive via haplology from **rīmauant-* or **rīmumant-* (to PIr. **rīma-* ‘dirt’ as in MoP *rīm*). The actual form in V 14.6 is a gen.pl., edited by Geldner as *irimaitinqm*, of which Praust 2000b: 21 has rightly argued that it must be a corruption: *irimaitinqm* would be the gen.pl. of a f. adj. **irimaitī-*, but the form actually refers to the m. noun *maṇa-*. Praust regards the reading *irimatanq̄m* of Jp1 (also *°anq̄m* in Mf2) as more original, but in view of the fact that the gen.pl. of an adj. in *-mant-* should be †*irimatq̄m* or at the most †*irimantq̄m*, it seems that even the reading of the IrVS is not original. The cause of the corruption clearly lies in the form *əṛəṇaitinqm* in the preceding line:

*baēuuarə maxšinqm əṛəṇaitinqm auua.janiiāṭ, baēuuarə maṇanq̄m
irīmatq̄m ... aipi.kaniiāṭ ‘10,000 horrible flies he must strike, 10,000 holes full of dirt he must cover up by digging’.

For a few forms, the explanation of *-i-* for **ī* is uncertain:

- Y 35.3 *mainimadicā* and *varəzimācā*, 1p. opt.aor. of *man-* ‘to think’ and *varəz-* ‘to work’, Ir. **man-iH-madi* and **(H)uar̄j-iH-ma*. These two forms are explained by Kellens-Pirart 1988-91 I: 63 from a shortening of **ī* in front of medial *-m-* except when preceded by **u*. As these forms are the only examples of such a shortening, and since they occur in the same sentence, a

different explanation may be sought. Beekes (1988: 43) ascribes the shortening to *-cā*, i.e. shortening in a penultimate syllable when *-cā* is affixed to a form. This would only work for *varəzimācā*, however.

• *vaozirəm*²⁵⁰ (Yt 19.69), 3p. pf.opt.med. **ua-uz-ī-ram* to *vaz-* ‘to carry’. Avestan *-rəm* is the regular reflex of the IIr. ending **-ram*, as Kümmel 1996: 7 has convincingly argued.

§ 6.6 Uncertain etymology

A number of words has *-i-* in open initial or possibly initial syllable, viz. *irina* ‘?’ (Y 19.17), *isu-* (V 9.6ff.) ‘icy, frosty’, *θriuuata-* (V 7.59), *θrima-* (Y, V) ‘food’, *disu-* (V) name of a night creature, *driβi-* (V) ‘spot, stain’, *driβika-* (V) ‘weeping’, *pairī.ciθtū* and *aipī.ciθtū* (Y 29.4), *piθana* (Yt 9.1; maybe **paθana*), *piθā* (Y 53.6), *minu-* (Yt) ‘necklace’, *nauua.pixa-* (V 9.14) ‘with nine knots’ (possibly to IIr. **pik-* ‘to turn; pinch’, MoP *pič*; cf. De Vaan 2000d), *riθ-* ‘to mingle, stick to; to die’ (prs. *iriθiia-*), *sicidauuasca* (Yt 19.5), *sima-* ‘horrible’ vel sim. (Y 9.30), *stipi-* (Yt 13.123), *hikarana-* (V 14.7) ‘round’, *vīspā.hišas* (Y 45.4, Yt 1.8).

The adj. *ainita-* ‘unharméd’ in Yt 13 *xšnūta- ainita- aṭbišta-* ‘satisfied, unharméd, not antagonized’, and the abstract *ainiti-* (Y 58.4, P 26, F 322) ‘harmlessness’, ‘uninimical posture’ are both derived from **an-īta-* ‘unharméd’ by Kuiper 1959: 137ff., who connects Skt. *ūti-* f. ‘distress’. Yet the *ī* of Skt. is unexplained, and it remains conceivable that *ainiti-* contains an original short vowel.

The present *izīia-* (Y) ‘to desire, be eager for’ is matched semantically by Skt. *īhate*. We could adopt Klingenschmitt’s reconstruction (1971: 163) **Hi-Hj^h-* (my notation), or alternatively **Hi-Hi^h-* as per EWAia I: 273; in both cases, we would have to assume an unusual shortening of **ī-* in Avestan. Since the other two reduplicated presents in *-iia-* take the vowel **a* in the reduplication (viz. *yaēšīia-* and *rārəšīia-*, see Kellens 1984: 194), one might expect reduplication to yield **Hia-H(i)^h-*. Therefore, Avestan *izīia-* may be a simple *-iia-*-present **Hi^h-īa-* with zero-grade of the root.

The stem *hiku-* ‘dry’ has no cognates outside Avestan; probably, it did not even exist in Avestan, but arose later in the transmission due to certain

²⁵⁰ V.II. *vaozirəm* F1+, M12 · *vaožairəm* J10, *vaojairəm* D · *vaozarəm* K12.

errors²⁵¹. The Vīdēvdād forms which have been assumed to contain *hiku-* (V 8.38, 9.30, 16.2 *hiku*) may be corrected to ⁺*hišku-* on the basis of the v.ll²⁵². For the acc.pl.m. *hikūš* (Y 62.10 = V 18.27), we may assume that -š- accidentally got lost from the original form **hiškūš*; compare also Lubotsky 1999.

In several forms, we find *vī-* or *-uuī-* in open syllable; although the etymology is unknown, these words do not contradict the lengthening of **i* after labials:

• *əuuītō.xarəḍa-* (Y 10.15). The modern translations of this compound, a negative qualification of the gen.sg. *janiiaoš* ‘female’ (⁺*janiīōiš* acc. to Bartholomae 1904: 604), are mainly based on the Skt. translation *paribhraṣṭabuddhīnām* ‘with impaired intellect’, since the PTr. leaves the word untranslated. This may indicate that Neriosangh, the Sanskrit translator, had to invent a translation by himself. It is probably based on a comparison with MP *xraδ* ‘wisdom’, cf. Schwartz 1989: 114.

Bartholomae’s correction of Geldner’s *xarəḍaiiā* to ⁺*xraḍaiiā*, the reading found in J2 and K5b, has been rightly rejected by Kellens 1974a: 93f. on philological grounds. He has made it clear that we must accept the form *əuuītō.xarəḍa-*. Schwartz 1989: 114 connects *xarəḍa-* with Middle- and Modern-Iranian forms pointing to **xarəḍa-* ‘excrement’ (cf. Morgenstierne 1927: 97 Pashto *xər* ‘muddy’, Benzing 1983: 518 Khwar. *pcxrδ* ‘shit, excrement’). He translates *əuuīta-* as ‘endowed with, characterized by’, deriving it from **auui-ita-* ‘approached’ to *auui-i-* ‘to approach’, thus arriving at *əuuītō.xarəḍa-* ‘filthy, dirty’.

This solution leaves the semantics of the compound unexplained. Must we translate ‘having approached filth’, or ‘who have approached the filth’ vel sim.? An alternative solution is a connection with *vīti-* ‘departure, separation’, Skt. *vīti-*. The form *əuuītō* could be a negated **a-ūīta-* ‘not separated’, and **a-ūīta-xarəḍa-* accordingly ‘whose dirt is unseparated’. Whether *əuuītō* is derived from **auui-i-* or from **a-vi-i-*, both solutions would imply IIr. **-ī-*.

²⁵¹ Cf. Tremblay 1999: 301; this removes an awkward form from the PIE cognates meaning ‘dry’, and we can now manage with two forms: one is the family of Skt. *śuška-*, Av. *huška-*, Slav. **suxə* etc. < PIE **(H)sus-*, the other is Av. *hišku-*, together with OIr. *sesc* ‘dry’, W. *hysp* and Greek *iskhnós* < PIE **sisk^w-*.

²⁵² V 8.38 *hiše* corr. to *hišū* in K1, *hišū* B1.M13, *hušō* Pt2 · *hiku* Jp1, *hiku* corr. to *hišku* Mf2 · *hušō* B2.O2 (*i* above *u*), *hišō* L1.2.3. V 9.30 *hušō* L4.K1 · *hiku* Jp1.Mf2 · *hišō* L1.2.Br1.K10.Dh1.M2. V 16.2 *hiku* K1, *hiku* p.m., *hišku* s.m. L4, *hišku* Pt2 · *hišku* Jp1.Mf2 · *hišku* L1.2.Br1.K10.

- *x^vitāasca* (Yt 4.1), acc.pl. of a noun *x^vitah-* n. or *x^vitā-* f.
- *x^vitāahe* (Yt 9.30²⁵³), gen.sg. The reading of the first letter is uncertain, as Geldner indicates in his edition. The Iranian mss. and Pt1 may rather point to **cīd/tahe* or **jūt/dahe*; a corruption from *c* { *ϣ* } to *x^v* { *ϣ* } in F1 would merely require one more curve to a *c*.
- *vīuuārəšuuā-*²⁵⁴ (Yt 13.122) PN. Bartholomae's correction to *vi^o* is unwarranted. The context does not yield enough information to etymologize the word, but the structure of the form suggests that *vi-* is the reduplication syllable of a stem in *v-*, which would assign the word to the category discussed in § 6.2.1 above.
- *vīθušā-* '??' (V 1.5).
- *vīzu-*, animal name. Both **vīzu-* and **vīzu-* would have yielded *vīzu-*.
- The loc.pl. form *vīcīcāēšuuā*²⁵⁵ (V 6.51, 8.10) 'chalk, gypsum' (?; thus Bartholomae 1904: 1437) is of a stem *vīcīca-*; the IrVS points to *vīcīca-*, the PV and InVS to *vīcīca-*.
- The quantity of *ī* is uncertain in the case of the PN Yt 15.45 *vīdaka-*²⁵⁶; the original form may be *vidaka-* (as attested in F1 and J10) or even **viṇdaka-* (K16 *vandaka-*).
- With *vi-* or *-uu-* in open syllable, we find the following unclear forms: Yt 15.54 *anāxruuiḍa.dōiθre*²⁵⁷, Yt 2.14 *satə.vita* and *utə.vita*, V 19.6 *zāuuīši*²⁵⁸.

Two forms in *-ī-* other than after a labial glide also have an uncertain etymology:

- *auuēmīrā* (Y 49.10). It is uncertain how this form is to be edited: *auuēm īrā*, *auuē mīrā* or *auuēmīrā*? The best mss. split into *auuē. mīra*. Several solutions have been offered, among which are **auuēm īra* 'may I reach that one' (Werba 1986: 358-60), **auuā mīra* 'who moves down' (to Skt. *mīvati*,

²⁵³ V.II. *x^vitāahe* F1.E1 · *cīṭ.ahe* Pt1.O3 · *zitahe.x^vitāahe* J10, *citahe* M12 · *zīdahe* K12 · *jitahe* K37.

²⁵⁴ V.II.: *vi^o* F1+ · *vīḍ^o* J10 · *vī^o* Mf3.K13.14.38.H5.

²⁵⁵ V.II. 6.51 *vīcīc^o* K1.Pt2 · *vīcācīcīšuuā* Jp1, *vīcīcāēšuuā* Mf2 · *vīcīc^o* L1.2.K10. If the spelling of Mf2 is not a printing error in Geldner's edition, it points to earlier **vīcīcācīcīšuuā*, a form that may lie at the basis of the metathesized form in Jp1 as well.

²⁵⁶ V.II. *vidakə* F1.E1, *vīdakə* Pt1, *vaṇdakə* K16 · *vidake* J10.

²⁵⁷ V.II. *anāxruuiḍa* F1.E1.Pt1 · *anāxrauuade* J10, *ana.xarauuiḍe* K40.

²⁵⁸ V.II. *zāuuīši* L4, *zāuuīši* K1 · *zāuuīše* Jp1, *zāuuīši* Mf2 · *zāuuīš* L1.2.Br1.K10, *zāuuīša* M2.Dh1.

Pirart 1985: 205), or **auuah.mīra*, with *auuah-* ‘help’, and **auuām.īra* with **auam*, inf. of *av-* ‘to help’ (Bartholomae 1904: 179-80). None of them is convincing.

- *nīre* (Y 10.17) occurs in the sentence *mā tē nīre zāmi paiti*. The best proposals which have been made so far assume a present *nīra* < **nī-īra-*, to *ar-*. Benveniste 1935: 58 translates "puissé-je ne pas te laisser tomber à terre", which is obviously the meaning of the passage, whereas Kellens 1984: 233 merely conjectures "(*nīrān?*)", a 3p. inj. form.

Finally, we find a few forms with uncertain spelling as to *-i-* or *-ī-* in the archetype:

- The form edited as *ašire*²⁵⁹ (V 20.9, 21.18, 22.21), and analyzed as an acc.pl. of *ašir(ii)a-* is always spelled °*īre* in the IrVS, and also sometimes in the InVS. Therefore, the original reading may have been **ašīre*. In that case, we could support the etymology which Cantera 1999: 48 has proposed for *ašir(ii)a-*, viz. **a-xšīra-* ‘not breastfeeding’, which would contain PIr. **xšīra-* ‘milk’ (EWAia I: 433). Note, however, that the loss of *-x-* would remain unexplained.
- For V *īzaēna*-²⁶⁰ ‘made of leather’, Thieme 1953: 578 has suggested that the basis of *iz-aēna-* represents the zero-grade of PIE **aiǵ-* ‘goat’; this seems far-fetched. The mss. strike even between *izaēna-* and *īzaēna-*.
- Y 44.20 *mīzān*²⁶¹ (meaning disputed) was edited as *mīzān* by Geldner and all subsequent scholars, but the spelling *ī* only prevails in the YS and the SY, whereas the IrPY, InPY and IrVS have *mizān*. It is therefore uncertain whether this form represents **mi-n-j-ant* ‘they take care of’ > *mīzān* (Kellens 1984: 233), or rather **miǵ-ant* > *mizān*.

²⁵⁹ V.ll. 20.9 *išire* L4.K1 · *ašīre* Jp1.Mf2 · *ašire* L2.Br1.K10.M2.O2, *išire* B2; 21.18 *ašire* L4.K1 · *ašīre* Mf2, *ašīri* Jp1 · *ašire* L1, *ašīre* L2.M2.O2.Br1; 22.21 *ašire* K1 · *ašīre* Mf2, *ašūiri* Jp1 · *ašire* L1, *ašīre* L2.Br1.

²⁶⁰ V.ll. V 7.14 *iz°* Pt2.L4a, *ij°* K1 · *īzāiniš* Jp1.Mf2 · *iz°* L1.2.Br1.M2; V 8.23 all mss. *izaēnām*; 8.24 *īz°* Pt2.P10.P2, *vaēnām* K1 (v above the line) · *iz°* Mf2 p.m., *īz°* Mf2 s.m., *iz°* Jp1 · *īzaēnām* L1.2.Br1.B2; 8.25 *īz°* Pt2.P10, *iz°* K1 · *iz°* Mf2.Jp1 · *īz°* L1.2.Br1.M2.

²⁶¹ V.ll. *mizān* Mf1, *mazān* Pt4.Mf4 · *mizān* J2, *mizān* K5 · *mīzān* S1.J4, *mī...* J3 · *mazān* Mf2.Jp1, *mizān* K4 · *mizān* L2, *mizān* O2, *mizdān* Dh1.M11.L3, *mīzānā* S2 · *mīzān* J6.7.H1.C1.L13.

• Y 43.12,14 ²⁶² **uzirəidiīāi* ‘to rise’ is a middle inf. in **-d^hiāi* of the root *ar-* ‘to put in motion’, with the preverb *uz-*. Geldner edited the two attestations as *uzəradīiāi* and *uzəradīiāi* respectively; Bartholomae (1904: 183) corrected them to *uzirəidiīāi*, which is now the accepted spelling. We may accept this for the archetype, even if the PY mostly spells *°ərəi°*: this will be a ‘learned’ interpretation of the grapheme sequence *°irəi°* by the PY scribes. In the metre, *uzirəidiīāi* occupies four syllables, which suggested to Beekes (1988: 3,196, also 1999: 69) an analysis */uz iʔrɔyāi/*, i.e. an athematic reduplicated present **Hi-Hr-* (Skt. *íyarti, írte*) with retained disyllabic reduplication. This is conspicuous in view of the fact that the remaining reduplicated forms of *ar-* are thematic (OAv. ipv. *īratū*, with monosyllabic *ī-*; YAv. *īra-*), but of course it cannot be excluded that *uzirəidiīāi* retains an archaism. Another problem is the absence of a spelling *°īrəidiīāi* in all mss. In view of the usual retention of *ī*, this is quite unexpected.

§ 6.7 Summary

The investigation presented in this section confirms that IIr. **i* and **ī* have preserved their quantity in the majority of cases in Avestan. I will now give a survey of the changes which have occurred:

1. **i* > *ī* in open initial syllable:

The position in open initial syllable is a necessary, but by no means sufficient condition for lengthening. In the majority of cases, **i* remains short even in open initial syllable; the only exceptions are the reduplicated forms and several others.

²⁶² V.ll. 43.12 *uziridiīāi* Mf1, *uzarəi°* Pt4.Mf4 · *uzəradīiā* J2, *uzəradīiā* K5 · *uzirei°* S1, *uzirəi°* J3 · *uzirəi°* Mf2.Jp1.K4 · *uzirəi°* B1.L1.2, *uzirei°* S1, *uziri°* Bb1, *uzərai°* S2 · *uzirəi°* J6.H1, *uzair°* C1. V.ll. Y 43.14 *uzirəidiīāi* Mf1, *uzəradīiāi* Pt4.Mf4 · *uzirəi°* K5, *uzairi°* J2 · *uzire°* S1, *uzirəi°* J3 · *uzirəi°* K4.Jp1, *uzirie°* Mf2 · *uzirə°* S2.Dh1, *uzirəi°* B2.L1.2, *uzire°* Bb1, *uzairi°* O2 · *uzirə°* J6.H1.L13, *uzairə°* K11, *uzair°* C1.

1a. In reduplication:

Certain (OAv.)	Certain (YAv.)	Uncertain:
<i>jīgərəzat</i>	<i>zīzana-</i>	<i>čičīθβā</i> (OAv.)
<i>jījīša-</i>	<i>airīricinəm</i>	<i>jījījīša-</i> (YAv.)
<i>dīdaijḥē</i>	<i>irīrixšāite</i>	
<i>dīdarəšatā</i>	<i>irīriθuš-</i>	
<i>dīdarəžō</i>	<i>irīri' / ʒāna-</i>	
<i>framīmadā</i>	<i>irīriθarə</i>	
<i>hīšasaṭ</i>		

A discussion of the reduplicated forms has already been given in § 6.2.1 above. It was concluded that the certain YAv. forms are *zīzana-*, for which an Ilr. origin of *-ī-* is not impossible, and the forms of the roots *ric-* and *riθ-*, which may have acquired an anlaut **Hr-* in Ilr. The certain cases of lengthening in OAv. are the forms *jīg°*, *jīj°*, *dīd°*, *mīm°* and *hīš°*, which are best explained from a recent, especially OAv. lengthening of a short vowel in open initial syllable.

1b. In other initial syllables:

In open syllable (all YAv. except *sīša-*)

Certain:

<i>daēuuō.γnīta</i>	<i>zaraniīō.pīsō</i>	<i>sīša-</i>
<i>nisrīta-</i>	<i>*zaraniīō.pīsi</i>	
<i>vīspō.pīsa</i>	<i>pīsa-</i>	

In closed syllable:

nīsta

In front of **-u(i)j-*:

Certain:

<i>drīuuīiāsca</i>	<i>ādīuuīieīntī</i>
<i>drīuuīmca</i>	<i>jūuuīiqm</i>

Uncertain:

The lengthening in open syllable and others has a sporadic character in YAv. and OAv. It is conceivable that this lengthening is due to the same articulatory tendency as the lengthening in the OAv. reduplication syllables. The forms with **i* in front of **-uī-* may be just a subgroup of the other forms, or they must be connected with the lengthening of **a* in front of **-uīa-*.

2. *i > ī after a labial glide

2a. After v

Certain:

<i>ašəmnō.vīdō</i>	<i>vīθuša-</i>	<i>vīdqm</i>	<i>vīs-</i>
<i>vīθiši</i>	<i>vīθušauuaṇt-</i>	<i>vīdant-</i>	<i>vīsīia-</i>
<i>vīdūiē</i>	<i>vīda-</i>	<i>vīfiia-</i>	<i>vīspaiti-</i>
<i>vīdīiāṭ</i>	<i>vīda-</i>	<i>vīnastī</i>	<i>vīšānō</i>
<i>vīduuanōi</i>	<i>vōiūiūdāitī</i>	<i>vīūuarəša-</i>	<i>vīš</i>
<i>vīdarə</i>	<i>vīdāṭ</i>	<i>vīūuəṅgha-</i>	<i>vīša-</i>
<i>vīduuāh/vīduš-</i>	<i>vīdāitī</i>	<i>vīspa-</i>	<i>vīšauuaṇt-</i>
<i>vīduuāh-/vīduš-/vīθuš-/vīθušt-</i>		<i>vīsa-</i>	<i>vī</i> ‘apart’

2b. After uu

Certain:

<i>āuuišīia-</i>	<i>^xuruuizō.maiδīia-</i>	<i>cəuuišī</i>	<i>frauudīuūidē</i>
<i>əuuiδuuah-</i>	<i>zaraniīō.uruūixšna-</i>	<i>təuuišī-</i>	<i>⁺niūuizaiti</i>
<i>əuuišəmnna-</i>	<i>⁺kasuuīka-</i>	<i>diduuišma</i>	<i>vī.uruuišīti-</i>
<i>uruuīnaitīš</i>	<i>kəuuiāt-</i>	<i>parō.kəuuiδəm</i>	<i>səuuišīta-</i>
<i>⁺uruuišīia-</i>	<i>xruuišīiaṇt-</i>	<i>⁺frauūīnuiiāt</i>	<i>zəuuišītiia-</i>
<i>uruuīsarəm</i>	<i>xšuuīd-</i>		

2c. After x^v-

Certain:

<i>x^vīti-</i>	<i>x^vīsa-</i>
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2d. After -ḡ^h-

Certain:

<i>vaḡ^hhīnqm</i>	<i>vaḡ^hhībiiō</i>
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Phonetically, this development may first of all be connected with the change of word-final *-i to -ī after uu which we will see in § 7.1. Furthermore, the (irregular) lengthening of *a > -ā- after labial glides such as v-, -uu- and x^v- (§ 3.2) shows that *i was not the only vowel to be influenced in quantity by a preceding *u.

The lengthening of *ui may also be compared with the lengthening of *u > ū after y/ii (see § 10.2.3), which seems the inverse parallel. Both the lengthening of *ui and that of *iu occur in open syllables without significant exceptions, and both are not restricted to the initial syllable like so many other vowel changes.

Chronologically, the forms *vaj^hhīnqm* and *vaj^hhībiiō* suggest that lengthening took place after YAv. had ceased to be spoken, since the endings *-inqm* and *-ibiiō* have not been restored.

3. **i* > *ī* in front of a sibilant

3a. -*īžC-*:

Certain:

⁺*tīžiiaršti-*

mīžda-

mīždauuant-

vīžibiiō

vīžuuanca

sīždiia-

sīždra-

snaiθīžbiia

Uncertain:

cīždī

3b. -*īštī-*, -*īšč-*:

Certain/probable:

asīštiš

īštišca

īštīm

^x*tīstiuuant-*

īštā

mīšti

aiθīščīt

Contrary to the preceding phenomena, the present lengthening occurs mostly in a closed syllable; also, it is not restricted to the initial syllable of the word. Therefore, the phonetic cause of **ižC* > *-īžd-* and **išt/išč* > *-īšt/īšč-* is probably lengthening of **i* in front of tautosyllabic *ž* or *š*.

Chronologically, the forms could be of different age. The form *mīžda-* seems to correspond to Skt. *mīdhá-* < **mīžd^ha-*, whereas the lengthening in *tīžiiaršti-* must at least post-date the RCS (because we also have *tīži.aršti-*), and might even post-date the archetype. The form *snaiθīžbiia* has not restored the short suffix vowel of the stem *snaiθiš-*, so that the lengthening will probably post-date the period of the living YAv. language. In general, we will be on the safe side assuming that the lengthening took place after the RCS (which was post-YAv.) but before the archetype.

3c. -*īš-*, -*īž-* in open syllable:

Certain:

sīša-

īšəm

īšō

īšō

īšā.xšaθriia-

ašō.īšō

īžiiia-

īžā-

īžiiō.tara-

θrīšuuu

This group of forms is best compared with (1b) above, viz. *pīsa-* and other forms with lengthening of **i* in front of intervocalic *s*. It seems that the dental

sibilants (*s*, *z*, *š*, *ž*) were more liable to lengthen a preceding vowel **i* than other consonants were.

4. **-it̄ > -īṭ* and **-iš̄ > -īš̄* in OAv. monosyllables

Certain:

$\bar{i}\check{t}$	<i>dəjīṭ.arəta-</i>
$^{\circ}c\bar{i}\check{t}$	<i>nīš̄</i>

The artificial character of these lengthenings makes them irrelevant for phonetic interpretation or chronology.

5. **-īu- > -iuu-*

Certain:

<i>aiua.miuuāmahi</i>	<i>piuuah-</i>
<i>āfriuuacah-</i>	<i>bīβiuuah-</i>
<i>āfriuuana-</i>	

Probable:

<i>ascuua-</i>
<i>cuuant-</i>
<i>juua-</i>

Phonetically, this shortening is the inverse parallel of the shortening **ūi > uī*, for which see § 10.4. It is not certain whether both shortenings took place during the time of the living YAv. language or afterwards. The forms *ascuua-*, *cuuant-* and *juua-* have even lost **ī*. The presence of *-īuu-* in front of *-ii-* (*jīuuīia-*, *drīuuīiāśca*) suggests the following relative chronology:

1. Shortening of **-īu- > *-iu-*.
2. **ciū-*, **jiū-* > *cuū-*, *juū-*, except when *-iī-* followed.
3. a. **i > ī / _uī-* in initial syllable.
b. **i > ī / #u_-*.

§ 7 The endings *-i* and *-ī*

III. **-i* and **-iH* always yield *-ī* in OAv., whereas in YAv. they are subject to the rule that polysyllables get a short vowel *-i*. In YAv. monosyllables, we regularly find a long final vowel: *nī* ‘down’, *zī* ‘because’. For the forms in **-i(H)* followed by *-cā* or *-cīt*, see § 5.3.4. The present section deals with two groups of YAv. exceptions to the rule: forms in which *-ī* is found after a cluster *-Cuu-*, and other, sporadic cases of *-ī* in polysyllables.

§ 7.1 YAv. **-Cuii* > *-Cuiī*

A final sequence **-Cuii* yields YAv. *-Cuiī*, both in polysyllables (*arəduuī* and *tauruuī*) and in words which may at a recent stage have been regarded as monosyllables (*stuuī*, *xruuī*). The lengthening must be dated between the RCS and the rise of the archetype. Forms in **-Vui* preserve the short vowel (e.g. *auui*, *əṛəṇāuui*, *daēuui*); lengthening only occurs in forms in **-Cuiī* (e.g. *stuuī* < **stuHi*) and **-Cui* (e.g. *uruuī* < **urui*). This implies that the articulatory change of **u* > [u], which caused the merger of **-Cuiī* and **-Cui*, probably predates the lengthening of **-i* in these forms. Thus, the apparent parallel with the lengthening of **i* > *ī* after *v-*, *x^v-*, *uu*, and *ḡ^h* in open syllables (see § 6.2.3) may be only imaginary. We might rather ascribe the pronunciation *-ī* to the wish to preserve the vocalic character of **-i* unambiguously; in this way, it may be compared to the development of **u* > *ūi* under *i*-epenthesis, which may be due to a tendency to disambiguate [u] (see § 10.5).

The complete evidence comprises the simplexes *arəduuī*, *xštuuī*, ⁺*tauruuī*, and *səuuī*, and the compounds *uruuī.sara-*, ^x*uruuī.xaoḍa-*, ^x*uruuī.vəṛəḍra-*, *xruuī.dru-*, *stuuī.manoḍrī-* and *sruuī.sti-*:

- The nom.voc.sg. *arəduuī* (Y 65.4, V 7.16, Yt 5 passim, Yt 12.24, Ny 1.19) ‘Ardvī’ is always spelled with *-ī*.
- The adj. **uruuī*, traditionally translated as ‘pointed’, occurs as the first member of three compounds, viz. Yt 9.30 *uruuī.xaoḍō* (no v.ll.) ‘with a pointed helmet’, *uruuī.vəṛəḍrō* (no v.ll.) ‘with a pointed shield’ and V 13.2ff. *uruuīsar(a)*²⁶³ ‘with a pointed head’ (referring to a hedgehog). The spelling *uruuī*° in Yt 9.30 seems irregular, but the sequence **uruuī-* is especially prone to replacement by *uruuī-* in the Yašts, see below.

²⁶³ V.ll. 13.2 *uruuī*° L4, *uruuī* K1 · *uruuī*° Jp1.Mf2; 13.3 *uruuī*° L4.K1 · *uruuī*° Mf2.Jp1; 13.4 *uruuī*° L4.K1 · *uruuī*° Jp1.Mf2.

The translation ‘pointed’ for *uruui-* was suggested by Bartholomae 1904: 1546 on the basis of the Pahlavī translation ‘having a pointed mouth’ to V 13 *uruuīsarəm*, but this is just one of the possible translations in the context: *spānəm sīždrəm uruuīsarəm yim vaṇhāparəm* ‘the shy, *uruuī.sar(a)* dog, the hedgehog’. The connection of the element *sar(a)-* with Av. *°sāra-* ‘head’ is uncertain; alternatively, one might connect e.g. Skt. *śárman-* ‘protection’, in which case it is tempting to regard *uruui-* as a form of *vouru* ‘broad’: *uruuī.sar(a)-* ‘which has a broad protection’ would be perfect for a hedgehog. For the two compounds *uruui.xaoða-* and *uruui.vərəθra-*, a translation of *uruui-* as ‘broad’ also seems possible. For instance, ‘having a broad shield’ would make very good sense for *uruui.vərəθra-*. Of course, the usual form of the adj. is Av. *vouru-* < **HurHu-* (also in compounds). The form *uruui-* < **HurHuī-* may have been formed analogically on the model of e.g. *xruui-* (see below) and *stuui-* (see below). The retention of *vouru-* in cpd. such as *vouru.kaša-* ‘having wide bays’ and *vouru.gaoiiaoiti-* ‘having wide pastures’ casts doubts on this explanation of *uruui-*, but in any case it seems a better hypothesis than the translation ‘pointed’.

- The stem *xruui.dru-* ‘having a bloody wooden weapon’²⁶⁴ < **kruHi-dru-* usually surfaces as *xruuī(.)dru-*. In all the different Avesta books, some of the Indian mss. have added an *-m* to the first member *xruuī°*, e.g. in the Yasna the InVS and the YS, and in the Vīdēvdād the PV. The Yašt ms. F1 often has *xruui* instead of *xruuī*, e.g. in Y 57.32. The relevant forms are the nom.sg. *xruuī.druxš* (Yt 19.95²⁶⁵), the acc.sg. *xruuī.drūm* (Yt 18.2, Yt 19.46, V 10.13, V 19.43), the gen.sg. *xruuī.draoš* (Y 27.1, Y 57.32, Yt 11.15, Yt 13.138, V 9.13, V 10.16) and the loc.sg. *xruuī.druuō* (Y 10.8, *x*Yt 17.5²⁶⁶).
- V 11.9ff. *xruuiγnī-*²⁶⁷, name of a female daēva. There are only few v.ll. *xruuī°*, but this will be due to the aberrant forms in the IrVS, which is usually the branch with the best transmission in the Vīdēvdād. We may thus restore *†xruuī.γnī-*.

²⁶⁴ Hintze’s explanation (1994: 246-7) of *xruui-dru-* as ‘der einen grausamen Lauf hat’, with a root noun from the root *dru(H)-* ‘to run’, is contradicted by the inflexion of *dru-*: gen.sg. **drauš*, loc.sg. **drau*.

²⁶⁵ A trace of long *xruuī°* may be preserved in J10.D *xrauuāē°*.

²⁶⁶ V.ll. *xruuī°* F1.Pt1.E1 · *xruuō*. *yā*. *druuō* J10. The reading of J10 points to **-ī-*, since *ī* and *ē* often alternate in the mss.

²⁶⁷ V.ll. 11.9 *xruuī°* K1a etc., *xruuī°* L4 · *x^viγne* Jp1.Mf2 · *xrūi°* L2.K10, *xruuī°* Br1.B2. V 11.12 *xruuī°* B1.M13.L4 · *x^viγnu* Mf2.Jp1 · *xrūi°* L1.2, *xrūi°* Br1.B2. V 11.15 no v.ll.

- V 14.9 *xštūuī*²⁶⁸ ‘sixth’, nom.sg.f. of *xštūua-*.
- V 19.43 ⁺*tauruuī*, name of a *daēuua*. The word probably corresponds to the RV PN *Tūrvi-* ‘master, dominant’, suggesting a formation **trh₂-u-i-* to the root **trh₂-u-* also attested in Av. *tauruua-* ‘to overcome’. In V 10.10, where Geldner edits *paiti.pərəne tauru paiti.pərəne zairica* ‘to attack *T.*, and to attack *Zairi*’, Bartholomae is essentially right in his correction to *tauruui*, but here too I prefer to read ⁺*tauruuī* with the IrVS²⁶⁹.
- Yt 9.30 *stuuī*.⁺*manaoθrī-* ‘with a strong neck’ has *stuuī* < **stuHi* ‘strong’ as a first member. The same adj. is attested in Yt 14.12 *stuuī.kaofō*²⁷⁰ ‘with a strong lump’, where no v.ll. *stuuī* are found; however, the word is absent from the IrKA mss. K36.37.38. As we have seen before, the IrKA mss. often preserve the distinction between *i* and *ī* of the archetype better than e.g. F1.
- Yt 10.129 gen.pl. *sruuī.staiiqm* ‘with barbs made of lead’ occurs in a description of arrows: *hazaṛrəm išunqm kahrkāsō.parnanqm zaraniio.zafrqm sruuī.staiiqm* ‘a thousand arrows, vulture-feathered, golden-mouthed, *sruuī.sti-*’. Bartholomae 1904: 1650 and Gershevitch 1959: 280f. assume that *sruuī* represents the nom.du. of *srū-* ‘horn’, identical to the acc.dual *sruuī* attested in the Vīdēvdād. However, the use of an inflected dual would seem very strange in a determinative or possessive compound. As we now know, a form **sruui* would have become *sruuī* by phonetic development, so that there are at least two possibilities for an etymology: Ir. **ćruHi* ‘made of horn’ (cf. Av. *srū-* ‘nail, horn’, *sruuaēna-* ‘made of horn’) or Ir. **ćruHi* ‘made of lead’ (cf. Av. *sruua-* ‘lead’, *sruuō.zana-* ‘with a leaden chin’).

The choice will depend on the interpretation of the sentence *asti yā aṇhaēna sparəḡa*, which follows the word *sruuī.staiiqm*, and is commonly seen as a later gloss. With e.g. Geldner 1886-96 II: 153 and Bartholomae 1904: 156, I assume that we may restore ^x*aiiaṇhaēna* ‘made of metal’²⁷¹. If

²⁶⁸ V.ll. *xštūui* L4, *xštūue* K1 · *xštūuī* Mf2.Jp1 · *xštūui* L1.2.Br1.

²⁶⁹ V.ll. 19.43: PV none · *tauruuī* Jp1.Mf2 · *tauruui* L1, *taōruui* L2, *taouruui* B2.Br1; 10.10 *tauru* L4.K1 · *tauruuī* Jp1.Mf2 · *tauruui* L2.K10, *tauruue* L1, *taoruua* B2.M2.O2.

²⁷⁰ V.ll. *stuuī*. F1.E1 · *stuuī*. Pt1 · *stuuī*. J10 · *stauui* M4 · *stuuī*. L11.Jm4.O3.

²⁷¹ Gershevitch assumes that *aṇhaēna-* is the adj. of appurtenance derived from PIE **os-* ‘bone’ without the element *-t-*. As Tedesco (1960: 136) points out, it seems unwise to take an Avestan gloss as solid evidence for such a form in PIE. Tedesco’s own solution is not much better, however. He starts from the v.l. *aṇhən*, which appears in J10.MI2 and K12, and reads MP *āhēn* (not *āsēn*, cf. MacKenzie 1971: 6) ‘made of iron’, MoP *āhan* ‘iron’ into it. Apart from the inacceptability of Andreas’ theory concerning the wrong vocalization of an Arsacid Avesta, a theory applied by Tedesco

asti means ‘is’ and *yā* is used as a connective relative, the line means ‘that is an iron *sparəγa*’; whatever the meaning of *sparəγa* (to Khot. *špargga*- ‘noise, twang’?), this would point in the direction of *sruuī* as ‘leaden’. *sruuī.sti*- could then refer to a leaden connective part below the arrow’s point.

- The form *səuuī* (Yt 1.15) has *-ī* in all mss. This is the nom.sg. of a name (*səuuī nqma ahmi*), which Bartholomae 1904: 1576 etymologizes as *səuuin*- ‘using’, a derivative of *sauua*- ‘use, profit’. This would yield Plr. nom.sg. **sauī*, which we expect to come out as *sauui* or *səuuī*. Unless this is due to accidental lengthening of final **-i* after *-əuu-*, this form is a real exception to the rule that **-uuī > -uuī* only after *-C-*. It might be argued that an earlier form **suuī* would have secondarily introduced *ə* into the cluster **su-*, but I have found no parallel examples of anaptyctic *ə* in *-Cuu-* (only of *a*, but even then usually not in all mss.).

Yt 17.10 *tanuui* was regarded as a loc.sg. of *tanū-* f. by Bartholomae 1904: 1707, who translates the sentence *kaḍa nō auui ājasāt nmānō.paitiš, kaḍa šāiti xpaitišāma friiā paiti tanuui* as ‘when will the house-master come home to us, when will we, to our joy (*šāiti*) experience joyful things (*friiā*) on our body?’. The second half seems a strange translation; Benveniste 1935: 27 has pointed out that *šāiti xpaiti.šāma* means ‘to enjoy in joy’, and that the second *paiti* echoes *paiti-šāma*, so that *friiā paiti tanuui* can be regarded as one syntagm ‘on [his] dear body’. I adopt this solution, but I add that it is easier to read an ins.sg. **friiā paiti tanuua* than a loc.sg. **friiāia paiti tanuui*. The reading *tanuua* is attested by the ms. K12 and indirectly by J10 *tanuua*; the reading *tanuui* of F1+ will be due to the preceding *paiti*. The phrase *kaḍa šāiti xpaitišāma friiā paiti tanuua* can now be translated as ‘when will we joyfully enjoy his dear body?’.

§ 7.2 YAv. *-ī* elsewhere

Forms in *-ī* are nearly all attested in the so-called pseudo-Gathic texts. This accounts for *astī* (in the *ašəm vohū*-prayer), *rāhī* (Y 0.5), *staomī* (Y 0.6), *paitī* (Y 42.6) and for the polysyllabic forms in *-ī* in Y 5, 8, 12, 13, 14, 15, 60.1 and Yt 1.20.

in his review, it is against our philological insights to regard *aḥən* as the lectio difficilior. It is easy to imagine a form **aḥaēna* being replaced by the frequent verbal form *aḥən*, but if *aḥən* were to be original, where would the other mss. have got *°aēna* from?

Apart from the pseudo-OAv. texts, there is a small number of YAv. polysyllables which were edited with *-ī* by Geldner. It will be shown below that it is usually possible or even necessary to assume *-i* as the original form. In the verb forms *dadəmahī*, *fraēšiiāmahi* and *vaēδaiiamahi*, the spelling *°ī* is a conscious gathicizing trait of several mss., especially in the InVS and YS mss. The reason is the frequent use of the texts in which these words occur as prayers in the liturgy.

- *ahī* (Y 9.1)²⁷² → *ahi*.
- *juuāhī* (Y 62.10)²⁷³ → *juuāhi* (Bartholomae 1904: 530).
- *daēuuī* (V 8.21), voc.sg. of *daēuuī-* f. ‘daevic’. Geldner’s *daēuuī* only appears in *daēuuī* Pt2. The reason why he edited *daēuuī* is that the mss. K1.P10 have *daēuuō*, which is grammatically incorrect, whereas the IrVS mss. Jp1 and Mf2 and also the InVS mss. L1 and L2 abbreviate the text here. Since the same syntagm *daēuui druxš* in V 18.31ff. shows regular *-i*, we can correct V 8.21 to **daēuui*. The v.ll. of *daēuui* in V 18.31ff. show the corruptions *daēuuī* and *daēuue*.
- *dadəmahī* (Y 4.1 etc.)²⁷⁴ → *dadəmahī*.
- *fraēšiiāmahī* (Y 61.1)²⁷⁵ → *fraēšiiāmahi*.
- *baraitī* (Y 62.8) → *baraiti*.
- *mastrī* (Yt 5.92) → two words *mā strī* ‘not a woman’ (Bartholomae 1904: 1609)
- *vaēδaiiamahī* (Y 4.1, 55.1, Vr 4.2 etc.) and *āuuāēδaiiamahī* (ibidem)²⁷⁶ → *(a)vaēδaiiamahi*.
- *vaṇuhī* (Yt 5.131) → **vaṇuhi*. Geldner’s *vaṇuhī* is only based on the transmission of F1 *vaṇuhī*, since he gives no v.ll. from J10. Final *-ī* may be due to the following form *arəduuī* in Yt 5.131.

²⁷² The v.l. *ahī* only in Pt4.Mf1.4.

²⁷³ V.ll. *juuāhī* Pt4.Mf1.4 · *°hī* J2, *°hi* K5 · *°hī* P11.K15 · *°hi* K4, *jauuāi* Jp1 · *°hī* J9.15.Pt1.H2.Jm4 · *°hī* K36, *°hi* Mf3, *°he* Pd · *°hi* H1.

²⁷⁴ V.l. *°mahī* in 4.1 only in YS and InVS, in Y 55.1 also in Pt4.Mf4 (but *dadmahe* Mf1) and J2 (but *dadmahe* K5).

²⁷⁵ V.ll. *°mahī* Pt4 (corr. to *°mahī*), *°mahī* Mf1.4 · *°mahī* J2.K5 · *°mahī* Jp1.K4, *°mahe* Mf2 · *°mahī* L1.2 · *°mahī* J6.7.H1.L13; 61.1 (3x) *°mahī* Mf4 · *°mahī* J2.K5 (K5 3d time *°mahē*) · *°mahī* K4.Jp1 (Jp1 *°mahē* 3d time) · *°mahī* L13.

²⁷⁶ The v.ll. *°mahī* occurs especially in the Indian mss., most of all the YS and InVS. A good example is Vr 4.2 *vaēδaiiamahi*, Vr *āuuāēδaiiamahī*, Vr 11 *dadəmahī* with the same distribution each time: *°mahī* in the InVrS and the InVS, *°mahe* in the IrVrS and IrVS and *°mahī* in the oldest ms. K7a.

§ 8 The endings *-im* and *-īm*

We may distinguish between three basic groups of forms, discussed in the following three subsections. The ending *-īm* (§ 8.1) continues PAv. **-im* (acc.sg. of m.f. *i*-stems), **-īm* (acc.sg. of m.f. *ī*-stems) and **(i)iam* (acc.sg. of m. stems in *-ia* and *-iā*, nom.acc.sg. of n. stems in *-ia* and *-iā*, acc.sg. of hysterodynamic *ī*-stems). Included are furthermore the enclitic pers.pron. acc.sg.m.f. **im*, **sim* and **dim*, the acc.sg.m, nom.acc.sg.n. **cim* ‘who’, and the nom.sg.f. **ijam*.

The ending *-im* (§ 8.2) appears in most mss. as the reflex of **-am* in the endings **-cam*, **-jam*, and in the acc.sg.m. **yam*, but we can assume these endings to have been **-cām*, **-jām*, **yām* at the time of the archetype, as is shown especially by several OAv. forms in *-cām*, *-jām* and *yām*.

Finally, the ending **-žam* has usually been retained as *-žam* in the mss.: § 8.3.

§ 8.1 **-im*, **-īm* and **(i)iam*

The ending *-īm* often interchanges with *-im* and *-am* in the mss., but taking into account the different spelling habits of the individual mss., we can usually distinguish the forms with *-īm* in the archetype. In OAv., several forms show an ending *-iiām* < **-iam*, which has resisted the change of **-iam* > **-iim*.

§ 8.1.1 Yasna, Vīspared, Vīdēvdād

The usual form of the ending is *-īm*. The variant reading *-im* is hardly attested in the mss. Replacement of *-īm* by the spellings *-ām* or *-am* is more frequent, which must be due to the fact that this is the highly frequent acc.sg. ending of the *a*-stems. Thus, *-ām* represents an analogical replacement of earlier *-īm* by the individual mss. One typical example of the ms. situation is Y 43.16 *ašim*, with the v.ll. *ašim* Mf1.Pt4 · *ašim* J2.K5 · *ašam* S1.J3 · *ašim* Mf2.Jp1, *ašām* K4 · *ašam* L1.2.3.B2 · *ašam* J6.7.H1.C1.L13.

The OAv. ending *-iiām* is attested in Y 44.12 *aiiām* ‘this’, Y 34.7, 46.7 and 58.5 *aniiām* ‘other’, Y 27.4 and 34.15 *haiθiiām* ‘real’. These forms have retained the earlier reflex **-iam* < **-iam*, which was replaced by the YAv. form *-īm* in the majority of OAv. forms, e.g. *ainīm*, *haiθīm* (5x), *mauuiθīm* and *raiθīm*. The ending *-īm* has conquered all pāda-final forms (*haiθīm*, *ainīm*), while all the forms with *-iiām* occur pāda-internally. Therefore, the mechanism behind the preservation of *-iiām* against *-īm* is the same as that

which rules the distribution of OAv. *-ām* against *-əm*, which we will discuss in § 23.1: *-ām* is preserved only but not always in pāda-internal position.

The Vīspere mss. K7a and K7b quite frequently spell *-im* (and *-əm*), which is in accordance with the fact that also the Vīdēvdād ms. L4 more often spells *-im*: the mss. K7ab were written by the same scribe who wrote the predecessor of L4-K1 and of K5 (Geldner 1886-96: VIIa). Between the Vīdēvdād mss. L4 and K1, we note the fact that K1 has *-īm* far more regularly than L4.

Some forms are consistently edited with *-im* by Geldner 1886-96. In the Yasna and Vīspere, we find *dim* (< **dim* ‘him, it’) passim, Y 42.4 *maidim* (< **maḍīam* ‘middle’) and Y 57.3, Vr 7.1²⁷⁷ *nairim* (< **nariyam* ‘manly’). Inspection of the v.ll. reveals that Geldner edited *-im* mainly because of the large number of ms. spelling *-əm* in these cases, which must be due to analogy with the more frequent acc.sg. ending *-əm*. In the Vīdēvdād, the forms in question are V 1.2 *ažimca* (< **ažim* ‘snake, dragon’), (-)*cim* (< **cim* ‘whatever’) passim, V 1.3 *maidim* and V 14.11 *zaranim* (< **zaranīam* ‘golden’) The distribution of v.ll. of most of these forms is the same as that of words with guaranteed *-īm*, and they may thus be edited with *-īm*.

§ 8.1.2 Yašts

As in the other books, the main alternation in the mss. is between original *-īm* and secondary *-əm*. The only ms. that often spells *-im* is F1, which has very peculiar spelling habits, as we can also observe in the case of the endings *-iš*, *-ūm* (cf. § 12.1.2) and *-ūš*. The total number of Yašt forms in F1 with either *-im* or *-īm* is over 850. A complete survey of the forms yields the following results in numbers of attestations (the reconstructed endings are those of the archetype):

²⁷⁷ Where Geldner edits *nairīm*, but see the v.ll.

Yašt chapters	<i>-īm</i> < * <i>-īm</i>	<i>-im</i> < * <i>-īm</i>	<i>-īm</i> < * <i>yam</i> , <i>-cam</i> , <i>-jam</i>	<i>-im</i> < * <i>yam</i> , <i>-cam</i> , <i>-jam</i>
1 to 4	35	2	3	7
5 to 9	195	20	2	18
10 to 13.42	93	23	2	43
13.43 to 19	7	339	-	54

The reflex of **-īm* is *-īm* in the majority of cases up to Yt 13.42, but the table shows that the reflex *-im* increases its relative portion bit by bit: 5 % in Yt 1-4, nearly 10 % between Yt 5 and 9, and nearly 25 % between Yt 10 and Yt 13.32. After Yt 13.42, the predilection of the ms. radically changes to *-im*, leaving only 7 attestations of *-īm* in the last part of the ms. As for the reflexes of **-cam*, **-jam* and **yam*, the reflex *-im* is in the majority in F1 from the first chapter on, and it even increases its relative preponderance as the ms. proceeds.

The pronoun *dīm* partly breaks out of this pattern, since it is spelled as *dīm* more often than *dīm* even in the first half of F1. Still, after Yt 13, there is not a single attestation of *dīm*, so that even this pronoun confirms the fact that *-īm* was swept away in the last part of F1. The numbers are: Yt 1-13.42 *dīm* 11 times, *dīm* 16 times; Yt 13.42-19 *dīm* zero, *dīm* 7 times.

§ 8.2 **-cam*, **-jam* and **yam*

These sequences probably yielded **-am* in the archetype, but by the time of our mss., the majority of these forms is spelled as *-im*, which is still opposed to the reflex *-īm* < **-īm*. Convincing proof for this distribution comes from OAv., which partly preserves the opposition between the endings *-ām* and *-am* of the archetype after the consonants *c/j/y*.

§ 8.2.1 Yasna

The relevant forms are *ašaṛhācim* (41.3), *drujim* (OAv. passim), *būjim* (31.13), *qzō.būjim* (62.5), *frāuuaočam* (19.3), *mišācim* (52.1 2x), *yim*

(passim), and *vācim*²⁷⁸ (passim). In all of these forms, the best mss. agree on *-im* but many have replaced this by *-əm*.

In pāda-internal position in OAv., we find the acc.sg. forms *drūjəm* (Y 44.14) and *yəm* (9x; relative pronoun). Beside these forms, OAv. also attests the forms *drujīm* and *yīm*, which agree with YAv. This implies that the opposition *drujəm* : *drujīm* is a continuation of **drujəm* : **drujəm*, i.e. it shows the occasional retention of OAv. *-əm* in the interior of the verse (cf. § 23.1). The opposition **drujəm* : **drujəm* was probably that of the archetype; when *drujəm* was subsequently changed to *drujīm* in the post-archetype pronunciation of the Avesta, this did not change to †*drujīm* anymore.

§ 8.2.2 Vīdēvdād and Yašt

The ending *-im* can be regarded as primary for the forms Yt 19.42 *afrakatacim*, V and Yt passim *drujīm*, Yt 17.22 *frāuuaoim*, Yt 10.96ff. *niīāncim*, V and Yt passim *yīm*, V 18.6 *būjīm*, and Yt passim *vācim*. The form *-əm* of the archetype has been preserved only rarely. In F1, the forms **yəm*, **-cəm* and **-jəm* are attested 131 times. The spelling *-əm* occurs only twice, and *-īm* is also rare, occurring 7 times between Yt 3 and Yt 10, i.e. in the part in which F1 preserves the distinction between the spellings *-īm* and *-im*. All other 122 attestations spell *-im*.

§ 8.3 **-žəm*

The ending **-žəm* is usually preserved as such in the mss., the personal pronoun *yūžəm* ‘you two’ < **yūš-am* providing most of the relevant forms. Y 57.31 *brōiθrō.taēžəm*²⁷⁹ ‘sharp at the cutting edge’ (< **taijam* < **taija-* ‘sharp’, cf. Hoffmann-Narten 1989: 85) is corrected by Bartholomae 1904: 973 to *-taēžim*, but this correction is only supported by the IrPY; in view of *yūžəm*, it seems safer to assume *°taēžəm* for the archetype. Note that we cannot reconstruct **taijjam*, since this would yield †*taēžīm*.

²⁷⁸ The forms edited as *drujəm* by Geldner were rightly corrected to *drujīm* by Bartholomae 1904: 779; Geldner’s *būjəm* was corrected to *būjīm* by Bartholomae 1904: 967 (cf. Mf4 *būjīm*); the OAv. forms edited as *vācəm* by Geldner were corrected to *vācim* by Bartholomae 1904: 1337-9.

²⁷⁹ V.ll. *taēžim* Pt4.Mf1, *taēžəm* corr. to *taēžim* in Mf4 · *taēžəm* K5, *tīžəm* J2 · *tīžəm* K4 · *taēžəm* H1.

The etymology of *raožəm* acc.sg. 'fox', which occurs twice in the V (V 5.5 and 6.50) is unknown, and Geldner provides no text variants.

§ 9 The endings *-iš* and *-īš*

The ending *-iš* may reflect **-iš* (nom.sg. of m.f. *i*-stems, nom.acc.sg.n. of *iš*-stems, the pronoun *ciš*), whereas the ending *-īš* may reflect **-īš* (< **-iHš* in the nom.sg. of m.f. *ī*-stems = type *vrkīh*, nom.acc.voc.pl. of f. *ī*-stems = type *devī*, 2s. prs.opt.act. **-iHš*, acc.pl. of m.f. *i*-stems **-iNš*), but reflects **-iš* in the ins.pl. ending *-bīš* < **-b^hiš*. This situation may be summarized as follows:

Origin	Spelling
IIr. <i>*-iš</i>	arch. <i>-iš</i>
IIr. <i>*-b^hiš</i>	arch. <i>-bīš</i>
IIr. <i>*-iHš</i>	arch. <i>-īš</i>
IIr. <i>*-iNš</i>	arch. <i>-īš</i>

This section will address the different endings according to their etymology: we will look at the reflexes of **-iš*, **-b^hiš*, **-iHš* and **-iNš*. But first, we will give an overview of the different ms. spellings in the first subsection.

§ 9.1 The manuscripts

Most of the good Yasna mss. follow the distribution proposed here. The Vīspersed tradition, partly in the same mss., conforms to it, but the mss. K7a and K7b often spell *i* instead of *ī*, parallel to the situation with *u* and *ū*, where K7a and K7b often replace *ū* by *u*.

In the Vīdēvdād, the mss. Jp1 and Mf2 regularly spell *-īš* in all the plural forms having **-īš* or **-iNš*. In the PV we observe an almost general shortening to *-iš*, but K1 has retained some forms in *-īš*. The InVS also favours *-iš*, but has kept *-īš* in a number of forms.

In the Yašts, *-īš* has been preserved mainly by the IrKA, whereas F1 and also J10 display *-iš* in most of the forms. As this is in line with the manuscript variants in casu *-īm* and also *-ūš* (§ 13.2), and since the IrKA maintains an opposition between the forms in *-īš* and those in *-iš* (nom.sg. of *i*-stems), we can safely assume that the IrKA is to be trusted more than the Yašt Proper transmission.

The distribution of *-iš* and *-īš* in F1 has been investigated in the facsimile edition, yielding results which largely correspond to the distribution of *-im* and *-īm* in F1. Forms edited with *-īš* by Geldner are written with *-īš* in F1 consistently up to Yašt 11 (with the exception of *hāirīšīš*), but from then on,

the manuscript knows only an ending *-iš* (the exceptions being Yt 13.2 *vīš* and 13.21 *vaṇuhīš*). This does not mean, however, that all the forms which occur with *-iš* in F1 before Yt 11 necessarily represent **-iš* in the archetype. As will appear from the following section, F1 already changed some instances of **-īš* to **-iš* in the first 10 Yašts. Whereas Geldner did not correct these to *-īš* in his edition, Bartholomae 1904 did.

§ 9.2 Ir. **-iš*

We can assume *-iš* in the archetype for the nom.sg. of m./f. *i*-stem nouns and adjectives, as is borne out by their v.ll. in all ms. classes. The forms Y 44.9 *asīštiš*, Y 31.9,12 *ārmaitiš*, 34.5 *īštiš* and 30.7 *utaiiūitiš* were all edited with *-īš* by Geldner, but the best mss. read *-iš*, cf. Bartholomae 1904: 336 for *ārmaitiš* and Humbach 1959 II: 22, 44, 46 for the remaining forms.

The ending *-iš* of the nom.acc.sg. of *iš*-stems is found in Y 29.1 *təuuīšcā*, V 5.59, 18.26 *barəziš*, Yt 5.108, 17.49 *bərazaiðiš*, V 5.59 *stairiš*, Vr 2.11 *hadiš* and V 2.29 *harədiš*.

The root noun V 3.24 *aibiš* (2x) nom.sg. ‘who desires’ (Kellens 1974a: 8-13) from **abhi-iš-* is remarkable because we expect to find †*aibiš-*. Maybe *aibi*^o was analogically restored under the influence of the preverb (**abi >*) *aifi*.

A few nom.sg. forms of *ī*-stems also show a short vowel in the ending *-iš*: *ratufriš*, *bərazaiðiš* (Hoffmann-Forssman 1996: 127). This may be due to a change of inflectional type of these nouns, i.e. from *ī*-stem to *i*-stem, but this is impossible to ascertain.

In monosyllables, Ir. **-iš* is also reflected as ^o*iš*, viz. in the pronoun *ciš* ‘someone; who?’, and the distributive numerals *biš* ‘twice’ and *θriš* ‘thrice’²⁸⁰. Strikingly, **θriš* appears as *θrišcī* in Y 19.16 and Ny 1.1; this must be a case of lengthening of **i* in front of **šc*, compare *aiθrišcī* and also *asīšti-* and *īšti-*, discussed in § 6.2.4.2 above. The original short *i* has also been preserved in the adverb Y 10.1 *viš* ‘away’, but not in V 2.42 *vīš*, nom.sg. of *vi-* ‘bird’. The preverb Y 44.13 *nīš* ‘down(ward)’ seems to be due

²⁸⁰ There is a striking difference in the V attestations between the spelling *θriš* of PV and InVS, and the spelling *θriš* which is shown quite consistently by the IrVS. This time, the IrVS must have innovated: V 4.5 PV and InVS *θriš* · Jp1.Mf2 *θriš*; V 5.51 Jp1.Mf2 *θriš*; V 8.38 PV and InVS *θriš* · Jp1 *θriš*, Mf2 *θriš* · Jp1.Mf2 *θriš*; V 12.2-20 PV and InVS *θriš* · Jp1.Mf2 *θriš*; V 16.12 *θriš* L4.K1 · *θriš* Jp1.Mf2.

to conscious lengthening in the OAv. tradition, which we also found e.g. in the monosyllables *ī* ad *cī* (§ 6.2.5).

Since the acc.pl. pronominal forms *tīš*, *dīš* and *hīš* < **-iNš* are consistently spelled with a long vowel in all texts, the opposition between */-iš/* and */-īš/* was well alive in YAv. monosyllables.

Y 9.11 nom.sg. *vīš* ‘poison’ is ambiguous. Skt. *viṣá-* ‘poison’ has a short vowel, like Toch.A *wäs*, B *wase* < **uiso-*, but Lat. *vīrus*, Greek *īós* and OIr. *fí* continue **uiHso-* (cf. EWAia II: 564, with references). Thus, it cannot be decided whether Avestan *vīš* contains a short or a long vowel.

§ 9.3 Ir. **-b^hiš*

The ins.pl. ending **-biš* is nearly always spelled *-bīš*. It is unnecessary to demonstrate this fact, since there are hardly exceptions. The reflex *-bīš* may be due to the preceding *b-*, as in the type *bāšar* < **bāšar-*, cf. § 3.3, where the combination of a preceding labial and a following *š* caused the lengthening of **a* to *ā*. In view of the fact that Ir. **b* is retained in this ending and does not lenite to **β*, one might also suggest that the ending **-biš* was treated as a monosyllable, and hence its vowel was lengthened; but note that the numeral *biš* ‘twice’ does not undergo any lengthening.

Exceptions are few. In Y 34.2, the ins.pl. *garōbīš*²⁸¹ of Geldner’s edition may have to be read as **garōbiš* because the majority of the good mss. has *°biš*. The forms *aēibiš* and *āzīzanāitibiš* (Y 9.22) are unexpected in two ways. Firstly, they function as a dat.pl., for which *-biiō* would be regular. Secondly, all important mss. spell *°biš* instead of regular ins.pl. *-bīš*. It seems that these two forms are part of the graphic and grammatical peculiarities of the Hōm Yašt.

There is no evidence for a YAv. variant *-nīš* of the ending **-bīš*. The forms *nāmēnīš* and *paouruuainīš* must be explained as acc.pl. forms, see § 9.4 below. Another alleged ins.pl. in *-nīš* was suggested by Humbach-Ichaporina 1998: 142, viz. for Yt 19.67 **spaēitiniš varəmiš* **sispəmnō*. They translate ‘parading with its white surges’, in which *spaēitiniš varəmiš* represents the ins.pl. of *spaēitini-* *varəmi-* ‘white wave’. Yet the ending *-īš* cannot derive from **-ībiš*, since **b* would leave a trace as *-β-* or

²⁸¹ Only the IrVS partly has *°biš*: *garōibiš* Jp1.K4, *garōibiš* Mf2.

-uu- or at least -o- (cf. § 21.3), yielding for instance †-iuuiš. Apparently, Humbach-Ichaporria have in mind the *u*-stem ending -ūš < *-ubiš, where lenition of **b* and subsequent contraction yielded -ū- (§ 13.4); but this does not work for *-ībiš. It seems better to interpret ^xspaēitinīš varəmīš in a straightforward way as acc.pl.: *spaēitinīš varəmīš sispəmnō* ‘casting white waves’ (cf. Hintze 1994: 310).

In Vr 21.3 *frārāiti vīdīše yazamaide, yaṭ asti aṅtarə x^vā.daēnāiš ašaonīš* ‘we worship the charity and the distribution, which are among the righteous ones of the same belief’ and P 35 *frārāitišca vīdīšāšca aṅtarə x^vā.daēnā ašaonīš* ‘charities and distributions among the righteous one of the same belief’, the stem *x^vā.daēna-* ‘having (our) own belief’ may be regarded as an adj. determining *ašaouan-* ‘a righteous person’, especially in view of Yt 10.2 *x^vā.daēnāt ašaonaṭ* ‘from a righteous one who is a fellow believer’. The form *ašaonīš* is a nom/acc.pl.f. of *ašaouan-*, and since the preposition *aṅtarə* usually takes the acc. in YAv., P 35 *x^vā.daēnā* is a perfectly regular acc.pl. of *x^vā.daēna-*. Vr 21.3 *x^vā.daēnāiš* is irregular, but this passage shows another grammatical irregularity: *frārāiti* and *vīdīše* are acc.du. forms of *frārāiti-* and *vīdīšā-*, but *asti* is a sg. verb form. This suggests that Vr 21.3 is composed in a later kind of YAv. grammar, when the rules started to diverge from the earlier standard. The only other passage where *aṅtarə* takes an ins. is in A 3.7ff. *aṅtarə mazdaiiasnāiš*; A is also a relatively recent liturgical text. Thus, we may assume that *aṅtarə x^vā.daēnāiš* is due to a linguistically real replacement of the construction *aṅtarə* + acc. by *aṅtarə* + ins. The form *ašaonīš* was not replaced, either because the (earlier) correct form **ašaouabīš* was not known anymore or, more likely, because of the phrase *x^vāiš nāmēnīš* (see below), which gave the example of a seeming ins.pl. sequence -āiš -nīš.

§ 9.4 Iir. *-iHš

The nom.sg. of *vrkī-* type f. *ī*-stems is attested in V 8.31f. *kū.nairīš*²⁸² ‘slut’, Yt 9.5 *dāθrīš*²⁸³ ‘female giver’, Yt 9.30 **stuuī.manaoθrīš*²⁸⁴ ‘with a strong neck’ and V 8.13 *x^vaētuuadaiθīšca* ‘marrying in the family’. Furthermore, a number of Vīdēvdād nom.sg. forms of f. *ī*-stem adjectives

²⁸² As this noun is of the *devī-* type, a nom.sg. *nāiri* would be expected, as attested in Yt 11.4 *nāiri* and Y 41.2, 35.6 *nāiri*. Here it must have switched to the *vrkī-* type.

²⁸³ V.II. *dāθriš* F1.Pt1.E1 · *dāθriš* Jm4.L18.

²⁸⁴ V.II. *ōiš* F1.E1 · *ōiš* L18.P13 · *ōiš* J10 · *ōiš* O3.

were edited with *-iš* by Geldner, but the v.ll. do not differ from those of the other forms in *-īš*: the IrVS mss. Jp1.Mf2 preserve *-īš*, the other two branches spell *-iš*. As Hoffmann apud Mayrhofer 1980: 136 has argued, *-īš* will be the original form. This concerns the forms *aiiaṅhaēnīš*, *arəzataēnīš*, *izaēnīš*, *ubdaēnīš*, *druuaēnīš*, *frauuāxšaēnīš*, *°zarənaēnīš*, *zarštuuāēnīš*, *zəmaēnīš* and *haosafnaēnīš* in V 7.14f. and 7.74f.

In two root nouns in **-iH-*, we find the nom.sg. in *-īš*, but it is uncertain whether this continues the Plr. long vowel. Y 50.2 *arəžajīš* ‘living justly’ is a compound **rš-jī-*; it is conceivable that the original text had split the compound into **arəž.jiš*, with a monosyllabic second member, which was then lengthened just like OAv. *nīš* (§ 6.2.5). A 3.6 *ratufriš* ‘satisfying the ratus’ is conspicuous because the nom.sg. of *°fri-* usually is *°friš* (compare also the shortening in *frita-* and *friti-* discussed above in § 6.5). The bulk of A 3.6 consists of a quotation of the text of OAv. Y 35.5, and only the words *dātō hē miiāzdō ratufriš* ‘the oblation offered by him satisfies the ratus’ have been added. Thus, it is possible that the lengthening of OAv. final vowels was accidentally applied to **ratufriš* by the redactors of A 3²⁸⁵.

Maybe P 45 *afra-cīcīš* ‘not teaching to’ also shows OAv. lengthening, since many P passages are OAv. or contain OAv. material. However, the exact morphological interpretation of this form is uncertain, cf. JamaspAsa-Humbach 1971: 68f.

The forms *narəpiš* ‘decline’ and *rajiš* ‘darkness’ in Y 53.9 were regarded as nom.sg. forms of *iš*-stems, until Humbach 1959 II: 97 suggested that they were nom.pl. forms of stems *narəpiš-* ‘lack of light’ and *rajiš-* ‘darkness’, because the spelling with long *ī* is transmitted almost unanimously by the mss. However, the attested acc.pl. forms of neutral *iš*-stems have *-iš* (*x^vā.barəziš*, *x^vā.stairiš*, only in V 6.51), so that we had better assume two nom.sg. forms of *ī*-stems *narəpī-* and *rajī-* here.

We find three nom.sg. forms in *-uuīš*, which could in theory also reflect **-uiš*, with lengthening of **i* after *-uu-*. Yet this lengthening is hardly attested in final syllable (only in the monosyllable *viš* ‘bird’, cf. § 6.2.3), and furthermore the form *təuuīšcā* does not have lengthening; therefore, the safest assumption will be that these forms reflect an ending **-iHš*:

• *aḍauuīš* (Yt 1.14 PN) was edited *aḍauuīš* by Geldner, but Bartholomae 1904: 57 rightly preferred the massively attested reading *aḍauuīš*. In Yt 10.143, this stem occurs as an adjective; although Bartholomae 1904: 56 did

²⁸⁵ For the recent origin of the chapter A 3, see Hertel 1934: 27ff. His translation and interpretation of the text are very idiosyncratic, however.

not correct Geldner's *aḍauuiš* here, *-iš* is also attested in a good ms: v.ll. *aḍauuiš* F1.Pt1.E1, *aḍauuiš* L18.H4 · *adūiš* J10.

• *kasuuiš* (V 2.29,37, 19.43, Yt 5.92) nom.sg. Several scholars (e.g. Duchesne-Guillemin 1936: 159, Humbach 1975) have suggested a possible origin as **kasu-iš-* 'having little power'; Kellens 1974a: 368 has proposed **kasu-viš-* 'having small poison'.

• *vīḍauuiš*²⁸⁶ (Yt 1.14 PN) nom.sg. was edited as *vīḍauuiš* by Geldner, but Bartholomae 1904: 57 corrected to **vīḍauuiš*. This is supported by all the good mss.

The nom.pl. of *f. ī*-stems appears in the forms Yt 13.17 *aojiiehiš*, Yt 13.55 *afraoxšaiieintiš*, Yt 13.53 *afrataḥ.kušiš*, Y 32.11 *aḡhīšcā*, Yt 19.12 *amaršanīš*, Yt 13.45 *arəzažīš*, Yt 8.5 *aspō.staoiehiš*, passim *ašaonīš*, Yt 8.40 *uruuaitīš*, Yt 13.33 *uruūnaitīš*, Yt 13.33 *xruuišīiaḡtiš*, V 5.19 *γžarə.γžarəntīš*, Yt 13.24 *dāθrīš*, passim *paoirīš*, Yt 13.33 *frascandaieintiš*, Y 33.7, P 35 *nəmax^vaitīš*, Y 44.5 *manaοθrīš*, Yt 13.64 *masiiehiš*, passim *vaḡhīš*, *vahehiš*, Yt 13.40 *vīuuāitīš*, Yt 8.40 *vījasāitīš*, Yt 13.33 *ḡm.varəitiuuaitīš*, V 13.50ff. *sūnīš*²⁸⁷, Y 60.11, 71.29 *x^vāθrauuitīš*.

The voc.pl. of *ī*-stems appears in *vaḡhīš* (passim).

The acc.pl. of *ī*-stems appears in Yt 13.32 *aojaḡuhaitīš*, Y 44.18 *aršnauuitīš*, V 18.55,59 *astuuaitīš*, Y 38.5 *azīšcā*, passim *ašaonīš*, Y 38.3 *ahurānīš*, P 59 *uštanauuaitīš*, Yt 10.8 *xruuišīieitīš*, passim *gaoiiaoitīšca*, Y 22.21, Vr 11.4 *gaomauuitīš*, N 53 *gadōitīšca*, Y 55.1, Vr 11.13 *təuuīšīšca*, V 20.10 *druuaitīš*, V 20.4, Yt 13.65 *paoirīš*, Y 55.2 (2x) *pāθrauuitīšca*, A 3.4 *pārəḡdīš*, P 57 *frašumaitīš*, Y 4.5, Vr 11.13 *frāiiehiš*, Y 38.3 **maēkaiiḡtišca*, Vr 11.3 *yaētūšīš*, Yt 13.95 *yaozaiḡtišca*, passim *vaḡhīš*, Y 39.2, 52.3 *vahehiš*, Y 52.3 *rāsaiḡtiš*, Yt 13.75 *rəuuīš*, V 19.37 **sauuḡuhaitīš*²⁸⁸, V 3.29, Vyt 35 *srasciḡtiš*, passim *haomauuitīš*, *hadānāēpatauuaitīš*, Yt 8.9 *haptō.karəšuuairīš*, Y 55.2 (2x) *harəθrauuitīšca*,

²⁸⁶ V.ll. *vīḍaiiūš* J10 · *vīḍauuiš* F1 · *vīḍauuiš* Pt1.P13.K19, *vīḍaiiūš* L18 · *vīḍauuiš* F2.Lb16, *vīduuiš* Mf3.K36, *vīḍaiiūš* L25 · *vīḍauuiš* J9.H2, *vīḍauuiš* O3.L11.

²⁸⁷ The identity of *sūnīš* as a nom.acc.pl. of *span-* in all three of its attestations has been correctly assessed by Tichy 1985. Yet it is unlikely that *sūnīš* originally was an ins.pl. built on the model of *nāmənīš*, because *nāmənīš* must be regarded as an acc.pl. (see below in this subsection). The sequence *hazaḡrāiš sūnīš strī/nairiio.nāmanō* must be analyzed as ins.pl.+nom.pl.+nom.pl., just like *x^vāiš nāmənīš* is ins.pl.+acc.pl.

²⁸⁸ All mss. spell *ōiš* except Mf2 *ōiš*.

P 21 *hazahīšca*²⁸⁹, Y 65.2, V 15.19, Yt 5.2 *hāirīšīš*, Y 38.3, V 11.5 *hābūuāntīšcā*, Vr 2.7 *hufəδrīš*, Y 16.7, Vr 19.2 *x^vanuūaitīš*, V 3.27,29 *x^varəntīš*.

The athematic 2s. prs. and aor.opt.act. ending **-iHš* is attested in *°daiθīš*²⁹⁰ from *dā-*, and maybe in *mərəncainīš*, a corrupt verbal form for expected *mərəncīša* (cf. Kellens 1984: 166).

In addition, we find forms in *-iš* for which we must posit *-īš* in the archetype, especially in the Yašts. In accordance with the fact that the mss. F1 and J10 are the least trustworthy ones when it comes to preserving *ī*, Yašt forms in *-iš* for **-īš* are found mainly in the Yašts chapters for which we must rely on F1 and J10, because the texts have not been transmitted in mss. of the Khorda Avesta type; this concerns especially Yt. 5, 8, 10, 15, 17 and 19. We are thus allowed to correct words which appear with a unanimous transmission *-iš* to *īš*, if they are only transmitted by F1 and J10 (and their descendants) and if we should expect a spelling *-īš* for etymological reasons.

The forms concerned are the nom.pl. Yt 17.11 *qymō.paiδīš*, Yt 8.40 *uruūāitīš*, Yt 10.14 *pərəθβīš*, Yt 19.67 *paoirīš*, Yt 8.40 *barəntīš*, Yt 8.42 *varəšajīš* and Yt 5.87 *zīzanāitīš*, the acc.pl. passim *xruūišīieitīš*, Yt 10.14,142 *paoirīš*, Yt 18.8 *baēšaziš* acc.pl.n. (! to *vaca*), Yt 8.43 *važədriš*, Yt 15.31, 19.67 *spaētīniš* and Yt 13.21 *hāitīš*²⁹¹.

In the Vīspēred, the acc.pl. *hāitīšca* (3x) is attested with *-īš* in a few mss. of the IrVrS tradition, but on the whole *-išca* has a numerical preponderance.

The acc.pl. of n. *n*-stems is attested as YAv. *nāmēnīš* (Y 15.2, 51.22, etc., Yt 1.11,15) ‘names’ and *paouruūainīš* (Vyt 29) ‘rocks’. The exact explanation of this ending *-īš* has not been found yet. It seems to me that Janda 1997: 179ff. is right in rejecting explanations presupposing a dissimilation of the ins.pl. ending **-biš* (e.g. **nāmabiš* → **nāmaniš*). His own conclusion, viz. that an ending *-īš* can probably be ascribed to speakers of a different Avestan dialect, is impossible to verify. It seems more plausible that *nāmēnīš* was built in some way on OAv. *nāmēnī*, with regular **-ēni* < **-an-i* < Ir. **-an-H*. The

²⁸⁹ Probably a f. to *hazah-* ‘force’, like *vahehī-* f. ‘better’ < **vahīahī-*. Semantically, a VD **hāzahi-* would be possible (with JamaspAsa-Humbach 1971: 35), but *hā°* is not attested.

²⁹⁰ Geldner *-δ-*. Maybe also in Vyt 48 *daiδīš*, but the context is unclear.

²⁹¹ Bartholomae 1904 has corrected Yt 10.14,142, 19.67 *paoirīš* and Yt 15.49, 19.54 *xruūišīieitīš* to *°īš*.

form *nāmēni* also occurs in YAv. but only in such texts which are clearly (Yt 1,3) or possibly (Yt 13) calqued on OAv. quotations. It is significant that *nāmēniš* governs the f.acc.pl. pronoun *imā* in Yt 1.11-19. This suggests that the obsolete **nāmēni* was re-interpreted in YAv. as a f., and provided with the ending *-š* known from the *i-* and *ī-*stems: nom.acc.pl. *-īš*. The same explanation may be applied to *paouruuainišca*: since the stem is a n. *paouruuar-/uuan-*, the original nom.acc.pl. would have been **parūani*, to which *-š* was added for the same reasons as in *nāmēniš*.

The final problem, viz. the use of *nāmēniš* in Y 51.22 as an ins.pl. form in the phrase *tq yazāi x^vāiš nāmēniš* ‘those I will honour by their names’ can be solved in this sense that it is probably *x^vāiš* which was used as an acc.pl.n. form to *nāmēniš* rather than *nāmēniš* which was used as an ins.pl. form to *x^vāiš*; *nāmēniš* has not only the form but also the function of an acc. The form *tq* points to YAv. language, and the use of *x^vāiš* thus recalls the frequent use of ins.pl. forms as nom.acc.pl. in YAv (for a survey of this phenomenon see Oettinger 1986 and Pirart 2000: 380ff.). The real OAv. expression appears in Y 37.3 *tēm at ahūriiā nāmēni yazamaidē* ‘him we worship by the godly names’, cf. Narten 1986a: 180f.

§ 9.5 Iir. **-iNš*

The development of the PIE *i*-stem acc.pl. ending **-ins* to attested Avestan *-īš* probably went through a stage with a nasalized vowel **-īš̄*; compare also *īš* < **-inš-* in *cīšiiā* ‘may it be assigned to’ < **cinšjāt*, and other verb forms of the stem *cīš-*. In Avestan, the vowel resulting from **-ī-* is indistinguishable from Iir. **ī*.

The relevant acc.pl. forms are OAv. *ašīš*, Y 43.3 = 60.1 *ā(.)stīš*, Y passim *īš*, Y 71.9 *uruθmīšca*, N 91 *kəratīšca*²⁹², H 2.25 **gaiñtīšca*, Y 42.2, Yt 14.41 *gairīš*, Y 57.6 *θriiāxštīšca*, *°yaxštīšca*, passim *dīš*, Y 49.1 *dušəṛəθrīš*²⁹³, Y 43.8 *būštīš*, Y 5.3, 63.3 *frauuāšīš*, P 35 *frārāitīš*, Yt 5.26 *fšaonīšca*, V 22.2ff.²⁹⁴, Yt 13.59 *nauuaitīšca*, Y 57.8 *maṭ.āzaiñtīš*, Y 12.3, V 18.12 *māzdaiiasnīš*, Y 42.2 *vairīšcā*, Y 57.33 (2x) *vanaitīš*, Y 10.5, 71.9

²⁹² If this is not an error for **kəratīšca*.

²⁹³ Explained as **duš-š rtri-* ‘having a poor protection’ by Kuiper 1979, who resumed the tentative suggestion given by Bartholomae 1904: 752.

²⁹⁴ Geldner edits *°iš* but Jp1 in 22.6,9,15 and Mf2 in 22.9 have *°īš*.

varšajīš, Vr 20.1, V 8.19, 17.5, Yt 13.20,40 (nom.pl.!) *vārəθrayniš*²⁹⁵, V 16.8-11 *vohuniš*²⁹⁶, Y 38.5 *vīspō.paitīš*, FrA 22 *ratufritīš*, *passim hīš*, FrW 7.2 *hubərətīšca*, *vanta.bərətīšca*, Y 29.10 *hušəitīš*.

Y 9.24 *aiβištīš* ‘studium’ must also be the acc.pl. of an *i*-stem. Its ending *-iš* seems to be a peculiarity of the Hōm Yašt, since we also find shortening of the acc.pl. ending **-ūš* to *°uš* in *barəšnuš* (cf. § 13.3), and because original **-īš* must also be assumed for Y 10.18 *dāsmainīš*, *paiti.bišīš* and *vārəθrayniš*. The morphology of the latter passage *ime hənti aršuxda vacō dāsmainīš vārəθrayniš paiti.bišīš baēšaziia* ‘these are the rightly-spoken words, the health-bringing, victorious, antidotes, healing’ is clearly of a late date. The nom.pl.m. *ime* is correlated with the neuter *vacō*, which itself is a secondary plural form instead of **vacā*. The adj. *baēšaziia* represents the regular nom.acc.pl.n. form in *-a*, but the adjectives *dāsmaini-*, *vārəθrayni-* and *paiti.biši-* should end in *-i* < **-ī*, or in *-īš*, if we would assume that they had adopted the form of the m.f. plural *i*-stems. All three forms are safely attested with an ending *-iš*, however. The form *dāsmainīš* is a hapax, so that it does not tell us much. *Vārəθrayni-* is attested in the acc.pl.n. in Vr 20.1 as well, where *-īš* can be posited for the archetype. Vr 20.1 is quite parallel to Y 10.18: *vaca aršuxda vārəθrayniš daēuuō.γnīta yazamaide* ‘we worship the rightly spoken, victorious, daēva-smiting words’. The noun *vacah-* displays the ending *-a*, which was the only productive m/f. nom.acc.pl. ending in later YAv., and *vārəθrayniš* co-ordinated with *vaca* already has the m/f. ending instead of expected nom.acc.n. *-i*.

If we take Vr 20.1 *vārəθrayniš* as the regular form, the short vowel in the three adjectives in Y 10.18 must be one of the irregularities we find in the Hōm Yašt. Since two of the three forms have *-n-* before **-īš*, a phonetic reason for this irregularity cannot be excluded.

²⁹⁵ In Vr 20.1, Geldner edits *vārəθrayniš*, but the ending *°īš* is attested in the good Iranian mss.: *°iš* K7a.M6.M4 · *°iš* K7b and H1.Jm5.P12.L27 · *°iš* L1.2.Br1.B2.O2.S2 · *°īš* Jp1.K4, *°īš* Mf2 · *°īš* Fl1.Kh1.

²⁹⁶ Bartholomae 1904: 1434 claims that the stem is *vohunī-* on the basis of F 210 *vohuni*; yet there is no guarantee that this must represent a nom.sg. form. It may well be corrupt, and in any case the surrounding body parts in F 208-213 are in the acc.sg., so that there is a chance that the text had **vohunīm*. The other forms are the acc.sg. *vohunīm* and the acc.pl. *vohunīš* (Yt 10.72 less correct *vohunišca*), which can be a stem *vohuni-*. The Middle Iranian forms and the Avestan derivatives *vaḡhutāt-* ‘blood’ and *vaḡhuθβa-* ‘bloodshed’ point to **vahuni-*, cf. Bailey 1979: 491.

As in the case of the forms in **-iHš*, we find some Yašt forms in *-iš*, basically in texts with a less trustworthy attestation: Yt 5.26, 19.32 *īštišca*, Yt 5.26 *frasastišca*, Yt 19.32 *fšaonišca*, Yt 8.46 *vairiš*, Yt 10.142 *vaēiḍiš*²⁹⁷, Yt 10.72 *vohunišca*, Yt 14.21 *saēniš*.

§ 9.6 Unclear etymology

For a few forms, it is uncertain whether we are dealing with an *i*- or an *ī*-stem.

- nom.sg. *aiβiḍāitišca* (Y 9.26) ‘Hülle, Schirm’ (Bartholomae 1906: 175f.). One expects an *i*-stem **abi-dāti-*, cf. *niḍāti-* ‘deposition, hiding’, *viḍāti-* ‘repartition’, *haṇdāti-* ‘collection’.
- nom.sg. *hujītiš* (Y 19.13) ‘good life’. The attested nom.pl. forms *hujītaiiō* suggest an *i*-stem *hujīti-*, but the form *hujītiš* could only be the acc.pl. of such a stem.
- nom.sg. *apāiḍiš* (V 4.54f.) ‘?’ with *ōiš* in all three ms. classes.
- nom.sg. *kapastiš* (Yt 8.56, 14.48, V 11.9,12), name of an illness. In the V, the v.ll. of the IrVS Jp1.Mf2 *kapastiš* would point to an *ī*-stem, PV and InVS *ōiš* and the comparison with Latin *pestis* (Bartholomae 1904: 436) to an *i*-stem.
- P 30 *viiāniš*. It is uncertain whether it is a verbal or a nominal form; cf. JamaspAsa-Humbach 1971: 47.

²⁹⁷ A convincing etymology for this form has been advanced by Janda 1993: 36ff. He connects Skt. *vēdi-* f. ‘altar, place for the sacrifice’, which is impeccable from the phonetic side and would accord well with the preceding f. adjective **paoiriš*.

IV. AVESTAN *u* AND \bar{u}

§ 10 *u* and *ū* in an- and inlaut

This section covers all Avestan syllables that contain syllabic *u* and *ū*, except for the endings *-ū̃*, *-ū̃m* and *-ū̃š*. For general considerations about the nature of Avestan opposition *u* versus *ū*, as well as *i* versus *ī*, see the introductory remarks to § 6.

In the following subsections, the evidence will be discussed according to the etymology of *u* and *ū*. We will start with **u*, which has generally been preserved in closed syllables (§ 10.1). The next subsection discusses the environments in which **u* has become *ū*, viz. especially in the following positions in the word: 1. In open initial syllable (§ 10.2.1); 2. After *y-* or *-ii-* (§ 10.2.3); 3. In front of sibilants, especially the cluster *-žC-* (§ 10.2.4). The third subsection (§ 10.3) shows that PIr. **ū* has been preserved in nearly all positions. Subsequently, we will discuss the phonetic shortening of **ū* in the sequence **-ū̃iV-*, and the analogical shortening of **ū* to *u* (§ 10.4).

Compounds with the preposition *anu* as a first member always have short *°u* at the end of the preposition, which could be due to restoration of the preverb by the scribes. Therefore these forms are ambiguous and need not be discussed. The same goes for compounds with an *u*-stem noun as a first member, and derivatives from *u*-stems. What few exceptions occur will be mentioned.

Similarly, the prefixes *hu°* ‘good’ and *duš°/duž°* ‘bad’ always display a short vowel, except for compounds with *hu°* plus a word beginning with *u°/ū°*, which will be discussed below. Prothetic *u-* in front of *-rū̃-* or *-ruu-* is always short.

PHILOLOGICAL REMARKS

In the Yasna, there is little disagreement among the good manuscript classes about the spelling *u* or *ū* in separate forms. Deviations are usually found in the YS and the InVS, e.g. in the acc.sg. ending *-ū̃m*. Especially the YS frequently writes *u* where other mss. write *ū*, but the reverse also occurs. Compare for instance the v.ll. of *drū̃jō* in Y 30.10, 31.1, 46.6, *sāsnō.gū̃šqm* in Y 26.4, of *fšū̃šō* in Y 58.4, of *dūtā̃nhō* in Y 32.1 or of *bū̃ždiiāi* in Y 44.17, and with *u* those of *drujəm* Y 31.4, *yuxtā* Y 49.9 or of *hizubīš* Y 49.4.

Although the number of v.ll. from the Vīspred is relatively small, the best mss. of the Vīspred tradition, viz. the IrVS and the IrVrS, generally spell *ū* in the expected places, whereas K7a, the oldest PVr ms., sometimes spells *u*.

In the Vīdēvdād, the vowel *ū* of the archetype has been preserved most faithfully in the IrVS (Mf2 and Jp1). The InVS has changed *ū* to *u* in a number of cases, whereas the PV (L4.K1 and descendants) seems hardly to use *ū* word-internally. In many forms, the PV has *u* while the VS has *ū*, e.g. in *sūnīš*, *zrūne*, *zūrō* and *frašūsaṭ*. In some cases, L4 has one form and K1 the other, compare *sūnō*, *sūnəm* or *xrūždranəm*. Conversely, only one case is found where the spelling of Jp1.Mf2 is *u* instead of expected *ū*, viz. V 18.30 *apaiiūxtāt*. This situation is quite similar to the one we find concerning the spelling *-ūi-* and its corruption to *-ui-*, § 10.5.

The Vīdēvdād spellings show little deviation of the expected norm in the forms in *-u-*. Apart from *caṭru.yūxtəm* and *frašūsaiti*, where all our evidence suggests a correction to *ū*, and apart from *fšuta* and *frašumakaṭ*, where correction to *ū* may at least be considered, most words are unanimously attested with *u*.

In the Yašts, especially after Yašt 10, the evidence from F1 on the one hand and the IrKA (Mf3.K13.38 etc.) and (less consistently) J10 on the other hand is conflicting. Comparison with the spellings in the Yasna can decide which branch has the more original forms.

As to the forms with *ū* in the archetype, it seems that the different traditions agree on *ū* in most cases in the first half of the Yašts, but after Yašt 10 F1 nearly always spells short *u*. Often, *u* is attested in F1+ only, against *ū* or *ī* in J10.M12 or the IrKA. In such a case, editing *ū* is justified if we have Yasna or securely attested Vīdēvdād forms with *ū*. If only Yašt evidence is available, editing *ū* for such forms may at least be considered the more probable alternative.

§ 10.1 **u* yields *u*

In a closed syllable, **u* remains *u*; this even applies when **u* is followed by one of the clusters *št/sp/šm*, of which we have seen that they do not prevent lengthening of **i* > *ī*.

Examples with retained **u* in initial syllable include the forms *uxti-* ‘cry, utterance’, *uxḍa-* ‘word, utterance’ (cf. Skt. *ukthá-*), *uxšan-* ‘bull’ (Skt. *ukṣán-*), *uxšīia-* ‘to grow’ (Skt. *úṣati* ‘grows’), *ugra-*, *uḡra-* ‘strong’ (Skt. *uḡrá-*), *udra-* ‘otter’ (Skt. *udrá-* ‘water animal’), *ušti-* ‘wish’, *ušta-* ‘desired’, *uštra-* ‘camel’ (Skt. *úṣtra-*), *kuxšnu-* (to *xšnu-* ‘to satisfy’), *kuṭrā* ‘where’ (Skt. *kútra-*), *kusra-* ‘hollow’ (cf. Skt. *kuśayá-* ‘cistern’, *kóśa-* ‘cask’), *xumba-*

‘bowl’ (Skt. *kumbhá-*), *xuṇbiia-* (to *xumba-*), *dunman*²⁹⁸ (< **duanman-*), *xšudra-*, *xšudra-* ‘liquid; semen’ (probably to be connected with Skt. *ksudrá-* ‘tiny’), *xšusta-* ‘melted’ (< PIE **ksud-to-*, connected with Av. *xšudra-* ‘semen, liquid’, *xšaodah-* ‘stream’ and Skt. *ksod-* ‘to strike against, shake’), *xšufsa-* (present **kšub-sa-* to the Ir. root **kšaub*^h ‘to quiver’ reflected in Skt. *ksobh-* ‘id.’), *ašauua.xšnus* (nom.sg. of *ašauua.xšnut-* ‘satisfying the believers’, cf. Kellens 1974a: 122), *gufra*²⁹⁹ ‘famous’, *tuθru-* (perfect to *θru-* ‘to fatten’), **tušna*³⁰⁰ ‘quiet’, *dugədar-*, *duγdar-* ‘daughter’ (cf. Skt. *duhitā*), nom.sg. *drušš* ‘deceit’, °*druxta-* ‘deceiving’, °*druxti-* ‘deceit’ (Skt. *drūh-* ‘deceit’), OAv. *drujiia-*, YAv. *družā-* ‘to deceive’, *puxda-* ‘fifth’, *puθra-* ‘son’ (Skt. *putrá-*), *buñ(aiia)-* (prs. to *buj-* ‘to deliver’), *busta-* (to *bud-* ‘to smell, observe’), *buziia-* ‘of a goat’ (to **buzā-* ‘goat’), *mušti-* ‘fist’ (Skt. *muṣṭí-* ‘fist’), *suxda-*, *suγda-* ‘Sogdian, Sogdia’, *upa.suxta-* ‘set afire’, *suxra-* ‘bright’ (Skt. *śukrá-*), *supti-* ‘shoulder’ (Skt. *śúpti-*), *usr ũ-* (pf. to *sru-* ‘to hear’), *sruṭ.gaoša-*, *sruṭ.gaošōtəma-* ‘hearing well’, ‘hearing the best’, *zušta-* ‘liked’ (to *zaoš-* ‘to like’, Skt. *juṣṭá-*), Y 29.8 *hudəma-* ‘sweet(ness)’ (< **sud-ma-*, cf. Skt. *svádati*, *saṃ-súd-*), and *huška-* ‘dry’ (Skt. *śuṣká-* ‘dry’).

With *-u-* preserved in the second syllable, we find among other forms *angušta-* ‘finger’ (Skt. *aṅgúṣṭha-*), Y 31.1 *agušta-* ‘unheard’ (to *gaoš-* ‘to hear’), Y 31.15 *adrujiiaṅt-* ‘not deceitful’ (to *drujiia-* ‘to deceive’, Skt. *druhyāti*), *asrušti-* ‘disobedience’ (Skt. *sruṣṭí-* ‘obedience’), *uruθbar-/βan-* ‘intestines’, *uruθman-* ‘growth’, *uruθmi-* ‘germ’, *uruθmiia-* ‘growing up’ (all

²⁹⁸ V.II. Yt 8.32 F1 *dunm*^o but L18.P13 and J10 *dūnm*^o, 8.33 F1 *dunm*^o but P13 and J10 *dūnm*^o, 10.50, 12.23 F1 and O3 *dunm*^o, J10 *dūnm*^o, 13.14 *dunmō*^o.

²⁹⁹ Assuming the meaning ‘auquel il est digne de faire référence, célèbre’ posited by Pirart 1992b: 71, who rightly argues that we cannot translate ‘deep’. *Gufra-* is used in Avestan of *stāra* ‘stars’, *miθra-* ‘Mitra’, *frauuašaiiō* ‘the Fravaši’s’, *zraiiāh-vouru.kaša-* ‘the lake Vourukaša’ and *asāasca šōiθrāasca* ‘spots and places’. We may posit **gupra-* or **gubra-* > **gufra-*, compare *jafra-* < **jabra-* ‘deep’.

³⁰⁰ In *tušnā(.).maiti-* ‘quiet-minded’ and Yt 13.29 *tušnišādō* ‘sitting quietly’. The adj. **tušna-* must be connected with Skt. *tūṣṇīm* ‘quietly’ and the verb *tūṣyati* ‘becomes calm’. The two Skt. words were separated by Oettinger (1979: 326), who connects *tūṣṇīm* with Hitt. *tuhuš(š)ie-* ‘ruhig zusehen’ < **tuh*₂*s-*, and *tūṣyati* with Hitt. *tuške-* ‘sich freuen’ < **tus-ske-*; this was accepted by EWAia I: 663. However, the meanings of Hitt. *tuhuš(š)ie-* and *tuške-* on the one hand and those of Skt. *tūṣṇīm* and *tūṣyati* on the other, seem too similar to warrant their separation. Avestan *tušna/i-* and Skt. *tūṣṇīm* agree even more closely. Compare also Melchert 1994: 175, who argues that Hitt. *tuhuš(š)ie-* maybe reflect **th*₂*us-* rather than **tuh*₂*s-*. Since Avestan would normally retain **ū* but does not spell *tūšna-*, it seems that Skt. *tūṣṇīm* must represent a secondary lengthening.

to *rud-* ‘to grow’), *urusta-* ‘grown’ (< **rud-ta-*), *uruzdipāka-* ‘cooking intestines’ (< **rud^h-ti-*), *tūtuxšuuu* (loc.pl. of *tūtuk-* ‘loam’), *framuxti-* ‘taking off’ (Skt. *prámukti-* ‘liberation’), *haṅkusra-* (see *kusra-* above), and *hurudman-* ‘a good plant’ (to *rud-* ‘to grow’).

Forms with preserved *-u-* in third syllable are *auuāurusta-* ‘left out’ (to *rud-* ‘to obstruct’), *ahəmusta-* ‘repulsive’ (< **a-ham-musta-* ‘not pleasing’ to **mud-* ‘to please’?), *paitišmuxta-* ‘shod’ (Skt. *prati-muc-* ‘to put on clothes’, EWAia II: 382), *zaraðuštra-* and *zaraðuštri-*.

A form with retained *-u-* in fourth syllable is *anauuuoruxtōiš*, gen.sg. of **an-aua-uruxti-* ‘loyalty to the oath’, lit. ‘the not-breaking-off’. It is probably cognate with Skt. *rujāti* ‘breaks’, *rugná-* ‘breach, gap’, cf. EWAia II: 465.

There are only three forms which seem to have *-ū-* < **u* in a closed syllable; in all of them, **u* is followed by a cluster of a dental consonant plus *-r-*:

- *aiβisrūdrima-*, PN derived from **aiβisrūdra-*, a part of the day; probably derived from *aiβi-sru-* ‘to hear, pay attention’.
- *gūzra-* (Y 48.3) ‘hidden’; compare *gūza-* ‘hiding’, attested in *zəmarəgūzō*.
- *būdra-* ‘watchful’ (to *baod-* ‘to be awake’): V 13.39 *zaēni.buδrəm* has *-ū-* in the IrVS, and Yt 13.106 *būdrahe* has *-ū-* in the IrKA. Since the word *xšudra-* is one of the few words with preserved *-u-* which shows v.ll. in *-ū-* (viz. V 15.7 L4 *xšūdrā*, V 18.32 InVS *xšūdr^o*, V 18.41 Mf2 s.m. *xšūdre*), lengthening may have been caused in the most recent tradition period by the following *-δr-*.

There is one instance of **u* yielding *ə*, viz. in the OAv. adj. *drəguuant-* ‘belonging to the *druj-*’ < **drug-uant-* (compare YAv. *druuant-* < **druyuant-*). This stem shows a similar development as two other OAv. words in which **a* has been changed to *ə* or *ə* in front of a consonant plus *uu*, viz. *həbuuant-* and *bəzuuant-*, cf. § 22.8.

§ 10.2 **u* yields *ū*

Lengthening of **u* to *ū* is attested nearly regularly in open initial syllable (§ 10.2.1), with the exception of the noun *druj-* and the adverbs in *ku-*. It does not seem to matter which consonants follow **u*, as long as they are single consonants. In second syllable, lengthening occurs only sporadically (§ 10.2.2). The lengthening after *y* and *ii* is again quite regular (§ 10.2.3), just like the development **užC* > *-ūžC-*; in front of *-š-*, lengthening of **u* is sporadic (§ 10.2.4).

§ 10.2.1 In open initial syllable

For OAv., Beekes 1988: 42 observes that "it seems that in a closed syllable the lengthening was sometimes absent: *gūša-* : *guštā*, *yūjān* : *yuxtā*." In fact, we may plainly state that lengthening has generally occurred in open syllables, and hardly ever in a closed syllable. There seems to be no difference between the language of OAv. and YAv. in this respect, except for the stem *druj-*.

The evidence of compounds in *hu-* 'good'³⁰¹ is ambiguous, because *hu-* may have been restored at any moment. As a consequence, we must also disregard the first syllable of the verbal forms of the presents *hunā-* 'to impel', *hunā-* 'to bring forth', and *hunao-/hunu-* 'to press', of (°)*huta-* 'pressed', of the noun *hunu-* 'son' (Skt. *sūnú-*), the adj. *hudāma-* 'sweet'³⁰², and the gen.sg. *huraiiā* to *hurā-* 'wine' (Skt. *sūrā*). In all of these forms, it cannot be excluded that the grapheme *hu*^o is due to analogy with *hu-* 'good'.

Lengthening is attested in the following forms:

- *aēšmō.drūta-* (Yt 1.18) 'infuriated' contains **druta-*, verb.adj. to *dru-* 'to run'.
- *asrūdūm* (Y 32.3) < **ćru-d^huam* 'you are known' to *sru-*. According to Beekes 1979: 6, the form may contain secondary *a-*, inserted during the transmission in order to facilitate the pronunciation of the sequence **yāiš srūdūm*. Since the ending *-dūm* has developed from **-d_uəm*, and since **u* would not have been lengthened in front of a consonant cluster **-d_u-*, *asrūdūm* shows that the contraction of **-d_uəm* > *-ūm* must predate the lengthening of **u* in open syllable.
- *(ā)stūta*³⁰³ 'praised', cf. Skt. *stutá-*.
- *xšnūta-* 'satisfied', possibly cognate with Skt. *hnu-* 'to deny, hide from'.
- *xšnūmaine* 'to satisfy', dat.sg. of **xšnuman-* 'satisfaction'.

³⁰¹ The exceptional long vowel of Yt 10.88 *hūkairīm* is due to a singular spelling in F1, against the usual forms of *hūkairiia-* in Yt 5.3 etc.

³⁰² This means that *hudāma-* cannot be used to prove an Ilr. or PIE change of **suh₂dmó-* > **sudmó-*, as was proposed by De Lamberterie 1999: 161.

³⁰³ V.II. V 3.40 L4 *u*, Pt2.M13.P2 *ū* · Jp1.Mf2 *ū* · L1.2.Br1.O2 *u*; Yt 13.97 *ahūm.stūtō* F1 *stūtō* · Mf3.K13.14.H5 *stūtō*.

- *gūnaoiti* (Yt 10.16) ‘increases’ < **gunauti*, and *xratugūtō*³⁰⁴ (Yt 8.36) ‘increasing wisdom’, nom.pl. of *xratu-gut-* (Kellens 1974a: 115ff.), to the Ir. root **gu-* ‘to increase’.
- *gūza-* ‘hidden’ in *zəmərgūza*-³⁰⁵ ‘hidden in the earth’ or ‘having a cave in the earth’ cf. Skt. *gūh-* ‘cave’, verb.adj. *gūdhá-* < **guždha-*. The forms point to an IIr. root **g^hu^h*-. The verbal forms of the present **guza-* ‘to hide’ are only attested with short *u*, but note that they occur in Yašt texts where the major part of the transmission rests on F1: Yt 4.4 *guzaēta*, Yt 17 *aguze* and *fraguzaiianta*. In view of the restricted reliability of F1, it is not very problematic that we do not find spellings *gūz°* in those verb forms.
- *gūša-* ‘to hear’, aorist **guša-* of *gaoš-* ‘to hear’.
- *gūšaiia*-³⁰⁶, present **gušaija-* to *gaoš-* ‘to hear’.
- *gūš-* ‘hearer’ in *sāsnō.gūšqm*³⁰⁷, gen.pl. of *sāsnō.guš-* ‘hearing the commandments’.
- *tiži.žnūta-* (V 14.7) ‘having a sharp edge’. Bartholomae 1904: 653 has suggested that the original form may have been **xšnuta-*, cognate with Skt. *kṣṇutá-* ‘sharpened’. The *ž°* could be due to contamination with *žnu-* ‘knee’, as is indicated by the Pahlavī translation, which reads *tyc šnwk /tēz šnūg/* (Jamasp 1907: 497) ‘with sharp knees’ in V 14.7.
- *tūtauu-*, perfect to *tū-* ‘to be able’. In Y 9.29, we find *aiβi.tūtuiiā* (Y 9.29) and *fratuiiā*, 2s. opt. forms of *tū-* ‘to be able’. It is uncertain whether we must correct with Kellens 1984: 293 *aiβi.tūtuiiā* to **aiβi.tuiiā*, or *fratuiiā* to **frā.tūtuiiā*.
- *tūtuxšuuu* (V 6.51), loc.pl. of *tūtuk-* ‘loam’.
- **tūdaδka*-³⁰⁸ (Yt 19.4) does not have to be corrected to *tudaska-*, as Hintze 1994: 81 proposes, because the mss. J10 and D spell *-tk-*. The diminutive suffix **-aska-* which Humbach-Ichaporia 1998: 74 propose is unknown, whereas comparison with *-idka-* in *vāiḍimiḍka-* and *snāuuiḍka-* in fact makes *-adka-* a better choice than *-aska-*. The connection with Skt. *tud-* ‘to thrust’, suggested by Humbach-Ichaporia, may be retained.

³⁰⁴ V.II. F1 and K12 *gūtō* · J10 *gutō*.

³⁰⁵ V.II. Yt 19.81 F1 *guz°*, but Pt1 *gūz°* · H3 *gaoz°* · J10 *gūz°*.

³⁰⁶ V.II. Yt 13.16 F1 *guš°* but P13 *gaoš°* · Mf3.K13.38 *gūš°*.

³⁰⁷ V.II. Yt 13.149 F1 *gušqm* · J10 *gušqm* · Mf3.K13 *gūšqm*.

³⁰⁸ V.II. F1 *tūdaškaēca*, J10 *tūkaēšca*, D *tonatkaēšca*.

- ³⁰⁹ **tūmāspana-* (Yt 13.131) PN ‘with fat horses’ < **tuma-aspana-*; the first member is connected with Skt. *tumrá-* ‘fat’. Geldner edits *tumāspanahe*, but the v.ll. of the IrKA show *tūm°* and *tīm°* (for earlier **tūm°*), which points to original *tūmāspanahe*.
- ³¹⁰ **dunmō.frūtō-* (Yt 13.14), nom.pl.m. of *dunmō.frut-* ‘flying in the clouds’ (cf. Skt. *°prút-* ‘flying’). Geldner edits *frutō*, but the IrKA points to **frūtō*.
- *dūraoša-*. This compound, an epithet of *haoma-*, must be connected with Skt. *duróša-* ‘hard to burn’ → ‘indestructible’, for which Humbach 1957: 300 has assumed a semantic shift to ‘everlasting’ → ‘providing immortality’. From a preform *IIr. *duž-auša-*, Skt. *duróša-* can be derived by the introduction of the allomorph *dur°* in front of voiced consonants, whereas the *r* in Av. *dūraoša-* might be due to analogy with *dūra-* ‘far’. Hoffmann (apud Humbach 1957: 300) assumes a dissimilation of **dužaoša-* to **duraōša-*.
- *drūjō*³¹¹ and *drūjascā* (OAv.), gen.sg. of *druj-*.
- *pusā-* (Yt 5.128, no v.ll.) ‘diadem, tiara’, ³¹² **zaraniiō.pūsa-* ‘with a gold tiara’. The absence of a v.l. *-ū-* in Yt 5.128 will be due to the poor ms. attestation of Yt 5. If *pūsā-* refers to a protruding decoration, e.g. the feather of a helmet, a connection with Skt. *púccha-* ‘tail, penis’ is conceivable³¹³.

³⁰⁹ V.ll. F1 *tum°* · J10 *tum°* · Mf3.K13 *tīm°*, H5 *tūm°*.

³¹⁰ V.ll. F1 *frutō* · J10 *fraixtō* · H5.Mf3.K13.38 *frūō* and *frūtō*.

³¹¹ In most attestations, the majority of mss. spells *drūjō*. Only in Y 51.14, *u* and *ū* break even: *drūjō* Mf4, *drujō* Pt4 · *drūjō* J2, *drujō* K5 · *drūjō* J3 · *drūjō* Jp1, *drujō* K4 · *drūjō* L3, *drujō* Dh1.L1.2 · *drūjō* H1.L13.J7, *drujō* J6.Jm1.

³¹² V.ll. Yt 15.57 F1 *pusəm* · J10 *pūsəm*; Yt 19.41 F1 *pusəm* · J10.D *paosəm* · H3 *pīsəm*.

³¹³ An Avestan noun **pusa-* ‘tail’ was also assumed by Panaino 1995-96: 200 for the form *pusāñhō* in V 19.42 *bāmiia *hauuāñhō puθrāñhō pusāñhō bauuaiñti* ‘radiant are/will be his (own) sons, *pusāñhō*’. The preceding line runs *nizbaiiemi hapta sruuō* ‘I invoke the Seven Horns’, which may refer to the constellation Ursa Minor. Panaino translates *bāmiia ... bauuaiñti* as ‘its (i.e. of the ‘peg/vertebra’) bright sons, (that are its) tail<s>’, assuming that the Seven Horns are referred to as the ‘tail’ of the Pole Star. However, his translation leaves *bauuaiñti* untranslated. It seems more likely that *pusāñhō bauuaiñti* (unattested in the PV) represents a later gloss from the interlinear translation, with MP *pus* rendering Avestan *puθrāñhō*. This gloss accidentally entered the Avestan text and was provided with the ending of *puθrāñhō* (thus Hertel 1936: 15f.). The intrusion of Pahlavī words in Avestan is well-known in the Vīdēvdād. Panaino rejects this explanation because it is an hypothesis which we cannot prove; this is true, but it seems to me that his alternative solution is not better. The original

- *fšūmant-* ‘cattle-breeder’ < Ilr. **pću-mant-*.
- *fšūša(n)-* < **pću-šanH-* ‘who gains cattle’.
- *buj-* ‘penance; liberation’, viz. in the acc.sg. (°)*būjəm* and the gen.sg. (°)*būjō*.
- *būjaiia-* and *būja-*, presents to the root *buj-* ‘to deliver’.
- **būjasrauuah-*³¹⁴ (Yt 13.101) PN. Geldner edits *bujasrauuah-*, but the v.ll. of the IrKA have *būj°*.
- *būji-*, name of a daēva (Yt 4.2f.), may be derived from **buj-* ‘to deliver, do penance’.
- *būna-*³¹⁵ ‘bottom, floor’ < **budna-* cf. Skt. *budhná-*. The Yt 19.51 forms with short *u* (*bunəm*, *bune*) rely on the transmission of F1, which reduces the strength of their plea against **būn°*.
- *būnauuā-*³¹⁶ ‘from the bottom’ < **bunaūa-* < **budnaūa-*. Only 16.9 *bunauuō* has short *u*, but this rests on F1.
- *būza-*³¹⁷ ‘he-goat’ (Yt 14.25) < **būja-*, cf. MoP *buz* ‘goat’, *boča* ‘little goat’, Arm. *buc* ‘lamb’.
- *yūjān* (OAv.), 3p. aor.inj.act. **yujant* to *yuj-* ‘to yoke’.
- *yūta-* ‘bound’, cf. Skt. *yutá-* ‘bound’.
- (°)*sūka-*³¹⁸ ‘seeing’, ‘light’, a derivative of *suk-* ‘to give light’ < Ilr. **ćuk-*, cf. Skt. *śucá-* ‘bright’.
- *sūcā* (Y 30.2), ins.sg.n. of *sūca-* ‘clear’, Skt. *śucá-*.

text may have been *bāmiia hauuāñhō puθrāñhō bauuainti* ‘radiant will be his sons’, which would leave Panaino’s interpretation of the meaning of the text unaffected.

³¹⁴ V.ll. F1 *buj°* · J10 *buj°* · Mf3.K13.38 *būj°*, H5 *bīj°*.

³¹⁵ V.ll. V 19.42 Mf2 *būne*, Jp1 *būni* · L1.M2 *bune*; V 19.47 L4.K1 *bunəm* · Jp1.Mf2 *būnəm* · L1.2.Br1 *būnəm*.

³¹⁶ V.ll. Yt 14.30-31 F1 and L11.M4 *bun°* · Pt1 and O3.Jm4 and J10 *būn°* · K36 *būn°*.

³¹⁷ V.ll. F1 *būzahe* · O3.Jm4 *būzahe* · K36 *būzahe*.

³¹⁸ V.ll. Yt 14.29: Pt1 and O3.K38.36 *sūkəm* · F1 *sūkəm* · Jm4.M4 *saokəm*; 14.32: Pt1 and O3.L11 *sūkəm* · F1 *sūkəm*, K16.M4 *saokəm*; 16.7: Pt1 and O3.Jm4 *sūkəm* · F1 *sūkəm* · J10 *sokəm*; 16.9 idem, 16.12 idem, Yt 13.30 *dūraēsūkā* P13 °*sūkā* · F1.J10 °*sūkā* (Geldner’s °*kukā* is a mistake, as the facsimile of F1 shows) · KA °*sūkā*. The forms Yt 5.53 and 57 °*sūkəm* are probably due to the narrow ms. basis on which we must base the text: 5.53 F1 *sūkəm* · J10 *saokəm*, 5.57 F1 and J10 *sūkəm*.

- *sūnō*³¹⁹, *sūne*³²⁰, *sūnqm(ca)*, *sūnahe*, *sūnīš*: gen.sg., dat.sg. and gen.pl. of *span-* ‘dog’ (Iir. **ćyan-/ćun-*), gen.sg. of a thematicized stem *sūna-* ‘dog’ and nom.sg. of *sūnī-* f. ‘dog’, originally ‘she-dog’, cf. Skt. gen.sg. *sūnah*, f. *sūnī-*.
- *sūrām* ‘in the morning’ (adv.) < **ćura-*, connected with Skt. *śvās* ‘tomorrow’, Khot. *svī* ‘tomorrow’ < **ću-as* (EWAia II: 676).
- (°)*srūta*³²¹ ‘heard, known’ to *sru-*.
- (°)*srūtar*³²² ‘listener’, to *sru-*.
- *šūšu-*³²³, perfect to the root **ćiu-* ‘to drive, impel’.
- *šūta-* (in *šūta-*, *anapišūta-*, *frašūta-*, *aipišūta-*) and **šūti-* (in abl.sg. *frašūtōit*) continue the verb.adj. **ćiuta-* ‘moved’ and the noun **ćiuti-* ‘movement’ to the root *š(ii)u-* ‘to impel, move’.
- *zūrō.jata*³²⁴ ‘falsely killed’; the first member Iir. **ʃura-* ‘falsely’ is cognate with Av. *zbara-* ‘to be crooked’ < **ʃuara-* and Skt. *huras-cit-* ‘thinking in crooked ways’ < **ʃura-*.
- *zūzu-*, the perfect stem **zuzū-* to the root *zū-* ‘to invoke’, cf. Skt. redupl. *ju*^o.
- *āzūzušte* (P 43), 3s. prs.ind.med. to *zuš-* ‘to enjoy’ (Skt. *jujuṣé*).
- *zuš-* ‘nice; enjoying’ yields *-ū-* in Yt 5.126 *ʃrazūšəm*³²⁵ ‘graceful’ and 19.42 *ʃbarō.zūšəm*³²⁶ ‘enjoying the loot’.

³¹⁹ V.II. V 6.10 K1 *sunō* · P10.Br1.L2 *sunō*; 7.26 K1 *sūnō*, Pt2 *sunō* · Jp1.Mf2 *sūnō* · L1.2 *sūnō*, P10 *sunō*; 7.28f. K1.Pt2 *sūnō* · Jp1 *sūnō* · L1 *sūnō*, L2.Br1 *sunō*; 15.45 L4 *sūnō* L4, K1 *sunō*.

³²⁰ V.II. V 13.10 Mf2 *sūne* · L4.K1 *sune* · M2 *sūne*, L2.Br1 *sune*; 13.11 L4 *sūne*, K1 *sune* · Br1 *sūne*, L2 *sune*, 15.3 L4.K1 *sune*.

³²¹ Compare also Yt 8.2 *frasrutqm* in Geldner’s edition (v.ll. F1 *srut*^o · J10.M12 *srūt*^o), where J10 together with all the other *srūta*-forms points to *frasrūtqm*, and Yt 13.125 *asrutā*, where F1 reads *asrutā*, while the v.ll. of Mf3.K13.38.14.H5 are absent.

³²² V.II. Yt 13.121 *vīsrūtārahe*: Mf3.K13.38.H5 *srūt*^o · F1 *srut*^o.

³²³ Yt 8.11 *šūšūiqm* is due to the poor ms. attestation of Yt 8 (F1 !).

³²⁴ V.II. V 7.3 K1.Pt2 *zurō* · Jp1.Mf2 *zūrō* · L1.2.Br1.M2 *zūrō*; Yt 9.18 F1 and J10 *zūrō*, Pt1 and O3 *zurō*; Yt 9.22 F1 *zūrō*, Pt1 and O3 *jurō*. Only Yt 19.77 *zurō.jatahe* has *u*, but Geldner provides only v.ll. from F1+, while J10 is not even mentioned by Geldner.

³²⁵ Geldner edits *u*, but cf. the v.ll. F1 *°zušəm*, P13 *°zaošəm* · J10 *°zūsəm*.

³²⁶ Geldner edits *u*, but cf. the v.ll. F1 *zušəm*, H3 *zaošəm* · J10 *zūsəm*, D *zīsəm*, M12 *zušəm*.

- *zrūne*³²⁷, dat.sg. of *zruuan-* ‘period, time’.

It is uncertain whether the forms in *urū*^o < **ru-* underwent lengthening when **ru-* was still the initial syllable of the word, or when it had already become the second syllable by means of the automatic prothesis of *u*^o. In view of the fact that lengthening in second syllable is unusual, a chronology **ru-* > **rū-* > *urū-* seems more plausible:

- ⁺*urūθən*³²⁸ (V 3.32), 3p. prs.inj.act. of *raod-/uruθ-* (**rud-*) ‘to weep’.
- *urūdōiia-* (Y 44.20), *urūḍaiia-*³²⁹ (Yt 13.141) ‘to weep’, present **rudaiia-* to *rud-* ‘to weep’.
- *urūpaiia-* (Y 48.10) ‘to cause pain’ < **rupaiia-*, present cognate with Skt. *rop-* ‘to suffer physical pain’ < PIE **reup-* (EWAia II: 469).
- *urūraoδ-* (Y 1.21f., 51.12), pf. **rurauda* to *rud-* ‘to obstruct’.
- *urūrud-* (Y 10.3), pf. to *rud-* ‘to grow’. It might be argued that the root was IIr. **Hrud^h-*, and that lengthening might thus be phonetic from reduplicated **Hru-Hrud^h-* > **rūrud-*. Yet there is no other positive evidence for the effect of an initial laryngeal in this root in Avestan, so that it is equally possible that *urūrud-* is due to the post-Avestan lengthening in open syllables.

There are two main categories of words in which lengthening is absent. The first one is the vowel **u-* in open syllable in anlaut: *utā* (Skt. *utá* ‘and’), *uḍara-* ‘belly’ (Skt. *udára-*), *upa*, *upara-*, *upairi* (Skt. *úpa*, *úpara-*, *upári*), *uba-* ‘both’ (Skt. *ubhá-*), *ufiia-* ‘to sing, eulogize’ (to **Hub^h-* ‘to weave’), *usixš* (Skt. *uśíj-*), *ušah-* ‘dawn’ (Skt. *uśas-*), etc.

The second category is that of adverbs in *ku*^o, viz. *kuḍa* ‘how’, *kudaṭ* ‘from where’, OAv. *kudā* ‘where’, *kudō* ‘(some)where’, for which compare Skt. *kúha* ‘where’, *kudha*^o. It is possible that *-u-* was preserved because of analogy with *kuḍra* ‘where’, but the generally recent date of the lengthening **u* > *ū* rather argues against an analogical solution. Furthermore, V 14.5 *kutaka-* ‘small’ may also have preserved *ku*^o on the example of the other forms in *ku*^o. Compare also the disease *kuruyā-*, with its absence of lengthening in *ku-*.

³²⁷ V.II. V 19.9 K1.L4 *z(a)rune* · Jp1.Mf2 *zrūne* · L2.Br1.M2.K10 *zrūne*.

³²⁸ V.II. L4.Pt2 *urudən*, B1.M13.M3 *tudən* · Jp1.Mf2 *urūθən* · L1.2.Br1.Dh1.M2.O2 *urudən* (V 19.45 *urudənta* no v.II.).

³²⁹ V.II. F1 *uru*^o · J10 *uruuā*^o · IrKA *urū*^o.

A remarkable exception to the lengthening in open syllable is provided by the sequence *dru*^o, which is always retained in YAv. First of all, we find the (frequently attested) YAv. forms of the stem *druj-* ‘Falsehood’ in gen.sg. *drujō*³³⁰, *drujas*³³¹, acc.sg. *drujim*, *drujəm*³³², abl.sg. *drujať*³³³, dat.sg. *druje*, gen.pl. *drujinəm*, and the compound form ^o*druj-*, whereas the OAv. gen.sg. is *drūjō*, *drūjasca*. Secondly, the gen.sg. *drukahe*³³⁴ of *druka-*, the name of a disease, does not have lengthening.

Lengthening is absent in several other forms. Some of them may be due to poor ms. attestation: *duδuβi.buzda* (F 690) if from **dudhubhi-* ‘deafened, numb’ (thus Klingenschmitt 1968), *sudu-* (V 3.32) ‘sieve’ (to Skt. *śudh-* ‘to clean’, cf. Hoffmann 1990: 69), *suši* ‘lungs’ (F 187) (< **ćušī-*, cf. Kellens 1974a: 369). The noun *šud-*³³⁵ (Yt 9.10, 19.69,96, V 7.70) ‘hunger, thirst’ (Skt. *kṣudh-*) also has *-u-*, although it is well-attested.

V 9.53 *uruθa-* ‘growth’ may be corrected to ^u*uruθməm*, the variant preserved by Jp1.Mf2.

³³⁰ V.II. Y 57.15 all mss. *drujō* except J2; J15 *drūjō*.

³³¹ In V 19.41 *drujaskanəm*, acc.sg. of *drujas-kanā-* ‘den of the Druj’, with the gen.sg. **drujas*.

³³² V.II. Y 9.8: *druj*^o all mss. except L13.J6.7.H1 *drūj*^o; 9.17: *druj*^o all mss.; 9.20(bis) all mss. *druj*^o except J6 once *drūj*^o; 30.8 all mss. *druj*^o; 31.4 *druj*^o Mf1.Pt4, J2.K5, S1.J3, K4.Jp1.Mf2, L1 · *drūj*^o H1.J6.7.L13, L3.2; 32.12 *druj*^o all mss.; 33.4 all mss. *drujəm* or *drujim*; 44.13 *druj*^o all mss. except C1.J6.7.H1.Jm1.L13, S2 *drūj*^o; 48.1 *druj*^o all mss.; 60.5 *druj*^o all mss.; 61.3 *druj*^o all mss.; 61.5 (bis) *druj*^o all mss. except Jm1.J6 once *drūj*^o; 72.3 all mss. *drujəmca*; Y 44.14 *drujəm* H1.J7.6 *drūj*^o; Yt 1.28 Mf3.K36 *drujim*, F1 and E1 and L11 *drūjəm*.

³³³ V.II. Yt 1.19 F2.K18a and J9.H2 *drujať*, F1 and Pt1 and J15 *drūjať*.

³³⁴ V 20.3 PV *duruk*^o · VS *druk*^o; 20.6 K1 *draok*^o · Jp1.Mf2 *druk*^o · L1.K10 *druk*^o, L2.Br1 *druγ*^o; 20.7 all mss. *druk*^o.

³³⁵ In the v.II., we never find a form with *ū*, but *šaodəm* is the prevailing variant in Yt 19.96 (1st time: F1 *sudimca*, J10 *soδəmca*; 2nd time: F1 *saodəmca*) and in Yt 9.10 it occurs in the ms. O3 which is independent of F1: F1 and Pt1 *šudəmca*, O3.L18 *šaodəmca*. In Yt 19.69, F1 has *šudəm*, but v.II. of J10 are absent.

§ 10.2.2 In open second syllable

In general, there is no lengthening in open syllable other than the initial. Examples of the retention of *-u-* in second syllable are *auruša-* ‘white’ (Skt. *aruṣá-*), *ahuna-* ‘containing the word *ahū*’ (to *ahu-* ‘lord’), *ahura-* ‘lord’ (Skt. *ásura-*), *išud-* ‘prayer’ (acc.sg. *išudəm*, nom.pl. *išudō*; cf. Skt. *iṣudhyāti* ‘to request’), *urūruđuša* (Y 10.3) < **ruruđuš-* ‘having grown’, *kahrpuna-* (V 14.5) ‘frog’, *tauruna-* ‘young’ (Skt. *táruṇa-* ‘young’), *tiži.dąsura-* (V 13.39) ‘with sharp teeth’ (from *dąsu-* ‘biting’ as in FrW 10.41 *karətō.dąsu-* ‘who bites with knives’), *vohuna-*, *vohuni-* ‘blood’, *razura-*³³⁶ ‘wood, forest’ (Yt); *^xspašnuđā* ‘you (pl.) see’ (Y 53.6; cf. Kellens 1984: 173f.)³³⁷, and the active perfect participles in *-uš-*, such as *dađuš-* ‘having put’. In open third syllable, *-u-* is retained in the oblique cases *ađaurunō*, *ađaurunąsca*, *ađaurunəm*, *ađaurune*, *ađaurunaēca* of the stem *ađauruuan-*, cf. Skt. *átharvan-*.

Lengthening has only occurred in a small number of cases. Most of these lengthened forms consist of a preverb and a stem with **u* in the first syllable. It is possible that the preverbs (*ā*, *fra*) and the productive first member of compounds *hu* ‘good’ were treated as the first member of a compound at the time of the RCS, so that the first syllable of the second member got into a position where its vowel could be lengthened. In that case, these forms in fact show lengthening in open initial syllable, so that they would belong to the preceding § 10.2.1.

• *āzūti-* ‘butter’ (gen.sg. *āzūtōiš*, dat.sg. *āzūtaiaēca*), cognate with Skt. *áhuti-*.

³³⁶ Lengthened only once in Yt 16.3 J10 *razūre*. Hauschild 1960: 52f. assumes PIE **reg-u-* ‘pole, palisade’, to which an adj. in **reguro-* ‘endowed with poles’ was formed. According to Hauschild, the adj. *razura-* developed the substantival meaning of ‘fence, enclosed area’, used in Yt 5.50 for the fence around a race-course. With reference to a wolf, *razura-* in V 13.8 means ‘trap’, while the meaning ‘forest’ in the remaining attestations can also be derived from ‘enclosed area’.

³³⁷ Kellens’ remark that «la voyelle de l’infixe au degré zéro est notée longue devant occlusive» seems irrelevant. Three of the five relevant forms (*kəṛənūidi*, *vəṛənūite*, *°vəṛənūidi*) have *-ūi-* because of *i*-epenthesis. *Hunūtō* is a mistake, because N 108 reads *hunūtō*, and is cited as such by Kellens in his «Inventaire des formes originales» and in Kellens 1995a: 73. The opposition *u* : *ū* in the nasal present forms is then reduced to *hunūta* versus *^xspašnuđā*. For an explanation of *hunūta* in line with the regularities proposed here, see below.

- ³³⁸ **frašūmaka-* (V 3.14) ‘anus’, which Bartholomae 1904: 1009 derives from a hypothetical adjective **fra-šuman-*.
- *frašūsa-*³³⁹ ‘to drive, impel’ < inchoat. prs. IIr. **čiu-śca-*. In V 4.17 and 5.2, Geldner edits *frašusaiti*, but in V 5.2 the IrVS has *ū*. In the Yašts, we find many forms for which the majority of mss. have *šusa-*, but all of the texts rely mainly on F1: 5.88, 19.34 *frašusat*, 19.35-38 *šusat*, 17.58f. *frašusāni*, 17.60 *frašusa*.
- **huxšnūta-* ‘well sharpened’ (Yt 10) in *huxšnutaīiā* and *huxšnuta* is probably due to the poor ms. transmission (only F1 and J10) of Yt 10.
- *hunūta*³⁴⁰ (Y 9.3-13), 3s. prs.inj.med. of *hu-* ‘to press’ (prs. *hunu-/hunao-*).

We may probably include the stem **fra-šumant-* ‘movable’ in this category. In P 59, it is attested in the acc.pl.f. *frašumaitīš*, without a long vowel in the ms. In Yt 13.57, we find the nom.pl.m. of the negated stem *a-frašumant-* ‘immovable, immobile’, which none of the mss. spells with an *u*-vowel: Mf3.K13.38.H5 *afrašūmantō*, K14 *afrašīia.mantō*, Lb5 *afrašāēmantō* · J10 *afrašəmantō* · F1+ *afraš.məntō*. Nevertheless, as Hoffmann 1970: 193 has argued, we may assume that the IrKA spelling *-ī-* represents original **-ū-*, and restore **afrašūmantō*. The vowel was apparently lost completely from the YtS mss. This analysis of Yt 13.57 renders it likely that P 59 also contained a long vowel: **frašūmaitīš*.

The analysis of *əṛəžūcqm* (Y 48.9) < **ṛš-ucām* (to the root *vac-*) seems to agree with this explanation of *-ū-* in non-initial syllable. The metre of the verse shows that the original text read **ṛš mai ucām*, the adverb **ṛš* being repeated later in **ṛš mai ṛš ucām*. It is generally agreed upon that the repetition of preverbs in OAv. is probably linked with the canonization of OAv. Subsequently, voicing of **š* > *ž* took place in **ṛšucām*. As it is likely that a form **ucām*, with *u-* in anlaut, would not have yielded *ū*^o (compare the retention of *u*^o in *upa* etc.), we must assume that **ucām* became **ūcām* after it had merged into one compound with **ṛš*. This yields the following

³³⁸ Geldner edits *frašumakat*, but the v.l. *frašūmakat* in Jp1.Mf2 show *ū*.

³³⁹ V.II. V 5.2 *°šusaiti* M13.B1.P2 · *°šūsait*^o Mf2.Jp1 · *°šusaiti* L2; Yt 13.42 *frašūsəṇte* F1 *°šus*^o · Mf3.K13.38.H5 *°šūs*^o; Yt 13.65 *frašūsəṇti* F1 *°šus*^o · Mf3.K13.38.H5 *°šūs*^o; Yt 16.2 *frašūsa* F1 *°šusa* · Jm4 *°šūsa*, Pt1.O3 *°srūš*; Yt 1.17 *šūsa* all mss. *°ūs* or *°ūš* except O3 *šus*.

³⁴⁰ V.II. Y 9.3 Mf1.Mf4 *hunūta* · K5 *hunūta*, J2 *hūnūta* · J3 *haonūta* · C1 *hunuuta*, L13 *hunuuta*; Y 9.4 J2 *hūnūta* · Y 9.9 K5 *hūnūta*. No v.ll. for the other attestations.

chronology: 1. **r̥š mai ucām* → **r̥š mai r̥š.ucām*, 2. **r̥š.ucām* > **r̥žucām*, 3. **r̥žucām* > *ərəžūcəm*.

The form *dužūxta-* < **duž-uxta-* ‘evil-spoken’ is uncertain; it may have taken over *ū* from its antonym *hūxta-* ‘well-spoken’.

Finally, there are three Yašt forms which may have lengthening in a real second syllable, but the ms. evidence is ambiguous. In the case of Yt 10.109 ⁺*axšnūta*-³⁴¹ ‘dissatisfied’, the reading *axšnūta*^o is only attested in J10, while the other mss. have *-ušt-* or *-išt-*. The forms *s ūsrūma*³⁴² in Yt 13.148 and *susrūšəmna*-³⁴³ in Yt 14.21, both derived from *sru-* ‘to listen’, have *-ū-* in the IrKA mss. but *-u-* in the Yašt Proper. In Yt 14.21, it is striking that the sequence *s_sr_š*^o only appears in F1 and Pt1; therefore, it is quite possible that the original form was *^xsraošəmnō* ‘listening to’, which also appears in V 13.17f. (cf. Kellens 1984: 369):

Yt 14.21 *vīgāvθō marəzaṭ kaofanəm, barəšnauuō marəzaṭ gairinəm, jaṭnauuō marəzaṭ raonəm, saēniš marəzaṭ uruuaranəm, vaiiəm vācim ^xsraošəmnō* ‘he (viz. Vərəθraγna) has touched the valleys of the mountains, he has touched the heights of the mountains, he has touched the depths of the rivers, he has touched the tops of the trees, listening to the voice of the birds.’

V 13.17 *spā ... yō ... parāiti sraošəmnō tāiiūš vəhrkəmca* ‘le chien qui s’en va tendre l’oreille aux voleurs et au loup.’

Compare also the forms with uncertain etymology (§ 10.6 below), which have *u* in an open second syllable: in view of the fact that shortening of **ū* is hardly ever attested, these forms show that no general lengthening of **u* in open syllables other than the initial one needs to be assumed.

§ 10.2.3 After *y-* and *-ii-*

When **u* is preceded by *y-* or by *-ii-*, it is lengthened to *-ū-*. It does not seem to matter which kind of consonant or consonant cluster follows after **u*. The evidence consists of the following forms:

³⁴¹ A correction by Humbach (1974: 91f.) of Geldner’s *axšnuštahe*. V.II. F1 *axnušt*^o, L18 *axīšt*^o · H3.4 *axšništ*^o · J10 *axšnūtahe*. The sequence *-št-* in F1 and H3.4 must be due to the preceding form *ṭbištahecī*.

³⁴² V.II. F1 *sursuma* (with *r* struck out) · Mf3.K13.37.W3 *sūsrūma*.

³⁴³ V.II. F1.Pt1 *su(ru)sruš*^o · J10 *saoraoš.raš*^o, M12 *srišəmnō* · K38 *sūrūšəmnō*.

- *aidiūnqm* (Y 39.2), gen.pl. of *aidiiu-* ‘harmless’, cf. Skt. *ádyu-* ‘harmless’; the ending of the gen.pl. of *u-* and *ū-*stems usually is *-unqm*.
- *apaiūxtāt*³⁴⁴, abl.sg. of **apa-ūxta-* ‘laid down’ (lit. ‘yoked off’).
- *apərənāiūka*³⁴⁵ ‘minor’ (of age), lit. ‘not of full age’; compare *pərənāiū-* ‘adult’.
- *aipiūxdi-* ‘with addition of speech’ < **api-uxdi-*, and *anapiūxda-* ‘without addition of speech’ < **an-api-uxda-*.
- *(a)pipiūšī-* (V 15.8) < **pi-piH-ušī-*, f. of the pf.ptc.act. of *pi-* ‘to fatten’.
- The form **yuxta-* ‘yoked’ (Skt. *yuktá-*) is attested with initial *yū°* in Y 11.2 *yūxta*, Yt 10.136 *yūxta*, 14.63 *yūxtanqm* and V 7.41 **caḍru.yūxtəm*³⁴⁶. It is thus found in three different texts (Yasna, Yašt, Vīdēvdād), which suggests that *yū°* is the form which the archetype had; this is furthermore suggested by the form *apaiūxtāt*. Nearly all of the attestations in *yū°* appear in the Yašts: Yt 5.50 *yuxtanqm*, 9.2 *yuxta.aspqm*, 10.125 *frā.yuxta*, 13.101 *yuxtauarōiš*, 13.114 *yuxtāspahe*, 15.7 *yuxtaiiā*, F 251f. *yuxta*; it is likely that these are due to the less trustworthy spelling of the Yašts, although two Yt 13 forms are involved. The only exception is Y 49.9 *yuxtā*³⁴⁷ (nom.pl.m.).
- *yūxḍa*³⁴⁸ ‘dextrous’ < Ir. **yug-tha-*, to the root *yuj-* ‘to yoke’.
- *yūjiiasti*³⁴⁹, a measure of distance, which Klingenschmitt 1968: 241 derives from **iuj-iasti-* ‘line-up for the harnessing (of draught animals)’, with **iasti-* to *yat-* ‘to arrange’. This analysis as a compound would also explain the survival of the cluster *-jii-*, since PIr. **-ji-* normally yields YAv. *-ž-*. Yet the use of an athematic form of **iuj-* seems doubtful, so that we must alternatively consider the possibility that all YAv. spellings represent **yūjiiasti-* in the archetype, with loss of *a* in the sequence *-jii-* in the mss.
- *zīziūš-* (abl.sg. Yt 1.19 *zīzi.yūšatca*, Yt 13.71 *zizi.yūšatca*), ptc.pf.act. of *zīiā-* ‘to destroy’.

³⁴⁴ The v.ll. of V 18.30-56 (9x) include K1.B1 *ūxtāt*, L4 1x *ūxtāt*, further *ūxtāt*; Jp1.Mf2 *ūxtāt* in V 18.30; L1.2.M2 *ūxtāt*.

³⁴⁵ The form Yt 9.1 *apərənāiūkaqm* in Geldner’s edition is based on the text of F1, but J10 and Jm4.O3 have *-ū-*: F1.Pt1 *uk°* · J10 *ūk°* · Jm4.O3 *ūk°*.

³⁴⁶ Geldner edits *caḍru.yuxtəm*, but the form with *ū* is better attested in the mss.: K1.L4a *yuxtəm* · Jp1.Mf2 *yūxtəm* · L1.Dh1 *yūxtəm*, L2.Br1 *yūxḍəm*.

³⁴⁷ V.ll. *yuxtā* Pt4.Mf1.4 · *yuxtā* J2.K5 · *yextā* J3 · *yuxtā* K4.Mf2.Jp1 · InVS and YS *yūxtā* (influence of preceding *yūjēn* ?).

³⁴⁸ V.ll. Yt 10.127 F1 *yūxḍahe* · M12 *yuxtahe*; Yt 14.15 F1 and Pt1 *yūxḍahē* · K38 and L11 *yūxḍahe* · M4 and J10 *yaoxḍahe*.

³⁴⁹ V.ll. V 13.17 L4.K1 *yuj°* · Jp1.Mf2 *yūj°* · L1.2.Br1.M2 *yūj°*; VPtr. *yūjist*.

The forms in *yūš*^o of the pronoun ‘you’ (pl.) are ambiguous. *Yūš* ‘you’ contains *Ir. *ū*, but the forms dat.pl. *yūšmaibiiā*, *yūšmaoiō*³⁵⁰ (cf. Skt. *yuṣmábhyaṃ*), abl.sg. *yūšmaṭ* (cf. Skt. *yuṣmát*), and gen.sg. *yūšmākəm* (cf. Skt. *yuṣmākam*) correspond to Skt. forms in short *u*. The same constellation is also shown by the possessive pronoun *yūšmāka-* ‘your’ and the derived adj. *yūšmāuuant-* ‘like you’. In view of the nom.sg. form *yūš*, it is conceivable that all the other forms are not due to a phonetic lengthening, but simply have adopted the *ū* from the nom.sg. form.

A few forms have an uncertain etymology, so that we cannot use them as evidence in favor of the proposed lengthening. Yet they do show the sequence *-iiū-*, so that at least they do not provide counterevidence:

- *āiiūta-*³⁵¹ (PN) may be a hypocoristic form for **āiiūtāspa-* < **ā-īuta-aspa-* ‘with the horses put in’.
- *utaiiūtā*, loc.sg. of *utaiiūiti-* ‘enduring; youth’. The word may be a compound **uta-īūti-*, cognate with Skt. *itāūti-* ‘extending or reaching from hence’, which is sometimes accented as *itā ūti-*; but it is impossible to derive both the Av. and the Skt. form from a common preform.
- ⁺*utaiiūtōiš*³⁵² (Yt 13.126), gen.sg. of a PN *utaiiūiti-*.
- ^χ*fiiūšta-* (Yt 13.125) PN; Geldner edits *fiiūšta-* with F1, but the IrKA spellings *fiišt*^o (K38) and *fiiēšt*^o (Mf3.K13.14) must go back to **ū*.

A few forms are only attested with *-iiu-*; since they occur in Yašt chapters relying mainly on F1 and J10, and in the Hāddōxt Nask, this does not necessarily mean that these forms were not spelled with *-iiū-* in the archetype: Yt 17.10 *mərəziiumna-* ‘?’, Yt 10.52 *yujieiti*, probably for **yujajati* ‘yokes’, H 2.7f. *viusant-* ‘appearing’, and the PN Yt 19.46 *spitiiura-*, a compound with *spiti-* ‘white’ as a first member and an unknown second member.

§ 10.2.4 In front of a sibilant

The lengthening in front of *žd* and *žb* recalls the lengthening of **ižd* and **ižb*. Similarly, lengthening in front of *-št-* is also found with **u*, although the

³⁵⁰ V.II. Yt 13.38 F1 *yūš*^o, P13 *yūš*^o · Mf3.K13.38 *yūš*^o.

³⁵¹ V.II. Yt 13.118 F1 *āiiut*^o · J10 *āiiūt*^o · Mf3.K13.38 *āiiūt*^o.

³⁵² V.II. F1.Pt1.E1.L18.P13 *utaiiūtōiš* · Mf3.K13.38.14.H5^o *iiūtōiš*.

change seems more sporadic than in the case of *-*išt*-, and it is not triggered by a following *i* or *ī*.

In front of *ž* plus a consonant, we find:

- *xrūždra*³⁵³ ‘hard’, *xrūždisma*- ‘hard soil, made from hard soil’ (**xruždi-zm-a-* to *zam-* ‘earth’) and *xrūždā*- ‘hardship’; these may be connected with Skt. *krūdayati*, maybe ‘to make thick’, < **kružd-*, although the meaning of the Skt. forms and therefore the connection with Avestan are very uncertain according to EWAia I: 415.
- *dadūžbīš* (Y 58.6), ins.pl. **dadušbiš* of the pf.ptc.act. *daduš-* ‘having put/given’ to *dā-*.

In front of *š*, lengthening is usually not found, compare *tušna-* ‘quiet’, *mušti-* ‘fist’, *huška-* ‘dry’ and the perfect ptc. in *-uš-*. Long *-ū-* only appears in:

- *gūštā*³⁵⁴, 3s. inj.aor.med. to *gaoš-* ‘to hear’; note that the expected form with a short vowel is attested in the verbal adj. *agušta-*.
- *jaγmūštāma-*, superlative of the pf.ptc. *jaγmuš-* ‘having come’. In theory, *jaγmūštāma-* may owe its *-ū-* to influence of the feminine *jaγmūštī-*, but this seems unlikely, as it would require a relatively early date for the lengthening.
- *jaγmūštī-*, f. of the pf.ptc.act. *jaγmuš-* ‘having come’. As indicated in § 10.5.3 below, it seems less likely to me that *ū* is due the influence of the following *-ī*, as a kind of *i*-epenthesis.
- *hūšnāθrāscā* (Y 38.3) ‘having good bathing places’, with **hu-* ‘good’, is very exceptional, because the morpheme *hu*^o is usually retained, and seems to have resisted lengthening e.g. in *hunao-*, *hunu-* and other forms.

The analysis of FrW 8.2 *mahrkūšō* is unclear.

³⁵³ V.ll. V 19.24 *xrūždranqm*: L4 *xrūžd*^o, K1 *xružd*^o · Jp1.Mf2 *xrūžd*^o · K10 *xrūžd*^o, L1.2.Br1.M2 *xšūdranqm*; V 19.40 all 3 classes *xrūžd*^o except for K1 *xružd*^o. The form Yt 5.82 *xruždranqm* (F1 *xruž*^o · J10.K12 *xraož*^o) is due to the small ms. basis of Yt 5.

³⁵⁴ Y 31.18, P 7; v.ll. Yt 13.87 F1 *gušta* · J10 *gušta* · Mf3.K13 *gūšta*; Yt 13.95 F1 *gušta* · Mf3.K13 *gūšta*.

§ 10.3 **ū* yields *ū*

İr. **ū* is generally retained as *ū* in Avestan. The full evidence will be provided below. For all forms, v.ll. will only be given when the decision on **u* or **ū* in the archetype is doubtful, or when the v.ll. are in some way relevant to the discussion of the forms.

- ³⁵⁵**aoiγmatastūra* (Yt 13.125) PN; the analysis of the first part of this word is disputed. Mayrhofer 1979: I/65 reconstructs **vi-γmata-*, whereas I will try to show in § 21.3 that **auui-γmata-* is equally possible. There seems to exist agreement about the fact that the last part represents **stūra-* ‘strong’, as in the PN *pairištūrahe*. The spelling in *-ū-* may be restored on the strength of the IrKA spelling *-ī-*.
- *asūna-* (Y 28.10) ‘rich, not wanting’, compare Skt. *śūna-* ‘want’ (EWAia II: 650).
- *āxrūra-* (Yt 13.137), PN, probably contains the adj. *xrūra-* ‘bloody’ according to Mayrhofer 1979: I/30.
- *ūθa-*³⁵⁶ (Y 46.3, V 6.10ff., 16.17) ‘fat’ and *ūθō.tāt-* ‘id.’ have an uncertain etymology, but in view of the fact that **u-* is never lengthened in anlaut, we can safely posit PAv. **ūθa-*.
- *ūnā-* (Y 10.15, V 17.2) ‘hole; empty hand’ and *ūna-* (V 22.5)³⁵⁷ ‘empty’ (Humbach 1993: 41), compare Skt. *ūná-* ‘wanting, defective’.
- *xrūniia-* (Y 46.5) ‘violation’, cf. *xrūma-* and *xrūra-* below.
- *xrūma-* (Yt 10.38, 13.38) ‘cruel’ and *xrūmiia-* (Yt 10.38) ‘bloody’ have been derived from the root İr. **kruH-*, cf. *xrūra-* ‘bloody’. The adj. *xrūma-* also lies at the basis of *vīxrūmañt-* ‘bloody’.
- *xrūra-* ‘bloody’, cf. Skt. *krūrā-*. This includes V 7.27 *xrūtahe* ‘dreadful’, the v.ll.³⁵⁸ of which show that the original form was **xrūrahe* ‘bloody’; the PV replaced *-r-* by *-t-*.
- *dūta-* ‘messenger’ (Y 32.1,13), cf. Skt. *dūtā-* ‘id’.
- *dūra-* ‘far’, cf. Skt. *dūrā-* ‘far’.

³⁵⁵ F1 *turahe* · J10 *turahe* · Mf3.K13.14.38 *tīrahe*.

³⁵⁶ V.ll. V 6.10 K1 *ūθ°*, Pt2.P10 *uθ°*; V 16.17 L4 *uθəm*, K1 *uθrəm* · Mf2 *ūθəm*, Jp1 *aētəm* · L1 *ūθəm*, L2.K10 *uθəm*, Br1.M2.Dh1 *ūθrəm*.

³⁵⁷ V.ll. V 17.2 K1 *unāhuua*, L4 *anāhuua* · Jp1.Mf2 *ūnāhuua* · K10.L2.Br1.M2 *unāhuua*; 22.5 L4.K1 *unəm* · Jp1 *ūnəm* · L1.2.Br1 *ūnəm*.

³⁵⁸ Pt2.M14.P2.L4a *xrūtahe*, K1 *xratahe* · Jp1.Mf2 *xrūrahe* · K10.L2 *xrūrahe*, L1.O2 *xrūvahe* (sic).

- *būta-* (Y 65.9, Vr 11.12) ‘(having) been’, from *bauu-* ‘to be’, cf. Skt. *bhūtá-*.
- *paīrištūra-* (Yt 13.110), PN, cf. Skt. *sthūrā-* ‘strong’.
- *būmi-* ‘earth’, cf. Skt. *bhūmī-* ‘earth’.
- *būmīia-*³⁵⁹ (Yt 19.2), mountain name. Probably an adj. **b^huHmiHa-* ‘belonging to the earth’, cf. Skt. *bhūmyá-* ‘earthen’.
- *būšīiant-* ‘future, to be’, prs.ptc.act. of *būšīia-*, future of *bū-* ‘to be’.
- *būšīiastā-*, name of a daevī, derived from the stem *būšīiant-* (**būšīiant-tā-*).
- *būždiīāi* (Y 44.17) inf. ‘to endeavour’, *ā(.)būšti-* (Y 43.8) ‘growth’. These words may be connected with Skt. *bhūs-* ‘to promote, stimulate’, derived from the root *bhū-* ‘to be, become’ (EWAia II: 270f.). At least *būždiīāi* is ambiguous, since **būždiīāi* would also have yielded *būždiīāi*, cf. above.
- *nūrəm, nūrəm*³⁶⁰ ‘now’ < PIE **nuH* ‘now’.
- *mūṣra-* ‘excrements’, cf. Skt. *mūtra-* ‘urine’.
- *mūra-* (Yt 5.93) ‘stupid’, cf. Skt. *mūrā-* ‘stupid’.
- *mūš* (Y 16.8 = 68.8), name of a witch, possibly cognate with Skt. *mūṣ-* ‘mouse’ (EWAia II: 370).
- *mrū-* ‘to speak’ (*mrūtē, āmrūta, mrūmaide, mrūta-*) < PIE **mluH-*.
- *sūkā-*³⁶¹ ‘needle’, possibly from PIE **kuH^o* ‘pointed, sharp’, acc. to EWAia II: 739.
- *sūra-*³⁶² ‘strong’, *asūra-* ‘weak’, cf. Skt. *śūra-* ‘strong’.
- *stūna-*³⁶³ ‘pillar’, cf. Skt. *sthūṇā-* ‘post, pillar’.
- *zūtā* (Y 50.1), loc.sg. of **zūti-* ‘invocation’ to Ilr. *ʃ^huH-*.
- *zūš*³⁶⁴ (Yt 5.7). If Kellens’ analysis (1974a: 104ff.) of this form as a nom.sg. of a root noun *zū-* ‘hurrying, runner’ is correct (cf. also Oettinger

³⁵⁹ V.ll. F1 *bumiō* · H3 *bumō* · J10 *būmīō*.

³⁶⁰ Yt 5.50 and 19.77 *nūrəm* is due to Geldner’s confidence in the spelling of F1. Cf. Yt 5.50: F1 *nūrəm* · J10 *nūrəm*.

³⁶¹ V.ll. Yt 14.32-33 K38 *sūk^o*, F1 *suk^o*, the rest *saok^o*; Yt 16.12 Pt1 *sūk^o* · O3.Jm4 *sūk^o* · F1 *suk^o* · J10 *sok^o*.

³⁶² Yt 14.41 *gaosurābiiō* has short *u* in the spelling of F1, but Jm4 probably preserves the older *ū*: F1 *sur^o* · Jm4 *srū^o* · M4.L11.J10 *srābiiō* · Pt1 *šrābiiō*.

³⁶³ Yašt forms with *u* are due to the prominence accorded by Geldner to F1. In Yt 5.101 for instance, M12 *stīnəm* preserves older **stūnəm*: Yt 5.101 Geldner *stunəm*; v.ll. F1 *stunəm*, P13 *staonəm* · J10 *staōnəm*, M12 *stīnəm*; 10.28 *stunā*: F1 *stunā*, P13 *staonā*.

³⁶⁴ Geldner edits *zuša*, but cf. the v.ll. F1 *zūš* · J10 *zūš*, K12 *zaoša*; Geldner 1886-96: XIIIb: *zūš*.

1983: 203f.), then the reading *zūš* in J10 retains **ū*, which as so often has been shortened in F1.

- *hūxta-* ‘well spoken’ < **hu-uxta-*, cf. Skt. *sūktá-* ‘well said’.
- *hūrō*, gen.sg. of *huuarə* ‘sun’, cf. Skt. gen.sg. *sūrah*.

The following forms which have preserved *-ū-* are ambiguous because *-ū-* is preceded by *y-*:

- *yūnqm* (Y 57.13), gen.pl. of *yuan-* ‘young man’, cf. Skt. *yúvan-*. The Ir. paradigm of this noun had an alternation **HiuHān-*/**HiuHan-*/**HiuHn-* (cf. EWAia II: 413), yielding Avestan *yuuān-/yuan-/yūn-*.
- *yūš*, *yūžəm*, *yūžəm* ‘you’ (nom.pl.) < Ir. **iuH-š*. The older form **yūš* is enlarged with **-am* in *yūžəm*; compare Skt. *yūyám*, with *-yám* added to **iuH* on analogy with *vayám* ‘we’.

§ 10.4 **ū* yields *u*

A sequence **-ūi-* yields *-ui-* if no further changes occur; thus, there must have been a phonetic shortening of **ū* in front of *-ii-* at a certain point. The evidence for this development comprises:

- *apuiiant-* ‘not deteriorating’ < **a-puHiant-* (cf. Skt. *púyati* ‘stinks’)
- *amuiiamna-* ‘immovable’ < **a-muHiamna-* (cf. § 6.5).
- °*tūtuiiā*, 2s. prs. or pf.opt. of *tū-* ‘be able’ < **tutūiāh* (cf. § 10.2.1).
- *buiiā*, *buiiāt*, *buiiamā*, *buiiata*, *buiiqn*, *buiiārəš*, 2s, 3s, 1p, 2p, 3p. aor.opt.act. **b^huH-iaH-* of *bū-* ‘to become’.
- *uiiamna-* ‘deficient’, *anuiiamna-* ‘not deficient’ < **uHiamna-* (cf. *ūnā-*).
- (°)*mruiiā*, *mruiiāt*, 2s. and 3s. prs.opt.act. of *mrū-* ‘to speak’.
- *suiiamna-*, prs.ptc.med. of *suiia-* ‘to thrive’ < **cuH-ia-* to the root *sū-* ‘to make thriving; to thrive’³⁶⁵.

Shortening of **ū* may be due to analogy in the following forms:

- The *u-* and *ū-*stem endings *-unqm* (gen.pl.), *-ubiiō* (dat.pl.), *-ubiiā* (ins.dat.du.), *-ubiš* (ins.pl.), *-ušu* (loc.pl.), which regularly display short *u* before the ending. It seems that *ū-*stems have merged with *u-*stems in all oblique cases of the dual and plural. The exception gen.pl. *aidiūnqm* owes its

³⁶⁵ Skt. *-śūyati* (Bṛhad-Āraṇyaka-Upaniṣad, Kāṇva recension) ‘swells’, which looks like a regular correspondence of Av. *suiia-*, is a nonce formation for original *-śvayati* as attested in the parallel text of the Mādhyandina recension; see Kulikov 2001: 481.

ū to the preceding *-ii-* (cf. § 10.2.3), while *hinūiβiiō* has *-ū-* because of *i*-epenthesis.

- The forms Y 44.7 *uzəma-* ‘respectful’ and Y 46.9 *uzəmah-* ‘respect’ are the only forms in **ū-* which surface with *u-*. Insler 1996: 172f. connects them with Av. *vāzišta-* ‘most honoured’, Skt. *vāhiṣṭha-*, *ūhyāte ūhé* ‘to consider’, which would point to **ūzma(h)-* < **uHj^h-ma(s)-*. If this derivation is correct, it is conceivable that *uzəma(h)-* has acquired short *u^o* in analogy with the preverbs *us*, *uz* ‘out’. The PN Yt *usmānara-* may mean ‘with respectful men’, to be connected with *uzəma-*; the reconstruction would be Ilr. **uǰma-Hnara*³⁶⁶.

- The noun **anu-uxti-* ‘speaking along’ is edited as *anūxtē* by Geldner in Yt 9.26, but as we have remarked above, compounds in *anu^o* usually take the form *anu^o* regardless of the original length of the *u*. In fact, all attestations (Y 52.7 + quotations, Yt 5.18 and passim) of **anūxti-* except for Yt 9.26 show the spelling *anuxt^o* or *anu.uxt^o*. And even in Yt 9.26, only Pt1 spells *anūxtē*, but F1 has *anu.xtē*. We may thus posit *anuxtē* for the archetype at Yt 9.26 too.

- Yt 13.122 *vohuštra-* PN ‘with a good camel’ derives from **vohu-uštra-*. This should yield †*vohūštra-*, but since the adj. *vohu^o* functions as the first member of a compound in many words, it may easily have been introduced for **vohūštra-*.

- *hunu-* ‘son’ (as against Skt. *sūnú-*) always has short *-u-*: nom.sg. *hunuš* Y 51.10, nom.pl. *hunauuō* Yt passim, *hunauuasca* Yt 19.41. Ilr. **ū* was probably replaced in Avestan (or in the later transmission) by analogy with the preverb *hu^o*.

§ 10.5 **u* and **ū* yield *ūi*

This section discusses the effect of *i*-epenthesis on **ū̃*. The vowels **u* and **ū* always becomes *ūi* when affected by *i*-epenthesis (§ 10.5.1). The spelling *-ui-* is nothing more than a corruption of the mss. (§ 10.5.2). The third subsection investigates the influence of a following palatal vowel on the sequence **-uš-*.

³⁶⁶ For the different reflexes OAv. *-zm-* vs. YAv. *-sm-* < PAv. **zm*, compare Hoffmann-Forssman 1996: 102; one other example is OAv. *uruuāzəman-* vs. YAv. *uruuāsmān-* ‘bliss, joy’.

§ 10.5.1 The grapheme *ūi*

The complete evidence for *-ūi-* < IIr. **-u-* consists of the forms:

- *āzūiti-* ‘butter’ (Skt. *āhuti-*).
- *āhūiri-* ‘ahuric’, *āhūiriia-* ‘ahuric’ (to *ahura-*).
- *išūidiia-* ‘to pay tribute’ (to *išud-*).
- *ūitī* (YH 39.3) ‘so’ < **uti*; YAv. *ūiti* is always spelled with *ui*^o (see below).
- *kərənūidi* ‘make!’ (Y 9.28) 2s.ipv. of *kərənu-*.
- *(hu)xšnūitīm* ‘satisfaction’, *axšnūitīm* ‘dissatisfaction’: cf. *xšnūta-* ‘satisfied’.
- *tūiriia-* ‘fourth’ (Skt. *turīya-*).
- *būidiia-* ‘to smell’ (to Skt. *budh-*).
- *yūidiia-* ‘to fight’, *yūidišta-* ‘who fights the best’ (Skt. *yudh-*).
- *vərənūidi* ‘cover!’ (Y 9.28), 2s.ipv. of *vərənu-*.
- *razūire* (V 13.8), loc.sg. of *razura-* ‘forest’ (see § 10.2.2).
- *sūiriia-* ‘morning meal’ and *asūiri(ia)-* (Yt 14.20) ‘not morning’ < **ćurja-*. These forms must be connected with the adv. *sūrəm* ‘in the morning’ < **ćura-* and Skt. *śvās* ‘tomorrow’, Khot. *svī* ‘tomorrow’ < **ću-as* (EWAia II: 676).
- *stūidi* (Y 9.2) ‘praise!’, *stūiti-*, *nīstūiti-*, *āstūiti-* ‘praise’ to *stu-* ‘praise’.
- *srūidiāi* ‘to hear’ (inf.), *frasrūiti-* ‘recitation’ to *sru-* ‘to hear’.
- *frašūiti-* (N 103) ‘approach’ to *š(ii)u-*.
- *haōma.hūiti-* (Y 10.6) ‘Haoma-pressing’ to *hu-*.
- *hinūiβiio* (Yt 13.100) ‘fetters’ abl.pl. of *hinu-*.

With *-ūi-* from IIr. **-ū-*, we find:

- *utaiūiti-* (see above).
- *uzūidiōi* (Y 46.5) ‘to save’ < **uz-ūđjai*, cf. Skt. *ūtāye*.
- *būiri-* (Y 31.21) ‘ample’ (Skt. *bhūri-* ‘much, many’).
- *mrūtē* (Y 49.6), *framrūite* and *framrūiti* to *mrū-* ‘to speak’.
- *tūiri-* ‘congealed milk’, cf. Gr. *tūrós*.
- *pūtika-* ‘purifying’, cf. Skt. *pūti-* ‘purification’, *pūtá-* RV+ ‘purified’.
- *pūtī-* ‘stinking’, cf. Skt. *pūti-* ‘putrid, stinking’.
- *sūidiāi* ‘to be useful’, inf. of *sū-* ‘to strengthen’.

In the case of YAv. *tūiriia-* ‘father’s brother’, and possibly also of *aγūiriia-* ‘a disease’ and *siγūiriia-* ‘Sigurian’, *-ūi-* results from the development **rui* > **urī* followed by *i*-epenthesis; compare the discussion in § 24.4.

The following forms have no certain etymology: *urūiḍi* (V 13.37) ‘river bed’ (to Skt. *viśrūh-*?), *kūiris*³⁶⁷ (V 14.9), *stūirīm* (FrA 8) and the demon names *būiti* (V 19.1ff.), *būiḍi*, *būiḍiḥa* (V 11.9ff.) and *mūiḍi* (V 11.9f.).

The regular presence of the grapheme *-ūi-* in the case of epenthesis on **ū* is the reason why the form *dūtām* in Y 32.13 cannot be analyzed as *dūtīm*, the form edited by Geldner and glossed as *dūtīia-* ‘message’ by Bartholomae 1904: 749. At this passage, the mss. are very divided, with both *dūtām* and *dūtīm* being attested in good mss.³⁶⁸. We can now see that a preform **dūtīm* would have yielded †*dūtīm*, but the grapheme *-ūi-* is unattested in the v.ll. Therefore, the original form must be *dūtām*, an acc.sg. to the same stem as the nom.pl. *dūtāghō* in Y 32.1.

§ 10.5.2 The spelling *ui*

All forms with interconsonantal *-ui-* except one are due to very recent corruptions of regular *-ūi-*; this error is found especially in the *Vīdēvdād*. As the table given below shows, it is mostly the mss. of the PV which have replaced *ūi* by *ui*. The table also shows frequent differences between the PV mss. L4 and K1, which were written by the same scribe *Mitrō-Āpān*. This strongly suggests that the replacement of *-ūi-* by *-ui-* was his idiosyncratic choice.

³⁶⁷ Bartholomae’s emendation to *kūiris* is unwarranted: K1.L4 *kūiris* · L2.Br1.M2 *kūiris*, K10 *kūiriš* · Mf2 *kūiris*, Jp1 *kūrās*.

³⁶⁸ V.ll. °*am* Pt4, °*am* Mf4, °*im* Mf1 · °*im* J2, °*am* K5 · °*am* S1, °*im* J3 · °*im* Jp1.K4.37, °*am* Mf2 · °*am* L1.2.3.O2 · °*am* K11.C1.H1.J6.7.L13.

	PV	IrVS	InVS
V 6.33 ³⁶⁹	<i>uzūitiā̄sca</i> K1.Pt2	°ūiθ° Jp1.Mf2	°ūit° L1.M2, °ōi° L2.3.Dh1.Br1
V 13.8	<i>tūite</i> K1a, <i>tuuite</i> L4	<i>tūite</i> Mf2.Jp1	<i>tūite</i> M2.B2
V 13.37	-	<i>urūidi</i> Mf2, <i>urūide</i> Jp1	<i>urūidi</i> L1.2.Br1
V 15.6	<i>uruθi</i> → <i>uruḍi</i> K1, <i>uruḍi</i> L4	<i>urūidi</i> Jp1.Mf2	<i>urūidi</i> L2.Br1.K10
V 16.7	<i>tāiūirinqm̄</i> L4.K1	<i>tāiūirinqm̄</i> Jp1.Mf2	°ūi°
V 18.35	<i>vəṛənūiti</i> K1, <i>vəṛənūiti</i> L4	<i>vəṛənūiti</i> Jp1, <i>vəṛənūite</i> Mf2	<i>vəṛənūiti</i> K10.L1.2.M2
V 18.41	<i>vəṛənūiti</i> → °te L4, <i>vəṛənūuainti</i> K1a	°ūi°	°ūi°
V 18.47	<i>vəṛənūiti</i> K1, <i>vəṛənūuaiti</i> L4	°ūi°	°ūi°
V 18.49	<i>frabuiḍiāmnō</i> L4, <i>frabaoiḍiāmnō</i> K1	°ūi° Mf2	°ūi° L1.2.Br1
V 20.3	<i>pūitiā̄</i> K1, <i>puitiā̄</i> L4	-	-
V 20.9	<i>ayūire</i> L4, <i>ayūire</i> K1	<i>ayūire</i> Jp1.Mf2	<i>ayūire</i> L1.2

Other forms in *-ui-*, for which no v.ll. in *-ūi-* are attested, may also be corrected to **-ūi-* without hesitation. They are mainly found in the Khorda Avesta tradition (e.g. Yt 10.65 *āzūiti.dā̄*, Yt 12.3 *āzūit̄mca*) and in texts with

³⁶⁹ It is unclear whether **uzūitiā̄sca* or **uzūiθiā̄sca* was the original form. The consistent *i*-epenthesis excludes a preform **uzutaiiā̄sca*. Of the two theoretically possible preforms **uzūitiHā̄sca* and **uzūtiā̄sca*, the second one is preferable, since the preceding form *cātaiiā̄* makes *-t-* the lectio facilior.

a poor ms. tradition such as the Nērangestān: N 30 *a.sruiti*, N 61f. *uiṭe.tātō*, N 108 *haoma.huitīm*.

The only real exception is YAv. *uiti* ‘thus’, also *uitiiaojana-*, which is always spelled with *ui*; we have seen that the form *ūitī* is attested once in the YH. YAv. *uiti* is probably due to the position in anlaut, see § 10.5.4 below.

§ 10.5.3 **ū* in front of *š*

The consonant *š* does not usually let through *i*-epenthesis (cf. § 26). A slight modification of this view is implied by the remark in Hoffmann-Forssman 1996: 55, viz. that long *ū* in the f. forms *jaγmūšī-* ‘having come’ and *pipiūšī-* ‘swollen with milk’ of the perfect participles **jaγmuš-* and **pipiuš-* would be due to the influence of the following *-ī*. It seems to me that these two f. forms may be explained differently: *pipiūšī-* has *ū* after *-ii-* (§ 10.2.3 above), while *jaγmūšī-* has lengthening in front of a sibilant (§ 10.2.4 above; cf. also *jaγmūštəma-*).

All of the remaining evidence points to the absence of any influence of *-ī* on a preceding sequence **-uš-*. Most importantly, we find four forms of the f. pf.ptc.act. in *-ušī-* without *i*-epenthesis³⁷⁰: *afrataṭ.kušī-* (Yt 13.53) < **a-pra-ta-tk-us-* to *tac-* ‘to flow’, *ciciṭušī-* to *ci/ciṭ-* ‘to remark’, *yaētušī-* (Vr 11.3,9) to *yat-* ‘to arrange’ and *vīṭušī-* to *vid-* ‘to know’. Then there are the forms *ušibiia* (of *uš-* ‘ear’), *uši°* (compound form of *ušah-* ‘dawn’) and *ušiāi* (to *vac-* ‘to say’?), which may be regarded as ambiguous because *u°* is usually retained in anlaut (see above).

For the sake of completeness, we may add the fact that the vowel *-ē* is also never reported to yield *i*-epenthesis: *cikuše* (Yt 13.24), *cakuše* (Yt 13.40), *fšūše.°*, *vaokuše* (Yt 13.88), *vīdušē* (Y 31.17), and *haḡhanuše* (Yt 13.88). But since *-ē* is generally less liable to provoke *i*-epenthesis, this result is not alarming.

³⁷⁰ One might suggest that the f. forms in *-ušī-* analogically retained *-uš-* on the model of the m. and n. forms of the pf.part.act. However, I assume that *i*-epenthesis took place at such a recent date in the transmission that this analogy would be very implausible.

We must disregard the form Y 10.13 *kərənūši*³⁷¹. This form must represent a 2s. of the present *kərənao-/kərənu-* ‘to make’, but it does not match a known formation type. A 2s. ind.act. to this present stem would be †*kərənaoši*, but *ao* is not found in the mss. Hoffmann-Forssman 1996: 215 propose an emendation to *kərənūše*, 2s. prs.ind.med. of *kar-* ‘to make’, but this correction is not supported by the ms. variants, where we find *-e* only in the unimportant ms. B3. Moreover, it lacks a semantic basis: we expect an active verb form rather than a middle one.

The probably correct solution was suggested to me by Lubotsky, who argues that we expect a 2s. ipv. form ‘you must make’ for attested *kərənūši*, in accordance also with the explicit mentioning of *tūm* ‘you’ in the text. If we assume an original 2s.ipv. **kərənūīdi*, we are dealing with a corruption of **δ* to *š*. This cannot have arisen through graphical similarity of the consonants, so that probably an oral mistake lies at the basis of the corruption. I give the following translation of the passage Y 10.13, based on that of Josephson 1997: 95:

nəmō haomāi, yaṭ kərənaoiti driγaoš hauuaṭ.masō manō yaḍa raēuuastəmahecīt ‘hail to Haoma, because he makes the mind of a poor man of equal size as that of even the richest’

nəmō haomāi, yaṭ kərənaoiti driγaoš hauuaṭ.masō manō yaṭ usnqm aēiti vaēḍiia ‘hail to Haoma, because he makes the mind of a poor man of equal size, when he (sc. Haoma) comes to know his (sc. the poor man’s) wishes’

pourunarəm tūm ^xkərənūīdi spainiiaḡhəm cistiuuastarəm, yasə tē bāḍa haoma zāire gauua iristahe baxšaite ‘numerous in men you must make him, more bountiful and more insightful, who indeed takes part in you, o golden Haoma, mixed with milk’.

§ 10.5.4 Phonetic interpretation

Since the vowels *ā*, *ē* and *ō* usually remain unchanged by *i*-epenthesis, we must address the question of the precise phonetic nature of *ū* in the grapheme *-ūi-*. Was it the same long counterpart of *-u-* as elsewhere, or was it a fronted variant, maybe [y], as suspected by Hoffmann-Forssman 1996: 55? The latter is of course possible, but it seems unlikely that the inventors of the Avestan

³⁷¹ V.II. Mf4.Pt4.Mf1 *kərənūši* · J2 *kərənūši* · B3 *kərə.nūīše*, S1 *kərənūši* · Mf2 *kərənaēši*, K4 *kərənūši* · L1.P1 *kərənūši*, L2 *kərənūiš* · H1.J7 *kərənūši*, J6.L13.K11 *kərənūš*.

alphabet would have heard in *ūi* a vowel which was substantially different from *ū*, since they otherwise take care to note small phonetic differences by means of different letters. And in the light of the consistent spelling *-ūi-* for *i*-epenthesis on **u*, it is impossible to assume that *-ūi-* arose at a *later* date than the archetype.

I would like to consider the possibility that *-ūi-* is due to a kind of dissimilation. When a form **sruti* became **sru'ti* by means of epenthesis, and when this had to be indicated in writing, a spelling **sruiti* would have been ambiguous as to its syllabification: it could be *[srujti]* or *[srwiti]*. We may suggest that the vowel *u* was lengthened in order to make sure that the right syllabification *[srujti]* was preserved. It is impossible to say whether this lengthening of **u* was introduced on purpose by the people who invented the Avestan alphabet, or maybe earlier in the tradition, due to conscious or unconscious extra stress on **u*.

The likelihood of this dissimilatory explanation for *-ūi-* is enhanced by the fact that the only word with *u* plus *i*-epenthesis in anlaut, viz. **uti* 'so', is consistently spelled as *uiti* in YAv.: there is no room for confusion in this position, since *[witi]* would have been spelled †*viti*; a spelling *uiti* suffices to indicate *[ujti]*.

§ 10.6 Uncertain etymology

In a substantial number of forms, it is impossible to decide whether a given vowel continues PAv. **u* or **ū*.

Forms with *ū* in open initial syllable may either retain Iir. **ū*, or have lengthening of Iir. **u* in this position: *gūθā*³⁷² 'shit', *tūra*³⁷³ 'Turanian',

³⁷² V 7.25 *gūθqm*, V 14.6 *gūθō*. The word seems to derive from the same form as Skt. *gūtha-* 'feces, ordure', but for the fact that the latter form is only attested in the Pāyāsi-sutta in Pāli.

³⁷³ As against usual *tūra-*, Yt 17.55f. *tura* is attested only with short *u*; in Yt 13.125 **fratūra-* is suggested by the IrKA spelling *ī*: F1 *°turā* · J10 *°turā* · Mf3.K13.14.38.H5 *°tirā*.

*dūma*³⁷⁴ ‘tail’ and the adj. *mūrakāca* (Y 11.6), possibly from *mūra*- ‘stupid’.

When we find *ū* in non-initial syllable, chances are higher that this continues Ir. **ū*: the mountain name *arəzūra*- (V), the adj. *tīzi.asūra*- ‘with sharp tusks’ (probably to PIr. **ansūra*- ‘tusk’, cf. Cheung 2002: 164), or the adj. *aiβiθūra*- ‘strong’. Therefore, the connection of *aiβiθūra*- with Skt. *āvithura*- ‘imperturbable’ (as suggested by Hoffmann apud Mayrhofer 1956-82 III: 208) becomes less certain. A further impediment for that comparison, which was rightly noted by Hoffmann-Narten 1989: 82, fn. 15, is the fact that **auithura*- should yield Avestan *əuui*^o. Lubotsky (p.c.) suggests that OP *θūravāhara*-, a month name, may be connected.

If a form is attested with *u* in one part of the mss. and *ū* in another, the decision about *-u-* or *-ū-* in the archetype cannot be made on the basis of the usual qualification of different ms. classes as trustworthy or corrupted, since there is no external proof for the etymology. Most of the forms presented below have a familiar distribution of v.ll., which would point to *ū* in the archetype at least in initial syllable: ⁺*airiiō.xšūθa*³⁷⁵ (Yt 8) mountain name; *arəzūšqm*³⁷⁶ (Yt 8.14); *urūdu*³⁷⁷ (Yt 13.112) PN; *gūδəm*³⁷⁸ (Yt 15.27), a river-name; ⁺*jayrūtō*³⁷⁹ (cf. Mayrhofer 1979: I/54); *tūsa*³⁸⁰ (Yt 5.53, 58); *pūdanqm*³⁸¹ (Yt 13.127) PN; *fšūtā*³⁸² (V 7.77) an Avestan gloss on *paiiō* ‘milk (of a cow)’, possibly to **pku*- ‘cattle, sheep’; *baēšatastūrā*³⁸³ (Yt 13.125) PN (cf. Mayrhofer 1979: I/31; maybe to **stūra*- ‘strong’);

³⁷⁴ In Yt 8.21 *kauruuō.dūma*- ‘with a bald tail’, Yt 10.70 *aiiaṅhō.duma*- ‘with an iron tail’, and V 13.34 *duma*-. The Iranian cognates (e.g. Oss. *dymæg/dumæg*, Khot. *dumaa*-, MoP *dumba*) may contain either **u* or **ū*; the connection of the Germanic forms mentioned by Pokorny (227), e.g. OHG *zumpfo*, seems uncertain.

³⁷⁵ V.ll. Yt 8.6 F1 *xšūθ*^o · J10 *xšūθ*^o; Yt 8.37 F1 *šīθat* · J10 *xšūθat*.

³⁷⁶ V.ll. F1 *zūš*^o · J10 *zūš*^o.

³⁷⁷ V.ll. F1.J10 *uru*^o · IrKA *urū*^o.

³⁷⁸ F1 *gūδəm*, K12 *gaodəm*.

³⁷⁹ V.ll. Yt 13.141 F1 *utō* · Mf3.K13.38 *ūtō*.

³⁸⁰ V.ll. 5.53 F1 *tusō* · J10 *tūšō*.

³⁸¹ V.ll. F1 *pud*^o · J10 *pud*^o · Mf3.K13.38.14.H5 *pīδ*^o.

³⁸² V.ll. K1.P2 *šuta*, Pt2 *šutō* · Jp1.Mf2 *fšūta* · L1.2.Br1.K10 *fšuta*.

³⁸³ V.ll. F1 *turā*^o · Mf3.K13.14.H5 *tīrā*^o.

*būcahi*³⁸⁴ (Yt 15.47); *mrūra*³⁸⁵ (V 2.22) ‘pernicious’; *vaδūt*³⁸⁶ PN; *mūža*³⁸⁷ adj. (Yt 13.125) PN; *sāimūži*³⁸⁸ (Yt 13.10).

Forms with *u* in (originally) open initial syllable are more likely to reflect **u*. They are more deviant from the established distribution of *u* and *ū*, however, since we have seen that **u* is mostly lengthened in open initial syllables. This concerns the oblique case forms in *urun-* of the noun *uruuan*³⁸⁹ ‘soul’ (gen.sg. *urunō*, dat.sg. *urune*), *uruniia* (V 14.8) ‘vessel’, *uruša*³⁹⁰ (Y 29.7) ?‘needy’, *skutara* (V 19.3) ‘?’.

As there are no certain forms with a phonetic shortening of **ū* > *u* except in *-uui-*, forms with *u* in non-initial syllable are more likely to contain etymological **u* than **ū*: *aδutauuāšca* (Yt 19.6) mountain name; *qsašutā* (Y 48.1); *kaxuži* (V 21.17); *kanukā*³⁹¹ (Yt 13.141) PN; *kuruyā*³⁹² (V 20.3) name of a disease; *paxruma-* (V 2.23); *viiāmbura-* (see also § 3.8); *sukurəna-* ‘porcupine’.

§ 10.7 Summary

The investigation presented in the preceding sections confirms that *Πr.* **u* and **ū* have preserved their quantity in the majority of cases in Avestan. I will now give a survey of the changes which have occurred:

³⁸⁴ V.II. F1 *bucahi* · J10 *būcahe*.

³⁸⁵ V.II. K3a.B1.M13.Pt2.M3 *mrurō* · Mf2 *mrūrō*, Jp1 *mūrō* · B2.O2.M2.L1.2 *mrūrō*, Br1.M12 *mūrō*.

³⁸⁶ V.II. Yt 13.141 F1 °*utō* · Mf3.K13.38 °*ūtō*.

³⁸⁷ V.II. F1 and J10 *muža mužaiiā* · Mf3.K13.14.38 *mīža. mīžaiiā*.

³⁸⁸ V.II. F1 °*muž°* · Mf3.K13.H5.W3 °*mūž°* · K37.38 *sīmaēž°*.

³⁸⁹ The only reasonable possibility for an etymology is offered by Hoffmann apud Narten 1986a: 248¹, viz. a connection with Greek *lúō* ‘to loosen’ < PIE **luH-*.

³⁹⁰ Connected with Skt. *rūkṣá-* ‘rough, dry’ by Humbach 1959 II: 17. Phonetically, Av. -š- could represent PIE **-ks-* (pace Kellens-Pirart 1988-91 III: 38), but it would be strange if **ū* was reflected by Avestan *u*.

³⁹¹ Possibly a derivation **kan-uka-* to *kainī-* ‘girl’.

³⁹² Schmidt (1987: 358) has proposed to connect it with Skt. *róga-* ‘disease’, and to regard *ku-* as the pejorative prefix attested in other Av. forms. Av. **ku-ruga-* could be connected with the verbal root *rug-* ‘to break’.

1. **u* > *ū* in closed syllable

Certain:

*aiβisrūθrima- būδra-
gūzra-*

It is possible that these forms contain a very recent, post-archetype lengthening, which was caused by the following cluster *-Cr-*.

2a. **u* > *ū* in open initial syllable.

Certain:

*aēšmō.drūta- dūraoša- sūcā
asrūdūm drujō sūnō
(ā)stūta- drūjascā sūne
xšnūta- ^xpūsā- sūnqm(ca)
xšnūmaine ⁺zaraniiō.pūsa- sūnahe
gūnaoiti fšūmant- sūnīš
xratugūtō fšūša(n) sūrəm
zəmagūza- (°)būjəm (°)srūta-
gūša- (°)būjō srūtar-
gūšaiia- būjaiia- šūšu-
sāsnō.gūšqm būja- šūta-
tiži.žnūta- ⁺būjasrauua- [°]šūti-
tūtauu- būji- zūrō.jāta-
tūtuxšuuā būnauuā- zūzu-
^xtūdaδka- būza- āzūzušte
⁺tūmāspana- yūjēn ⁺frazūšəm
⁺dunmō.frūtō yūta- ⁺barō.zūšəm
dūma- (°)sūka- zrūne*

Probable:

⁺*urūθən
urūdōiia-
urūδaiia-
urūpaiia-
urūraoδ-
urūrud-*

2b. **u* > *ū* in open second syllable (rare)

Certain:

*āzūti- ^xhuxšnūta- ⁺axšnūta-
frašūmaka- hunūta ^xsūsūma
frašūsa- ərəžūcqm susrūšəmna-
^xafrašūmaṇtō ^xfrašūmaitīš*

Uncertain:

2c. **u* remains in open syllable:1. In anlaut: *utā*, *uδara-*, etc.2. In initial *ku*[°]: *kuθa*, *kudaṭ*, *kudā*, *kudō*, *kutaka-*, *kuruyā-*.3. In the stem *druj-*: *drujō*, *drujas-*, *drujim*, *drujəm*, *drujaṭ*, *druje*, *drujinqm*, [°]*druj-*; *drukahe*.

Phonetically, lengthening of short vowels in open syllables is a trivial development. We can assume initial stress to have caused the lengthening. The easiest solution for the forms with lengthening in second syllable is to assume that they were treated as sequences of two independent words or parts of a compound, so that in reality **u* underwent lengthening in initial syllable: **ā.zuti-* > *ā.zūti-*.

The absence of lengthening of **u* in anlaut (in *uši-* etc.) seems difficult to rhyme with a phonetic lengthening in open syllables. Either there was a constraint on the word-initial stress of the recent period, viz. *not* on *u-* in anlaut, or the retention of *u^o* was a graphic rule. The absence of lengthening in *ku-* may have been phonetically conditioned, and it may be linked with the absence of lengthening in the prefix *hu-* ‘good’, which also starts in a velar/uvular consonant. I have no explanation for the absence of lengthening of the sequence *dru^o*.

3. **u* > *ū* after *y-* and *-ii-*

Certain:		Ambiguous:
<i>aidiūnqm</i>	<i>yūxta-</i>	<i>yūšmaibiiā</i>
<i>apaiiūxtāt</i>	<i>yūxδa-</i>	<i>yūšmaoiio</i>
<i>apərənāiiūka-</i>	<i>yūjiiasti-</i>	<i>yūšmat</i>
<i>aipiiūxdi-</i>	<i>zīziiūš-</i>	<i>yūšmākəm</i>
<i>anapiiūxδa-</i>		<i>yūšmāka-</i>
<i>(a)pipiiūšī-</i>		<i>yūšmāuuant-</i>

Phonetically, this lengthening seems the inverse parallel of the lengthening **-ui-* > *-uuī-* which we saw in § 6.2.3. As to the input of the lengthening to *yū-* and *-iiū-*, we observe that not only PIr. **iu* is involved (e.g. *apaiiūxtāt*), but also original **-i.u-* (*aipiiūxdi-*) and IIr. **-iHu-* (*pipiiūšī-*). This points to a recent date for the lengthening, viz. after prevocalic **i* had become *i̇*.

4. **u* > *ū* in front of *-žC-*

Certain:	
<i>xrūždra-</i>	<i>xrūždā-</i>
<i>xrūždisma-</i>	<i>dadūžbīš</i>

This lengthening matches the development **-ižC-* > *-īžC-*. We may assign a recent date to it; one of the clues to such a date is the fact that the affected forms have not been leveled by analogy, as the difference between *dadūšō* and *dadūžbīš* shows.

5. **u* > *ū* in front of *š* (rare)

Certain:

<i>gūštā-</i>	<i>jaγmūšī-</i>
<i>jaγmūštəma-</i>	<i>hūšnāθrāscā</i>

Lengthening in this position is only sporadic. It is thus reminiscent of the occasional lengthening of **i* in front of intervocalic *š* and in front of *št*.

6. **ū* > *u* in front of *-*i*-

Certain:

<i>apuiiaṇt-</i>	<i>°tūtuiiā</i>	<i>buiiata</i>	<i>(°)mruiiā</i>
<i>anuiiamna-</i>	<i>buiiā</i>	<i>buiiān</i>	<i>mruiiāt</i>
<i>amuiiamna-</i>	<i>buiiāt</i>	<i>buiiārəš</i>	<i>suiiamna-</i>
<i>uiiamna-</i>	<i>buiiamā</i>		

The shortening in this position is the inverse parallel of the shortening of **ī* in front of *-*u*- which we have seen in § 6.5.

§ 11 The endings *-u* and *-ū*

IIr. **-u* and **-uH* yield *-ū* in OAv. In YAv., polysyllables get a short vowel *-u*, whereas monosyllables regularly have a long final vowel, as in *tū* ‘you’. The only exception to this rule is the element *hu* ‘good’, which is spelled *hu.*^o even when it occurs as separate first member of a compound; but usually, *hu.*^o is not spelled as a separate word. For the forms in **-u(H)* followed by *-cā* or *-cīt*, see § 5.3.4.

The present section will discuss two groups of exceptions to the rule that YAv. takes *-u* in polysyllables. Firstly, we may find *-ū* as a result of **-ū̄*; secondly, there is a small number of forms which acquired *-ū* for some other reason.

§ 11.1 YAv. **-ū̄*

The Plr. ending **-anh*, which may occur e.g. in the acc.pl.m. of *a*-stems and in the gen.sg. of certain *n*-stems, yields *-ā* in YAv. except after the consonants *m/n/ŋ/y/ī*, where the result is *-a*, cf. § 23.6.2.3. When **-anh* follows the consonant **-u-*, we can distinguish between two cases: 1. when **-ā* is preceded by *-uu-*, a contraction of **-uuā* > **-ū* took place before the archetype; 2. when **-ā* is preceded by *-au-*, *-aēu-* or *-aru-*, i.e. when *-u-* was not preceded by *-u-*, the endings **-auā*, **-aēuā*, **-aruā* were retained in the archetype. At a later stage in the transmission, the vowel *-ā* was frequently modified to *-ū*.

§ 11.1.1 **-uuā* > **-ū* in the archetype

The evidence consists of three different forms. YAv. *hū* and *zrū* are ambiguous because they are monosyllables, but *framrū* indicates that **-uuā* yielded final *-ū* in the archetype, which was no longer subject to the rule that long vowels in YAv. polysyllables had to be short. If this is correct, it provides the hint that the shortening of YAv. final vowels was a linguistically real development.

• *framrū*³⁹³, nom.sg.m. of the prs.ptc.act. **fra-mruHants*, is conspicuous because of its *ū*. Yet *ū* is clearly the primary v.l., and there is also no

³⁹³ V.II. Y 65.10 *framrū* J2.K5 · Pt4.Mf1 · K4.Jp1 · J6.7.H1 · *framru* L1.2.O2; V 3.1 *framrū* Mf2.Jp1, «the rest *°mru*», V 8.19 and 19.18 exactly the same distribution.

indication in the mss. that *-ū* was caused by a split in two parts †*fra.mru*, in which the monosyllable **mru* would have automatically become *mrū*.

- *zrū* < **zruuanh* < Ir. **jrH-uan-s*, gen.sg. of *zruuan-* ‘time’.
- *hū* < **huuanh* < Ir. **suH-an-s*, gen.sg. of *huuar-* ‘sun’. The form occurs once in the Gāthās (Y 34.13) and 21 times in YAv., but Geldner hardly provides v.ll. for these attestations. I have checked the spelling in the ms. F1, and indeed it spells this word as *hū*.

§ 11.1.2 **-au̯ē* et al. > **-auūē* et al. in the archetype

Hoffmann 1975: 277-284 has proposed to read an ending ^o(*uu*)*ū* from **-uanh* in a number of YAv. forms which Geldner edited differently. These forms are

- Yt 8.12 ⁺*auūū* (for Geldner’s *auue*), Yt 10.45 ⁺*auūū* (idem), Yt 13.60 ⁺*aū* (for G. *auue*), S 2.13 ^x*aū* (for G. *aoe*), all acc.pl.m. of *auua-* ‘that’.
- V 18.16,24 ^x*daēuuū* (for G. *daēuua*), Yt 13.89 ^x*daēuuū* (for G. *daēuuō*), Yt 1.6 ^x*daeuuū* (for G. *daēuua*), V 17.1 ^x*daēuuū* (for G. *daēuuō*), all acc.pl. of *daēuua-*.

It is justified to correct the endings *-e*, *-a* and *-ō* which Geldner edits here, but it seems uncertain that the spelling ^o(*uu*)*ū* goes back to the archetype, as Hoffmann claims. Firstly, an ending *-uuū* would violate the rule that vowels in the auslaut of polysyllables should be short (but compare the regular exception *-uuī*). Secondly, the mss. show a vacillation between the endings *-uuī*, *-uue*, *-uuō* and *-uua*, whereas *-uuū* is attested only twice for **auūē* in F1. In the Vīdēvdād, the distribution of *-uuō* in the PV and the InVS against *-uuī* in the IrVS points to earlier **-uuē*, since *-ī* is a frequent corruption of earlier *-ē*, and since *-uuē* could also have easily become *-uuō*. The same ending *-uuī* is preserved by the better Yašts mss., especially the IrKA in Yt 13 and S 2; we also find *-uuē*. Therefore, it seems best to assume that the archetype spelled **auūē* and **daēuuē*. The development **-uuē* > *-uuū* is characteristic only of F1.

Yt 8.12	F1+ <i>auuī</i>		J10 <i>auue</i>	
Yt 10.45	F1 <i>auuī</i> , Pt1.E1.H3.4 <i>auuī</i>		J10 <i>aēuuī</i>	
Yt 13.60	F1+ <i>aū</i>	J10 <i>auua</i>	K12 <i>auuē</i>	K38 <i>aē</i> , Lb5 <i>aē</i> , Mf3.K13.14. H5 <i>ī</i>
S 2.13	E1 <i>aō</i>	M4 <i>aoe</i> , L12 <i>auue</i>	Mf3 <i>aī</i> , K36 <i>aō</i> , Kh2 <i>auō</i> , K18 <i>aoe</i>	K17.H1.L11 <i>auuae</i>
Yt 1.6	all other mss. <i>daēuuō</i>		Jm4 <i>daēuua</i> , Lb16 <i>daēuuī</i>	
Yt 13.89	F1.Pt1+ <i>daēuuō</i>		Mf3.K13.38.37.Lb5 <i>daēuuī</i> , H5 <i>daēuuai</i>	
V 17.1	PV and InVS <i>daēuuō</i>		Jp1.Mf2 <i>daēuuī</i>	
V 18.16	L4 <i>daēuua</i> , K1 <i>daēuuō</i> , B1.P2 <i>daēuua</i>	L1.2.Br1. K10.M2. O2 <i>daēuuō</i>	Mf2 <i>daēuē</i> , Jp1 <i>daēuuī</i>	
V 18.24	PV and InVS <i>daēuuō</i>		Jp1 <i>daēuuī</i> , Mf2 <i>daiī</i>	

There are three other acc.pl. forms with the same final sequence. Yt 10.48 *gauuō* ‘hands’ is the acc.pl. of *gauua-*. Kellens 1974a: 331f. has shown that Bartholomae’s analysis of this form as an acc.du. of an athematic stem *gau-* is untenable, so that *gauuō* must represent a thematic acc.pl. form **gauuē*.

Another form which must represent **-uuē* is P 31 acc.pl. *hauruuī*, which JamaspAsa-Humbach 1971 have defended to be an acc.pl.m. of *hauruua-*.

The third acc.pl. form confirming the hypothesis that **-auanh* yielded **-auuē* in the archetype is A 1.11 (and AZ 7) *dušmainiiū*³⁹⁴. The regular acc.pl. ending of *dušmainiiu-* is *dušmainiiūš*, which is in fact attested in

³⁹⁴ V.II. °*mainiiū* E1 · °*mainiiū* Pt1, °*mainiiuua* P13.K19, °*mainiiuua* corrected to °*mainiiuuqn* L18 · °*mainiiuuuanqm* J10 · °*maine* J15 · °*maine* F2.Mf3.K36.Lb16.W1.P14, °*mainiiūqn* L25 · °*mainiiū* Jm4.L11.9.K15.7, °*mainū* J9.H2, °*mainiiuuuanqm* O3.

Avestan. Yet in A 1.11 (and AZ 7), final *-š* is lacking. We must follow Bartholomae's explanation (1894-5: 229) of A 1.11 *dušmainiiū* as a later formation which introduced the *a*-stem acc.pl. ending *-ē*; in other words, the stem *dušmainiiu-* underwent thematization, like we often find in the later Avestan texts (or did it occur in A 1.11 under the influence of the preceding **vīspē*?). The preform **dušmaniūē* became **dušmainiiūē* in the archetype. The ending contracted to *-iiū* in part of the mss., but the spellings of J10 and L25 show an ending *-qm/-qm* which cannot be due to the surrounding forms.

Just like the acc.pl.m. ending *-ē* corresponds to the ending *-ēsca* in front of *-ca*, in the same way we find two forms in **-ūēsca* which have been reconstructed as *-uuīsca*, but which probably go back to *-uuēsca* in the archetype.

- G 2.6 *mainiiuuīsca*³⁹⁵ (as reconstructed by Schindler 1982: 205⁷⁸), acc.pl. of *mainiiuuia-*, presupposes **mainiiuuēsca*. The ending is preserved as *-auuasca* in the InKA, whereas *-uuēsca* yielded *-ūsca* in J10.K12 and *-uuīsca* in the IrKA, which then analogically changed it to **-uu-as-īsca*.
- Y 9.26 *grauuasca*³⁹⁶ (as edited by Geldner), acc.pl. of *grauua-* m. 'stick', was restored by Hoffmann (l.c., p. 285) to *grauīsca*, the form in the best mss., which points to earlier **grauuīsca*. Yet I think that the spelling *grauuasca* in the YS and InVS is difficult to explain by a replacement **grauuīsca* → **grauuasca*, especially in the oral tradition. We may derive all spellings from **grauuēsca* in the archetype.

§ 11.2 YAv. *-ū* elsewhere

Most of the YAv. forms in *-ū* are attested in pseudo-Gathic texts, where the redactors have tried to give the originally YAv. text a Gathic flavour by means of lengthening the final vowels. This process is responsible for the polysyllabic forms in *-ū* in Y 5, 12, 13, 15, 18, 56 and Yt 1.20³⁹⁷, and for *vohū* in Y 20.1 and Yt 13.153.

³⁹⁵ V.II. °*auuasca*, °*auuašca* in the InKA · °*iiūsca* J10.K12 · °*auuašišca* K36.W1.Mf3.

³⁹⁶ V.II. Pt4.Mf4 *grūsca*, Mf1 *gar.ūsca* (erasure) · J2 *garaūsca*, K5 *grauīsca* · J3 *garūsca* · Mf2 *graōšca*, K4 *garūsca* · C1.K11.Lb2.H1.L13 *grauuasca*, J7 *grauuasca* · L3 *grauuasca*, B2 *gruuasca*, L1.O2 *gruusca*, L2 *grusca*.

³⁹⁷ Viz. *aiβiiāxšaiiatū*, *astū*, *jañtū*, *fərašnaēšū*, *nipātū*, *nišarharatū*, *mainiiū*, *vīspaēšū*, *vohū*, *hañjamanaēšū*.

In a number of cases, we find that original *-u* has been changed to *-ū* in some of the mss. Usually, the ending *-u* is still preserved in part of the mss. In a few cases, *-u* has been corrupted to *-i*.

- *astū* (Vr 9.7, 15.2) is in both cases attested as *astu* in the mss. of the IrVrS (Jp1.Mf2.K4) and in the oldest PVr ms. K7a. This has retained the original form against *astū* in the InVrS (J8.H1.Pt3.Jm5.L27).

- *pāīiū* (Y 57.2), acc.du.m. of *pāīiu-*, is attested in all the good mss.: Pt4.Mf4.1; J2.K5; Jp1.K4; it may be due to the tendency to lengthen *u* after *y-* and *-ii-*. I assume that the Yašt manuscripts F1.E1.Pt1 with *pāīiu* preserve the original form.

- *pərəθū.frākəm* and *ādū.frādanəm* (Y 65.1) occur beside the compound *daijhu.frādanəm*³⁹⁸. The first two forms have *-ū* in their first member in most good mss., but *daijhu.frādanəm* is often spelled with *°ō* in the PSY through analogy with the preceding forms *gaēθō.frādanəm* and *šaētō.frādanəm*. Probably because of its *°ō*, *daijhu* escaped the change to *°ū* in the PY, leaving *°u* attested strong enough (in the IrVS and IrKA) for Geldner to edit this vowel. We may assume that the parallel formations in *pərəθū* and *ādū* also had **-u*. This is even more clear for Yt 5.1 *pərəθū.frākəm* and *ādū.frādanəm*, as Geldner edits them: he copied the text of Yt 5.1 from Y 65.1, without regard to the actually transmitted Yašt texts. As appears from the footnotes, the Yašt mss. give different readings: *pərəθu*. "all Mss."; *ādō*. F1+, *ādō*. J10; *daijhu*. K12, *daḡhu*. F1+. This confirms the conclusion that the forms in *°u* are original.

- *barəntū*³⁹⁹ (Y 70.4) must represent **barəntu* in the archetype, as is shown by the vacillation between *°i* and *°e* in the best mss. of the PSY and IrVs branch: their form *barənti* combined with *barəntū* as it is transmitted by the InVS and YS shows that *barənti* must be a corruption of **barəntu* (error of *i* for *u*).

³⁹⁸ V.ll. *pərəθū* Mf1, *pərətū* Pt4.Mf4 · *°ū* J2.K5 · *pərəθu*. Jp1, *pərəθī* K4 · *°ū* H1.J7.L13 · *°u* Pt1. L1.2.O2; *ādū*.° Mf1.4; J2.K5; K4.Jp1; H1; *daḡhō*.° Pt4.Mf1.4 · *daḡhō* J2.K5 · *daḡhu* Jp1.K4 · *daḡhū*. H1 · *daijhu* F1, *daḡhu* Pd.Mf3.

³⁹⁹ V.ll. *barənti* Pt4.F11, *barənta* Mf1.Br2, *°ta* corrected to *°ti* Mf4 · *barənti* J2.K5 · *barənte* Jp1.K4 · *barəntū* H1.J6.K11.L13, *barəntī* J7 · *barəntū* L1.O2.

- *mainiū* (nom.du.m.) at Y 57.17, V 7.52 and Yt 13.76⁴⁰⁰ is attested with °*u* in at least part of the good mss., so that we can safely ascribe the spelling °*ū* to a recent tendency to lengthen *-u* after *-ii-*.
- *vohū* (Y 60.6), acc.du.m. of **vahu-*, probably arose in the mss. under the influence of the preceding form *vaṇhūš*, in which *ū* is regular. The original distribution has been preserved in Pt4 and Mf4 *vaṇhūš ... vohu*⁴⁰¹.

There remains a small number of forms in which the expected ending *-u* is not attested anymore in the mss. Sometimes, contextual analogy is the obvious trigger: Yt 10.74 *āiiū* will have adopted *-ū* from the directly preceding form *zrū* (see also the v.ll. of Yt 8.11 *zrū āiiu*), and Yt 5.63 *mošū* may have been favoured by *-ī* of the preceding form *arəduuī*. The form *vohū* in Yt 4.0 (*vohū manō*), Yt 15.44 (*yaṭ vohū vərəziiāmi*) and Yt 5.89 (*vīspa vohū*) may be an (unintended) Gathicism, due to the frequent occurrence of *vohū* in the most used Avestan prayers. Yt 10.38 *asrū.azānō* ‘shedding tears’ will represent a lapsus of the transmission, which in Yt 10 relies only of F1 and J10.

⁴⁰⁰ V.ll. Y 57.17 *mainiū* Pt4.Mf4 · *mainiū* J2.K5 · *maiīiu* K4, *maiīio* Jp1 · *mainiū* L1.2 · *mainiū* H1.L13 · *maiīiu* F1.Jm1.Pt1; V 7.52 all mss. *mainiū* except Jp1.Mf2 *maiīiu*; Yt 13.76 *mainiū* F1.Pt1.E1, *mainiū* L18.P13 · *mainiū* J10 · *maiīiō* Mf3.K13.38.37.H5.

⁴⁰¹ V.ll. *vaṇhūš ... vohu* Pt4.Mf4 · *vaṇhūš ... vohū* J2.K5; Jp1; H1; F2 · *vaṇhuš ... vohū* J9.H2 · *vohu* Mf3.

§ 12 The endings *-um* and *-ūm*

The ending *-ūm* continues **-um* (acc.sg. of m.f. *u*-stems), **-ūm* (acc.sg. of m.f. *ū*-stems⁴⁰²), and **(C)uam* (acc.sg. of m. stems in *-ua*, nom.acc.sg. of n. stems in *-ua*, 2p. med. secondary and ipv. ending **-duam* in OAv). Furthermore, we include YAv. *tūm* ‘you’ from **tuuam*.

Many mss. show a vacillation between *-um* and *-ūm*, and this is reflected in Geldner’s edition. For the better ms. traditions of the Yasna and the Vīdēvdād, Geldner seems to have based his choices on an etymological criterium: he edits *-ūm* for **-um* and **-ūm*, but *-um* for **(C)uam*. However, it can be shown that the reflex of **-uam* behaves identically to that of **-ūm*, both endings yielding *-ūm*. Thus, the ending *-ūm* is completely parallel to the ending *-īm* < **-īm*. The only exception is formed by the subgroup of forms in **-huam*, reflected as *-hum* in our texts, which was probably rendered by **-ḥam* in the archetype (Hoffmann-Narten 1989: 52, fn. 57).

In order to prove these claims, the evidence will be discussed according to the etymology of the ending: the first subsection deals with **-um* and **-ūm*, the second with **-uam*; the third subsection addresses the possible reflexes of **-ium*.

§ 12.1 **-um* and **-ūm*

In order to get a clear picture of the interchange between *-um* and *-ūm*, I will discuss the available v.ll. of the words reflecting **-um* and **-ūm* per manuscript tradition.

§ 12.1.1 Yasna, Vīspereḍ, Vīdēvdād

In the large majority of all controllable instances in all ms. classes, we find the ending *-ūm*. Final *-um* is sometimes found in the IrVS branch (Jp1.K4.Mf2), but not in a sufficient number to claim any originality. Take for example the v.ll. of Y 9.21 *tāiūm*: Pt4 *tāiūm*, Mf4 *tāiūm*, Mf1

⁴⁰² It remains unclear whether Avestan still had a difference between **-um* and **-ūm*. The original paradigm nom.sg. **tanūš*, acc.sg. **tanuam*, which is suggested by the Skt. acc.sg. *tanuam*, seems to have been preserved in OAv. as shown by the acc.sg. *tanuam* (trissyllabic). However, not a single nom.sg. in *ōūš* is attested in Avestan, so that we must assume an analogical transfer of *ū*-stems to the *u*-stem inflexion at some point. In view of the small amount of Ir. *ū*-stems, a direct switch from *ū*-stem inflexion to *u*-stem would not be problematic.

pauruuatāiium · J2 *tāiium*, K5 *tāiūm* · Mf2.K4 *pauruuatāiium* · J6 *tāiūm* · P1 *tāiūm*. Also in the Vr sequence *ahūmca ratūmca* (Vr 2.7, 14.3), especially the Iranian mss. write *°umca*:

- Vr 2.7 K7a.M6 *ahumaca ratumaca*, J15 *ahumca ratumca* · L2 *ahumca ratūmca*, L1 *ahumaca ratūmca*, Br1 *ahumca ratumca*, B2.O2.M2.L3.S2 *°ūmca° ūmca* · H1.J8.Pt3.Jm5 *ahūmca ratūmca* · F11 *ahumaca ratumaca*, Kh1 *ahumca ratumca* · Jp1.Mf2.K4 *ahumaca ratumca*.
- Vr 14.3 K7a.b *ahumaca ratumaca*, J15 *°umca* · L2.Br1 *°umca*, L1.O2.S2.M2 *°ūmca* · J8.Pt3.H1.Jm5 *°ūmca* · F11.Kh1 *ahumaca ratumaca* · Jp1.Mf2.K4 *ahumaca ratumaca*.

In the Yasna, the readings of the IrPY (Pt4.Mf4.Mf1) show a large percentage of *-ūm*, but sometimes we find *-um*. We must distinguish with Geldner (1886-96: xxv) Pt4.Mf4 from Mf1. The scribe of Mf1 did not just copy its original, which was the same one Mf4 and Pt4 stem from, but in a lot of cases he tried to amend its text towards the readings of the IrVS which were known to him. A list of 23 examples of this tendency is given in Geldner (p. xxvi), and it can be enlarged with other examples. Thus, in 2.13, 6.12 and (probably) 25.6, Mf1 changed **vīdōiūm* into *vīdōiium* as we find it in the IrVS (cf. the v.ll. in § 12.2.1). In 9.21, Mf1 has put together *pauruuatāiium* just as in Mf2.K4. In 62.5, the form *jayāurūm* of Mf4.Pt4 reads *ji°* in Mf1 again in accordance with K4: Pt4.Mf4 *jayāurūm*, Mf1 *jiyāurūm* · K5 *jayāurūm*, J2 *jayārūm* · K4 *jiyāirūm*.

§ 12.1.2 Yašts

The ending *-ūm* mainly occurs in the IrKA, but also in few forms in J10. The manuscript F1 has a preference for *-um*, but many mss. of the Yašt Proper which descend from F1 spell *-ūm* against their ancestor F1 *-um*. The ending *-ūm* is thus both historically the oldest and it has prevailed in the Indian pronunciation. In many cases, Geldner edited *-ūm* whereas the mss. have only or mainly *-um* (cf. esp. Yt 17.6 *vohūm*, where he explicitly states that all mss. write *-um*). As the spelling *-um* is for a large part due to a peculiarity of F1, Geldner's corrections are completely justified from a historical point of view.

The following forms were edited with *-ūm* by Geldner. Wherever there are good ms. branches (especially IrKA, but also Jm4) attested beside F1, the evidence compellingly points to *-ūm*:

- 1.17 *daḥīiūm.ā*: F1 °*um*, but in Pt1+ replaced by °*ūm* · Mb2, L9, L11 °*um* · F2, Mf3, K36 °*ūm*.
- 2.7 *ḍrāīiō.driḡūm*: E1.Pt1+ °*ūm* · L11 °*ūm* · K36.Jm4 °*ūm*.
- 4.7 *nasūm*: F1.E1.J10 *naiiūm*, but Pt1+ *naiiūm* · M12 *nasīm* · Jm4 *naiiūm*.
- 9.10 *mārəḍīiūmca*: F1.E1.Pt1 °*umca*, replaced in L18 (via *°*ūmca*) by °*ūmca* · Jm4 °*ūmca*.
- 11.3 *driḡūm*: F1 p.m. E1.Pt1 °*um*, replaced in L18 by °*ūm*, in P13 by °*əm* · J10 °*əm* · L11.K18.L12.J15.M4 °*əm* · J9.K36 °*ūm*, Jm4 °*ūm*.
- 13.97 *ahūm.stūtō*: F1.E1.Pt1 *ahumstutō*, L18.P13 *ahumastutō* · Mf3; K13.14.H5 *ahūm.stūtō*.
- 14.32-33 *xrūm*: F1.E1.K16.M4 *xrum*, but Pt1.L18.P13 *xrūrəm* (influence by J10?) · J10.M12 *xrūrəm* · L11 *xrūrəm* · K38.36.Jm4 *xrūm*.

The forms in *-ūm* which are not supported by the mss. F1 and J10, but must be restored for structural reasons, occur especially in Yt 8, 10, 17 and 19:

- 8.58 *pasūm*: F1.E1.Pt1.K15 *pasum*, replaced in L18 by *pasūm*.
- 10.18 *zantūm, daḥīiūm*: F1.Pt1.E1.K15 *zantum, daḥīiūm*.
- 10.122 *tanūm*: F1+ *tanum*, except L18 *tanūm*.
- 10.139 *rašnūmca*: F1+ *rašnumca*.
- 10.144 *aiβi.daḥīiūm* and six other compounds with °*daḥīiūm*: F1+ *daḥīiūm* · J10 *daḥīiūm* · H4 *daḥīiūm*.
- 17.6 *vohūm*: all mss. *vōhum* (sic).
- 19.46 *xruuī.drūm*: F1+ *xruuidrum*.
- 19.84 *dušmainiūm*⁴⁰³: F1 *dušmainiūm*.

All the forms edited with *-um* by Geldner occur in the great Yašts, for which Geldner based himself mainly on F1. A few examples:

- 5.127 *minum*: F1 *minum* · J10 *minəm*.
- 19.42 *jiḡāurum*: F1+ °*um* · J10 *zaitāurūm*.
- 19.39 *jayaurum*: F1+ °*um* · J10 *zagā. urūm*.

⁴⁰³ There is a problem in Geldner's edition concerning the footnotes 2 and 3: they have been accidentally interchanged. If we take them at face value, F1 etc. would write *dušmainiūm siždiiō* whereas J10 would write *šoždaiiō siždiiō*. It seems to me that footnote 2 should read «all Mss.», implying that they all write *dušmainiūm*. Of course, in F1 we find *dušmainiūm*, but we have seen that Geldner assumes *-um* to stand for *-ūm*. Footnote 3 would then read: «*siždiiō* F1.Pt1.E1.L18.H3; *šoždaiiō* J10; *šoždaiiō* D.»

The spelling $^{\circ}um$ is especially characteristic of F1, but there are vacillations within this ms. In the edition of F1, we can check the other instances of $^{\circ}\bar{u}m$ for which Geldner does not provide v.l. Hintze (apud JamaspAsa 1991: XVIII) has already remarked that the spellings $^{\circ}um/^{\circ}\bar{u}m$ are subject to different scribal predilections in the different parts of F1. We shall try to show this in more detail⁴⁰⁴.

Since the total number of Yašt forms in F1 with either $-um$ or $-\bar{u}m$ (in Geldner's edition) is 131, I will not discuss each one of them. The following summary can be given:

Yašt chapters	number of forms in $-\bar{u}m$	number of forms in $-um$
1 to 4	9	3
5	3	8
6 to 9	6	3
10 and 11	20	21
12 to 20	0	48

There is thus a clear development within F1 from a preference for $-\bar{u}m$ towards a preference for $-um$. This reduces the value of the testimony of F1 for determining the original spelling, and gives off a warning for using the evidence especially of those Yašts transmitted only in F1.

It follows that $-um$ and $-\bar{u}m$ seem to have been completely equivalent to the scribe of F1. One may be tempted to mistrust the evidence of Yt 1 to 4, because this shows a lot of corrupted forms in F1, but especially Yt 10 mixes the forms without any apparent reason. What did Āsādīn, the scribe of F1, base his choices on? Did he follow the Indian pronunciation ($^{\circ}\bar{u}m$) in the beginning, only to switch to a fixed principle after Yt 11? F1 might in some way be connected with the Iranian mss. which have a preference for $^{\circ}um$ (IrVS).

⁴⁰⁴ As appears from the table below, Hintze's claim that Yt 19 and Yt 13 prefer $-um$ is confirmed, but her contention that in Yt 5 $-\bar{u}m$ would be more common must be rejected.

§ 12.2 **-uam*

Most of the Avestan forms continuing **-uam* were edited with *-um* by Geldner, but it appears from the evidence that, after all consonants except **-h-*, final *-uam* has yielded *-ūm* in the archetype. Wherever *-um* is philologically better attested, the surrounding forms have influenced their spelling. The only real exception is the ending **-ahuam*, which was spelled *°aṛhəm* in the archetype.

§ 12.2.1 **-Cuam > -ūm*

In the Yasna, the v.ll. for six occurrences of *vīdōiiūm*⁴⁰⁵ < **vi-daiuam* display the same distribution as the forms discussed above, viz. a majority of *-ūm* but a tendency toward *-um* in the IrVS. The form **haruam* ‘whole’ was edited as *haurum* in Y 19.14 and 20.3, but the v.ll.⁴⁰⁶ show that **haurūm* has been changed to *haurəm* in many mss. and in some mss. even to *ahurəm*, due to the forms in *-əm* which occur in the context: *vīspəm vacō frauuākəm*, *haurum vacō ahurahe mazdā* ‘every speech is a revelation, the whole speech of Ahura Mazdā’.

At Y 19.7, the fraction nouns *θrišum* ‘one third’ (< **θriš-uam*) and *caθrušum* ‘one fourth’ (< **caθruš-uam*, see Emmerick 1992: 331) are mainly attested with *-um*, which is probably due to the influence of *paṅtaṛhum* ‘one fifth’ (on which see below)⁴⁰⁷. The archetype probably read **θrišūm* **caθrušūm* **paṅtaṛhəm*.

⁴⁰⁵ E.g. Y 2.13 Mf1 *vīdōiiūm*, Mf4 *°ūm* · J2.K5 *°ūm* · J3 *°um* · Mf2.K4 *°um* · P1 *°ūm*; Y 71.5 Pt4.Mf1.Mf4 *°um* · J2.K5 *°ūm* · Jp1.K4 *°um* · H1.J7.L13 *°ūm* · L2 *°ūm*.

⁴⁰⁶ Y 19.14: Pt4 *haurum*, Mf4 *hurum*, Mf1 *haurəm* · J2.K5 *haurəm* · S1 *haurəm*, J3 *ahurəm* · Mf2 *haurəm*, K4 *ahurəm* · K10.L2 *hurəm*, L1.3.Bb1.B2 *ahurəm* · C1 *ahaurəm*, K11.Lb2 *ahurəm*, H1.L13.J6.7 *ahurəm*; Y 20.3 *haurum*: Pt4.Mf1.Mf4 *haurum* · K5.J2 *haurum* · S1 *haurəm*, J3 *hurəm*, P11 *ahurəm* · Mf2.K4 *ahurəm* · L2 *haurəm*; L1.3.Bb1.B2 *ahurəm* · H1.J6.7.L13 *ahurəm*.

⁴⁰⁷ V.ll. Mf1 *θrəšum caθrušum paṅtaṛhəm*, Pt4 *°šūm* *°šum* *°ṛhum*, Mf4 *°um* *°um* *°um* · J2 *°šum* *°šūm* *°ṛhəm*, K5 *°šūm* *°šəm* *°ṛhəm* · S1 *°šum* *°šum* *°ṛhum*, J4 *°šum* *°šum* *°ṛhum* · Mf2 *°šum* *°šum* *°ṛhum* · L1.2 *caθrušūm paṅtataṅghūm*, P1 *°ūm* *°ūm* *°əm* · H1 *°um* *°um* *°ṛhəm*, J6 *°ūm* *°əm* *°ṛhəm*, J7 *°ūm* *°ūm* *°ṛhəm*.

In the Vīdēvdād, the spelling *-ūm* is best attested in the forms *dādrum*⁴⁰⁸ (V 9.11; to **dādru(ua)-* ‘clod of earth’), V 19.16 *vīdōiiūm*, V 9.14 (3x), 16.6 *srum*⁴⁰⁹ (from **sruūa-* ‘leaden’) and V 1.8 *harōiiūm*.

In other forms, *-ūm* is less well attested, for various reasons. V *pourum* (to *pauruua-* ‘former, first’) may have been influenced graphically by the frequent neuter form *pouru*. V 10.9 *saorum*⁴¹⁰ (from **sauruua-* if to the Skt. deity *śarvā-*) is only attested with *-um* and *-əm*; the latter variant is due to influence by the preceding form *indrəm*. Similarly, the form *haurum*⁴¹¹ ‘protecting’ reads *-um* in most of the V mss., but *-ūm* is sometimes preserved in the InVS. The acc.sg. *hōiiūm* ‘left’ (< **haiūam* < **hauīam*) in V 8 and 9 passim is spelled mainly as PV and InVS *hōim*, and Mf2.Jp1 *hōiiūm*, so that *-ūm* has disappeared. The acc.sg. of ‘one’ **aiūam* (in V 20.4) retains *ōiiūm* in the InVS L2.Br1.K10, but Mf2 has *ōiiūm* and L4.K1 *aoim*.

The fraction nouns *θrišūm* and *caθrušūm*⁴¹² show a large portion of forms in *-qm*, which can be explained from contextual analogy, since these nouns are often followed by gen.pl. forms in *-(ān)qm*. At V 6.32 and 16.2, they may have been influenced by **paṛtaṛhəm*, spelled as *-qm* in some mss. The isolated *θrišūm* in V 8.100 has *-ūm* in all mss.

⁴⁰⁸ V.II. L4a.Pt2 *dādrum*, K1a.P10 *dādarqm* · Jp1.Mf2 *dādrūm* · L1.2.K10 *dādrūm*.

⁴⁰⁹ V.II. V 9.14 L4.K1a.Pt2 *srum* · Jp1.Mf2 *srūm* · L2.M2 *srūm*. The same division between *srum* in the PV and *srūm* in the VS is found in V 16.6.

⁴¹⁰ V.II. K1.L4 *um* · Jp1.Mf2 *əm* · K10.B2 *um*, M2 *əm*.

⁴¹¹ V.II. V 13.20: K1 *pasuš.haurum*, L4 *hauruim* · Jp1.Mf2 *hāurum* · L1.2.Br1 *haurūm*; V 13.21: K1 *višhaurum*, L4 *višhauruim*; V 13.24: L4.K1 *haurum* · Jp1.Mf2 *hāurum* · L1.2.Br1 *haurūm*; V 13.25: L4 *višhauruim*, K1a *višhaurum* · Mf2 *višhaurum*. The L4 reading *hauruim* must be due to contextual influence of the preceding *tarō.piθβəm* in the text, e.g. V 13.20 *yō spānəm tarō.piθβəm daste yim pasuš.haurum*.

⁴¹² V.II. 5.26 *θrišūm*: M13.B1.M3.P2 *θrišqm* · Mf2 *θrišum*, Jp1 *θrišqm* · L2.Br1 *ūm*; 6.32: K1 *um qm ḡhqm* · Mf2 *θrišum caθrušum*, Jp1 *um qm* · L1.2.Br1 *um ūm*; 7.59 *θrišūm*: K1 *θrišqm*, Pt2 p.m. *qm*, s.m. *ūm* · Mf2 *θrišum*, Jp1 *θrišqm* · Br1.L2 *θrišum*; 8.100: *θrišūm* "all Mss. exc. Mf2 *θrišūš*; 16.2: K1 *um*, *um*, L4 *θrišqm caθrušqm* · Jp1.Mf2 *um um* · L1.2.Br1 *ūm um*, M2 *caθrušūm*; 18.63 (bis), 64 (bis): L4 *θrišqm* (bis), *um qm*, K1 *qm ūm*, *ūm* (bis) · Mf2 *um* (4x), Jp1 *qm um*, *um qm* · L1.2 *ūm* (4x).

The acc.sg. *daēum*⁴¹³ (of *daēuua-*) must be based on analogical restoration of the stem **dai̯ua-*, since the form does not correspond with *vīdōi̯iūm* < **ui̯-dai̯ua-*. It is striking that none of the mss. spells *daēūm* with *-ūm*, and the consistent spelling *daēuum* and once *daēuuqm* in the IrVS may point to a spelling as **daēuum* [*daēuum*] or **daēuuəm* in the archetype. It follows that the restoration of the acc.sg. **daēuəm* for original **dōi̯iūm* must postdate the development of **-uəm* > *-ūm*.

In the Yašts, the delicate ms. situation does not allow many conclusions about the spellings *-um* and *-ūm*. The most we can say is that the evidence does not contradict our previous findings. For instance, the acc.sg. Yt 5.63 *jum* ‘alive’ (< **juuəm* < **jūuam*) is spelled *jum* in F1+, but *jūm* in J10. The preference which the Iranian mss. sometimes have for *-um* is shown by Yt 13.90 *vīdōi̯iūm*, which has *-um* not only in F1+, but also in Mf3.K13.H5.K38 *-um*. The recent origin of the acc.sg. *daēūm* appears in Yt 8.26, where F1.E1.Pt1 spell *daēūm*, which seems to have the same preservation of consonantal **-u-* as the IrVS mss. in the Vīdēvdād attestations of this form.

§ 12.2.2 **-ahuam* > *-aṛhəm*

Hoffmann-Narten 1989: 52, fn. 57 have argued convincingly that the form of this ending in the archetype was probably **-aṛhəm*. An important piece of evidence is Y 71.11⁴¹⁴ *hauuaṛhum* (**hauuaṛha-* n. ‘good life’ < **hau-ahua-*), where the combination of *u*-vowels in one part of the mss. and *-ṛhəm* in the PY and IrVS suggests archetypal **hauuaṛhəm*. Against the variantless spelling *hauuaṛhum* in Yt 10.33, final **-əm* is confirmed by the v.ll. in Yt 17.22: F1+ and J10 *hauuaṛhəm*, H3 *huuaṛhəm*.

Confirmation of the preceding form comes from the fraction noun **paṛtaṛha-* n. ‘one fifth’, which Geldner edited as *paṛtaṛhum* (Y 19.7, V

⁴¹³ V.II. V 10.13: L4 *daēum*, K1 *daēm* · Jp1.Mf2 *daēuum* · L1.2 *daēum*; V 19.40,41: L4 *daēum* and *daēu*, K1 *daēum* · Jp1.Mf2 *daēuum*; V 19.43: Jp1 *daēuum*, Mf2 *daēuuqm* · L1.2.Br1 *daēum*.

⁴¹⁴ V.II. Y 71.11 (bis): Mf1 *ṛhum* and *ṛhum*, Mf4 *ṛhum*, Pt4 *ṛhəm* · J2.K5 *ṛhəm* · Jp1 *ṛhəm*, K4 *ṛhəm* and *ṛhqm* · L2 *ṛum* and *ṛhum*, InVs *ṛhum* · H1.J7 *ṛhuum* and *ṛhūm*, J6 *ṛhum* and *ṛhūm*.

6.32f., 16.2, F 17⁴¹⁵), but which we may also reconstruct as **paṅtaṅhəm* for the archetype. At Y 19.7, the spelling *-əm* occurs in the InPY and the YS, and in Mf1. At V 6.32, the spelling *-qm* of K1 and Jp1 must go back to **-əm*, which we can combine with *-um* in Mf2 and *-ūm* in the InvS as **-ṅhəm*; the same is valid for the two other V attestations.

There remain three other Avestan forms in **-aṅhəm*; all three are attested in *-um* without v.ll., but because of the fragmentary state of transmission of the texts they occur in, this is not problematic: P 41 *daožarḥum* ‘hell’ (**dauš-aṅha-*), F 20 *haptarḥum* ‘one seventh’ (**haptarḥa-*) and F 21 *aštārḥum* ‘one eighth’ (**aštārḥa-*).

§ 12.3 **-ium*

This ending is attested in four Avestan forms. YAv. *tāiiūm* (*tāiiu-* ‘thief’), YAv. *gaodāiiūm* (*gaodāiiu-* ‘tending the cow’) and OAv. *pāiiūm* (*pāiiu-* ‘shepherd’) have the expected form *-iiūm*, but YAv. *vaēm* (Yt 15.5, 15.57, Y 25.5, S 2.21), the acc.sg. of *vaiiu-* (the deity) ‘air’, is unexpected. It might be suggested that **vaiium* changed to **vaiim* (whence *vaēm*), much like the sporadic change of **-iuš* to **-iīš* in the Yašts, e.g. nom.sg. *vaḍairiš* < **-iuš*, cf. Bartholomae 1894-5: 155. In front of *-m*, the same phenomenon occurs in *ōim* next to *ōiiūm* (see above). However, *vaēm* is attested in enough different texts to warrant that it was the form of the archetype. In that case, it can hardly be compared with sporadic *ōim* for **ōiiūm*.

Hoffmann-Forssman 1996: 58 hesitatingly suggest that whereas *vaiiu-* is obviously cognate with Skt. *vāyú-*, *vaēm* has preserved an IIr. stem **vāia-* ‘wind’, cognate with e.g. Lith. *vėjas*. This solution seems far-fetched, since *vaiiu-* is definitely in the majority in Avestan, and occurs also in Yt 15 (typically in the same constructions, e.g. nom.sg. *vaiiuš yō uparō.kairiō* but acc.sg. *vaēm uparō.kairīm*). In view of the fact that *vaēm* only occurs in litanies in Yt 15 and S 2, in parts which obviously belong to a more recent text layer (cf. Hartman 1954; Yt 15 is concerned with *vaiiu-*, S 1 and S 2 give the Avestan calendar), *vaēm* may indicate that these texts have been composed by non-native speakers of Avestan.

⁴¹⁵ V.ll. Y 19.7 Mf1 *paṅtaṅḥqm*, Pt4 *ṅḥum*, Mf4 *um* · J2 *ṅhəm*, K5 *ṅhəm* · S1 *ṅḥum*, J4 *ṅḥum* · Mf2 *ṅḥum* · L1.2 *paṅgataṅḥūm*, P1 *əm* · H1 *ṅhəm*, J6 *ṅhəm*, J7 *ṅhəm*; V 6.32 K1 *ṅḥqm* · Mf2 *paṅtaṅḥum*, Jp1 *ṅḥqm* · L1.2.Br1 *ṅhūm*; 6.35 Mf2 *paṅtaṅḥqm*; 16.2 K1 unclear, L4 *paṅtaṅḥqm* · Jp1.Mf2 *ṅḥum* · L1.2.Br1 *ṅhəm*.

§ 13 The endings *-uš* and *-ūš*

The ending *-uš* may reflect Iir. **-uš* (nom.sg. of m.f. *u*-stems, nom.sg. of root nouns in *-u*, nom.sg. of the ptc.pf.act., nom.acc.sg.n. of stems in *-uš*), but it may also reflect Iir. **-uHš*, the nom.sg. of m.f. *ū*-stems. In the latter case (*fsəratuš*, *tanuš*), we must assume the merger of the nom.sg. of *ū*-stems with the nom.sg. of *u*-stems. The ending *-ūš* reflects Iir. **-uNš* (acc.pl. of m.f. *u*-stems), and sometimes the ins.pl. ending **-ub^hiš*. These four different Iir. endings will be discussed in the following four subsections.

§ 13.1 Iir. **-uš*

In the best Yasna and Vīspereḍ mss., the spelling *-uš* in the nom.sg. of *u(š)*-stems and the acc.sg.n. of *uš*-stems is preserved nearly unchanged in the IrPY and the IrVS, but even in the InPY it has probably been altered only by the hand of Mitro-Āpān, the scribe of J2.K5. The other Indian manuscripts are less reliable, and they seem unconscious of a difference between *-uš* and *-ūš*. Some examples include:

- Y 31.9 nom.sg. *xratuš*: *xratuš* Pt4.Mf1.Mf4 · *xratūš* J2, *xratuš* K5 · *xratuš* S1.J3 · *xratuš* K4.Mf2.Jp1 · *xratuš* J6.7.H1, *xratūš* L13, *xratūš* K11.Lb2 · *xratuš* L2, *xratūš* L1.3.B2.O2.P1.
- Y 46.11 nom.sg. *pəratuš*: *pəratuš* Pt4.Mf1, *pəratūm* → *pəratuš* Mf4 · *pəratuš* K5, J2 defective · *pəratuš* S1.J3 · *pəratuš* K4.Mf2.Jp1 · *pəratūš* J6.7.H1.K11.C1.L13 · *pəratuš* Dh1.L1.2.P1, *pəratūš* L3.S2.Bb1.O2.
- Y 49.7 nom.sg. *x^haētuš*: *x^haētuš* Pt4.Mf1.Mf4 · *x^haētuš* K5, *x^hətūš* J2 · *x^haituš* J3 · *x^haētuš* Mf2.Jp1, *x^hituš* K4 · *x^haētuš* J6.7.H1.L13, *x^haitūš* C1.K11 · *x^haētuš* L2.O2, *x^haituš* L1, *x^haitūš* B2, *x^haetūš* Dh1.L3, *x^haituš* P1.
- Vr 12.1 nom.sg. *vaṅhuš*: *vaṅhuš* K7a · *vaṅhuš* H1, *vaṅhūš* J8.Pt3.K11 · *vaṅhuš* L2, *vaṅhūš* L1 · *vaṅhuš* K4.Mf2, *vaṅhūš* Jp1 · *vaṅhuš* F11.Kh1.

In a case such as Y 33.6 nom.sg. *ərazuš*, where Geldner edited *ərazūš* because of the numerical preponderance of forms in *-ūš*, we find that the reliable ms. classes IrPY and IrVS have *-uš*, so that we may simply posit *ərazuš* as the original form: *ərazuš* Pt4.Mf1.Mf4 · *ərazūš* J2.K5 · *ərazūš* S1, *ārazūš* J3 · *ərazuš* Mf2.Jp1.K4 · *ərazuš* L1.2.P1, *ərazūš* Dh1 · *ərazuš* K11.H1.J7, *ərazūš* C1, *ārazuš* L13.P6.

In line with the Yasna findings, the Vīdēvdād evidence shows a tendency to replace *-uš* by *-ūš* in the InVS and sometimes also in the PV. The IrVS manuscripts preserve the original spelling most faithfully. A few examples:

- V 15.10,21 nom.sg. *aētahmāiiuš*: °*uš* L4.K1 · °*ūš* L1.2.Br1.K10.O2 · °*uš* Jp1.Mf2.
- V 13.1 nom.sg. *mainiiuš*: °*uš* L4.K1 · *mainiiuš* Mf2, *mainiiēuš* Jp1 · *mainiiuš* L1.2, *mainiiēuš* Br1 .
- V 13.10 nom.sg. *tāiiuš*: *tāiiūš* L4.Pt2 · all other mss. *tāiiuš*.

In the Yašts, the ending *-uš* has generally been preserved in the Iranian manuscripts, whereas it was frequently altered to *-ūš* in the Indian mss. In the important ms. F1, the difference between *-uš* and *-ūš* is nearly non-existent, *-uš* being the favourite spelling, so that the testimony of this ms. is of little value (see also below). A few examples:

- Yt 10.84 nom.sg. *driyušciṭ*: *driyūšciṭ* F1.Pt1.E1, *driyušciṭ* L18, *drəyušciṭ* (sic) P13, *druyūšciṭ* K15 · *driyūšciṭ* H3.
- Yt 1.12 nom.sg. *pāiiušca*: *pāiiusca* F1, *pāiiūšca* L18.K19 · *pāiiūšca* J10 · *pāiiušca* Mf3.K18a, *pāiiūšca* L25 · *pāiiušca* H2, *pāiiūšca* L12.J15.
- Yt 10.79 nom.sg. *rašnuš*: *rašnuš* F1+, *rašnēuš* K15 · *ršnōš* J10 · *rašnuš* H4, *rašnēuš* H3.

Yt 8.39 nom.sg.m. *mamnūš*⁴¹⁶ ‘with the intention’ appears to be a pf.ptc.act. form of *man-* ‘to think’, but the form is irregular, since a regular nom.sg.m. would be **mamnuuā* (cf. Panaino 1990: 128f.). It seems safest to assume with Kümmel 2000: 655 that this form is an adjective *mamnu-*, of which the expected nom.sg. would be **mamnuš*.

§ 13.2 Iir. **-uHš*

Avestan nouns which may go back to an Iir. *ū*-stem nearly always have the ending *-uš*. As there is no evidence for a *phonetic* shortening of **-ūš* to *-uš* in Avestan (compare the acc.pl. ending *-ūš* < **-uNš* and the *ī*-stem nom.sg. in *-īš* < **-iHš*), we must assume analogical transfer of the (nom.sg. of) *ū*-stems to the *u*-stems. The most important examples of such nouns are Y 51.4 nom.sg. *fsəratuš* ‘protection’ (< **psratū-?*; cf. § 25.4) and V 7.51, 9.31 nom.sg. *tanuš* ‘body’ (Skt. *tanū́ḥ*).

The form edited by Geldner as Yt 11.6 *gaδōtušca* and by Bartholomae 1904: 489 as *gaδōtūšca* must be corrected to **gaδō.tūšca*, cf. Hoffmann 1975: 200ff.

⁴¹⁶ V.II. *mamnūš* F1.E1, *mainūš* Pt1 · *mamnūš* J10 · *mamnūāš* K12, *mamanōiš* K15.

IIr. **-uHš* has only been preserved in two monosyllabic forms, viz. the pronoun OAv. *yūš* ‘you’ (pl.), and the noun *mūš* (Y 16.8=68.8), used as a f. gen.sg. of the name of a *pairikā*. The only possible connection of this uncertain word is with Skt. *mūṣ-* ‘mouse’, from PIE **muHs*.

§ 13.3 IIr. **-uNš*

The development of the PIE acc.pl. ending **-uns* to attested Avestan *-ūš* probably went through an IIr. stage with a nasalized vowel **-ūš̄*, compare the ending *-īš̄* < **-ins*. In Avestan, the vowel in the acc.pl. is indistinguishable from IIr. **ū*.

In the Yasna, the mss. of the PSY and the IrVS generally preserve the ending *-ūš* quite faithfully, although the IrPY mss. J2.K5 have short *-uš* in more than one instance. Narten 1986a: 281, fn. 43 has already observed that this is due to the contemporary Indian pronunciation, as can be seen from the frequent replacement of *-ūš* by *-uš* in the InVS and YS. Examples include:

- 40.3 *aidiiūš* acc.pl.: *aidiiūš* Pt4.Mf4, *aidiiūš* Mf1 · *aidiiūš* K5, *aidaiūš* J2 · *aidiiūš* J3.S1 · *aidiiūš* K4.Mf2.Jp1 · *aidiiūš* J6.H1.L13.Lb2, K11 *idiiūš* · *aidiiūš* O2.L1.2.3.S2.
- 33.5 *ərəzūš* acc.pl.: *ərəzūš* Mf1.Mf4 · *ərəzūš* J2.K5 · *ərəzūš* S1, *ā*ərəzūš J3 · *ərəzūš* Mf2, *ərəzuš* Jp1.K4 · *ərəzūš* J6.7, *ā*ərəjūš L13 · *ərəzūš* Dh1.O2, *ərəzuš* S2.L1.2.P1, *ā*ərəzūš uL3.
- 32.14 *xratūš* acc.pl.: *xratūš* Pt4.Mf1.Mf4 · *xratuš* K5.J2 · *xratuš* S1, *xratūš* J3 · *xratūš* Jp1.K4.Mf2 · *xratūš* L13, *xratuš* J6.7.H1, *xratēuš* K11 · *xratūš* Dh1, *xratuš* S2.L1.2.3, *xratēuš* B2.O2.P1 · *xratūš* K37.Pd.
- 42.1 *pərətūš* acc.pl.: *pərətūš* Mf4.Br2 · *pərətūš* K5, *pərətuš* J2 · *pərətuš* P6 · *pərətūš* P1, *pərətuš* L2.3.

• 65.11 *pourūš* acc.pl.⁴¹⁷: *pourūšca* Mf1, *pōurūšca* Pt4, *paōurīšcā* Mf4 · *paourūšca* J2, *paourušca* K5 · *paourūšcā* K4, *paourūšca* Jp1 · *pourusca* H1.J7.K11.L13, *paourušca* J6 · *paourušca* L1, *paouruš* L2.3.B2.

A problematic form is Y 33.1 *ratūš*: *ratūš* Pt4.Mf1.Mf4 · *ratūš* K5, *ratuš* J2 · *ratūš* S1 · *ratūš* Jp1, *rātūš* Mf2, *ratēuš* K4 · *ratuš* J6.7.H1.K11.L13 · *ratuš* L1.2.B2. It was taken as a nom.sg. by Bartholomae 1904: 1498 and Insler 1975, but the predominance of the v.l. *-ūš* makes this uncertain. Humbach 1991 II: 93 suggests that the original form may have been ins.sg. **ratū* ‘by the judge’, which received *-š* through anticipation of the initial *š*- of the following word *šīiaoθanā*: *varəšaitē* ... **ratū šīiaoθanā razištā* ‘the straightest actions shall be performed by the judge’. However, *š* is not the same sound as *š*. We may try to take *ratūš* as that what it seems at face value, viz. an acc.pl. Its function could be that of an accusative of content: *varəšaitē* ... *ratūš šīiaoθanā razištā* ‘the straightest actions as far as the rules are concerned will be performed’.

In the Hōm Yašt (Y 9-11), we find three exceptions to the rule close to one another. Y 9.26, 10.3 *baršnuš* and Y 10.2 *qsuš* must be edited with *-uš*, although they are acc.pl. forms⁴¹⁸. The fact that an *-n-* precedes the ending in *baršnuš* and a nasal vowel in *qsuš*, combined with the Vīdēvdād form *tafnuš* (see below) which is also exceptional, may suggest that the cause of *-uš* for **-ūš* lies in the preceding *n*, compare the discussion of the Hōm Yašt ending *-niš* above; yet the occurrence of Y 57.6 *āxšnūšca* and G 2.7 *baršnūšca* contradicts this assumption. Thus, I am inclined to think that these spellings are due to the specific history of the Hōm Yašt, a text part which

⁴¹⁷ This form was analysed as a nom.sg. of *pouru-* by Bartholomae 1904: 855. He translates «mancher», a kind of collective use of ‘many’, and explains the 3p. verb form as being placed in a constructio ad sententiam: *āpō īštīm vō jaiđiīāmi / pouru.sarəđqm amauaitīm / frazañtīmca x’āparqm / yejrhā pourūšca bərajiīqn* ‘Waters, I ask strength of you, manifold, vigorous, and blissful progeny, which many a person shall honour’ (translation after Wolff 1910: 90). Such a ‘collective’ use of *pouru-* is unparalleled in Avestan, so that we should rather take *pourūšca* as the object of *bərajiīqn*, which would then be used impersonally, like *mānaiīan* ‘one could think’. The relative *yejrhā* may refer to the preceding feminine *frazañti-*. The line would then read ‘of which they shall honour many’.

⁴¹⁸ V.II. Y 10.2 *qsuš*: *qsuš* Mf4, *qsuš* Br2 · *qsuš* J2, *qs.uš* K5c · *qsuš* K4 · *qsuš* P1. Y 9.26 *baršnuš*: *bərašnuš* Pt4, *barəšnuš* Mf1.Mf4 · *baršnuš* J2, *barəšnuš* K5 · *barəšnuš* J3 · *barəšnuš* Mf2.K4. Y 10.3 *baršnuš*: *barəšnuš* Pt4.Mf1.Mf4 · *baršnuš* K5b, *barišnuš* J2 · *barəšnuš* J3 · *barəšnuš* Mf2.K4 · *barəšnuš* J6.H1.L13.K11.

was obviously integrated into the Yasna at a relatively recent date. Note that we have already encountered two ins.pl. forms in *-biš* instead of *-bīš* in the Hōm Yašt (§ 9.3), viz. *aēibiš* and *āzizānāitibiš*.

The forms of the Vīspere confirm the distribution of v.ll. in the Yasna. The Iranian mss. of the IrVS and the IrVrS preserve the ending *-ūš* in most of the cases, while the Indian mss. tend to replace it by *-uš* or *-ēuš*. Examples are:

- Vr 6.1 *vaṇhūš* acc.pl.: *vaṇhuš* K7a.b.L27 · *vaṇhūš* Dh1.Br1, *vaṇuhūš* L1.O2.B2 · *vaṇuhūš* J8, *vaṇhēuš* H1.K11 · *vaṇhūš* Mf2.Jp1, *vaṇhēuš* K4 · *vaṇhūš* F11.Kh1.
- Vr 3.5 *ratūš* acc.pl. (2x): *ratuš* K7a · *ratuš* K11.J8.H1.Pt3 · *ratuš* L1.2 · *ratūš* Mf2.K4, *ratūm* and *ratūš* Jp1 · *ratūš* F11.Kh1.

In the Vīdēvdād, we have too little v.ll. to make reliable statements about the spelling of the acc.pl. ending. The ending *-ūš* is found in V 13.17f. *tāiiiūš* and V 18.27 *hikūš*, but the acc.pl. form *gātuš* is attested in V 3.25, 5.55 and 5.56, without v.ll. The form V 20.1 *tafnuš* is spelled with *-uš* in most mss., but Br1.O2 *tafnūš* may preserve the original spelling: *tafnuš* L4.K1 · *tafnuš* Jp1.Mf2 · *tafnuš* L1.2, *tafnūš* Br1.O2.

In the Yašts, there is a preponderance of acc.pl. forms in *-uš*, but this is largely due to F1 (see below); the mss. of the IrKA mostly retain *-ūš*. Some examples of acc.pl. forms are:

- Yt 19.1 *daṇhūš* (2x): *°uš* F1+ · *°uš*, *°ōš* J10 · *°ēuš* D
- Yt 8.49 *paourūš* : *pauruš* F1+, *paōru* P13 · *paouruš* J10
- Yt 11.4 *pəratūš*: *pəratūš* F1+ · *pəratuš* J10 · *pəratuš* K18.L12.J15.M4
- Yt 13.31 *bāzūš*: No v.ll. in Geldner, but we find F1 *bāzuš* in the facsimile (!). Probably, Geldner had at his disposal v.ll. in *-ūš* which he does not list.
- Yt 13.151 *vaṇhūš*: *vaṇhuš* F1.E1.Pt1.K14, *vaṇuš* L18.P13 · *vaṇhūš* W3, *vaṇhēuš* Mf3.K13.38.H5 · *vaṇhēuš* J10. The reason why *vaṇhūš* is not shown by the IrKA is the replacement by *-ēuš* in those mss.
- G 2.7 *barəšnūšca*: *barəšnūšca* Mf3.K36 · *barəšnušca* E1 · *barəšnaēca* Pt1.L18.11.Mb1.E2 · *barəšnaca* Lb1.K12 · *barəšnica* J10.

Of the 123 Yašt forms edited by Geldner with *-uš* or *-ūš*, we find the overwhelming majority spelled in F1 with *-uš*. The only forms in *-ūš* are Yt 10.84 nom.sg. *driyūšciṭ*, Yt 8.39 nom.sg. *mamnūš* and Yt 11.4 acc.pl.

*pərətūš*⁴¹⁹. A striking form is for instance Yt 13.31 acc.pl. *bāzuš*, which was edited as *bāzūš* by Geldner. This situation suggests that *-uš* was the unmarked spelling for both *-uš* and *-ūš* in F1, although there are only a few acc.pl. forms in the Yašts which could have had **-ūš* in the first place. It is possible that the ending was still regularly *-ūš* in the/an ancestor of F1, only to be removed partly by its scribe Āsādīn in favour of the highly frequent *-uš*.

The form Yt 14.38 *duš.mainiiuš*⁴²⁰ (in *vīspe tərəsənti duš.mainiiuš*) cannot represent a nom.pl. form, as Bartholomae 1894-5: 248 and 1904: 754 claims, although the text would seem to require one. It will be an acc.pl. form which was erroneously used as a nom.pl. Note the parallel sentence *vanāma vīspe dušmainiiuš* (Yt 10.34), where the acc.pl. is in place.

§ 13.4 IIr. **-ub^hiš*

In several ins.pl. forms of *u*-stems, lenition of **b > *β > *u* took place, followed by a contraction of the ending to yield *-ūš*; cf. Hoffmann 1976: 614. The main question is whether the ending already had the form *-ūš* in the archetype, or arose later from **-uuīš*. I am inclined to support the former view, firstly because *-ūš < *-ub^hiš* is attested in the different ms. traditions of Yasna, Vīdēvdād and Nērangestan, and secondly because no ending *-uuīš* is preserved anywhere. The following forms are involved:

- Y 12.4 *auuaṛhūš*⁴²¹ to *a-uuuaṛhu-* ‘not good, bad’. The spelling *-īš* is attested even in some of the good mss. (Pt4.Mf4, K5), but the form *-ūš* is lectio difficilior in the context (*vī daēuuāiš ayāiš auuaṛhūš anarētāiš akō.dābīš sarəm mruīē*). The YS, the InVS and S1 spell *-uš*.
- V 13.1, 19.8 **aṛrō.mainiiūš* (edited by Geldner as *-uš*) to *aṛrō.mainiiu-* ‘belonging to Aṛra Manyu’; the ins.pl. here functions as an acc.pl.n. There is no v.l. *-ūš*.

⁴¹⁹ Contrary to Hintze (apud JamaspAsa 1991: XVIII), we find that in Yt 5 *-ūš* is not more common than *-uš*. There are only four relevant forms in Yt 5 and all of them are spelled *-uš*.

⁴²⁰ V.II. *°uš* F1.E1.K16 · *°əuš* Pt1.P13, L18 *°uš* · *°uš* Jm4.L11.K38, O3 *°əuš* · *°uš* J10 · *°īš* M4.

⁴²¹ V.II. *°īš* Pt4.Mf4 · *°ūš* J2, *°īš* K5 · *°uš* S1, *°ūš* J3, *°ūīš* K6.J4 · *°īš* K4 · *°uš* L2.3.B2 · *°uš* J6.7.H1.K11.Lb2.L13. The mss. K6.J4 depend on J3, so that the ending *°ūīš* must represent a later adaptation of *°ūš*, and cannot be regarded as a relic of **-uuīš*. The latter possibility is suggested by the presentation of *auuaṛhūš* in Hoffmann-Forssman 1996: 131.

- V 3.42 *pərənāiiuš*⁴²² to *pərənāiiu-*. Here, the ins.pl. functions as a dat.pl. We find *-ūš* attested in the PV mss. descending from K1.
- N 57 *pituš*, ins.pl. of *pitu-* ‘food’.
- Y 12.4 *yātuš*, ins.pl. of *yātu-*.
- N 57 *vīzuš*, ins.pl. of *vīzu-*, a kind of dog.
- V 13.5 **spəntō.mainiiūš* (Geldner *°mainiiūm*), ins.pl. of *spəntō.mainiiu-* ‘belonging to Spənta Manyu’, here functioning as an acc.pl.n. The form is attested with *-m* in the PV, but with *-uš* and *-ūš* in the VS.

⁴²² V.II. *pərənāiiuš* L4, *°ūš* B1.MI3.P2 · *°uš* Jp1.Mf2 · L2 *°uš*.

V. AVESTAN DIPHTHONGS

§ 14 Iir. **ai*

The reflex of the diphthong **ai* depends on its position in the word, and partly on the difference between OAv. and YAv. In auslaut, **ai* has been monophthongized to *-e* in YAv., but OAv. *-ōi* retains the diphthongal stage. In front of a vowel, the most frequent reflex is *-aii-*, but both OAv. and YAv. show traces of an earlier stage **-āi-*, and of its descendant *-ōii-*. In preconsonantal position, the main reflexes of **ai* are the diphthongs *aē* and *ōi*; but their exact distribution has yet to be determined.

The first subsection will discuss the reflexes of **-ai* in auslaut, followed by the second subsection on antevocalic **ai*. The third subsection is devoted to the development of **ai* in front of a consonant. For each of these three positions, we will separately discuss the YAv. evidence and that of OAv.

§ 14.1 **-ai*

The regular reflex of **-ai* in YAv. is *-e* in polysyllables, and *-ē* in monosyllables. This can be interpreted straightforwardly as the result of monophthongization of **-ai*. As we shall see in § 16, this development finds a parallel in the monophthongization of **-au* to **-ō*, which is also restricted to word-final position.

In OAv., we find the reflexes *-ōi* and *-ē*. In view of the other sources from which the Avestan vowel *ō* is derived, OAv. *-ōi* must reflect earlier **-ōi*, which in its turn is an unmonophthongized reflex of **-ai*; cf. Narten 1986b: 270. Humbach 1959 I: 25 has discussed the distribution of OAv. *-ōi* and *-ē*: he observes that the ending *-ē* can occur in all positions in the Gāthic verse, while *-ōi* is confined to verse-internal position. Humbach infers that *-ōi* was replaced by YAv. *-e* (Gāthicized to *-ē*) at the end of a syntagm, but could more easily survive in the middle of a pāda. This, then, explains the co-occurrence of *-ōi* and *-ē*: *-ōi* is based on the more original OAv. reflex, whereas *-ē* is due to the influence of the YAv. language on OAv.

Apart from the ending *-ē*, YAv. contains two sets of words ending in *-ōi*. Neither of them reflects the regular phonetic development.

Firstly, monosyllabic forms in pseudo-Gāthic text parts can take *-ōi* in order to mark them as OAv.: *mōi* ‘to me’ Y 12.2 (YAv. *mē*), *tōi* ‘to you’ Y 13.5 (YAv. *tē*).

Secondly, two YAv. forms in *-ōi* must reflect the analogical restoration of an ending **-āi*, viz. *maidiiōi* and *yōi*. The form *maidiiōi*, loc.sg.m.n. of *maidīia-* ‘middle’, occurs in isolation and as the first member of a compound.

Hoffmann-Forssman 1996: 68 suggest that the preceding $*\hat{i}$ may have led to the preservation of $-\bar{o}i$, and this seems plausible. YAv. examples such as $paiv̄e < *pa\hat{v}i\hat{a}i$ (dat.sg. of *pai-*) and the ending $-\bar{e}e < *-\bar{e}i\hat{e} < *-\bar{e}i\hat{a}i < *-\bar{a}i\hat{a}i$ (dat.sg. of *ti-* stems) show that the expected outcome of loc.sg. $*ma\hat{d}i\hat{a}i$ would be $*made > \dagger mai\delta e$. It has been suggested that $mai\delta ii\bar{o}i$ was generalized from compounds where it stood before a consonant cluster: in front of two consonants, $*ai$ mostly yields $-\bar{o}i$ in YAv. (see below). However, there are several examples of Avestan words which preserve an alternation between $a\bar{e}$ and $\bar{o}i$ in front of different consonant clusters, such as *hamaēstar-* vs. *hamōistri*, *xšaēta-* vs. *xšōiθnī-*, etc. Therefore, one might prefer a different explanation for $mai\delta ii\bar{o}i$: when $*made$ had arisen through regular phonetic development, the stem suffix $*-ia-$ and the ending of the loc.sg. were restored, yielding $*ma\hat{d}i\hat{a}i$; the model for this restoration was provided by the preserved ending in front of $-ca$ and by the rest of the paradigm of *maiδiia-*. The ending $*-\bar{a}i$ in $*ma\hat{d}i\hat{a}i$ underwent the development to $-\bar{o}i$, which we already saw in the OAv. forms in $*-ai$ which were not replaced by YAv. $-e$.

The nom.pl.m. $y\bar{o}i$ of the relative pronoun *ya-* is so frequent that it must be genuine YAv. If the YAv. change of $*-ai > -e$ and the subsequent simplification of $*-\bar{i}e > -e$ had applied to nom.pl. $*i\hat{a}i$, this would have yielded a single vowel $\dagger\bar{e}$ without apparent connection with the paradigm of *ya-*. Therefore, it is conceivable that the speakers of YAv. restored $*i\hat{a}i$ after the sound change $*i\hat{a}i > *e$ had taken place. The form $*i\hat{a}i$ then regularly developed into $y\bar{o}i$.

§ 14.2 $*-aiV-$

In front of a vowel, the most frequent YAv. reflex is $-aii-$. However, there is reason to believe that at an earlier stage, the pronunciation of the diphthong was $[\bar{a}i]$ rather than $[ai]$ (cf. especially Narten 1986b: 269). The two most cogent arguments for this view are the dat.sg. ending $-\bar{e}e$ and the acc.sg. ending $-\bar{o}iium$.

YAv. possesses a dat.sg. of *i-* stems which takes the form $-\bar{e}e$: *hāuuānēe*, *sāuuāghēe*, *āmatēe*, etc. The IIr. form of the suffix plus ending can be reconstructed as $*-ai-ai$, which implies a development $*-ai\hat{a}i > *-\bar{a}i\hat{a}i > *-\bar{a}i\hat{e} > -\bar{e}e$. The glide $*\hat{i}$ was regularly lost in front of $-e$ (cf. *paiv̄e < *pa\hat{v}i\hat{a}i*), and this must have blocked the restoration of the suffix form $*-\bar{a}i-$ which took place in other environments. Thus, we find not $\dagger-aiie$ but $-\bar{e}e$. We must assume that long $-\bar{e}$ is the direct reflex of $*-\bar{a}$ < $*-a-$.

Four YAv. acc.sg. forms in *-ōiium* go back to **-əi̯um* < **-ai̯um*, viz. *ōiium* ‘one’, *vīdōiium* ‘against the daevas’, *harōiium* ‘Haraiva’ and *hōiium* ‘left’. Since the stems *aēuuu-* and *daēuuu-* show the sequence *-aēuu-* in all other case forms (*daēuuō*, *daēuuōng*, etc.), *-ōiium* will be the regular reflex of **-əi̯um* < **-ai̯um*, whereas the stems **əi̯u-* and **dəi̯u-* have been restored to **ai̯u-* and **dai̯u-* in the rest of the paradigm. In the acc.sg., the development **-um* > *-um* rendered the suffix **-u-* opaque, thus removing the model from which **-ai-* could have been restored. The fact that the connection between *vīdōiium* and its original paradigm was lost is shown conclusively by the new analogical acc.sg. *daēu(u)m* of *daēuuu-*, which was formed in the Yašts and the Vīdēvdād. Thus, we may reconstruct **-əi̯um* > **-əi̯um* > *-ōiium*, under the assumption that the development to *-ōii-* in this form is not some separate change of **-əi-* conditioned by *-u-*, but simply another instance of the usual change **əi* > *ōi* which we have already seen in the OAv. word-final sequence *-ōi*.

For the non-etymological anaptyctic vowel in *māuuōiia* from **mauiā* etc., cf. § 25.10.2.

The usual reflex of the sequence **-ai̯V-* in YAv. and OAv. is *-aiiV-*, which can be found in the following categories: the full grade suffix of *i*-stems (dat.sg. *-aiiā-ca*, nom.pl. *-aiiō*), the oblique sg. case forms of *f. ā*-stems (dat.sg. *-aiiāi*, gen.sg. *-aiiā*, etc.), the 3p. opt.act. ending of thematic verbs (*baraiian* etc.), the verbal suffix *-aii-* (in causatives and denominatives), verbs in *-iia-* (*xšaiia-*, *spaiia-*, *zbaiia-*, etc.), and various nouns and adjectives, such as *aiiah-* ‘iron’, *gaiia-* ‘life’, *uzaiieirina-* ‘of the afternoon’, *paiiah-* ‘milk’, etc. In view of the evidence for a stage **-əi-* which we have just discussed, it seems likely that the sequence *-aii-* is actually the result of a restoration of [a], which did not affect those forms in which **-əi-* had developed further to *-ə-*. A similar restoration of [a] for [ə] can be assumed in the case of IIr. **aN*, which yields both *-əN-* and *-aN-* in YAv. (see § 23).

The only remnant of the stage **-əi-* in OAv. is *vātəiīāmahī* (Y 35.7), which has somehow escaped the change of **ə* > *ō*. In the words where it was not preserved as *-əi-* or replaced by *-aii-*, antevocalic **ai̯* has yielded OAv. *-ōii-*: *akōiīā* (loc.sg. **akai* plus **ā* ‘in evil’, Humbach 1959 II: 88), *axtōiīōi* (dat.sg. of *axti-*), *isōiīā* (1s.opt.med. of *is-*), *ubōiīō* (loc.du.m. of *uba-*), *urūdōiīātā* (*rudaiia-*), *ōiīā* (ins.sg.f. **aiā*), *xʷāθrōiīā* (loc.sg. **xʷāθrai-ā*), *vātōiīōtū* (*vātaiia-*) and *hādrōiīā* (**hādrai ā*, ‘sincerely’ according to Humbach 1991 II: 81).

It is uncertain whether Y 32.7 *jōiīā* belongs to this category. The metre shows that *jōiīā* originally counted three syllables. It is often interpreted as

**jūuīia-* ‘alive’, but as we have seen in § 6.5, the expected outcome of **jūīia-* would be just *jūuīia-*. Since influence of the preceding word *hādrōiā* on **jūuīiā* is improbable, a different solution must be found. Attempts at an etymology as **jūiā* or **jaiiā* have been discussed by Kellens 1974a: 239f., but the explanation suggested to Kellens by Schindler and Klingenschmitt, viz. that *jōiā* would be a gerund to *ji-* ‘to overcome’, has now been given up, cf. Monna 1978: 155, Kellens-Pirart 1988-91 II: 243. Firstly, Old Avestan has no difficulties with a cluster [ji-] (cf. *jiiātu-* etc.) and secondly, such a gerund would probably count only two syllables⁴²³. For the time being, we must accept that the etymology of *jōiā* is unknown.

In conclusion, the reflexes of the sequence *-*aiV-* support the view that **ai* had become *-*ai-* at some stage of its development. We find YAv. forms in -*ā-* and -*ōii-* which directly go back to *-*āi-* < *-*ai-*. In OAv., one form has preserved -*āii-* unchanged, while the frequent OAv. reflex -*ōiiV-* also betrays the stage *-*āi-*.

§ 14.3 *-*aiC-* and *-*aiCC-*

In general, **ai* yields YAv. *aē* in open syllables and *ōi* in closed syllables, but there are several groups of exceptions. Firstly, a number of forms show *aē* in front of a consonant cluster, or vacillation between *aē* and *ōi*; we will discuss this evidence per consonant cluster. Secondly, a number of YAv. forms has the reflex *ōi* in front of a single consonant.

The OAv. distribution of *aē* and *ōi* is largely the same as in YAv. The digraph *aē* occurs in open syllable and in front of the same consonant clusters as YAv. *aē*; the digraph *ōi* occurs in the same kind of closed syllables as in YAv. The number of OAv. forms with *ōi* in open syllable is larger than in YAv.

Bartholomae 1894-5: 172 tentatively formulated the rule that *aē* is found in initial position and in open syllables, whereas *ōi* is original in closed syllables; he added that there are frequent violations of this rule and that Gathic seems to prefer *ōi*, whereas YAv. favours *aē*. Bartholomae’s description of the facts was confirmed by Beekes 1988: 35-40, who discussed all the OAv. facts and also provided a survey of the YAv. forms; Fortson

⁴²³ Humbach 1991 II: 81 reads an ins.sg. **jūiā* of a root noun *jūiā-* ‘violence’, in which *ā* is presumably meant to indicate disyllabicity. Yet there are no other cases of the ins.sg. ending being disyllabic.

1996 then confirmed Bartholomae's view for the YAv. evidence. Fortson added the subrule that *ai regularly yields aē in front of a cluster of a voiceless sibilant plus a single consonant, e.g. in *aēsma* and *aēšma*.

HISTORICAL INTERPRETATION

Starting from the observation that the reflex *ōi* is significantly more frequent in OAv. than in YAv. in all three environments (word-final, in front of a vowel, in front of consonants), Narten 1986b: 270ff. has put forward an explanation which seems very plausible, and which I will adopt here: the distribution of *aē* and *ōi* between open and closed syllables is of YAv. origin. In view of the fact that *ai in front of a vowel first developed into *-*aiV*- in both OAv. and YAv. (as we have seen above), Narten argued that Ir. *-*aiC*- originally yielded *-*aiC*- too. The sequence *-*aiC*- developed into *-ōiC-* in OAv., whereas in YAv. in open syllables, *-*aiC*- (re)turned into *-*aiC*-, whence *-aēC-*; in closed syllables, YAv. *-*aiC*- became *-ōi-*.

The YAv. distribution was subsequently introduced into the Gāthās on a large scale, but not completely: "Diese jav. Verteilung der phonetischen Varianten übte nun ihren Einfluß auf die weitere Überlieferung des Gatha-Textes aus, doch ohne völlige Konsequenz." We have already seen that OAv. has retained the reflex *-ōi* (once *-ōi-*) in part of the auslaut forms (*-ōi* versus later *-ē*) and in some prevocalic positions (*vātōiiāmahī*, *-ōii-*); similarly, we can explain most of the OAv. preconsonantal reflexes *-ōi-* as relic forms in which **ai* was not replaced by the YAv. pronunciation [*ai*]. Some other OAv. forms in *-ōi-* are composite forms which show the OAv. development of **ai* in auslaut.

The strength of Narten's view lies in the joint explanation of **ai* in *all* positions in the word, not only preconsonantly. One important question remains to be answered: at which stage of the phonetic development were the OAv. reflexes replaced by the YAv. sequences? Narten herself is not very explicit about this matter, but it seems (1986b: 270) that she assumes **ai* to have become *ōi* in OAv. in all positions, before it was replaced by *aē* in those forms where YAv. had *aē*. However, such a scenario would imply an identical but independent development **ai* > **ai* > *ōi* in OAv. and in YAv., under partly different conditions: OAv. always, YAv. only in closed syllables. Subsequently, the YAv. speakers would have replaced OAv. *-ōi-* by *-aē-*, although they themselves possessed *-ōi-* in their phonological system.

It seems rather unlikely that the assumed replacement took place when *-aē-* and *-ōi-* had already fully developed. We may simplify the scenario by dating the replacement of OAv. forms to an earlier stage. If we assume that

the diphthong still had the form **əi* at the time of the YAv. influence on OAv., we only need to posit a replacement of OAv. **əi* by YAv. **ai*, in the same way as we have assumed in the case of **əiV* > OAv. *-aiiV-* versus *-əiiV-* and *-ōiiV-* (§ 14.2). This would yield the following relative chronology for the sequence **aiC*:

1. Early YAv. **ai* > **əi*.
2. Canonization of OAv.; all OAv. forms receive the YAv. pronunciation [əi].
3. YAv. change **əi* > **ai* in open syllable.
4. Replacement of OAv. **əi* by YAv. **ai* in many but not all open-syllable forms.
5. Phonetic change **əi* > *(*)əi* > *ōi* in both OAv. and YAv.

§ 14.3.1 YAv. *aē* and *ōi* in closed syllable

There are eight consonant clusters in front of which YAv. has one or more forms in *-aē-*: *xn*, *xš*, *θβ*, *θr*, *st*, *sm*, *št* and *šm*. In the case of *θβ*, *θr*, *st* and *št*, we find some forms in *-aē-* and others in *-ōi-*. We will now discuss the evidence for those eight consonant clusters:

PAv. **-aixn-* only appears in OAv. *raēxənah-* ‘heritage’ < **raixnah-* (Skt. *rəkṇas-*). Since we have adopted the position that PAv. **ai* usually yields OAv. (**əi* >) *-ōi-*, *raēxənah-* must owe its *aē* to the replacement of the original OAv. form by the YAv. reflex.

YAv. **-aixš-* only⁴²⁴ appears in the 2s.aor.opt. *raēxšiša* (P 40) ‘may you leave’.

The sequence *-aēθβ-* appears with *aē* in YAv. *raēθβa(iia)-* ‘to mix’ and in the noun *raēθβiškara-* ‘the priest who mixes’. Fortson 1996: 44 explains *raēθβa-* from a Sievers variant **raiθβuua-*, but this is too far-fetched. It is striking that the forms with *-aēθβ-* have initial *r-*, just like *raēxənah-* and *raēxšiša*; this suggests that *r-* is the conditioning factor for the reflex *-aēθβ-*.

⁴²⁴ N 80 *raēxšaiti* was corrected to *raēθβaiieiti* by Waag 1941: 86, in accordance with the Pahlavī translation *gwmmycyt*, which translates *raēθβaiieiti* in the rest of the passage. The form *raēxšaiti* has in all probability arisen from a spelling mistake of *xš* {𐬭𐬀𐬎} for *θβ* {𐬭𐬀𐬎}.

The remaining YAv. forms have *-ōiθβ-*: Yt *anu.pōiθβa-* and *anu.pōiθβant-* ‘unapproachable’ (< **an-upa-iθβa-* to *upa-i-* ‘to go toward’), F 421 *vōiθβa* (participle of necessity **vai-tua-* to *vī-* ‘to chase’), V 13.40 *pōiθβa-* (uncertain etymology; **pai-tua-* ‘to be rooted out’ according to Bartholomae 1904: 898-9) and Vyt 9 *pōiθβəm* (uncertain analysis). As can be seen, none of these has *r-* in front of **-aiθβ-*, which confirms the suspicion that *r-* is a necessary condition for *-aēθβ*. YAv. *rōiθβən* in Y 12.1 is irrelevant, because the text is a quotation of Y 31.7 *rōiθβən*.

In front of the cluster *-θr-*, **ai* also displays a twofold reflex. In inlaut, we always find *-ōiθr-*, even after *-r-*: *dōiθra-* ‘eye’, *brōiθra-* ‘blade’, *šōiθra-* ‘dwelling’. In anlaut, we find the reflex *aē-* in *aēθra.paiti-* ‘priest teacher’ and *aēθriia-* ‘disciple’, from a noun **aēθra-* ‘school, doctrine’. There is no agreement about the etymology of **aēθra-*, but it seems possible to connect it with the root *i-* ‘to go’ as **Hai-tra-* ‘the going, the leaving’. Pupils turned to a teacher and went into apprenticeship, as is described in the Hērbedestān. The noun *aēθra-* may have referred to the going away of the pupils (*aēθriia-*) from their own family, or to the going about of the teacher (the *aēθra-pati-*) and his school.

On the other hand, we find the reflex *ōi-* in the form *ōiθra* in F 44, for which the Pahlavī translation has *ywdt’kyh* ‘separately’. According to Klingenschmitt 2000: 221, *ōiθra* may have been preserved in the Phl. term ‘*Liθrih* (†*oiθrih*)’ given in Dēnkard 8.18.5, as a Middle Persian legal term for the crime of hitting a person with several blows, not at the same time but at separate occasions. Klingenschmitt proposes to reconstruct Iir. **ai-trā*, an adverb meaning ‘separately’, built with the PIE element **Hoi* which is found in the IE words for ‘one’, Skt. *éka-* < **Hói-ko-*, Av. *aēuua-* < **Hói-uo-*, etc. As an alternative, we might surmise that *ōiθra* contains the same derivative **Hai-tra-* as YAv. *aēθra-*; the original meaning was ‘separation’, which was preserved in *ōiθra* but specialized to ‘separation from home to become a pupil’ or ‘separation of the priest school’ in *aēθra-*. One might compare the meaning of Skt. *śákhā-* ‘branch’, which is also used in the sense of ‘Veda school’.

The co-occurrence of *aēθra-* and *ōiθra-*, both from Iir. **Haitra-*, poses a problem. A possible explanation might be to assume that *ōiθra-* represents an OAv. form, in which the reflex **ai* was not replaced by YAv. **ai* but yielded *-ōi-* (see above). The intrusion of an OAv. form in YAv. is not unparalleled,

especially in legal terminology⁴²⁵. An example is YAv. *nabānazdišta-* ‘the nearest relative’, in which intervocalic **b* is preserved. This explanation of *ōiθra-* would mean that **aiθr* regularly yielded YAv. *aeθr-* in anlaut, but *-ōiθr-* in anlaut.

The sequence **-aist-* surfaces in YAv. *hamaēstar-* (Yt, V) ‘suppressor’ (< **sam-mait^hH-tar-*), and in OAv. **naēstar-* (Y 35.2) ‘caviller’ (to Ir. **Hnid-* ‘to scorn’, cf. Narten 1986a: 91f. with references), which must contain the YAv. pronunciation because the specifically OAv. reflex would be *ōi*. Thus, the evidence is scarce but it suggests that **-aist-* regularly yielded *-aēšt-* in YAv. The feminine counterpart of *hamaēstar-* is *hamōistri*; we can assume that the cluster *-str-* made the syllable more closed than *-st-* did, so that the resulting reflex of **ai* in front of it was *-ōi-*.

There are three stems which show the reflex of PAv. **-aism-* in YAv.: *aēšma-* ‘firewood’, *maēsman-*, *maēsma-* ‘urine’ (to **mai^j-*) and *vaēsman-* ‘home’ (Skt. *vésman-*). Thus, *-aē-* seems to be the regular result of **ai* in front of *-sm-*.

The largest number of forms is provided by the PAv. sequence **-aišt-*. The largest category showing this sequence are the superlative forms, which were formed with the suffix **-ištHa-*. In the three forms in which **-aišt-* is (or was originally) preceded by *r-*, we find the reflex *-aēšt-*:

- *pairi.uruuāēšta-* (Yt 11.2) ‘most oppressing’ < **uraiH-ištHa-* (to Skt. *vrāyas-* n. ‘oppressive force’, Friš 1953: 112).
- *fraēšta-* ‘most’ < **praH-ištHa-* (cf. *frāiiah-* ‘more’ < **praH-ias-*).
- *sraēšta-* ‘most beautiful’ < **ćraiH-ištHa-* (cf. *sraiiah-* ‘more beautiful’ < **ćraiH-ias-*).

By contrast, YAv. *-ōišt-* appears in all superlatives with a different consonant in front of **ai*:

- *dbōištəm* ‘most’ (E 9) < **b^hauH-ištHa-*, the superlative of Av. *būiri-* ‘much’ and E 4 *baoiō* ‘more’, compare also Skt. *bhāvīyas-* ‘more’ and (*sam*)*bhaviṣṭha-* ‘most’. This etymology of Caland 1895: 466 was supported

⁴²⁵ Observation made by Klingenschmitt in his teachings; compare also Klingenschmitt 1990.

by Bartholomae 1904: 920 and 760⁴²⁶. In view of the expected reflex †*bəuuīšta-* < **bauišta-* (cf. § 16.4), *dbōišṭəm* must have adopted *-ōi-* from other superlative forms, just like *yōišṭa-* follows *huuōišṭa-*. The anlaut *db-* for **b-* can be explained from a copyist's error of spelling *d-* instead of **b-*; the signs for *b* and *d* in the Avestan alphabet are sufficiently alike for such an accident. The scribe would have spelled *d-* instead of *b-*, noted his mistake and then corrected it by writing *b* after *d*, without erasing *d-*.

- *yōišṭa-* 'youngest' ← **īauH-ištHa-*. The reconstructed preform would have yielded YAv. †*yəuuīšta*, cf. *səuuīšta-* < **sauH-išta-*. Hence, *yōišṭa-* must have adopted the vocalism of its antonym *huuōišṭa-* 'oldest', cf. Hoffmann-Forssman 1996: 70.
- *viḍcōišṭa* 'most discerning' (Yt 12.7) to *ci-* 'to observe' (cf. Skt. *vīcayīṣṭha-*).
- *vīzōišṭa-* 'most alert' (V 8.10) < **vi-zaj-ištHa-*.
- *žnōišṭa-* 'most knowing' (Yt 1.13) < **jnaH-ištHa-*, to the root *zan-* 'to know'.
- *huuōišṭa-* 'highest, first; oldest' < **hu-ūaiH-ištHa-* 'strongest', to Skt. *vāyas-* 'strength' (etymology by Friš 1953: 112).

It seems that preceding *r*⁴²⁷ may also be held responsible for the reflex *-aēšt-* in *fraouruuaēštrima-* 'season of the return' (Y 3.11ff.) < **fra-uruič-trima-*. Here, *-aē-* is slightly more surprising because it is found in front of three instead of two consonants. However, it is conceivable that the noun is a nonce creation from the verb *fra-uruuaēs-* and the suffix *-trima-*, as proposed by Fortson 1996: 43.

⁴²⁶ In a later publication, Bartholomae (1919: 22ff.) suggested that *dbōišṭəm* may be cognate with OP *duvaiš[ta]m* 'far, for a long time' < **duaH-ištHa-*. Such a preform would regularly yield †*tbōišṭa-*, but in view of E 4 *baōiō*, which does not have *tb-* or *db-*, it seems more probable that E 9 **bōišṭəm* derives from initial **b-*. Bartholomae's second etymology seems to be more accepted nowadays, e.g. by Hoffmann-Forssman 1996: 87, who explain initial *db-* instead of *tb-* from a different dialect source (but see § 30.1.6 on the use of dialect differences). However, the comparison with *duvaištam* is not supported by further Iranian forms continuing **duaištHa-*. The comparison which Bartholomae offers with the Pahlavi gloss *PWN dw'yst'* (?; the reading of this word is uncertain) does not help much, it seems to be a gloss on Phl. *cnd*.

⁴²⁷ The compounds *dūraēsrūtahe* and *dūraēfrakātō* are ambiguous: *aē* is preceded by *r*, but the loc.sg. **dūrai*^o may simply have been restored analogically.

Among the evidence we also find two nouns in which *-aēšt-* does not directly follow *-r-*. Both words originally were compounds, and *-aē-* might be due to its position at the end of the first member:

- *armaēštā-* ‘standing still’ < **armai-štā-* ‘standing in rest’.
- *raḍaēštā-*, *raḍaēštar-* ‘charioteer’ < **raḍai-štā-* ‘standing in a chariot’.

The first members **armai* and **raḍai* represent the loc.sg. of *arma-* ‘rest, peace’ and of *raḍa-* ‘chariot’; the loc.sg. of *arma-* is confirmed by *armaē°* in the compound *armaēšad-* ‘sitting still’. Both words were not treated as compounds during the remainder of the transmission, because otherwise we would rather expect the ending *°e* as in *airime.aṇhad-* ‘sitting still’ (cf. § 14.1). We must assume that *armaē-štā-* and *raḍaēštā-* are the regular phonetic result of **°ai-štā-*, even though *-r-* does not immediately precede **-ai-*. Maybe the fact that there is an *-r-* in the first part of the words *raḍaēštā-* and *armaēštā-* played a role, so that this *-r-* exerted the same influence on **ai* as in *fraēšta-* etc. This is quite speculative, of course; I have no definite explanation for the *-aē-* in *armaēštā-* and *raḍaēštā-*.

The stem *raḍaēštā-* contains one form in *-ōi-*, viz. the dat.sg. V 14.9 *raḍōište*. As I have argued in De Vaan 2000a: 530, it is likely that *raḍōište* is a corruption of **raḍōištre*, a form with regular *-ōi-* in front of *-štr-*. The new *r-*stem *raḍaēštar-* was productive in the Vīdēvdād, as appears e.g. from V 13.44 gen.sg. *yaḍa aḍaurune*⁴²⁸ ... *yaḍa raḍaēštārahe*⁴²⁹. It was exactly because of the stem form *-štre* that the text redactors did not recognize the stem *štā-*, and did not restore the loc.sg. *raḍaē°*.

Earlier explanations for *-ōi-* in *raḍōište* seem unlikely for various reasons. Kellens 1974a: 230 suggested that *raḍōište* contains the regular reflex of **ai* before a consonant cluster *-štrH-*, as opposed to e.g. the dat.sg. *raḍaēštāi* < **-štāHai*. Yet there is sufficient evidence for the disappearance of post-consonantal laryngeals before the diphthongal split, e.g. in *maēḍana-* ‘dwelling’, *gaēḍā-* ‘creature’, etc. Furthermore, it is questionable whether the Vīdēvdād, which displays various obvious simplifications of inflexional classes (indeed, the noun *raḍaēštā-/raḍaēštar-* has switched to the *r-*stems in Yasna and Yašt texts too), would have retained such an archaism as the zero-grade stem of the root in the dat.sg. of a root-noun. Fortson 1996: 57 suggests that *raḍōište* reflects a retained first member **raḍōi.°*, analogous to e.g. *maidiiōi.šad-* ‘sitting in the middle’; but this leaves unexplained the fact that all the other attestations of the stem have *raḍaē°*.

⁴²⁸ For original *aḍaurunō*, since all the following forms are gen.sg.

⁴²⁹ From the stem *raḍaē-štar-*, which has been secondarily thematicized on the basis of the strong stem variant *raḍaēštār-*.

A few forms in *-aēšt-* and *-ōišt-* have no bearing on the explanation of the phonetic development. The diphthong *aē* in *vīduuaēštūua-* ‘not to hate’ (Yt 1.8, Vr 15.3) may be analogical after *viṭbaēšah-*. The sequence *-duu-* points to pseudo-Gothic language, or to a YAv. adaptation of an OAv. form, such as Y 34.11 *vīduuaēšah-*.

The diphthong *ōi* is found in P 25 <*hūuqmcit*> *ahmi hūuqmcit xšaθre auuat cōišta* ‘that he has taught in his own dominion’ (?), a line which is evidently corrupt. If *cōišta* really is a 2p.aor.inj. of *ciš-* ‘to provide’, it may represent a (remnant of a) quotation from an OAv. text (cf. Kellens 1984: 379).

The forms *puθrōištīm* V 3.33 ‘desire for sons’, *zəmōištuue* V 8.10 ‘(kind of) tile’ and *vahištōišti-* ‘containing the words *vahištā ištiš*’ reflect compounds which should have been separated in spelling, but the separation point was lost in the ms. tradition: ^x*puθrō.ištīm*, ^x*zəmō.ištuue*, ^x*vahištō.išti-*.

YAv. **-aišm-* appears in the forms *aēšma-* ‘wrath, anger’, *caēšman-* ‘providing’ (to the root *ciš-*) in the PN *raocas.caēšman-* ‘who provides the light’ and *huuarəcaēšman-* ‘who provides the sun’ (Yt 13.121,128).

A few forms are irrelevant, because they do not continue original **-aiCC-*:

- *daxšmaēstim* (N 70) probably represents earlier **daxšmaiiastim*, cf. Klingenschmitt 1968: 242, who compares the measure *yūjiiasti-* (for which see § 10.2.1).
- *maēθmanəm* (V 15.46) must be corrected to ⁺*maēθanəm* (Bartholomae 1904: 1107).
- *yaēθma* (Y 11.9), 1p.pf. of *yat-*, is conspicuous because the same form in OAv. is *yōiθmā*. It might be assumed that *yaēθma* is due to paradigmatical analogy with e.g. 3p. *yaētatarə*, but the whole of Y 11.9 consists only of loose citations from the Gāthās, and it is uncertain whether this passage was formed during the YAv. period or maybe only long afterwards. If the words *yōi vā yaēθma* are quoted from Y 28.9, then *yaēθma* represents a conscious modernization of *yōiθma*.

Thus, the evidence for the development of **ai* in a closed syllable in YAv. can be summarized as follows:

1. **ai* mostly yields *ōi*.

2. **ai* yields *aē* in the following cases:

- a. In front of *st* (^o*naēstar-*, *hamaēstar-*), *sm* (*aēsma-*, *maēsma(n)-*, *vaēsman-*), *šm* (*aēšma-*, *caēšman-*).
- b. In absolute anlaut in front of *θr* (*aēθra.paiti-*, *aēθriia-*).
- c. After *r* in front of one of the following clusters: *-xn-* (OAv. *raēxənah-*), *-xš-* (*raēxšiša*), *-θβ-* (*raēθβa(iia)-*, *raēθβiškara-*), *-št-* (*pairi.uruuāēšta-*, *fraēšta-*, *sraēšta-*); maybe also if *r* did not immediately precede **ai* (*armaēštā-*, *raθaēštā-*).

§ 14.3.2 YAv. *ōi* in open syllable

There are three different kinds of YAv. forms with *ōi* in front of a single consonant: the verb form *būidiōmaiḍe*, the 2d. ending *-ōiḍe*, and the three isolated forms *arəməidō*, *sōidiš* and *sōire* which are probably borrowings from OAv.

The 1p. prs.opt.med. *būidiōmaiḍe* ‘may we notice’ (Y 9.21 2x) < **budīaimadai* is conspicuous, because it is attested in a single passage together with the 3s. prs.opt.med. *būidiāēta* of the same verb. We would expect †*būidiāēmaiḍe*. The only two other 1p. opt.med. forms of thematic verbs are attested in OAv. (*həm.vaēnōmaidī*, *vāurōmaidī*), but OAv. influence seems hardly likely in Y 9.21; also, the ending is slightly different. One might argue that the 2p. ending *-ōiḍβəm* caused analogical retention of *-ōi-* in *būidiōmaiḍe*, but why then is the ending of *būidiāēta* not affected? I see only one alternative solution: *būidiōmaiḍe* represents an originally split form *būidiōi.maiḍe*; in fact, all mss.⁴³⁰ have a separation point after *būidiōi*. For the splitting off of the 1p. endings **-ma* and **-mad(a)i*, see also the discussion of the OAv. endings *-ōimā* and *-ōimaidī* below (§ 14.3.4). Apparently, **budīaimadai* was split at the stage **budīḷi.madē*, and the position in the interior of the compound kept **budīḷi* from developing into †*būiḷe*. The retention of *-iōi* is thus exactly parallel to the loc.sg. *maidīōi* ‘in the middle’, which is also retained as the first member of a compound (see § 14.1).

⁴³⁰ Geldner’s v.ll. claim Pt4 to be the only ms. which does not show a split *būidiōi.maiḍe*, but collation of Pt4 shows that even this ms. has a separation point, viz. in the second of the two Y 9.21 attestations.

The thematic 2d. prs.ind.med. ending (functioning as the 3d.) is *-ōiðe* instead of expected †*-aēðe*: *fracarōiðe* (Y 9.5), *us.zaiiōiðe* (Y 9.10), *vaēnōiðe* (Yt 13.3), *azōiðe* (V 3.11) and *isōiðe* (V 8.10). In Y 9.10, the spelling *-ōiðe* is not firmly established, but in the other passages, the form in *-ōiðe* seems original⁴³¹. In view of *gaēðā-*, *gaēðīia-* and *maēðana-*, the reflex *-ōiðe* cannot be phonetic; I suspect that it is due to analogical influence of the 2p. opt.med. ending *-ōiðβəm* (in Y 65.9 *rāmōiðβəm*), where *ōi* stands in front of the cluster *ðβ*. Note that in the *third* person dual, *-aē-* does appear in the middle endings: prs.ind. *-aēte*, prs.inj. *-aētəm*, prs.opt. *-aiiatəm*. It thus seems conceivable that *-ōi-* (or rather its prestage **-əi-*) has been retained in front of 2d. *-ðe* as a characteristic of the 2p./2d. endings vs. **-ai-* in the 3p.

The forms *arəmōidō*, *sōidiš* and *sōire* may well contain an OAv. lexeme with *-ōi-*:

• N 103 *arəmōidō* occurs in the line *āaṭ aēša yō arəmōidō aiβi.[d]ərətō.gātuš* ‘then those [priests] who sit still and have a fixed place’, Phl. ‘*LHš*’n ‘*lmyst*’n *QDM dlng g*’s ‘those are sitting still on a fixed place’. The form *arəmōidō* is evidently a corruption, but of what? The Phl. translations generally use ‘*lmyšt*’ /*armēšt*’ ‘inactive’ to render *armaēštā-* ‘standing still’, but the same form can also render *armaēšad-* ‘sitting still’. Therefore, Bartholomae 1904: 197 emended *arəmōidō* to *armōiždō* ‘sitting still’, but since the root noun **šad-* normally does not have a zero-grade in Iir., a preform **armai-šd-a-* is improbable. Kellens 1974a: 230 proposed to read *arəmōištō* ‘standing still’, an archaic acc.pl. form **rHmai-štHns*, where the laryngeal closed the preceding syllable so that **ai* yielded *ōi*. Three objections may be raised against this suggestion: 1. a corruption of *št* {*ṣt*} to *d* {*ḡ*} is quite a hazardous assumption; 2. the acc.pl. *armaēštā* Yt 5.78⁴³² shows the *ā*-declension of *armaēštā-*; 3. there is no evidence to support the assumption that a laryngeal closed a preceding syllable at the time of the split of **ai*.

I think that we must assume original **arəmōišadō* (with Waag 1941: 102) or possibly **arəmōišādō*. Both ablaut grades **a* and **ā* are attested in forms of the compound **armai-šad-* ‘sitting still’, viz. the nom.pl. Yt 13.73

⁴³¹ V.II. Y 9.5 Mf4, J2.K5, K4 and H1 *fracarōiðe*, J3 *fracaraōiðre*; Y 9.10 Mf4 *us.zaiiaiti* · J2 *us.zaiiaoīði* · B2 *us.zaiiata* · C1.H1.L13 *uš. zaiiata*; Yt 13.3 K13.Mf3 *vaēnaōiðe*, H5 *vaēnōiðe* · F1+ *vaēnōiðe*; V 3.11 and 8.10 no v.II. in Geldner.

⁴³² Not in Y 68.6 and Yt 8.41.

airime.aṅhaδō and the dat.sg. Y 62.8 *armaēšāiḍe*⁴³³. The *-d-* of N 103 *arəmōidō* may point to the word being a borrowing from OAv., which would also explain the ending *-ōi* in *arəmōi-*; but since the ms. tradition of the Nērangestān is not as trustworthy as that of other Avestan texts, intervocalic *-d-* is not a decisive argument.

- The acc.sg. form *sōiḍiš* in Y 58.1

taṭ sōiḍiš taṭ vərəθrəm dadəmaidē

‘this we make our *sōiḍiš*, this we make our shield’

was explained by Janda 1993: 64-67 as **ścaḍiš* ‘protection’⁴³⁴, an *iš*-stem cognate with RV *chadīṣ-* ‘cover’. The textual parallels he offers seem convincing, but there are formal difficulties. I do not think that we can ascribe the spelling *ōi* to a possible earlier split into **sa.diš* > **sō.diš*, which was then merged again and received *i*-epenthesis. Apart from the fact that this does not explain intervocalic *-δ-*, it does not take into consideration the OAv. character of Y 58. We should first of all look for a preform in **-aid-*, so that the etymology **ścaid-* to the root *sid-* ‘to cut’, one of the solutions offered by Bartholomae 1904: 1577, gains in probability. The genuine YAv. form *saiḍiš* for **saē(i)ḍiš* (for the spelling *ai* for **aē* in Yašt mss. cf. 18.2) may be attested in the eponym of Ahura Mazdā in Yt 15.47: *saiḍiš nqma ahmi* ‘shelter is my name’ (thus Janda 1993: 66).

- Yt 10.80 *sōire* ‘they are lying’ goes back to Ilr. **ćai(H)-rai*, cf. Skt. *śére*. Avestan has a different spelling of this verb form in V 3.8,12, 7.45ff. *sairi* (cf. Khoroché 1973: 624) and Vyt 19 *saδre*, both of which may be emended to **saēre*, cf. Kellens 1984: 91. YAv. **saēre* is the expected reflex of **ćairai*, whereas Yt 10.80 *sōire* can only represent an OAv. form which was adopted in YAv.

⁴³³ In which the different reflexes of **-ai* and of **sad-* show that an old compound **armai-šad-* and a more loosely co-ordinated syntagm **armai sad-* must have existed side by side.

⁴³⁴ The Pahlavī translation has *sūd* (*swt*) ‘profit, advantage’. Bartholomae 1904: 1577 assumes that the translators spelled *ū* because they had an Avestan word spelled *saoidiš*, which is attested in K4; the Av. diphthong *ao* is often reflected by *ū* in Pahlavī transpositions. Bartholomae’s assumption cannot be maintained, however, since the other IrVS mss. have *sōiḍiš*, in accordance with the other ms. branches: *sōiḍiš* Mf4.1 · *sōiḍiš* J2.K5 · *sōiḍiš* Mf2.Jp1, *saōiḍiš* K4.8. The ms. K8 is probably a copy of K4. The translators had *sōiḍiš* before them, and *swt* either reflects [*sōd*] as a mechanical transposition of the Avestan word, or [*sūd*], a known MP word sufficiently close to *sōiḍiš* in both form and meaning.

A number of forms is irrelevant because the grapheme *-ōi-* is the result of a missing separation point between *ō* and *i*: *raḥōiśamna-* ‘moving by chariot’, *haptōiringa-* ‘with seven elements’ (Bartholomae 1904: 1767), *auuōirisiiāt* ‘he would turn back’, *upōisa-* ‘to search for’. By means of a different recent process, the grapheme *ōi* is caused by *i*-epenthesis in *tarōidīti-*, *gadōiti-*, *jasōiḥiā*, *druuōiḥiāt* and *niuuōiriiete*. The form *ārōima* (Vyt 38) is tentatively regarded as a 1p.pf.ind. of *ar-* ‘to move’, cf. Kellens 1995a: 10. The form is uncertain in general, because spelling and grammar of the Vištāsp Yašt are often corrupt.

§ 14.3.3 OAv. *aē*

The digraph *-aē-* mainly occurs in open syllables, just as in YAv.:

- nominal forms in *-aēcā*, *-aēibiiō* and *-aēšū*⁴³⁵.
- plural forms of the pronouns *a-/i-/ima-*, *auua-*, *ka-*, *x^va-*, *ta-* and *ya-*: *aēibiiō*, *aēšqm*, *auuaēšqm*, *kaēibiiō*, *x^vaēcā*, *taēcī*, *yaēibiiascā*, *yaēibiiō*, *yaēcā*, *yaēšqm* and *yaēšū*.
- verbal endings *-aētā*, *-aētəm*, *-aētē*, *-aēma* and *-madaēcā*.
- nominal and verbal stems *aēuua-* ‘one, only’, *aēuru-* ‘shining’ (**airu-*), *aēnah-* ‘act of violence, sin’, *aēšasa-* ‘wild’, *aēšē* uncertain (YAv. prs. *aēšaiia-* ?), *aēšma-* ‘wrath’, *auuaētāt-* ‘wailing’, *anaēša-* ‘impotent, forceless’, *uruuaēsē* ‘to turn’, *kaēnā-* ‘punishment’, *x^vaēta-* ‘passable’, *x^vaētāt-* ‘accessories’, *x^vaētu-* ‘belonging to’, *x^vaēna-* ‘glowing, red-hot’, *xšaēta-* ‘radiant’, *gaiia-* ‘life’, *gaēḥā-* ‘creature, being’, *daēuua-*, *daēnā-*, *duuaēḥā-* ‘threat, menace’, *(a)duuaēšah-*, *vīduuaēšā-* ‘enmity’, *ḥkaēša-* ‘teacher’, *daēdis-* ‘to show’ (int.), *fraēšīia-* ‘to spur on’, *naēci-* ‘nobody, nothing’, *naēdā* ‘neither’, aor. *naēšaṭ* ‘to lead’, [†]*maēkaiiaṭ-* ‘sparkling’ or ‘trickling’, *maēḥā-* ‘opposition; change’, *yauuaētāt-* ‘perpetuitas’, *yauuaējī-* ‘living for ever’, *yauuaēsū-* ‘prospering for ever’, *vaēd-* (pf.) ‘to know’, *vaēda-* (prs.) ‘to find’, *vaēpiia-* ‘wanton’ (with **ai* in open syllable as shown by the retention of *-p-*), *vaēna-* ‘to see’, *vaēm* ‘we’, *vaēšah-* ‘decay’, *šaē-/ši-* ‘to live’, *zaēman-* ‘activity’, *haēcāt*^o (in names) and *haēḥahiia-* ‘offering connection’.

⁴³⁵ The YAv. ending *-aēibiiō* instead of †*-ōibiiō* (< **-ai-bīah*) may show the restoration of *-aē-* on the model of the ins.pl. *-aēbīš* and the loc.pl. *-aēšū*. The retention of intervocalic *b* in YAv. also shows that the redactors assumed a word boundary between *-aē-* and *-biiō*.

Furthermore, *aē* occurs in front of some of the clusters which also take *aē* in YAv.:

- in front of *-st-* in ^o*naēstar-* ‘caviller’ and *hamaēstar-* ‘suppressor’.
- between *r-* and *-xn-* in *raēxənah-* ‘portion, heritage’.
- between *r-* and *-št-* in *fraēšta-* ‘messenger’ and *sraēšta-* ‘most beautiful’.

These forms have been discussed in more detail in § 14.3.1; they confirm the distribution of YAv. *aē* as established there.

§ 14.3.4 OAv. *ōi*

The OAv. words with word-internal *ōi* can be divided in two categories, viz. forms which would regularly have *-ōi-* in YAv. too, and forms which would normally have *-aē-* in YAv.

OAv. *ōi* in a closed syllable, which corresponds with *ōi* in YAv., occurs in the following forms:

- in final syllable in the *i*-stem gen.abl.sg. forms in *-ōiš-*; in *nōit* ‘not’; in the verb forms *išasōit*, *cōiš*, *cōiš*, *jasōit*, *daēdōiš*, *frādōit*, *mōist*, *vādāiōit* and *sīšōit*.
- in inlaut in the forms *yōiθəmə*, *vōizdiiāi*, *vōizdūm*, *vōizda*, *zōišənū*, *šōiθra-* ‘dwelling’ and *hušōiθəmə*.

The only exception is the 2s.pf. *vōistā* ‘you know’, which is unexpected by having *ōi* in front of *-st-*. The form *rōiθβən* (Y 31.7) has *ōi* between *r* and *θβ* (where YAv. has *-aē-*), but its analysis is uncertain.

There is a number of OAv. forms which have *ōi* in front of a single consonant, where YAv. would normally have the reflex *aē*. Most of these OAv. forms can be explained as the result of the retention of earlier **ai*, which escaped the replacement by the YAv. allophone [ai].

We find a number of verb forms without a YAv. counterpart; it seems conceivable that in these forms, **ai* survived unreplaced by YAv. **ai*:

- OAv. *cōiθaitē* / *cōiθa*, *cōišəm*, *dōišā* / *dōiš* and *mōiθa* are root aorists to *ciθ-* ‘to remark’, *ciš-* ‘to provide’, *dis-* ‘to show’⁴³⁶ and *miθ-* ‘to exchange’ respectively. No root aorist of *ciθ-*, *dis-* or *miθ-* is attested in

⁴³⁶ It is very unlikely that *dōišā* and *dōiš* show the development in a closed syllable, as was suggested by Fortson (1996: 47). These forms do derive from **daič-š-*, but this had been simplified into **daiš-* by the time of YAv, if not already in Pr.

YAv., and this may have been the reason why the YAv. speakers did not create †*caēθ-*, †*maēθ-* and †*daēš-*. A root aorist of *ciš-* seems to be continued in YAv., but the forms °*caēšaētəm* and *caēšəmna* are thematic, and P 25 *cōišta* may well be an OAv. survival. Therefore, OAv. *cōišəm* may also have escaped the replacement of **ai* by **ai*. Another OAv. root aor. form of *ciš-* is probably *cəuuīšī*, which Narten (1975: 82, 1986b: 272) has explained as original **cəišī*; by virtue of its -*əuuī-*, it provides independent evidence for the prestage **ai* of -*ōi-*.

- The pluperfect *cikōitərəš* is morphologically isolated, and it may well have disappeared from the YAv. language, where we only find the perfect stem as *cikaēθ-/cikiθ-*. The absence of the pluperfect from YAv. would explain the retention of **ai*.
- The OAv. intensives *frauuōiuūdē* and *vōiuūdāitī/ē*, from **vai-vid-* to *vid-* ‘to find’, might have been split earlier in the transmission, i.e. **frauuōi.vīdē* and **vōi.vīdāitī/ē*. The reflex -*ōi-* would then belong to the cases of word-final -*ōi* which was not replaced by YAv. **ai* > -*ē*. However, there is no indication in the mss. for an earlier split. Therefore, we may alternatively consider the possibility that these intensives were inexistent in YAv., so that **ai* was not replaced by **ai* at the stage when other words were.

The nominal dual and plural endings -*ōibiiā* and -*ōibiiō* in thematic nouns and adj., which occur in OAv. beside forms in -*aēbiiā* and -*aēbiiō* (we find *marətaēibiiō*, and always -*aēbiiō* in the pronouns *a-*, *ka-*, *ya-*), must also be due to the survival of **ai*. At the canonization of OAv., **ai-bīah* received the YAv. pronunciation **əibīah*, which eventually yielded -*ōibiiō*. At a later stage of YAv., the ending was restored as **aibīah* (either because -*bī-* did not close the preceding syllable, or analogically on the model of loc.pl. -*aēšū*), yielding YAv. -*aēibiiō*. The analogical replacement by **aibīah* was incomplete, just as the replacement of OAv. -*əm* by -*əm* (§ 23.1) or that of OAv. -*oi* by -*ē* (§ 14.1).

The sequence **əibiiō* or -*ōibiiō* was then felt to be characteristic of OAv. language, as is suggested by the pseudo-Gathic text parts in the Avesta, which display forms in -*ōibiiascā* instead of -*aēibiiasca*: Y 0.4=11.17 *humatōibiiascā* *hūxtōibiiascā* etc., *humatōibiiascā* Yt 1.0⁴³⁷.

⁴³⁷ The form *uruuōibiiō* ‘to the souls’ presupposes a RCS of **ruuabiō* to **ruua.biō* → *uruuō.biō*. Therefore, it has -*ō-* with *i*-epenthesis; it is possible that the archetype still had *uruuō(.)biō*.

There are three OAv. 1p. verb forms with *-ōi-* in open syllable: prs.opt.med. *vāurōimaidī* (Y 28.5) ‘may we receive’ and *hqm.vaēnōimaidī* (Y 58.6) ‘may we be seen’, and aor.opt.act. *vaocōimācā* (Y 35.3) ‘may we say’. The aorist form occurs beside two other OAv. 1p. aor.opt.act. forms in *-aēmā*, viz. *apaēma* and *hanaēma*; the two prs. forms have no forms in *-aēm-* beside them, but only the YAv. form *būidiōimaidē* which we have discussed above. It seems to me that the three OAv. forms in *-ōi-* may be explained by the retention of earlier **-ai-* which was replaced by YAv. **-ai-* in the forms *apaēma* and *hanaēma*. For *vaocōimācā*, the necessary artificial split and the retention of **-ai-* may have been brought about by the surrounding 1p. forms: Y 35.3 *mainimadicā vaocōimācā varəzimācā*. For *vāurōimaidī* and *hqm.vaēnōimaidī*, no contextual influence can be adduced, but here we can compare YAv. *būidiōimaidē* < **budiāi.maδe*.

The inf. *θrāiōidiāi* is irrelevant as its *ōi* stems from **θrāiō.diiāi* < **θrāia-diāi* with subsequent *i*-epenthesis. Finally, the interpretation of OAv. *hōiθōi* is uncertain.

§ 14.4 Summary

The phonetic developments of IIr. **ai* may be summarized as follows:

1. IIr. **-ai#*
 - a. YAv. *-e* in polysyllables.
 - b. YAv. *-ē* in monosyllables.
Exceptions: YAv. *yōi*, *maidiiōi* (analogical).
 - c. OAv. *-ōi* (also preserved in compounds: YAv. *arəməi[ša]dō*, OAv. *-ōibiiō*, *-ōibiiā*).
Exceptions: OAv. *-ē*, due to the replacement of **-ai* by YAv. *-e*.
2. IIr. **-aiV-*
 - a. YAv. *-aiiV-*, OAv. *-aii-*.
Exceptions in YAv.:
 1. IIr. **-aiāi* > *-āe*.
 2. IIr. **(-)aiūam* > **(-)āiūm* > YAv. *(-)ōiūm*: *ōiūm*, *vīdōiūm*, *harōiūm*, *hōiūm*.
 - b. OAv. *-āiV-*: *vātāiāmāhī*.
 - c. OAv. *-ōiV-*: *akōiā*, *axtōiōi*, *isōiā*, *ubōiō*, *urūdōiātā*, *ōiā*, *x^vāθrōiā*, *vātōiōtū*, *hādrōiā*.

3. IIr. *-aiCV- > YAv. aē, OAv. aē

Exceptions in YAv.:

1. Analogical *ōi* in *fracarōiϑe*, *us.zaiiōiϑe*, *vaēnōiϑe*, ^x*azōiϑe*, *isōiϑe*.
2. The verbal ending *-ōimaiϑe* from compound-final *-*ai*.

Exceptions in OAv.:

1. IIr. *ai > *ai → OAv. *cəuušī*.
2. IIr. *ai > *ai > OAv. *ōi*:
 - a. in forms without YAv. counterpart: *cōiϑaitē* / *cōiϑat*, *cōišəm*, *mōiϑat*, *dōišā* / *dōišī*, *cōišta*, *cikōitərəš*; maybe *frauūdiuūidē*, *vōiuūidāitī/ē*.
 - b. in the nominal endings *-ōibiiō* and *-ōibiiā* from compound-final *-*ai*.
 - c. in the verbal endings *-ōimaidī* and *-ōimācā* from compound-final *-*ai*.

4. IIr. *-aiCC-, *-aiC# > YAv. *ōi*, OAv. *ōi*

Exceptions in YAv.:

1. *-ai- > YAv. *aē* / _ *st, sm, šm* viz. in ⁺*naēstar-*, *hamaēstar-*, *aēsma-*, *aēšma-*, etc.
2. *#ai- > YAv. *aē-* / _ *ϑr*, viz. in *aēϑra.paiti-*, *aēϑriia-*.
3. *-ai- > YAv. *aē* / *r_*, viz. in front of
 - xn-*: *raēxənah-*.
 - xš-*: *raēxšīša*.
 - ϑβ-*: *raēϑβa(iia)-*, *raēϑβiškara-*.
 - št-*: *paiiri.uruuāēšta-*, *fraēšta-*, *sraēšta-*; *armaēštā-*, *raϑaēštā-*?

In § 14.3, we have established a relative chronology of five consecutive stages in the development of IIr. *ai in Avestan. Below I repeat this chronology, adding a short comment to every stage.

1. Early YAv. *ai > *ai.

The assumption that IIr. *ai changed to *ai in every position in Early YAv. explains why we find traces of *ā* in a few YAv. forms. The change of *a to *ai in this position can be compared with the same change which must be reconstructed or is actually attested for IIr. *au (§ 16), *ah (§ 22) and *aN (§ 23).

2. Canonization of OAv.; all OAv. forms receive the YAv. pronunciation [ai].

During the canonization of the OAv. texts by YAv. speakers (cf. § 1.4), the latter imposed their own pronunciation [ai] on the OAv. texts. Thus, the

texts reached a stage in which every sequence **ai* was probably realized as [əi], both in YAv. and in OAv. At a later stage, /ə/ was reinterpreted as /ē/, probably because of the change **-əh > -ē* (see § 22.9).

The diphthong *-ēi-* has been preserved in OAv. *vātēiiāmahi*, which is a unique form since **-ēi-* otherwise becomes *-ōii-* in OAv. In YAv., the dat.sg. ending *-ēe* is the crown witness for the stage **əi* (> **-ēi-*). The loss of **i* in *-ēe* probably blocked the restoration of **ai* here; hence, we do not find †*-aiie*.

3. YAv. change **əi > *ai* in open syllable.

YAv. **əi* developed (returned) into **ai* in open syllables and in some environments also in closed syllables, especially often after *-r-*, and in front of *sm*, *šm* and *st*. This sequence **ai* eventually yields *-aē-* in front of a consonant and *-aii-* in front of a vowel. In view of the YAv. ending *-ēe*, we can date the restoration of *-ai-* after the change of final **-əi > -e* in YAv, because otherwise **-əie* would probably have been restored to †*-aiie*.

The specific role of *-r-* might be due to the postalveolar or retroflex pronunciation of Avestan *r* which Hoffmann 1986: 173 = 1992: 847 has assumed in order to explain the development of PIr. **rt > Av. š*; cf. also Lubotsky 1999: 316f. on the reflexes of **s* and **h* in ruki-position. The return to **ai* in front of *sm*, *šm* and *st* might be compared with the lengthening of **i* after labials (§ 6.2.3), which only takes place in open syllables and in front of the clusters *sp*, *št*, *šm*, *šn*. The conditions for **i > ī* and **əi > aē* are not identical, but closely similar.

4. Replacement of OAv. **əi* by YAv. **ai* in many but not all open-syllable forms.

The ‘return’ of the YAv. allophone [əi] to [ai] was also applied to the OAv. texts, so that OAv. also acquired the reflexes *-aē-* in open syllables and *-aii-* in closed syllables. Some OAv. words escaped this distribution, however, because they were absent from the YAv. language. This especially concerns several aorist forms, which were unknown from YAv.; they retained **[əi]*.

5. Phonetic change **əi > ōi* in both OAv. and YAv.

Those sequences which still had [əi] after the previous developments, changed this to *ōi*. It is likely that **əi* had first become **ēi* (see stage 2), and that the change to *ōi* was contemporary with the YAv. change of **-ē > -ō* which we find e.g. in the nom.sg. of *a*-stems. The rise of *-ōi-* must in any case post-date the restoration of **yəi* and **madīəi* (cf. § 14.1), and it may well have been post-YAv.

§ 15 Avestan *āi*

Avestan *āi* may represent *i*-epenthesis on **ā*, Ilr. **-āi-*, Ilr. **-āia-* in front of a nasal, and the merger of a word in *-ā* with a word in *i-*; the last three categories are discussed in the subsections below.

A few words with uncertain etymology have been disregarded, viz. *āiniuuu* (Yt 15.46) PN, *niiādāuru* (Yt 19.42), *sāini*-⁴³⁸ (Yt 13.144), *sāimuži*-⁴³⁹ (Yt 13.105), and *sāiuždri-* (Yt 5.72), which is corrupted to *sāiždri-* in Yt 13.113.

§ 15.1 Ilr. **āi*

Ilr. **āi* is reflected in the following words and categories:

- The ending *-āi* in the dat.sg. of nouns and pronouns, and in the 1s. subj.med. of thematic verbs. The nom.sg. *kauuā* < **-āi* of *kauui-*, the nom.sg. *haxa*, *huš.haxā* < **-āi* of *haxi-* ‘companion’ and the loc.sg. *gara* of *gari-* ‘mountain’ suggest that the attested ending *-āi* is the result of analogical restoration, whereas the phonetic development was **-āi* > **-ā* (Beekes 1999: 65). The same distinction between final *-ā* in the nom.sg. of *sākhi-* on the one hand and final *-ai* in the dat.sg. on the other exists in Sanskrit. Therefore, the restoration of the dat.sg. ending **-āi* was probably applied in Ilr., which implies that we may use the dat.sg. ending as evidence for the reflex of Ilr. **āi* in Avestan.
- The *a*-stem ins.pl. ending *-āiš*.
- *āiš* (Y 33.1, 50.10), 2s. aor.inj.act. of *iš-* ‘to desire’ (Kellens 1976a: 90).
- *āiti* (V 11.9ff.), 3s. prs.ind. **ā aiti* ‘goes towards’.
- *dāiš* (Y 43.10), 2s. aor.inj.act. of *dis-* ‘to show’.
- *nāismī* (Y 12.1), *nāist* (Yt 13.89). These forms of the root *nid-* ‘to scorn’ may be the 1s.ind. and 3s.inj. of either a root present stem *nāid-* or a sigmatic aorist **nid-s-* (cf. Kellens 1984: 91⁵⁻⁷ and 1995a: 42).
- *šāišta-* (V 3.1ff.) and *ašāišta-* (V 3.7ff.) contain the superlative of the YAv. adj. *šā-* ‘pleased’ < PAv. **šiiā-*. A PIE superlative **k^wieh₁-isto-* > Ilr.

⁴³⁸ Bartholomae 1904: 1570 corrects to **sāinu-*, arguing that the form *sāinunqm* of F1 is lectio difficilior vis-à-vis *sāininqm* of J10 and the IrKA. Yet the syntagm is **sāin_nqm daxiiunqm narqm ašaonqm*, and it is quite possible that F1 *sāinunqm* has adopted *°unqm* in anticipation of *daxiiunqm*.

⁴³⁹ It is not certain that the archetype read *sāim°*: v.ll. F1 *sāimužōiš* · Mf3.K13.H5.W3 *saēmūžōiš*, K37.38 *sīmaēžōiš*.

**čiaHišta-* would have yielded Av. **šāēšta-*; therefore, *šāišta-* is likely to have restored the long vowel of **šiiā-* in the superlative as **šiiā-išta-*.

§ 15.2 Avestan *-āin* and *-āim*

Ir. **-āian* yielded *-āin*, which is attested in a few forms:

- *gōuruuāin* (Y 28.0), 3p. prs.inj.act. from **grab-* ‘to seize’. The form can be reconstructed as **grbāiant* (Kellens 1984: 133-4), compare Skt. *grbhāyan* and OP *garbāya-*.
- *auuāin* (Y 57.23, Yt 11.14, *V 19.13), 3p. prs.act. of *i-* ‘to go’ with the preverb *auua* ‘on, off’. The form is ambiguous, cf. Kellens 1984: 86: "pour le sens comme pour la forme, on ne peut décider entre l'imparfait et le subjonctif." Both forms would yield PAV. **auāian(t)*, however: an impf. **aua-á-Hiant* and a subj. **aua-Háiant*. Even an injunctive would do: **aua-Hiant*.

In the parallel sentence in V 19.13, Geldner edits *auuaēn*, which Bartholomae 1904: 153 analyzed as an unaugmented form **ava-yən*. The reading *auuaēn* is confirmed by all three ms. classes, and the Pahlavī translation has *pad awēn abādīh* for *auuaēn*, with *awēn* as a mere transposition of *auuaēn*; this suggests that *auuaēn* was the reading the translators had before them. This reduces the probability of Bartholomae's solution, because a form **auuaiiən* would probably not have corrupted to *auuaēn* so early as to prompt the attested Pahlavi transposition *awēn*. We may rather assume a very early corruption of **auuāin* to *auuaēn*. This confirms Kellens' conclusion (1984: 86) that "le passage tout entier, artificiellement inséré dans une énumération, est une citation du Y 57,23 où *auuāin* est sûr."

Final **-āiam* has developed into *-āim*. Interferences with the spelling *-aēm* from **-aīam* are few. The relevant forms are:

- *karšāim* (Yt 4.4)⁴⁴⁰, acc.sg. of *karši-* ‘furrow’, i.e. **karšāiam*.
- (-)*gāim* (V passim), acc.sg. of *gāiia-* ‘step’.
- *nisāim* (V 1.7), name of a country.
- *hušhaxāim* (Y 46.13), acc.sg. of **su-šakHā-* (*i*-stem) ‘(who is a) good friend’.

⁴⁴⁰ V.II. Jm4.O3 *karšāim*, M4 *karašāi*, M6 *karša. āi* · J10 *karšāi.əm*, F1 *karšāi*, K12 *kərəšāi*, E1 *kiršāi*, K16 *karašāi*, Pt1.P13.L18.K19 *karšāim*.

• *humāīm* (Y 41.3)⁴⁴¹, acc.sg. of *humāīia-*. This must be a lapsus of the transmission, since we expect **humāīm*. The spelling *-īm* is probably due to transposition of the usual ending *-īm* of the *i*-stems.

§ 15.3 Avestan *āi* from *-ā + i-*

In a number of forms, the sequence *-āi-* is of recent origin, being due to the graphic merger of a morpheme ending in *-ā* and a morpheme in initial *i-*.

Whenever the preverb *ā* governs a following noun or verb with initial vowel, the mss. often merge both words. This has happened with several verb forms of *i-* ‘to go’:

- *āitī* (Y 31.14). The metre requires a trisyllabic form, which can be restored if we assume *āitī* to be the result of a merger of **ā aēti* ‘is coming towards’.
- *āitē* (Y 31.9). The metre requires a trisyllable, showing the original sequence **ā itē* from **ā Hitai* ‘to go to’.
- *āidūm* (Y 33.7). The hemistych *ā mā āidūm vahištā* originally read *ā mā idūm* ‘come ye hither’, but at the canonization of OAv., the preverb *ā* was repeated after *mā*, giving **ā mā ā idūm*.
- *āiḍi* (Yt 5.85), 2s. prs.ipv.act. of *i-* ‘to go’, merged with the preverb *ā*.
- *para.āiḍi* (V 22.7,13). V 22.7 *āiḍi* is clearly the 2s. ipv.act. **ā iḍi* ‘go towards’; this is supported by the v.ll. of all 3 ms. classes. In V 22.13, we rather expect to find a preterite form than an ipv.; therefore, Bartholomae 1904: 151 restored *+para.āiḍ*, which may reflect a 3s. prs.inj.act. **para ā ait* (parallel to the inj. *upa.vazata*) or a 3s. impf. **para ā āit*:

V 22.7 *para.āiḍi upa.vazaṇuha* ‘go away, drive towards!’

V 22.13 *+para.āiḍ upa.vazata* ‘he went away, he drove towards’

Original *+para.āiḍ* was apparently changed to *para.āiḍi* in most mss. under the influence of V 22.7. The correction which we propose here is confirmed by the Pahlavī translation, which renders 22.7 *para.āiḍi* as *bē raftan* ‘to go’, but 22.13 *+para.āiḍ* as *bē raft* ‘went’.

Other forms which show the same graphic merger are:

- *āišātəm* (Yt 10.14) for **ā iškatəm*; it is restored accordingly by Bartholomae 1904: 300.

⁴⁴¹ V.ll. Y 43 all mss. *humāīm*, except K5, J3 *humā.īm*, C1 *humāiūm*; G 4.8 K36.Mf3.W1 *humāim* · O3 *humāim*, L11 *humāie* · E1 *humāiium*, Mb1 *humāie*, Pt1.L18 *humāie*, K19 *humāiem*.

- *upāit* (Y 9.1), 3s. impf.act. of *upa* + *i-* ‘to approach’. The form may continue **upa ā ait* or **upa ait*.
- *zastāišta-* (Y 34.4, Ny 5.18, Y 50.5) ‘set in motion by hand’ may contain the ins.sg. *zastā* ‘with the hand’ followed by *išta-* ‘set in motion’. We may accordingly restore a compound **zastā.išta-* (cf. § 5.2.1.1).

§ 15.4 Corruptions of *aē* and *ai*

The spelling *āi* for **aē* is found mainly in the Yašts with a poor ms. basis. We can assume **aē* for the following forms on the basis of their etymology:

- *āiti*⁴⁴² (Yt 10.118) may be corrected to **aēiti*, 3s.prs.ind.act. of *i-* ‘to go’.
- *āite* (Yt 19.8) may be corrected to **aēite*, nom.pl.m. of the demonstrative pronoun (thus Geldner; cf. Hintze 1994: 91).
- *pāirisāite* (Yt 19.1) may be corrected to *pairi.saēite* ‘is lying around’. For **pairi*^o, see § 3.6.
- *(ā)diδāiti* (Yt 10 4x), 3s. prs.ind.act. of *dī-* ‘to look’. Insler 1971: 583f. suggested that these forms simply reflect **(ā)diδaēiti*, but were spelled with *āi* in F1 or its prototype because of the similarity in pronunciation of *āi* and *aē*. He receives support from Kellens 1984: 184, who suspects influence from *daδāiti*, 3s.prs.ind. to *dā-*.

Similarly, the sequence *-ai-* from *a* + *i*-epenthesis is sometimes confused with *-āi-* in the mss. Examples are the verb forms in *-aiti*, *-aite*, which were sometimes mistakenly interpreted as forms in *-āiti* or *-āite*: Y 30.8 *vōiuūdaite* or *vōiuūdaītē* or *°tī*; Y 31.12,13 *pərəsaitē* and *pərəsaētē* (only Mf2.Jp1.K4 have *°āitē*); Y 57.31 *auuazāite* (only J2.K5 have *°āiti/°āite*, the rest *°aiti/°aite*); 62.7 *ḥam.pacāite* for *°pacaiti* (only J2.K5.Mf1 have *°āit°*); 65.5 *vījasāite* ?; Yt 5.5 **vījasaiti*, Yt 8.6 **vazaiti*; Yt 10.95 *aiβiūāiti* = *aiβiūaēiti*; N 42 *apāiāiti* ‘he skips’ for *apāiaēiti* as in N 33, and others.

All the forms of *āiti* in V 9.11, 9.12, 9.31 and 9.32 must represent an error for original *aiti* ‘across’ (Skt. *āti*), as attested in the Vīdēvdād in combination with *bar-*:

V 5.41 *aētəm ātrəm aiti barqñ auua aētəm nmānəm*
 ‘they must bring that fire (across) towards this house’.

⁴⁴² V.II. F1.Pt1.E1.L18.K15 *āitī*, P13 *āiti*. According to Geldner, F1 would read *āitū*, but the facsimile shows a letter which may be somewhat more curved than *ī* usually is, but it is certainly less similar to the usual shape of *ū* than to that of *ī*.

The passage V 9.31 shows the meaning of *aiti* very clearly:

pascaēta auua tā aniia maya [˘]aiti jasōi̯t, aēša yā paiti.irista
 ‘then he must go to the other holes, he who is stained’.

In V 9.31, the spelling *aē(i)ti* in the PV and the InVS, as opposed to *āiti* in the IrVS, preserves short *a-*.

Original **aiti jasōi̯t* must also be assumed for V 9.12 *pascaēta auua tā āiti maya āiti jasōi̯t* ‘and then he must come to these holes’ and for V 9.32 *pascaēta auua tā āiti nmāna āiti jasōi̯t* ‘and then he must come to these houses’, where the first **aiti* seems to be a later addition, foreshadowing the correct **aiti* in front of *jasōi̯t*.

In the text of V 9.11 *θrāi̯iō upa nauua.padəm asānō āiti maya āiti barōiš* ‘up to the three nine-foot [places] you must bring stones’, it seems that *āiti maya* ‘towards the holes’ is a later addition to the original text **θrāi̯iō upa nauua.padəm asānō aiti barōiš*; *maya* will have entered from the neighbouring sentences.

§ 16 Ир. *au

Unlike the diphthong *ai, Ир. *au was not split in two reflexes depending on its position in an open or closed syllable. Of the two reflexes ao and āu, the former is the usual one; Av. āu is restricted to the position in front of š. A different phonetic development is shown by word-final *-au, which yields -uuō after all consonants except *i̇-, where it yields -ō.

The first two subsections will address the reflex of *au in front of š, viz. in final syllable and in inlaut. The third subsection turns to *-au in auslaut, after which the fourth subsection discusses the reflex -āuu- in front of *ī and *r̥.

§ 16.1 *-auš

Within YAv., *-auš has two reflexes, viz. -aoš in the gen.sg. of *u*-stems and -āuš in the first compound member *dəuš*^o ‘bad’ and in the isolated nom.sg. *dāuš* of *daoš*- ‘(fore-)arm’ in N 106. Since the only OAv. reflex was -āuš, we can posit the following scenario: the PAv. reflex of word-final *-auš was *-əuš. In the nominal gen.sg. forms, YAv. restored the vowel *a* by analogy with the rest of the paradigm, so that YAv. acquired a gen.sg. -aoš; the older reflex was retained in the isolated form *dāuš*.

The *u*-stem gen.sg. ending is attested in the two forms -aoš and -āuš both in OAv. and in YAv. Narten 1969: 235-240 has conclusively shown that the ending -āuš originally belonged to the OAv. language and -aoš to YAv. The exceptions are due to the mutual influence between OAv. and YAv. The ending -āuš in YAv. texts has been analogically introduced from the characteristic Gāthic ending, and in most cases the model for the analogy can be found in our Gāthic texts: the forms *aṇhāuš*, *xratāuš* (beside regular YAv. *xradβō*), *gāuš* (of which the regular YAv. ending has been preserved in Y 10.14 *gaoš*), *mainiiāuš*, *vaṇhāuš* and *ratāuš* (Vr 1.8, 9.6, A 3.5 beside *radβō*) are all quite common OAv. words. Only YAv. *daṇhāuš* is without an attested OAv. counterpart. Conversely, the forms in -aoš which are attested in the Gāthās have been introduced into the text in a period when the recitors spoke YAv., and when the gen.sg. *-āuš had already been replaced by -aoš in the paradigm of YAv. *u*-stems.

The most frequent YAv. form in *-əuš* outside the gen.sg.⁴⁴³ is the prefix *dəuš* ‘bad’ < Pr. **dauš*, the full grade of the pejorative prefix *duš-* ‘bad’. It is attested in four stems: *dəuš.srauuah-*, *dəuš.manahiia-*, **dəuš.srauuaj̥ha-* and *dəuš.dāitiia-*. These must be regarded as genuine YAv. forms, rather than as Gathicisms, for two reasons. Firstly, the passages in which *dəuš*^o occurs do not show other indications of being OAv. Yt 19.34 *dəuš.manahiia-*⁴⁴⁴ ‘having bad intentions’ and Y 11.1 *dəuš.srauuah-* ‘bad reputation’ do not contain any hints of being Gathicisms. The stem **dəuš.srauuah-* was provided with the suffix *-*ia-* to yield F 550 *dəuš.duš.srauuaj̥hē* ‘bad reputation’, which, according to Klingenschmitt, represents **dəuš.srauuaj̥hē*. P 56 *dəuš.dāitiia-* ‘unlawfulness’ (Humbach 1983: 120) occurs in a text which contains several words suspect of being quotations from OAv., but in this case P 56 *dəuš.dāitiia fraēšta druuaṇtō duždāṇhō* contains *druuaṇtō* which is of a clear YAv. nature. Secondly, in the Gāthās as we have them, there is no instance of *dəuš* which could have served as a model for the analogy.

The only other YAv. form in *-əuš* is the nom.sg. *dəuš* ‘fore-arm’ in N 106 *cuuat̥ nā nitəməm aēsməm paiti.barō ratufriš? yaṇa varəšnahe kəhrpō dəuš* ‘With what minimal quantity of fire-wood does one satisfy the Ratus, when offering? As much as the fore-arm of a male body.’ The same noun or a derivative appears in the isolated form F 167 *daoša* (ins.sg. of *daoš-* or nom.acc.sg. of *daošan-* according to Klingenschmitt 1968: 62), which has the word-internal reflex of *-*auš-*.

§ 16.2 *-*auš-*

It is uncertain whether word-internal *-auš-* underwent the same development as word-final *-*auš*. In YAv., the only reflex which is attested is *-aoš-*. In OAv., the word *gəuša-* ‘ear’ is the only one displaying *-əuš-*. In many mss., its attestations are split by a separation point: *gəuš.āiš* and *gəuš.ā*.

⁴⁴³ The acc.pl. forms *strəuš* and *nəvəuš* are late scribal forms for **strəš* and **nəvəš* (cf. § 24.5).

⁴⁴⁴ For the reason why this form escaped the change of *-*h̥i-* to *-j̥h-*, cf. § 28.3.

This shows that the first part of these forms was at some time⁴⁴⁵ identified with the gen.sg. of ‘cow’, *gəuš*.

Bartholomae 1894-5: 159 suggested that original **gaošāiš* and **gaošā* were split into **gaoš.āiš* and **gaoš.ā* during the transmission, and that *gaoš* was then replaced by the more characteristic OAv. form *gəuš*. Of course, this can not be fully excluded, but it does not seem likely: most replacements in OAv. involve the introduction of a YAv. feature into OAv., not vice versa. It seems safer to assume that *gəuša-* ‘ear’ really preserves the original OAv. reflex *-əuš-* unchanged, maybe *because* it looked like *gəuš* ‘of a cow’; in all other forms, e.g. OAv. *səraoša-*, the YAv. sound *-aoš-* was introduced.

There is one form left to be explained, viz. the YAv. adj. *aṇhaošəmna-* ‘undrying’, which is attested as acc.du. *aṇhaošəmne* at Y 9.4 and Yt 19.32, but as *aṇhəušəmne* at Yt 15.16⁴⁴⁶. The last attestation is clearly an error of the mss., which is due either to conscious Gathicizing of this word by certain scribes (see the v.ll. of Y 9.4) or to analogy with the OAv. gen.sg. *aṇhəuš* ‘of life’.

§ 16.3 **-au*

In Av. *u*-stems, the ending **-au* occurred in the voc.sg., the loc.sg. (next to **-āu*), and the loc.du. This sequence has been preserved as *-au-* in Avestan loc.sg. forms followed by the postposition **ā*, e.g. *daṇḥauua* ‘in the land’. The remaining forms show a twofold reflex in YAv., viz. *-ō* and *-uuō*; these were regarded as different dialectal reflexes of the same preform by

⁴⁴⁵ The mss. do not allow to decide whether the split dates back to the archetype. We find Y 30.2 Mf4 *gəušāiš*, S1 *gəušāiš*, and *gəuš.āiš* in the rest. Y 51.3 *gəuš.ā* Pt4.Mf4.1 · *gəušā* J2.K5 · *gəušā.ā* J3 · *gəuš.ā* Mf2.Jp1.K4 · *gəuš.ā* L2, *gəušā* Dh1.MI1.S2.O2.L3.Jm2, *gəuš* Jm3.Bb1 · *gəuš* K11.Lb2, *gəušā* L13.Jm1.J7.O1, *gəuš.ā* J6.H1.

On the one hand, the split attestations are clearly in the majority, also in the better mss. This may indicate that the split dates back to the archetype. On the other hand, a few old mss. do not attest the split (J2.K5 and S1, parts of the InVS and the YS), which may be the old situation, because the gen.sg. *gəuš* was analyzable as a separate word all along and may have become written separately at any point in the tradition. The PTr. seems to be based on *gaoša-* ‘ear’, not *gəuš* ‘cow’.

⁴⁴⁶ V.ll. Y 9.4 all mss. *aṇhaoš*^o except J3 *aṇhəušəmna*, J6 *aṇhəušəmanē*, K5 *aṇhā.šəmne*; Yt 15.16 F1+ *aṇhəuš*^o · J10 *aṇhe.uša.mana*; Yt 19.32 F1+ *aṇhaoš*^o · J10.D *aṇhəuš.mana*.

Hoffmann-Forssman 1996: 69, but there is no positive proof for this assumption. The phonetic development from *-au to -uuō has received a credible interpretation by Beekes 1998. Against the earlier assumption of a metathesis of [ou] to [uō] (as per Hoffmann), Beekes posits a monophthongization of *-au to *-ō. By the time of YAv., this *-ō had become the diphthong [uo], preventing a merger with YAv. -ō < *-ō.

The discussion in the first two subsections will show that -uuō is the regular reflex of *-au in all positions except when immediately preceded by *-i-, in which case we find -iiō. The third subsection deals with the ending -ō where it is not a reflex of *-au, but a corruption of earlier -uuō, -āu or even -u.

§ 16.3.1 *-au > -uuō

The following forms display *-au > OAv. and YAv. -uuō:

- The voc.sg. *ərəzuuō* (YAv.), *ratuuō* (YAv.), *rašnuuō*⁴⁴⁷ (YAv.) and *huxratuuō* (Y 10.2) of the stems *ərəzu-*, *ratu-*, *rašnu-* and *huxratu-*.
- The loc.sg. *aṅhuuō* (YAv.), *gātuuō* (YAv.), *xruuī.druuō* (YAv.), *daṅhuuō* (YAv.), *baršnuuō* (YAv.), *bāzuuō* (YAv.), *zaṅtuuō* (YAv.), *hiṅduuō* (YAv.) of the stems *aṅhu-*, *gātu-*, *xruuī.dru-*, *daṅhu-*, *baršnu-*, *bāzu-*, *zaṅtu-* and *hiṅdu-*.
- The loc.du. *aṅhuuō* (Y 41.2,3) of *ahu-* ‘life’.
- The personal pronoun nom.sg.m. *huuō* ‘he’ < **hau*. This form is only attested in OAv. and in pseudo-Gathic passages (Y 60.1, 71.13, P 50), having been ousted in YAv. by *hāu* (< f. **sāu*), cf. Narten 1986a: 145ff.
- The form *huuō*^o furthermore occurs in OAv. as the first member of compounds, where it reflects the vṛddhi derivative **hau* of *hu-* ‘good’: the adj. *huuōγžavā-* (YH) ‘with good flowing’ and the name *huuō.guuā-* (OAv.) ‘with good cattle’. These forms serve to show that the monophthongization of *-au > ō took place in YAv. and not later, because it could not have occurred in inlaut. In YAv., the name **hau-guā-* is attested as *huuōuuā-* (Yt

⁴⁴⁷ Probably also in Yt 14.47 *āca paraca pərəsaite, haḍa miḍra haḍa rašnuuō* ‘and he asks back and forth, both Miḍra and Rašnu’. Bartholomae 1904: 1756 argues that *rašnuuō* is a loc.sg. form used as the ins., so that *miḍra* and *rašnuuō* would both be ins.sg. forms depending on *pərəsa-*. This must indeed be the original syntax, but it is possible that *rašnuuō* is not the loc.sg. form but the voc.sg. form which was introduced by the transmitters for original ins.sg. **rašnu* (as in Yt 13.47 *haḍra miḍrāca rašnuca*). There is no other attestation of a loc.sg. of *rašnu-*, whereas the voc.sg. *rašnuuō* is frequent especially in Yt 12.

5.98, 13.103), the feminine of which is the name of one of Zarathustra's daughters *huuōuuī-* (Yt 13.139, 16.5).

Whereas OAv. treats **hau* 'good' as a separate word if it occurs as the first member of a compound (e.g. *huuōγžāθa-*), YAv. usually shows the word-internal development of **hau*, e.g. *haomanah-*, *haosrauuah-*. Therefore, the YAv. names *huuōuua-* and *huuōuuī-* must have been borrowed from OAv. **huōgua-* and **huōguī-* which subsequently underwent the YAv. sound change **-gu-* > **-γu-* > *-uu-*. Incidentally, this implies that this lenition of **g* did not take place before the adoption of OAv. **huōgua-* and **huōguī-* by YAv.

Finally, Y 52.1 *huuō.aiβišācī-* is of unclear etymology. If the meaning 'providing good help' vel sim. is correct, it may represent **hu.aiβišācī-*, in which a wrong split yielded **hua.aiβišācī-* → *huō.aiβišācī-*. In that case, it is not an example of the development of **au*, but belongs with the forms in § 22.5.

§ 16.3.2 **-iau* > *-iiō*

The only uncontroversial Avestan forms in *-ō* < **-au* show a preceding **-i-*. This **-i-* may have blocked the diphthongization of **-ō* to **-uo*:

- voc.sg. *vaiiō* (YAv.) of *vaiiu-* 'Vayu': PIr. **vāiau*.
- loc.du. OAv. *zastaiiō* of *zasta-* 'hand'.
- loc.du.m. OAv. *ubōiiō*, YAv. *uuaiiō* (F 36, 764) 'in both' of *uba-*, *uua-* 'both'.

§ 16.3.3 **-au*, **-āu* and **-u* corrupted to *-ō*

An ending *-ō* appears for the loc.sg. *-uuō* in:

- *daṛhō* (loc.sg.):

Vr 12.5 *aiṛhe daṛhō*⁴⁴⁸ 'in this country' was accepted in this form by Bartholomae 1904: 709 and Hoffmann-Forssman 1996: 69. In the text, it follows *ahmi zaṇtuuō* 'in this province', which displays the loc.sg. ending *-uuō*. In view of the parallel passages Y 9.28 *yō ahmi zaṇtuuō*, *yō aiṛhe*

⁴⁴⁸ V.II. *daṛhō* K7a.M6 · *daṛhauuō* F11, *daṛhō* Kh1 · *daṛhūuō* Mf2.Jp1.K4 · *daiṛhō* K7b, *daṛhauuō* H1, *daṛhō* K11.Jm5.Pt3.L27, *dīnhō* J8 · *daṛhō* Br1.L2.Dh1, *daṛhūuō* L1.O2.B2. The *i*-epenthesis occurs only in the ms. K7b and must be due to *aiṛhe*.

*daŋhūuō*⁴⁴⁹ and E 8 *ahmi zaŋtuuō aŋhe daŋhūuō*, which show a loc.sg. *daŋhūuō*, it seems evident that Vr 12.5 originally read *daŋhūuō* too. This form lost *-uu-* in some but not all mss.; the IrVS preserves the expected reading *daŋhūuō*.

• *varətafšō* (loc.sg.):

In V 8.4, we read *yaŋ ahmi nmāne yaŋ māzdaiiasnōiš spā vā nā vā iriθiiāt, vārənti vā snaēžinti vā barənti vā, təmaŋhəm vā ^xaiβi.gāta⁴⁵⁰, aiiqŋ vā varətafšō varətō.vīre jasənti*. If we assume that *aiiqŋ* is a loc.sg., all the participles in *-nti* will depend on this noun: ‘if in this house of a Mazdayasnian, a dog or a man should die on a day when it rains or snows or is stormy, or after the fall of darkness, or [on a day] which comes and detains cattle and men’ (translation after Tremblay 1999: 115).

The forms *varətafšō* and *varətō.vīre* recall the collocation *pasu vīra* ‘cattle [and] men’. As *varətō.vīre* can be a regular loc.sg. of **varəta-vīra-*, it is reasonable to assume a stem **varəta-fšū-* ‘detaining the cattle’ for the first word; the loc.sg. would be †*varətafšuuō*, which somehow lost its *-uu-* in the course of the transmission. Probably, this is due to the influence of *aiβi.gātō*, which most mss. have for *^xaiβi.gāta*.

An ending *-ō* is a corruption of loc.sg. *-āu* of the archetype in:

• *pərətō* (loc.sg.):

The loc.sg. of *pərətu-* ‘bridge’ appears as *pərətō* in Y 51.12 and as *pərətā* in Y 51.13 in Geldner’s edition. Yet in Y 51.12, some mss. (IrVS, J2, Mf1) also have *pərətā*; with Insler 1975: 316f., we can explain *-ō* in 51.12 from the surrounding forms *kəuuīnō* and *zəmō*. The form *pərətā* has corrupted from **pərətāu* in the archetype, with the same long diphthong in the suffix as attested in Gathic *vaŋhāu* and in Y 48.4 *xratā* for **xratāu* (cf. Ved. *krātau*). The forms *pərətā* which the IrPY mss. Pt4.Mf1.4 display in Y 51.12 and 13 can be regarded as additional evidence for **pərətāu*: the ending *-āu* was changed to the phonetic equivalent *-ao* in the IrYS and to the graphically similar *-ā* in other ms. branches. In Y 51.13, the following word *akā* may also have played a role in the change **pərətāu* → *pərətā*.

Final *-ō* is a corruption of *-u* of the archetype in:

• *mainiiō* (ins.sg.):

⁴⁴⁹ Where we find *uu-*less forms only in a number of inferior mss, viz. *daŋhō* L2, *daiŋhō* B2.O2 · *daiŋhō* C1.K11.Lb2.H1.

⁴⁵⁰ V.II. *aiβi.gātō* L4a.Pt2.K1 · *aiβi.gatō* Jp1.Mf2 · *aiβi.gātu* Br1.L2.L1.M2.O2. Cf. V 9.6 *pasca hamō aiβi.gāitīm* ‘after the advent of summer’.

The form *mainiiō* looks like the voc.sg. of *mainiiu-* ‘spirit’. It appears in Geldner’s Avesta in the frequent address *ahura mazda, mainiiō spēništa, dātarə gaēθanəm astuuaitinəm ašāum* ‘Weiser Herr, Heilvollster Geist, Schöpfer der stofflichen Welt, wahrhafter’ (translation by Narten 1982b: 40). Kellens (1995b) has argued that the manuscripts also provide evidence for original ins.sg. ⁺*mainiiu*, which is almost as strong as the evidence for *mainiiō*. The text would then have been *ahura mazda mainiiu spēništa* ‘Ahura Mazda, through your most virtuous spirit, creator etc.’ This is reminiscent of e.g. Y 33.12, 43.2, 51.7 *spēništā mainiiū mazdā* ‘with/through your most virtuous spirit, O Mazdā’ (translation after Insler 1975).

I agree with Kellens that we may restore an ins.sg. ⁺*mainiiu* on the basis of the v.ll., the most important of which are *mainiiu*, *mainiiū* and *mainiiō*. As for the second variant, long *-ū* in the auslaut of *mainiiū* will have been caused by preceding *-ii-*, cf. § 11.2. As for the third variant, the Yašt transmission presents clear cases of the replacement *-u* → *-ō*, compare Yt 10.73 *mainiiu* in F1.Pt1.E1 versus *mainiiō* in L18.P13 (two mss. descending from Pt1), and Yt 13.76 nom.du.m. *mainiiu*, which is replaced by *mainiiō* in the mss. of the IrKA.

Kellens argues that *mainiiō* is due to a conscious replacement of *mainiiu* by the scribes, who wanted to approach *mainiiu* to the model of the voc.sg. in *-uuō*, e.g. *ratuuō*. However, voc.sg. forms in *-uuō* are not that common. It seems more likely that the replacement of *mainiiū* by *mainiiō* is due to a purely phonetic change in the speech of the medieval Indian and Iranian transmitters, which we might interpret as a dissimilation of [*iū*] to [*iō*].

The ending *-ō* appears in a few more forms, in which the analysis as loc.sg. has been proposed but must be considered uncertain:

• *šiiātō*, *vaštō* and *həntō* (Y 60.11):

Y 60.11 reads *yaθa nō aṅhəm šiiātō manā / vaštō uruuqnō / x^vāθrauuaitiš tanuuō həntō / vahištō aṅhuš / ākāscōiṭ āhūire mazda jasəntəm*. The forms in bold face represent Bartholomae’s emendations of Geldner’s text (Bartholomae 1904: 274, 1393), which were accepted by Kellens 1974a: 341ff. Kellens discusses many of the problems of this highly irregular text. For example, no final verb form is present unless we assume **āṅhən* for *aṅhəm*, the form *āhūire* is susceptible to different analyses and *jasəntəm* may be considered as an isolated genitivus absolutus.

Kellens (p. 342f.) retains the analysis of *šiiātō* and *vaštō* by Bartholomae and of *həntō* by Hoffmann (p.c. apud Kellens) as loc.sg. forms of *u-* or possibly *i-*stems. He translates: ‘Afin que nos esprits soient dans la quiétude, nos âmes dans leur bon vouloir, nos corps pourvus de bien-être dans la

prospérité, que la vie la meilleure soit pour nous, si on vient en votre présence, ô Mazdā l'ahurique.⁴⁵¹

The meaning must be approximately as in this translation, but the analysis of the forms in *-ō* as loc.sg. forms of *i-* and *u-*stems cannot be maintained. The endings are simply ungrammatical. Moreover, the stems which must be assumed (*hənti-/həntu-* 'prosperity', *vašti-/vaštu-* 'will') are unattested elsewhere in Avestan. I am unable to provide a credible alternative analysis, but it is clear that these three forms in *-ō* cannot be used as reliable evidence for a development of **-au* > *-ō*.

Three remaining forms in *-ō* are yet different corruptions:

• *haētō* (V 19.30):

Bartholomae assumes *haētō* to be a loc.sg. of a stem *haētu-* 'dam', cognate with Skt. *sētu-* 'dam, bridge'. Hoffmann-Forssman 1996: 69 translate 'on the bridge'. In fact, a locative case would be curious in the context. The text reads

hā ašāunqm uruuānō (...) tarō cinuuatō pərətūm vīdāraiiēiti, haētō mainiiauuuanqm yazatanqm 'She takes the souls of the righteous across the Cinvat-bridge, *haētō* of the spiritual Yazata's'.

A translation 'on the bridge of the spiritual Yazata's' would be pleonastic after *pərətūm*. Therefore, Bartholomae translates *haētō* as 'towards the dike', but this would rather call for the Avestan word for 'dike' to be in the accusative instead of the locative. The translation 'dike' still seems pleonastic with regard to the preceding *pərətūm*.

It seems more probable that the three words *haētō mainiiauuuanqm yazatanqm* are a later addition to the text of V 19.30, a gloss explaining *cinuuatō pərətū-*; the *cinuuatō pərətū-* is the bridge which the souls must cross in order to reach heaven, the realm of the Spiritual Honorifics. Later glosses which have entered the Avestan texts are not uncommon in the Vīdēvdād, and we have seen another example in V 19 in the attestation of *pusāḡhō* (§ 10.2.1). In V 19.30, the glossator has used an Iranian word which is unattested as a simplex in Avestan, viz. PIr. **haitu-*, the preform of Sogd. *ytkw*, Oss. *xīd/xed* 'bridge' (Abaev 1989: 199). PIr. **haitu-* only occurs in Avestan in the river name *haētumaṅt-*. The word **haitu-* 'bridge' is mainly known from East-Iranian; the later translators did not recognize it, which is why the Pahlavī version translates *haētō* with *xwēš* 'self', probably associating

⁴⁵¹ For the translation of the last part *ākāscōiṭ āhūire mazda jasəntqm*, Kellens offers several alternative translations.

it with Av. *x^vaētu-* ‘family’. This analysis implies that *haētō* does not have a grammatically correct Avestan ending.

- *vīdātō* for **vīdātəm*:

Bartholomae (1904: 1444) has assumed an *u*-stem *vīdātu-* ‘foundation’ in V 13.49 *nōit mē nmānəm vīdātō hištənti* ‘not would my house stand solid’. However, it is clear that V 13.49 is an ‘ungrammatische Stelle’, as Bartholomae has argued himself loc.cit. The form *nmānəm* does not agree in case form with *vīdātō* (which cannot be an acc.sg. of *vīdāta-*), and there is a verb in the plural *hištənti* with a noun in the singular. The usual combination is between *nmāna-* (n.) and *vīdāta-* ‘founded’, as e.g. in Y 57.21 *yeḡhe nmānəm (...)* *vīdātəm* ‘whose house is built ...’ and Yt 17.8 *aēšqm nmānā huuiḡātā (...)* *hištənte* ‘their houses stand well-founded ...’. Therefore, V 13.49 *vīdatō* must represent original **vīdātəm*.

- *haomaiiō* for *haoma.yō* of the archetype:

The form *haomaiiō* in Yt 3.18ff. is not a loc.sg. form, but must be read as *haoma.yō.gauua*, cf. Hoffmann 1976: 401f., 475-482.

§ 16.4 **-au̯i̯-* and **-au̯-*

Any sequence **-au̯i̯-* yields *-əuu̯i̯-* in Avestan. The complete inventory comprises:

**a* in anlaut: *əuu̯i̯duu̯ā*, *əuu̯i̯ndānō*, *əuu̯i̯sāi*, *əuu̯i̯stī*, *əuu̯i̯stō.kaiiaδəm*, *əuu̯i̯spō.x^vafna*, possibly also *əuu̯i̯tō.xarəḡaiiā*.

**a* in the root syllable: *kəuu̯i̯āscā*, *kəuu̯i̯nō*, *parō.kəuu̯i̯δəm*, *xšnəuu̯i̯šā*, *xštəuu̯i̯βi̯ō*, *təuu̯i̯š-*, *təuu̯i̯šī-*, *yəuu̯i̯nō*, *rəuu̯i̯-* (< **raūi̯-* < **raγūi̯-* ‘fast’ f.), *səuu̯i̯šta-*, *səuu̯i̯* (PN), *srəuu̯i̯m*, *zəuu̯i̯m*, *zəuu̯i̯štiia-*.

**a* in the suffix: *mainiiəuu̯i̯m(cā)* < **manīaūi̯m*, Y 53.1 *huuaḡhəuu̯i̯m* < **hu-ahau-i̯jam*.

A number of forms is found with unchanged *(-)əuu-*. In some of these forms, *-uu-* goes back to intervocalic **-b-*; we may conclude that the development of **-b-* > **-u̯-* was posterior to the change of **-au̯i̯-* to **-əuu̯i̯-*. The preverb *əuu̯i̯* is by far the most frequent member of this category; its forms and development will be discussed in § 21.3. Two other forms which may belong here are the adj. *adəuu̯i̯-* ‘not deceiving’ and the PN *vīdəuu̯i̯-* ‘free of deceit’, which can be derived from the root *dab-* ‘to deceive’.

Other exceptions are attested in texts with a poor manuscript tradition. Y 68.21 *frauu̯i̯stō* is probably influenced by the regular spelling *fra* of the preverb. Nevertheless, the IrVS mss. Jp1.Mf2.K4 spell *friuu̯i̯stō*, just like the YS mss. L13.P6, while Jm1 *frəuu̯i̯stō* may well have preserved the original

form. Yt 12.7 *parakauuistəmca* is spelled *para.kauuistəmca* in all mss. available to Geldner, which are based on F1 and J10. In the light of *parō.kəuuīdəm*, also in the Yašts, *para.kauuistəmca* must be regarded as an accidental aberration. Yt 10.113 *nauuīdīiḡn* can be corrected to *˚niuuīdīiḡn*, cf. Kellens 1977: 200 and 1986b: 346, who connects Skt. *nī-vidhya-*.

This leaves one exception, viz. OAv. *mraoī* (Y 32.14⁴⁵²), the interpretation of which is disputed. In the more recent literature, it has been differently interpreted as 3s. aor.inj.pass. of *mrū-* ‘to speak’ (Beekes 1988: 101, Kümmel 1996: 149f.), 3s. prs.inj.pass. of *mrū-* ‘to speak’ (Gippert 1998: 175), 3s. aor.inj.pass. of *˚mrū-* ‘to maltreat’ (Humbach 1959 II: 37, Kellens 1974a: 325, Kellens 1984: 232, 382, Hoffmann-Forssman 1996: 228 [hesitantly]), or as ins.sg. of a noun *mraoī-* ‘destructive action’ (Humbach 1991 II: 89). Thus, most investigators regard the form as a 3s. passive injunctive form in *-i of a root IIr. **mruH-*; opinions mainly differ about the meaning of this root. It seems to me that the arguments put forward by Gippert 1998 in favour of the meaning ‘to speak’ are convincing, and I will follow him in this: *mraoī* ‘it is spoken’. The IIr. passive aorist can be derived from a PIE form with short *o in the root and an ending *-i, e.g. in OAv. *vācī* ‘is said’ < PIE **uok^w-i* and *srāuuī* ‘is proclaimed’ < PIE **kloy-i*. Both show the regular IIr. lengthening of PIE *o in open syllable, which is regularly absent from *mraoī* if this derives from IIr. **mlauHi* < PIE **mlouH-i*. Since Avestan *mrū-* shows only present forms, Gippert’s query (1998: 177) is justified as to whether *mraoī* must be regarded as an aorist or as a present. Indeed, since YAv. contains a passive ‘aorist’ form *əṛənāuuī* ‘is granted’ which is clearly built on the nasal present *əṛənu-/əṛənauu-* of the root *ar-* ‘to impel’, it seems quite possible that *mraoī* is an OAv. example of the passive ‘aorist’ formation spreading to present stems.

In fact, this latter conclusion of Gippert’s (1998: 178) can be supported by another observation. Most scholars have neglected an important formal problem which *mraoī* poses, viz. the fact that we expect an IIr. preform **mrauHi* to develop into OAv. *†mrəuuī*. This problem was touched on by Beekes 1988: 26, and has recently been addressed by Hintze 2001: 271. According to her, *mraoī* represents a corruption of original **mrəuuī*, “perhaps under the influence of forms from *mrū* ‘to speak’, such as 1sg. *mraomī*, which is actually the reading of the Pahlavi Yasna manuscript J2 in Y 32.14.” This

⁴⁵² V.II. Pt4.Mf4.1 *mraoī* · J2.K5 *mraomī* · S1 defective, J3 *mraoī* · Jp1.Mf2 *mraoī*, K4 *mrōī* · Pd *mraoī*, K37 *mraomī* · L2.1.K10 *mraouuī*, P1 *mraōuuī* (cf. Gippert 1998: 166), B2.L3 *mraoī*, O2 *mraomī* · C1.K11.H1.J6.7 *mraoī*, L13 *mraomī* («but in this the medial *m* not added till later»).

solution is not impossible, but it seems quite bold. The change is too radical to be the result of a corruption, so that we would have to assume analogical replacement. However, beside forms in *mrao*^o, OAv. also has different forms of the root *mrū* such as *mruiiē* and *mruiiāt*, which are left unchanged. In addition, other words with the sequence *-əuuī(-)*, such as *zəuuīm*, have simply been preserved. Thus, Hintze's solution is difficult to accept.

As an alternative, we may propose that *mraoī* reflects a form **mrauuī* of the archetype. A corruption of **-auuī* to *-aoī* in the mss. has parallels in the attestations of the adverb *auuī* 'towards', which often appears as *aouuī*, *aoi* or *aōi* in the manuscripts (see § 21.3); a similar change is that of **-auuē* to *-aouuē* in dat.sg. forms in the Yasna (§ 21.3). The archetype form **mrauuī* can be derived from earlier **mrāuī* by means of two different, theoretic scenarios: (1) by means of the sporadic shortening of **ā* in front of **-u-* (cf. § 4.4); but this mostly happens in front of *-a-*, and no other examples of **-āu-* > **-au-* in front of *-ī* exist; (2) by means of analogical replacement of the root-vowel **ā* by *a*, on the model of the prs.subj. *mrauuā-*. The reason for the replacement may have been that beside *mrū-* and *mrauu-*, **mrāuuī* was the only form of the present of *mrū-* with the vowel *-ā-*. In YAv. *əṛənāuuī*, where *-āuu-* was retained in the aor.pass., the long vowel occurs in the suffix, not in the root.

In view of the scarcity of the phonetic shortening of **-āu-*, I regard the second possibility more likely. In any case, the rise of the short-vowel form **mrauuī* must be dated after the development **-auī-* > **-əuī-*. The original form **mrāuī* cannot be the regular reflex of PIr. **mrauHi*, but must have introduced *-ā-* analogically on the model of real aorists such as OAv. *(a)uuāci* and *srāuuī*. In other words, **mrāuī* may be due to the same morphological process as YAv. *əṛənāuuī*: a secondary passive 'aorist' formed by means of *-ā-* in the root and the ending **-i*, built on the present stem.

The same development of **auu-* > *əuu-* is observed when **au-* is followed by **-r-*. Although no counterexamples exist, the restricted number of three forms with this constellation *əuuəṛə-* calls for caution in proclaiming this to be a sound law. We find:

- *əuuəṛəziiant-* 'not practicing' (V 3.40 dat.pl. *əuuəṛəzənbiīō*, V 18.5 nom.sg. *əuuəṛəziiō*) < **a-ur̥ziant-*.
- *əuuəṛəzika-* 'lazy' (V 18.30ff. voc.sg.f. *əuuəṛəzike*) < **a-ur̥zikā-*.

As we have argued in § 3.7.1.1 and 5.2.1.2, the root *varz-* 'to work' must be reconstructed as **Huar̥z-* for PIr. Since *əuuəṛəziiant-* and *əuuəṛəzika-* do not show lengthening of the initial vowel (we would expect †*āuuəṛəz-* from **ṛHuar̥j-*), these two compounds may be regarded as inner-Avestan formations from *a-* 'not' + *varz-*.

§ 16.5 Summary

The phonetic developments of Ир. *au may be summarized as follows:

1. Ир. *-auš#
 - a. YAv. -*əuš*: *dəuš*^o, *daḡhəuš*.
 - Exceptions: YAv. -*aoš* in *u*-stems (restored -*a*-).
 - b. OAv. -*əuš*.
2. Ир. *-auš-
 - a. YAv. -*aoš*- (restored -*a*-?).
 - b. OAv. -*əuš*-.
3. Ир. *-au# > OAv., YAv. -*uuō*.

Exception: Ир. **iaū* > Av. -*iiō*: *vaiiō*, *zastaiiō*, *ubōiiō*, *uuaiiō*.
4. Ир. **auš*- and **auš*- > OAv., YAv. -*əuuš*- and -*əuuš*-.

The development of **auš* is completely parallel to that of **aiš*: identical reflexes in final syllable, viz. diphthongs **əi* and *əu*, but in inlaut, OAv. has the higher reflex in (**ə*)*ə*, and YAv. the lower reflexes *aə* and *ao*. The main distinction is the absence of the further change of *ə* to *ō* in the case of -*əu*-:

	*- <i>aiš</i>	*- <i>auš</i>	*- <i>aiš</i> -	*- <i>auš</i> -
OAv.	- <i>ōiš</i>	- <i>əuš</i>	- <i>ōiš</i> -	- <i>əuš</i> -
YAv.	- <i>ōiš</i>	- <i>əuš</i> → - <i>aoš</i>	- <i>aəš</i> -	- <i>aoš</i> -

Hence, we may assume that the chronology of developments for **au* matches that of **ai*. In front of *š*, [*əuš*] was the Early YAv. pronunciation in all environments, and this was introduced into the OAv. texts when they were canonized. Subsequently, **[əuš]* turned into -*aoš*- in all YAv. forms and all but one OAv. form, just like **aiš*- has returned to -*aəš*- in YAv. inlaut.

We can only guess at the reason why the sequence -*əuš*- did not develop further into †-*əuš*-, which would be completely parallel to -*ōiš*-. One might suggest that the vowel [*ə*] was slightly more rounded in front of -*uš*- than in front of -*iš*-, so that it was not perceived as a separate rounded vowel as in the case of [*ə*] in front of -*iš*-.

The monophthongization of **-au* may have been older than the seemingly parallel development **-ai* > *-e*, because there are no remnants of **-au* in OAv., whereas we find OAv. *-ōi* next to *-ē* < **-ai*. However, **-au* > **-ō* must post-date the change of **hī* > *ṛh* in front of *-ā-*, because the loc.sg. *daṛḥuuō* ‘in the country’ presupposes **dahīau* > **daṛḥau* > **daṛḥō* > *daṛḥuuō*. Since **hī* > *ṛh* can be dated to Early YAv. (see § 28.5 below), the monophthongization of **-au* must be at least as recent as Early YAv. The monophthongization may well post-date the canonization of OAv., because OAv. shares the reflex *-uuō* (and *-ō* after *-ii-*) with YAv. If Early YAv. had already possessed **hō* when OAv. was canonized, OAv. **hau* might have been reinterpreted as the YAv. phonemic sequence */au/*, and the result *huuō* would probably not have been reached.

In order to distinguish *-ō* < **-au* from *-ō* < **-ah*, we may refer to them as *ō₁* and *ō₂*, respectively. The diphthongization of **-ō₁* must have happened in Late YAv. Its ultimate date seems to be the use of the OAv. names **huo.gua-* and **huo.guī-* < **hau-gu^o* in the composition of some YAv. texts: these texts treat these names as single words without a compound boundary, which means that they cannot have acquired the diphthong */uo/* after their use in the YAv. text.

It is quite likely that the change of word-final **-ō* into *-ō₂* was the direct cause of the diphthongization of **-ō₁* to *-uo*; thus Beekes 1998: 9. The fact that **i* blocks this diphthongization may imply that the pronunciation of **-ō₁* was different after **i*. Probably it was more raised here, but in any case it sounded identical to *-ō₂*.

The change of **-au-* to **-əu-* in front of *i*, *ī* and **r* must be dated to a more recent period. It takes place in OAv. and YAv. alike, and it yields a vowel *-ə-* which was not a phoneme in Avestan times. If it had occurred at an earlier stage of YAv., we would certainly expect a stem *kauii-*, or the negative *a-* in front of *v-*, to have been restored. The date of this change can be further narrowed down by means of the form *rəuuī-* < **raγuī-*, which places the development **γu* > **u* before **au* > *-əuu-*. The form *huuaghəuuīm* shows that final **-u(i)ām* had yielded *-uīm* before the raising of **a* in front of *u*. Finally, the preposition *auui* provides a terminus ante quem, because it shows that the change of intervocalic **-β-* to *-uu-* is more recent than **au* > *-əuu-*.

§ 17 Avestan *āu*

Avestan *āu* can represent Ilr. **-āu(-)*, Ilr. **-āu(a)-* in front of a nasal, *u*-epenthesis on **ā*, and the sequence *-ā + u-* at the compound or word boundary. These origins will be discussed in the given order below. There is quite some vacillation in the mss. between *āu* and *ao*.

§ 17.1 **-āu*

The regular reflex of final **-āu* is Av. *-āu*. It is attested in the loc.sg. forms OAv. *vaṅhāu*, *xratā* (for **xratāu*⁴⁵³), *pərətā* (for **pərətāu*), YAv. *vaṅhāu*, and in the nom.sg.m.f. *hāu* ‘that one’.

There are no formal equivalents to the Skt. ending *-au* < **-āu* in the nom.du.m.f. of *a*-stems and consonant stems. Kellens 1974a: 331-333 has shown that all the instances of YAv. *-ō* which were regarded as acc.du. forms by Bartholomae 1904 actually represent the *a*-stem acc.pl., the *a*-stem nom.sg. or a consonant stem acc.pl.

§ 17.2 Avestan *-āuš*

The ending *-āuš* < Ilr. **-āuš* is regularly found in the 3s. aor. inj. *xšnāuš* (Y 46.1, 46.13, 51.12), in the nom.sg. *gāuš* ‘cow’ and *hiṭhāuš* ‘companion’, and in the nom.sg. of the compounds *darəgō.bāzāuš*, *uyra.bāzāuš*, *uzbāzāuš* and *aš.bāzāuš*, which have *bāzu-* ‘arm’ as a second member. For the nom.sg. *zaēnāuš* (V 14.9) I refer to De Vaan 2000a: 528ff., where I have proposed that it represents **zaēnuš*.

In the gen.sg. of *u*-stems, no forms in **-āuš* can be reconstructed, and all the forms which are spelled with *-āuš* in Geldner’s edition represent the Ilr. ending **-auš* > *-aoš*. Many manuscripts still spell *-aoš* in part of the forms, which enabled Narten 1969: 242 to explain the spelling *-āuš* next to *-aoš* as a late variant which could arise due to their similar pronunciation in the recitation of the texts.

Bartholomae 1904 already corrected part of Geldner’s *-āuš*-forms into *-aoš*, viz. *ərəzāuš* (Y 51.13), *gāuš* (Y 10.14), *mərəθiāuš* (Y 53.8), *yāuš* (Y 43.13) and *hudānāuš* (Y 44.9, 50.9, 64.5), while Narten 1969: 230ff. has

⁴⁵³ We often find *ā* spelled instead of *āu* in the mss. This is usually attributed to the graphic similarity of both sequences (*ā* is {**𐬀**}, *āu* is {**𐬀𐬎**}), but similarity in pronunciation seems to have played a role as well. This is indicated by the occasional interchange between *ā* and *āō*, which cannot be explained from graphic confusion.

added the remaining forms *gaēθāuš* (Yt 14.11), *gaēsāuš* (Yt 13.61), *garənāušca* (Yt 13.131), *jažāuš* (V 13.16), *disāuš* (V 13.47), *bāzāuš* (Yt 13.136), *vaēsāuš* (V 13.44, 13.46), and *vīzāuš* (V 13.16).

§ 17.3 Avestan *-āun-* and *-āum-*

The sequence *-āun-* may represent IIr. **-āun-* or **-āuan-*. We find only two stems with **-āun-*:

- *ašauuan-* ‘righteous’ (to Skt. *ṛtāvan-*): gen.pl. *ašāunam*, dat.sg. OAv. *ašāunē*, OAv. *ašāunaēcā*, gen.abl.sg. OAv. *ašāunō*.
- *vāunuš* (Y 28.8) ‘loving’ (nom.sg.m.). The best analysis has been provided by Kümmel 2000: 662, who regards the form as a reduplicated *u*-stem adj. **vāun-u-* of the type *mamnu-*. Such adj. are usually derived from the perfect paradigm, which would point to a verbal paradigm **vāuuan-*, **vā-un-* ‘to love, to long for’. This would perfectly match Skt. *vāván-* ‘id.’, with the reflex **ā* from the preform **Hua-Huan-*.

In a few cases, we must correct Geldner’s reading *āun* to *aon* (< **-aun-* or **-auan-*) on the strength of the ms. evidence. For the Yasna, the manuscripts of the IrPY are the most reliable ones, being the only class which systematically distinguishes *āu* from *ao*. This fact was observed by Bartholomae 1906: 222³ for the manuscript Pt4, and confirmed for the whole group by Tichy 1986: 98. A short vowel **-aun-* may be restored for the archetype in the following forms:

- *ašauuan-*: nom.sg.f. OAv. ⁺*ašāonī*, acc.pl.m. OAv. ⁺*ašāonō*. These restorations for Geldner’s forms *ašāunī* and *ašāunō* had been suggested by Bartholomae 1904: 246ff., and were confirmed by Tichy 1986: 100. She explains them as the first case forms in which the weak stem **ártā-un-* was replaced by **árta-un-* on the model of the strong cases in **árta-uān-*; this replacement has been completed in YAv., where we only find forms in *ašāon-*.
- ⁺*kərənaon* (Y 30.9, ^xYt 10.51) for Geldner’s *kərənāun*, 3p. prs.subj.act. **kṛnauan* ‘they make’ to *kar-*. The restoration is based on the spelling ^o*aon* in the mss. Mf4.Pt4 and J2.K5 in Y 30.9, and furthermore on the impossibility of a preform **kṛnāuan*, cf. Kellens 1984: 171.
- ^x*daoŋta* and *adaoŋta* (V 19.45) for Geldner’s *dāuŋta* and *adāuŋta*, 3p. impf. and inj.med. of *dauua-* ‘to talk’; compare Kellens 1984: 235. All the three ms. classes have the spelling *-āun-*.
- ^x*baon* (Yt 19.72) for *bāun*, 3p. prs.inj.act. **bauan* to *bauua-*.

• ⁺*magaonō* (Y 33.7) for *magāunō*, acc.pl.m. of *magauuan-* ‘adherent’ (Skt. *maghāvan-* ‘liberal patron’). The reading *magaonō* is preserved in Mf1, S1 and Mf2.Jp1.K4, against *magāunō* in Mf4 and J3 and *magānō* in J2.K5. V 17.7, a quotation of Y 33.7, shows the same corruption *magānō* for *magaonō* in the mss. M13.B1, which are copies of K1.

The only form in *-āum* which certainly contains **ā* is the voc.sg. *ašāum* of *ašauuan-* ‘truthful’ (cf. § 4.4), since it is attested many times; we may reconstruct **ašāuan* > **ašāuən* > **ašāuun* > **ašāuum* (labial assimilation) > *ašāum*.

The acc.sg. ending *-āum* in the forms *pərəsāum* (V 8.54-9.20 9x) and *nasāum* (V 5.5-8.97 13x) of the stems *pərəsu-* ‘rib’ and *nasu-* ‘corpse’ may contain a lengthened grade suffix **-āu-*, but as I have argued in De Vaan 2000a: 523ff., it is also possible that these acc.sg. forms have adopted the ending *-āum* from *ašāum*, especially since *pərəsāum* and *nasāum* are often found in the vicinity of *ašāum*.

Pərəsāum and *nasāum* would then have undergone the same corruption of **-aom* to *-āum* which we can observe in the compound *frādat.fšu-*, where Geldner’s acc.sg. *frādat.fšāum* (Y 2.4, 6.3, 7.3, 59.3) was corrected to *frādat.fšaom* by Bartholomae 1904: 1014. We may consider the same correction to ^o*aom* for the hapaxes *arənāum* (Y 9.22), *asəṅgō.gāum* (Yt 19.43) (^o*gaom* already proposed by Bartholomae), *garəmāum* (V 1.18) and *gāum* (V 1.4).

This scribal error of *-āum* for *-aom* is matched by the same mistake in the inlaut of a few forms. The 1s. present verb form *stāumi* (Y 43.8) ‘I praise’ may be compared with its Skt. counterpart *stāumi* < **stāumi*, but in the Avestan mss., the long diphthong is attested only in the IrVS: *staomī* Pt4.Mf1.4 · *staomi* J2, *staomē* K5 · *staomī* S1 · *stāumī* Jp1.K4.Mf2 · *staomī* L1 · *staomī* J6.7.L13. As the 3s. form is *staoiti* ‘he praises’, it seems more natural to assume that the IrVS spelling *stāumī* in Y 43.8 is an accident, and that the genuine Avestan form was *staomī* ‘I praise’. The ordinal **nauama-* ‘ninth’ is attested in the expected form *naoma-* in the Yašts, but in the Vīdēvdād, Geldner edits it as *nāuma-*. Yet the IrVS still spells *naōma-* in most instances (cf. De Vaan 2000a: 524), so that *nāuma-* can be dismissed as a recent text corruption.

§ 17.4 Avestan *-āur-*

The grapheme *āur* may represent IIr. **-āur-*, *u*-epenthesis on **-ār-*, and the graphic merger of *-ā ur-*; all these cases of **ā* are discussed in the first

subsection. The second subsection addresses the words in which *-āur-* seems to be a recent corruption of earlier **-aor-*.

§ 17.4.1 IIr. **-ā-*

The only three forms which continue a PAv. sequence **-āu-* are OAv. *vāurāite*, *vāurāiia* and *vāurōimaidī*, 3s. subj.med., 1s. opt.med. and 1p. opt.med. of a reduplicated, thematic stem *vāura-*. It is important to note that *vāura-* is attested without v.ll. *vao(u)r^o* in all three instances; therefore, it is very unlikely that *vāur^o* is a recent corruption of a form **vao^o* in the archetype. The analysis of this stem is disputed. Whereas Insler 1975: 126 and Beekes 1988: 181 regard it as a reduplicated aorist to ¹*var-* ‘to cover, lock in’ < **Huar-*⁴⁵⁴ (which they translate as ‘to convert’), Kellens 1984: 195 and 1995: 50 regards *vāura-* as an intensive present to the said root. Hoffmann-Forssman 1996: 184 opt for a reduplicated present to ²*var-* ‘to choose’ < IIr. **uarH-*. All authors admit having doubts about the certainty of their analysis. Since the long reduplication can only be explained from a laryngeal-initial root, we may prefer the root ¹*var-* < **Huar-*; this also ties in with the fact that all forms of *vāura-* are middle forms. The reduplicated formation can be reconstructed as IIr. **Hua-Hur-a-*, which implies that the reflex *vāura-* must be explained from the full grade **Hua-Huar-* > **vāuar-*; from here, *vā^o* was shipped into the zero grade (thus already Hoffmann-Forssman 1996: 184). The question remains, which kind of verbal stem we are dealing with. An intensive is unlikely, because we would expect full reduplication †*Huar-Huar-a-* (cf. Schaefer 1994: 25, 28). Since thematic reduplicated aorists are very rare in Avestan, one may prefer to analyze *vāura-* as reduplicated present⁴⁵⁵.

A graphic merger of a word ending in *-ā* with one beginning with *ur-* has taken place in *frāurusta-* (Yt 18.6) and *frāurusti* (E 2), which suggest **frā.urusta/i-* in the archetype.

It is possible that the PN *pāuruua-* (Yt 5.61) is cognate with the Skt. hero *Paurá-* (cf. Mayrhofer 1979: I/69), so that both may go back to IIr. **pāur(u)a-*. The name has no etymology.

⁴⁵⁴ For this reconstruction of the root cf. Kümmel 2000: 458 and Lubotsky 2000: 317.

⁴⁵⁵ In view of the two facts that (1) ¹*var-* already has a nasal present *vərənao-/vərənu-*, and that (2) the root has a perfect formation *vāvar-/vavr-* in Vedic which is missing in Avestan, it is tempting to regard the Avestan prs. *vāura-* as a continuation of the IIr. perfect.

Avestan *āur* is the result of *u*-epenthesis on **ā* in the forms:

- *jiyāurum* (Yt 10.141, 19.42, Y 62.5), *jayāurum* (Yt 19.39) < **ja-γāru-* ‘watchful’. It is not certain that the pf.ptc. *jayāuruuah-* ‘awake’ (Yt 10.7ff., Ny 1.6) has the same root vowel *-ā-* as *jayāuru-*, although both words seem to be interchangeable in identical contexts. As Kellens 1984: 402 has argued, *jayāuruuah-* is spelled with *-γāur-* in the IrKA mss. in Ny 1.6 and 2.11, but in Yt 10.7ff., the spelling *-a(o)ur-* of the older mss. (F1.Pt1) is clearly in the process of being replaced by *-āur-* in the mss. which have copied them; this replacement belongs to a tendency of some of the mss., which is discussed in the next subsection.
- *dāuru* ‘(piece of) wood’ (V 8.1, 13.30f.), cf. Skt. *dāru-*.

§ 17.4.2 The spelling *-āur-* for **-aor-* or **-aur-*

Forms with this corruption on the compound boundary in (part of) the mss. have been discussed in § 5.2.1.5: *auuā.urūraoda* (Y 1.21) for **auuaorūraoda*, *auuāurusta* (Y 71.18) for **auuaorusta*, *ašāuruuaḍa-* (Yt 13.116) for **ašaoruuaḍa-* < **aša-ruaḍa-*, and *daiḡhāuruuaēsa-* (Vr 3.3, G 4.8) for **daḡhaoruuaēsa-*. This error is also sporadically found in inlaut, e.g. in *jayāuruuāḡhəm* (Ny 1.6), spelled *jayā.uruu°* in F1, *jayāuruu°* in E1.Pt1 and *jiyāuruu°* in F2.K36.J9.H2, but with the original short vowel as *jayour°* in L12 and as *jayāōuruu°* in the IrKA mss. Mf3.K18a.

§ 17.5 *āu* as a corruption

The form *vōiḡnāuuiō* (Y 68.13) must be read as *+vōiḡnāuuiō*, and Yt 16.3 *nāuuiā*⁴⁵⁶ may be corrected to *nāuuiia*, ins.sg. of **nāuīa-* ‘navigable’. Yt 8.33 *frašāupaieiti*⁴⁵⁷ must be corrected to *+frašāuuiieiti*, compare Panaino 1990: 120. The same error of writing *p* for *uu* is also found in Yt 8.9 *frašāuuiieiti*, but here it is only J10 which spells *frašāpaiieti*.

The adj. *xšaodri-* ‘liquid’ (for the meaning see § 3.7.2.1) occurs with *-ao-* in the gen.pl. V 16.7 *xšaodrinəm*⁴⁵⁸, but the two gen.pl. forms in N 66 and

⁴⁵⁶ V.II. *nāuuiia* Jm4, *nāuuiia* O3 · *nāuuiia* J10, *nāuuiia* F1.E1.K16, *nāuuiia* Pt1.L18.

⁴⁵⁷ V.II. F1.Pt1.E1 *frašāupaieiti* · J10 *frasā. p°*.

⁴⁵⁸ V.II. K1 *xšaod°*, L4 *xšāud°* · Jp1.Mf2 *xšōd°* · L1 *xšaod°*, L2.Br1.Dh1.K10 *xraod°*.

67 have only *-āu-*: N 66 *xšāudrəm* in both mss., N 67 *xšāudrinəm* in TD and *xšāudrinəm* in HJ. In N 64, Waag (1941: 69) edits *xšāudriqm zaodṛqm* (4x) ‘a liquid libation’, but we must probably assume **xšāodrīm* (acc.sg. to *xšāodri-*) or **xšāodrqm* (acc.sg.f. to *xšāodra-*) or even **xšudrqm* (acc.sg.f. to *xšudra-*). The mss. have the following spellings: 1st time TD *xšā/urunəm*, HJ *xšāudrəm*; 2nd time TD *xšadrəm*, HJ *xšādrəm*; 3d time TD *xšadrəm*, HJ *xšaudrim*; 4th time HJ *xšudrim*.

If V 15.49f. *bāuzdri* is the feminine of a noun **baozdar-*, cognate with Skt. *boddhar-* ‘one who comprehends’, we may emend it to **baozdri* as per Bartholomae 1904: 920. The analysis of V 7.55 *nāuiti*⁴⁵⁹ is unclear to me.

⁴⁵⁹ V.II. *nāuiti* K1.M14, *nāiuaitē* L4a.P10, *nāuuaitē* Pt2 (a correction of *nāiuaitē*) · *nāiūiti* Mf2, *nāūite* Jp1 · *nāiuūita* Br1.L2, *nāiuūiti* K10, *nāuuīta* Dh1, *nāiuūita* L1, *nāuuaiīda* M2, *nāuuāita* B2, *nāuuīda* L3, *nāuuaiīta* O2.P1.

VI. AVESTAN $\overset{\circ}{a}$, q , $\overset{\check{}}{e}$, $\overset{\check{}}{o}$, $\overset{\check{}}{\partial}$

§ 18 Avestan $\overset{\circ}{a}$

The form of the letter $\overset{\circ}{a}$ in the Avestan alphabet shows that it was designed as a ligature of Avestan \bar{a} and ə , which probably implies that the sound value of $\overset{\circ}{a}$ lay between $[\bar{a}]$ and $[\text{ə}]$. If we assume a pronunciation $[\text{a:}]$ for \bar{a} , we may suggest a more retracted vowel $[\text{ɑ:}]$ for $\overset{\circ}{a}$ (cf. Hoffmann-Forssman 1996: 44). Since the vowel $\overset{\circ}{a}$ is only attested in a couple of words in the ms. Pd (cf. Hoffmann-Narten 1989: 31), I agree with Beekes 1988 passim and 1999: 63 that there is no opposition between the signs $\overset{\circ}{a}$ and \bar{a} , and that we could therefore opt to spell only $\overset{\circ}{a}$ henceforth. Yet the transliteration $\overset{\circ}{a}$ has the advantage of conveying the graphic resemblance (in Avestan script) to \bar{a} , which explains the interchange between $\overset{\circ}{a}$ and \bar{a} in some forms and manuscripts.

The letter $\overset{\circ}{a}$ hardly has any variants in the mss., apart from \bar{a} , which has already been discussed à propos *aməšā spəntā* in § 5.1. Av. $\overset{\circ}{a}$ sometimes appears as the diphthong $\overset{\circ}{au}$, due to the close graphic resemblance of $\overset{\circ}{a}$ and $\overset{\circ}{au}$: $\overset{\circ}{a}$ consist of $\bar{a} + \text{ə}$, $\overset{\circ}{au}$ has the form $\bar{a} + u$; and both ə and u are written half under, half over the line. Examples of such mistakes are Y 7.24 *išāntī*, spelled *išāumī* in J3, Yt 8.5 *tacānti*, spelled *tacāunti* in L18.P13, and Yt 8.54 *xā* as in J10 and K15, whereas F1+ spell *xāu*. The reverse replacement of $\overset{\circ}{au}$ by $\overset{\circ}{a}$ appears for instance in the OAv. spellings *pərətā* for *pərətāu* and *xratā* for *xratāu*, cf. Kellens-Pirart 1988-91 I: 49.

§ 18.1 The evidence

In inlaut, $\overset{\circ}{a}$ reflects $\overset{\circ}{a}$ in front of nk , nc , nt ⁴⁶⁰ and $\text{nh}/\text{ñh}/\text{ñ}^h$. There are no exceptions to this rule⁴⁶¹, so that we shall provide only a few examples of the evidence: *niiānc-* ‘downward’ < $\overset{\circ}{a}$ **ni-ānc-*, the 3p. subj.act. ending *-ānti* of thematic verbs, the gen.sg. *māñhō* of *māh-* ‘moon’, the stem $\overset{\circ}{a}$ *ñharəna-* ‘for food’ < $\overset{\circ}{a}$ **ñharəna-*, and the 2sg. subj.med. ending *-āñhe* of thematic verbs. The only, uncertain example in front of nk is Yt 19.3 *f(r)āñkauuō*, nom.pl. of a mountain name; for the possible reading *frāñkauuō* instead of Geldner’s *fāñkauuō* and for a possible etymology, see Hintze 1994: 79.

The change of \bar{a} to $\overset{\circ}{a}$ in front of ñT and ñh cannot be dated, but the fact that \bar{a} is never restored in the verbal endings (e.g. 3pl.subj. *-ānti* next to 3s.

⁴⁶⁰ The only exception is Vn 80 *gərəftaiiānti*, which must be due to the poor ms. attestation of this text.

⁴⁶¹ Y 12.3 *ā-ziiāienīm* is irrelevant because it represents original $\overset{\circ}{a}$ **ziiēnīm*; for the rise of $\overset{\circ}{a}$ from copying errors in the course of the ms. tradition, see Hoffmann 1969.

-āiti, 1pl. -āmahi/-āma, etc.) suggests that the change has happened relatively recently.

In auslaut, Avestan $\overset{\circ}{a}$ is the regular reflex of PIr. $*\overset{\circ}{a}h$. There are no exceptions. Wherever $-h$ is preserved (in front of \check{i} and \check{u}), a preceding $*\overset{\circ}{a}$ is also preserved, e.g. *māhiia-*, *uruuarāhu*, *gaēθāhuua*, *āhūiriia-*. Since the change of $*\overset{\circ}{a}h$ to $\overset{\circ}{a}$ is conditioned by $*-h$, it may well have been contemporaneous with $*ah > \overset{\circ}{a}$.

In the forms *hudābiiō* (Y 4.4) and *hudābiiō* (34.13), originally word-final $\overset{\circ}{a}$ appears in inlaut. We may assume with Kuiper 1967: 105f. that this stem has analogically introduced the form of the nom.sg. into the dat.abl.pl. form: $*hudāz-biāh$ was replaced by $*hudāh.biāh$. It is impossible to say at which stage the nom.sg. form was introduced ($*hudāh$, $*hudāh$ or $*hudā$); hence the exact place in the relative chronology remains uncertain.

Avestan $\overset{\circ}{a}$ surfaces in one more environment, viz. in the position before word-final $-s$ followed by enclitic $-cā$, $-cī$ or a syntactically closely connected word in initial dental. Examples are many: *manāasca*, *uruuarāasca*, *dāasca*, etc. The fact that Avestan $\overset{\circ}{a}$ is always preserved as such in the sequences $-\overset{\circ}{a}st-$, $-\overset{\circ}{a}sn-$ or $-\overset{\circ}{a}sV-$ proves that the forms in $-\overset{\circ}{a}s-$ are not due to a phonetic development, but to the analogical replacement of $*-\overset{\circ}{a}asca$ etc. by $-\overset{\circ}{a}asca$ etc. This replacement has occurred across all morphological categories, wherever we posit an original form in $*-\overset{\circ}{a}asca$ beside a simple form in $-\overset{\circ}{a}$: in the acc.pl. of $\overset{\circ}{a}$ -stems, the nom.acc.pl. of ah -stems (*manāasca*), the nom.sg. of root-nouns (*māasca*), the nom.sg. forms of $(tā)t$ -stems (*aməratatāscā*, *karapōtāscā*, *kəuuītāscā*, *hauruuāscā*) and the secondary 2s. ending of verbs in $-\overset{\circ}{a}$ (*dāasca*). The sequence $-\overset{\circ}{a}sc-$ simply does not survive in our texts.

Similarly, wherever word-final $*-s$ has been preserved in front of initial $t-$, we find $-\overset{\circ}{a}st-$, viz. in the forms *aijḥāsə.tanuūō* (Y 9.19), *imāsə.tē* (Y 10.18, V 17.9), *imāsə.tūmcī* (Y 10.19), *dāstū* (Y 28.7), *napāsə.tā* (Yt 8.34), *vīspāsə.tā* (Yt 8.43), *x' aēpaiθiiāsə.tanuūō* (Yt 10.23), *aošarḥaiθiiāsə.tanuūō* (V 4.50ff.), *hauuāiiāsə.tanuūō* (V 10.5), and *anakāsə.tāiiiš* (E 6, N 63) ($*an-ākās$ 'not openly'). In this category, the preservation (or restoration?) of $*-s$ was limited to such syntagms in which the word in $*-\overset{\circ}{a}st$ and the following word in $t-$ were united by a close syntactic link, viz. mainly a pronoun or an adjective + a noun (*aijḥāsə.tanuūō* etc.) or a (pro)noun + an enclitic (*imāsə.tē*), but also in the aphorism *anākāsə.tāiiiš* 'when secretly, [he is] a thief'. Other syntagms reflect the padapāṭha development $*-\overset{\circ}{a}st t- > *-\overset{\circ}{a}h t- > \overset{\circ}{a} t-$, e.g. Yt 1.10 *ṭbaēšā tauruūaiiō*, Yt 5.61 *vəṛəθrajā taxmō*, Yt 5.82 *duždā təmaṇuhā*, Yt 8.8 *pairikā titaraieiti*, Yt 13.33 *yā taxmā*, Yt 13.76 *yā taḍa*, etc. Original $-\overset{\circ}{a}st-$ is only preserved in one form, viz. in OAv. *ākāstəng* (Y 50.2)

from **ākās* ‘openly’ + **tanh* ‘them’. Apparently, this form was opaque already to the redactors who undertook the replacement of *ā* in *-āsca* etc. by *ā̇* (Hoffmann-Forssman 1996: 112).

It seems obvious that the replacement of **-ās-* by *-ā̇s-* was motivated by the wish to have the same vowel in the simple form in *-ā̇* as in the sandhi form in *-s-*; in fact, we will find a very similar replacement of the ending **-qasca* by *-ā̇sca* on the model of the ending *-ā̇* in the acc.pl. forms of *a*-stems, see § 23.6.2.5. Since the other forms of the paradigm of e.g. *ā*-stems did not possess *-ā̇* but rather *-ā-*, the analogical leveling was based on the nom.sg. proportion: *napā̇* vs. **napāsca* became **napā̇* vs. *napā̇sca*.

The dependance of the retention of **-s* on a close syntactic link with the following word, which we find in Avestan, seems to have been an Ir. phenomenon. Skt. also shows instances of the retention of word-final sounds in sandhi, depending on the syntactic relation. This was observed e.g. by Oldenberg (1888: 472): "Bei einer Reihe satzphonetischer Erscheinungen des Veda zeigt es sich, dass derselbe Auslaut vor demselben Anlaut des nächsten Wortes verschiedene Gestalten annimmt je nachdem die Verbindung eine engere oder eine losere ist." Much of the evidence for the reflexes of final **-s* in Skt. has been assembled by Hale 1990: 81ff. One example of the retention of final **-s* in Skt. is in front of the postposition *pāri*, i.e. in a position of ‘close’ sandhi: *aṣṭāu putrāso āditer / yé jātās tanvās pāri* ‘eight are the sons of Aditi, who were born from her body’; this sentence may be directly compared to the Avestan forms. The retention of **-s* does not always apply if there is close sandhi, but the reverse is exceptionless, just like in Avestan: if there is no close sandhi, we always find *-h*: *mā no mārtasya durmatīh pāri ṣṭhāt* ‘may bad-thinking of man not stand in our way’ (Hale 1990: 83).

Furthermore, we may point to the striking fact that **-s* is only preserved in Avestan sandhi across word boundaries if the following consonant is a dental. Apart from the forms in *-ās t-* enumerated above, we may add YAv. *kasə θβqm ... hunūta* ‘who pressed you?’ (Y 9), *yasə θβā ... frāiiazāite* ‘who prays to you’ (Y 62.1), *yasə tauua ... kərənaoṭ tacarə* ‘who has prepared your way’ (Yt 5.90), *yasə tē ... baxšaite* ‘whoever partakes of you’ (Y 10.13), *yasə taxmō kauua vištāspō* ‘who (is) the strong Kavi Vištāspa’ (Yt 19.87), and others. As is summarized by Hale 1990: 88, Skt. has a similar distribution of variants: before *p-* and *k-*, a preceding word in **-s* usually ends in *-h* (except for the exceptional close sandhi contexts as with *pāri*), but before *t-*, **-s* always yields *-s*. Thus, in both languages a following dental is more likely to trigger sandhi *-s* (in Skt. always, in Av. in close syntactic connection) than a following labial or velar (in Skt. in close syntactic connection, in Avestan never).

Hale explains Skt. *-s* in front of *t-* from an underlying visarga **-h̄*, but in view of the close Avestan parallel, it is also conceivable that Avestan and Sanskrit simply have a — phonetically trivial — shared tendency to preserve **-s* in sandhi with a following dental obstruent, for a longer time than in front of labials or velars. In that case, Skt. *-s* in front of *t-* would continue Iir. **-s* unchanged, instead of having shared the first stage of weakening which led to *-h̄* in front of labials and velars.

§ 18.2 Relative chronology

The analogical replacement of **-āsc-* and **-āst-* by *-ās-* must at least be dated after the canonization of OAv., judging by the relic form *ākāstāng* in OAv. Furthermore, the replacement must of course be dated after the development of **-āh > -ā* in word-final position, which was probably contemporaneous with **-əh > -ə*. On the other hand, I would be hesitant to date the replacement of **-ās-* by *-ās-* after the period of the living YAv. language: it applies across the board in all susceptible forms, but it is restricted to those morphological forms where it really does occur beside a regular form without clitics in *-ā̇*. The absence of any ‘wrongly’ inserted *-ās-* suggests that it must have been applied by people who had a perfect command of the YAv. grammar.

§ 19 Avestan *q*

Avestan *q* in the first place derives from Iir. **a* and **ā* in the position before a nasal plus a fricative or *h*. In the second place, *q* may reflect **a* in front of a sequence *-nm-*, especially in OAv. (Hoffmann-Forsman 1996: 66); but the archetype still had *-anm-*. The third source of Avestan *q* is Iir. **ā* in front of word-final *-n* or *-m*. There is also a post-archetype tendency to spell *-qn-* and *-qm-* for *-ān-* and *-ām-* in open syllable in inlaut.

§ 19.1 **-āN-* plus a fricative or *h*

In front of a fricative, there is no way to distinguish between Iir. **-an-* and **-am-*. Since Iir. probably had an automatic distribution of the nasals (*m* in front of labials, *n* in front of dentals and palatals and velars), this presents no additional etymological problems. The following exhaustive list of forms presents the evidence per etymological sequence.

In front of *-x-*, we find the forms *qxnah-* ‘rein’ < **ank-nah-* ‘bending’ (cf. *aka-* ‘hook’, *anku-* ‘hook’) and the derived PN *qxnarḥa-*, the noun **qxma(n)-* ‘bent arm’ < **ank-ma(n)-* which occurs in the compound *qxmō.frānō.masah-*, the adj. *ahaxšta-* ‘innumerable’ < **a-sam-kčHta-* to Skt. *kṣā-*, Av. *xsā-* ‘to watch’ (thus EWAia I: 420; yet preserved zero grade of an Av. verb in *-ā* is very rare) and *raḥšiiant-* ‘defiant’ (thus Gershevitch 1959: 181), lit. ‘who will be stout’ < **rang-šia-*, future present to Av. *rəṇja-* ‘to be stout’ (Kellens 1984: 161, Werba 1997: 224; Skt. *raṃh-* ‘to run’). V 4.10 PTr. *dqdraxti* occurs in the gloss *nərəbiiō hō dqdraxti* which is translated by Jamasp 1907: 112 as ‘it takes hold of men’. It is connected with the root *dranj-* ‘to confirm, to attach; to recite’ (cf. Kellens 1995a: 32). The form *dqdraxti* is evidently corrupt, since **-and-* does not normally yield *-qd-*.

In front of *-γ-*, we find Yt 17.11 *qymō.paiδiš* ‘with straps on her feet’. Bartholomae 1904: 358 assumes that *γ* in this word stands for the guttural nasal [ŋ] as in YAv. *mərəγənte*, but this is unwarranted since we would expect a spelling †*qymō*. We must assume that *qymō* is based on **anyma*, just like *qxma(n)-* goes back to **anxma(n)-*. Thus, the root from which *qymō* is derived is not **ank-* ‘to bend’ as in the forms in *qxm-*, *qxn-* discussed above, but **ang-* as attested in Skt. *āṅga-* ‘limb’, Av. *aṅušta-* ‘finger’. This implies that Iir. **-nkm-* and **-ngm-* yielded **-nxm-* and **-nym-*, before **-n-* was lost with nasalization of the preceding vowel.

In front of *-θ-*, Av. *-q-* is attested with the suffix **-t^ha-* (*zqθa-*, *anazqθa-* to *zan-*), with derivatives in **-iā-* from stems in *-(n)t-* (mainly in oblique cases in **-ant_i-* of a f. ptc. or adj. in *-antī-*, viz. *dauuaintī-*, *druuaintī-*, *pataintī-*, *bauuaintī-*, *būšiiaintī-*, *raḥšiiaintī-*; also *pascqiθīia-* ‘from behind’),

and with the suffixes *-tua- (*jaθβa-*, *jaθβō.tara-*, *maθβa-*, *vaθβā-*, *vaθβiia-*, *scqθβa-*, *haozqθβa-*) and *-tra- (*maθra-*, *maθrān-*, *paiti.ajqθra-* ‘return’, *taθra-* ‘darkness’, *taθriia-* ‘dark’, *taθriiāuuant-*). The etymology of *xnaθaitī-* (V 1.9, 19.5) is unknown.

In front of *-f-*, we find *jafnu-* ‘depth, valley’ < **ǰamb^hnu-*, cf. Skt. *gámbhan-* ‘depth, bottom’. A root **tramp-* ‘to satisfy’, related to Ilr. **tarp-* as attested in Skt. *tr̥pāti*, *tr̥pnoti*, forms the basis for the noun *θraqp-* ‘contentment’ (Kellens 1974c: 193f.) and the adj. *θraqθda-* ‘satisfied’ < **tramp-l^ha-*.

The etymology of V 19.43 *duždafθdrā-* is uncertain. It occurs in *iθiiejō maršaonəm zauruuā duždafθdrō kərənaoiti*, in which *iθiiejah-* *maršauuan-* ‘abandonment which brings about forgetfulness’ (cf. Skt. *durmārṣa-* ‘unforgettable’) represents a well known combination. These words form part of an enumeration of *daēvas*, which are all described by two words: *daēuuō inδrō* ‘the *daēva* Indra’, *ziiqm daēuuō.dātəm* ‘the *daēva*-created winter’, etc., including *iθiiejō maršaonəm*. The three words *zauruuā duždafθdrō kərənaoiti*, which include a verb form, seem intruders within this enumeration; maybe they have been inserted in the text more recently, as a comment on *iθiiejō maršaonəm*. In fact, this was assumed by Benveniste (1932-33: 179f.). Bartholomae 1904: 905 separated *duždafθdrō* into *duždq fθdrō* and translated *zauruuā duždq fθdrō kərənaoiti* as ‘das Alter, (das) die Väter unverständig macht’. He assumed *duždq* to be an acc.pl. of *duždāh-* ‘maleficent’, a frequent epithet of *daēvas*. This translation was independently rejected by Benveniste (loc.cit.) and Bailey (1931: 597f.), who posit a noun *duš* + **dam-θra-* ‘with bad breathing’ derived from the root *dam-* ‘to blow, breathe’, compare Pahl. *daftan*, *dam-* ‘id.’. Benveniste translates *duždafθdrō* as a relative sentence ‘qui respire difficilement’ (but there is no relative pronoun); Bailey translates ‘old age makes short of breath’. They assume an otherwise unattested anaptyxis between *m* and *θ* in **dam^fθra-*. Two other problems are the incorrect ending *-ō* (although this is a minor problem, since V 19.43 in general presents corrupt grammar), and the use of *kar-*. The meaning ‘to make X into Y’ is usually expressed by the verb *dā-* in Avestan, not by *kar-*; this objection also applies to Bartholomae’s solution.

We must first of all connect V 19.43 with V 19.1f. *iθiiejō maršaonəm dauuažā*, as it is written in Geldner’s edition. This time we find *iθiiejah-* *maršauuan-* with only one word following. The v.ll. for the third word vacillate: in 19.1 the PV has *duždā* (L4.K1), the IrVS *dauuažā* (Jp1.Mf2), and the InVS has *daožā* (L2.Br1.K10), *dužā* (Dh1.O2.B2.L3) and *duždā* (L1); in 19.2, all mss. except L1 *duždā* have *dauuažā* (PV, IrVS) or *daožā*, *dužā* (InVS). All mss. agree on *-ā*, which is the regular ending of the nom.acc.sg.n. of *duždāh-* ‘maleficent’, an acceptable epithet for *iθiiejō maršaonəm*. This

renders it likely that V 19.43 contains *iθiiejō maršaonəm, zauruua *duždā*, in which the last word corrupted to *duždq*. The remaining words *fədrō kərənaoiti* will represent the comment by later redactors on *zauruua *duždā* ‘maleficent old age’.

Since a connection of *fədrō* with Av. *pitar-* does not make sense, we may try to interpret *fədrō* as a transposition of an original Pahlavī word in Avestan, i.e. the Pahlavī letters were assumed to represent Avestan script⁴⁶². The Phl. word for ‘aged’ is *pīr*. The spelling {𐭎𐭕} *pīr* may have been interpreted as a pronunciation *fḍr*, since Pahlavī uses the same letter for *p* and *f*, and another letter for *g*, *d* and *y/ī*. Thus, *fədrō kərənaoiti* may be an ‘avesticization’ of earlier MP *pīr kunēd* ‘it makes old’, a gloss of *zauruua *duždā*.

The forms with *q* in front of *-s-* are the most numerous category. In word-internal position, evidence is provided by the nouns *qsa-* ‘part’ (Skt. *ámśa-*), *qsu-* ‘twig, stalk’ (Skt. *amśú-* ‘the Soma-plant’), *qsta-* ‘evil, hatred’ (to *aṅra-* ‘hostile’, Skt. *asrá-* ‘painful’), *vaziiqstra-* ‘loath to be loaded’, *kaqstra-* ‘spade’ (Skt. *khaníttra-* ‘spade’; but Av. *kaqstra-* must go back to **kant-tra-*), *tiži.dqstra-* ‘with sharp teeth’ (Skt. *dámśtra-* ‘fang’), *karətō.dqsu-* ‘with knives as teeth’, *tiži.dqsura-* ‘sharply biting’ (Skt. *dámśuka-*), *dastuuā-* ‘knowledge’, *qasta-* ‘skin’ (if to *pāman-* ‘scabies’, Pašto *pam*, Morgenstierne 1927: 57), *qasnu-* ‘dust’, *usqasnu-* PN, *qasnuuqnt-* ‘dusty’ (Skt. *pāmsú-* ‘dust’, possibly < Ir. **pānc-nu-*) and *sqstrāi* ‘to announce’ (cf. Skt. *śámstar-* ‘who recites’).

Among the verb forms are included the stems *duuqsa-* ‘to smoke’ (caus. *duuqnaiia-*), *nqsa-* (aor. to *nas-* ‘to disappear’ < **na-nc-a-*), *nənās-/nqs-* (pf. to *nas-* ‘to disappear’), and the inj. forms *mqsta* (*s*-aorist to *man-*), *amqsta* (root- or *s*-aor. to *manθ-*) and *sqstā* (to *saṇd-*).

The reflex *-qs-* is also found in derivatives in *-ta-*, *-tara-*, *-tāt-* and *-təma-* from the participial suffix *-qnt-*, which implies a development Ir. **-ant^t- > -qst-*: *aifinasqstəma-*, *iriθiiqstāt-*, *uxšiiqstāt-*, *tauruuuiqstəma-*, *θβiiqstəma-*, *bərəjiiqstəma-*, *būšiiqsta-*, *nərəfsqstāt-*, *vərəθrajaqstara-*, *vərəθrajaqstəma-*, *vīsqstəma-*, *vīsqsta-*, and *rasqstāt-*⁴⁶³.

In auslaut, we find the sequence *-qs* first of all in verb forms where it represents **-ānst*: OAv. 3s. prs.inj.act. *didqs* < **di-dans-t* ‘taught’, 3s.

⁴⁶² As in the word *Vendīdād* for *Vīdēvdād*; another example is F 199 *mešu*, originally the PTr. *myšk /mēšag/* of *maēsmā* ‘piss’, cf. Bartholomae 1904: 1108 and Klingenschmitt 1968: x.

⁴⁶³ Y 1.14, to *rāsant-* (Y 52.1,3).

aor.inj.act. *vqs* < **uān-s-t* ‘won’, *sqs* ‘appeared’ (IIr. **ścānd-s-t* to *śand-*). In these forms, the sequence *-*st* developed into *-*s* after the PIr. change of word-final *-*s* > *-*h* had taken place.

Most of the evidence for -*qs* in auslaut is provided by the nom.sg.m. form of ptc., numerals and adj. in -*ant-*, which goes back to IIr. *-*ants*:

- OAv. *adqs*, *išaiiqs*, *išasqs*, *xšaiiqs*, *juuqs*, *θβāuuqs*, *dauuqs*, *pərəsqs*, *mraocqs*, *yāsqs*, *saošiiqs*, *šiiqs*, *hqs*.
- YAv. *xšaiiqs* (Y 21), *cuuqs* ‘how much’ (Y 19, 20), *θrisqs* ‘30’, *fšuiiqs* (Y 11, 19, Yt 13, V 5, 13, 14), *viiqs* (Yt 13.35), *sašqs* (Y 19), *saošiiqs* (Yt 13.129, V 19.5), *hauuqs* (V 8.31f.).

This participial ending presents a problem, since YAv. also has nom.sg.m. forms in -*q* of the same *ant*-stems, e.g. *jaiδiiq* ‘asking’. The co-occurrence of two different endings induced Schindler 1982: 202 to regard the YAv. forms in -*qs* as loan words from OAv., but to my mind, this is impossible. Firstly, only two YAv. stems are matched by OAv. counterparts (viz. *xšaiiqs* and *saošiiqs*); secondly, the YAv. numeral *θrisqs* is an isolated formation next to the participles and adjectives. Thirdly, even if -*qs* were OAv., this would not explain why final -*s* was retained, cf. below.

The co-occurrence of -*q* and -*qs* suggests that one of them is due to analogical restoration. The ending -*q* represents the phonetic outcome of *-*anh* < *-*ans* < *-*ants*, due to the fact that *-*ts* had become *-*s* before the Iranian change *-*s* > -*h* (cf. Schindler 1982: 193 and § 23.6.2 below); since the latter sound change took place in or before the PAv. stage, -*qs* cannot be an OAv. characteristic. The ending -*qs* must be due to restoration of the stem suffix *-*ant-* after the sound law *-*ts* > *-*s* (cf. Beekes 1988: 102)⁴⁶⁴. Nearly all

⁴⁶⁴ The chronology of the sound laws (1) *-*ts* > *-*s*, (2) *-*s* > *-*h* is confirmed by the concurring nom.sg.m. participial ending -*ō*, e.g. in *dadō* ‘giving’ < **dadats* < **d^ha-d^hH-nt-s*, as was shown by Schindler 1982: 199. The form *napā* < **napāts* confirms this chronology for cases in which *-*ts* is preceded by **ā*. This chronology implies that the nom.sg. ending -*s* which we find in various types of *t*-stems and *nt*-stems must also be due to restoration of the suffix, just like in the case of -*qs* versus -*q* (cf. Schindler 1982: 194, last paragraph, and Beekes 1988: 102, bottom). The evidence comprises the *nt*-stems *stauuas* (4x in OAv.) ‘praising’ (< **stau-at-s*) and *vīspā.hišas* (Y 45.4) ‘all observing’, the *tāt*-stems *auuaētās* (Y 31.20) ‘wailing’, *amərətātās* (Y 57.24) ‘immortality’, *ūθō.tās* (V 6.10) ‘fat’, *kahrkatās* (V 18.15) ‘cock’, *pourutās* (Y 62.10, V 18.27) ‘multitude’, *hauruuatās* (Y 33.8, 57.24) ‘health’, the root nouns *ābarəs* (N 77) ‘who brings’ and *ašauua.xšnus* (Yt 13.63) ‘who satisfies the righteous’, and the noun *kūiris* (V 14.9) ‘gorget’.

of the forms in *-qs* belong to stems with a clearly recognizable suffix **-ant-*, so that restoration is quite conceivable⁴⁶⁵.

There is an incongruity in the relative frequency of the *qs*-forms in OAv. and YAv., which points to a different scope of the analogical restoration in OAv. and YAv. Whereas *all* relevant *ant*-stem nom.sg.m. forms have *-qs* in OAv., nine out of seventeen YAv. *ant*-stem nom.sg.m. forms show the unrestored ending: YAv. *γənaq*, *auua.dərənaq*, *jaidiiq*, *apuiiq*, **amaršq*, *framrū*, *viiusq*, *apašauuq*, *hq* (collected by Schindler 1982: 208). Of these forms, we must accept *hq* ‘being’ and *framrū* ‘speaking’ as genuine evidence for **-anh* > *-q/*-ā*, because *framrū* is attested several times, and *hq* cannot be explained otherwise. For the alleged participle Yt 19.84 **apašauuq*, cf. § 23.6.2.3. The form *jaidiiq* occurs only in V 3.1 in a passage together with *framrū*: *vaca framrū miθrəmca vouru.gaoiiaoitīm jaidiiq rāmaca x’āstrəm* ‘Sprüche aufsagend, den Miθra mit weiten Triften bittend und Rāma mit guter Weide’ (translation Schindler 1982: 189). It seems possible that the ending of *framrū* caused the retention of **-anh* in *jaidiiq*. The forms *amaršā* and *apuiiq* occur in F 220 *buuaṭ vīspō aṅhuš astuuā azarəsō amaršq aff[r]idiio apaiiq* ‘the whole material world will be unaging, indelible, not falling apart, not becoming filthy’. Schindler 1982: 209 has rightly pointed to the fact that the interchange between the endings *-ō* and *-q* for the nom.sg. of the participles in this passage is strange, and may point to recent redactional interference with the text. Nevertheless, we cannot ascribe *-q* to contextual analogy: it may well be original. This leaves the three forms *γənaq* ‘slaying’, *auua.dərənaq* ‘cutting off’ and *viiusq* ‘shining forth’, all three of which are attested in connection with the verb form *sadaieiti* ‘seems’, cf. Kuiper 1939: 51ff. and Schindler 1982: 188.

In conclusion, we may say that the nom.sg.m. ending **-anh* was partly preserved (yielding YAv. *-q*), and partly restored to **-an(t)s* (yielding Av. *-qs*); this restoration took place in all OAv. forms. It is possible that the difference between OAv. and YAv. is due to a linguistic difference (the ending having been restored in Proto-OAv. *before* it was canonized by YAv. speakers), but this is uncertain. It seems less likely, although not completely inconceivable, that the YAv. transmitters changed all OAv. endings analogically but left several of the endings **-anh* in their own language unchanged.

⁴⁶⁵ The only exception is Y 9.31 *mqs* in *aṅhā daēnaiiā mqs vaca dadānahe* ‘who has the words of this religion in mind’. Here, we must assume that *mqs* is the relatively recent result of the use of **maq-dadāna-* ‘keeping in mind’ in tmesis. A PAv. split form **manh ... dadāna-* would have yielded †*mā ... dadāna-*, cf. OAv. *mān(g) ... dā-* (§ 23.6.2.1).

The observations made with regard to the ending *-qs* in YAv. and OAv. lead us to assume the following relative chronology of connected sound changes:

1. Ir. **(n)ts* > **(n)s*.
2. Analogical restoration of suffixes **-ant-*, **-tāt-*, **-t-* in the nom.sg.
3. **(n)s* > PIr. **(n)h*.
4. **-st* > *-s*, **-ts* > *-s*.
5. **-āns* > *-qs*.

The etymology of **kqsa-* in the mountain name Yt 19.3 *kqsō.tafəδra-*, and of the adj. *kqsaoiia-*, is unclear. The form Yt 14.11 *vakqsaoš* in *uštrahe kəhrpa vadairiiaoš vakqsaoš* ‘in the shape of a rutting camel, a v. one’ must be the gen.sg. of an *u*-stem, but it has many v.ll.: F1.E1.K16.L11 *vakqsaoš*, Pt1.Jm4.O3 *vakqm.saoš* · J10 *vadqn.šōiš* · K36 *dadqm.sōiš*, K38.M4.M12 *dadqn.sōiš*. Pirart 1999: 481 proposes to restore **vidqsaoš*, gen.sg. of **vī.dqsu-* ‘gnawing, who tears to pieces by biting’ (or, alternatively, ‘having its teeth apart’), which may be compared with the compound *karətō.dqsu-*. The original form would have changed *d-* (not *δ*) to *k-* in the Indian mss., and *vī°* to *va°* under the influence of *vadairiiaoš*. I regard Aog 57 *sqsəuuišta-* as a case of dittography for **səuuišta* rather than as the reflex of a sequence **ćam ćaiišta-*. The forms *qsašutā* (Y 48.1) and *nišqsiīā* (50.2) have an unclear etymology.

In front of *-z-*, we find *q-* in *qzah-* ‘constriction, narrowness; peril’ and the derived compound *anqzah-*, in OAv. *dəbqzah-* ‘support’ = YAv. *bqzah-* ‘thickness, support’, OAv. *dəbqza-* = YAv. *bqza-* ‘to support’ < PIr. **dbanž-* (cf. § 22.8), in *mqzaraiia-* < **mamj^ha-*, and in YAv. *mqzdra-* ‘wise’, OAv. *mqzdazdūm* < **mans-d^haH-*.

Avestan *-qš-* continues **-anš-* in *tqšiiāh-* ‘braver’ (comparative **tanc-ia^h-* to the superl. *tañcišta-* ‘bravest’), in *bqšnu-* ‘thickness’ (< **banj-nu-* to *bqzah-* etc.), *frqštā* (ind.aor. **fra-nć-ta* to *nas-*) and *frqšti-* ‘the reaching’. For a discussion of the forms *nərqš*, *mātərqš* and *mərqšiiāt*, which contain **-rnš-*, see § 24.5.

Avestan *-qš* continues **-ānš* in the nom.sg.m. **-ānkš* of several directional adj. in *-ank-*, cf. Hoffmann-Forssman 1996: 72. The forms concerned are *apqš*, **usqš* (Aog 60; cf. Schmitt 1968: 138), *paiti.yqš*, *parqš*, *frqš*, **niiqš* (Aog 60) and *zairiiqš*.

For *mərqšdiiāi*, cf. § 24.5; E 13 *dqždrəm* is uncertain as to form and meaning.

In front of *-h*, **-an-* is attested in many forms in PIr. **-anh*; this ending yields *(*)-q(m,n)* in auslaut, which will be discussed in § 23.6.2. In front of *-hi-/-hii-*, we find *-q-* in *dqhišta-* ‘most learned’ (Skt. *dám̐siṣṭha-*) and *zqhiia-* (< **zan-sia-*, future to *zan-*). It is important that **-anhā-* does not yield a sequence †*-qhā-* but rather *-aḡhā-*, as in *saḡha-*, cf. Skt. *śám̐sa-*; this implies that the change of **-anhi-* > *-qhi-* post-dates that of **-anha-* > *-aḡha-*.

In front of **-r-*, we expect the preservation of *a*, as in the form F 138 ⁺*namra.vāxš* ‘softly speaking’ (attested as *namnra.vāxš* in the mss.). The other examples of a sequence of vowel plus **-mr-* in Avestan are *āmrū-*, *frāmrū-*, *nimru-*, etc., i.e. forms in which the morpheme boundary between preverb and verb impeded the loss of **m*, so that these forms are inconclusive. The preservation of **-anr-* as in *aipi.duuḡnara-* (see below) suggests that **-amr-* should be reflected as *-amr-*. Yet the adj. *rqrəma-* ‘reassuring, calming down’ in Yt 13.29 and 13.40 must be derived from an intensive **ramram-* to the root *ram-* ‘to be calm’, which would suggest that **-amr-* has developed into *-qr-* here. We might follow Bartholomae 1894-5: 172, who assumed that *rqrəma-* was formed on the model of verbs with an initial fricative, where *q* develops regularly; yet this explanation seems somewhat hazardous to me. Alternatively, we may propose that **ramrama-* developed into **ranrəma-* (by dissimilation of the two *m*’s), whence **rqrəma-* in the archetype, because a cluster *-nr-* was unknown.

In Yt 13.40, *rqrəma-* occurs as a simplex, whereas in Yt 13.29 *darəγō.rqrōmanō* ‘calming down for a long time’, I assume that original **daryā.rqramā* has adopted the ending of the preceding compound *vərəzi.cašmanō*. This is supported by the spelling *rqrō.manō* in the IrKA mss. Mf3.K13.38 and J10.H5, with the original separation point which was lost from F1; this *rqrō.manō* reflects a pre-RCS form **rqrāmanō*. In view of the preservation as one word in 13.40 *rqrəmə*, the adoption of *-manō* in 13.29 probably preceded the RCS. The change of **-am-* > *-əm-* in non-initial syllable (*rqrəmə* < **rqrāmā*) must have followed *after* the RCS.

The YAv. sequence edited as *vīspaiiā sqaṭca ašaonō stōiš* by Geldner and interpreted as ⁺*vīspaiiāsə.caṭca ašaonō stōiš* by Bartholomae 1904: 580 was rightly restored to ⁺*vīspaiiāsca ašaonō stōiš* ‘and of the whole truthful creation’ by Hintze 2000: 271, who brings all the relevant arguments. The same sequence *vīspaiiāsca ašaonō stōiš* was already known from Y 55.3. This means that we may strike the entry “^očaṭ” from Bartholomae (loc.cit.), since the only other alleged occurrence, viz. Vr 8.1 ⁺*frāiiəbīšcaṭca aḡmāt*, must reflect ⁺*frāiiəbīšciṭca aḡmāt* ‘and even more than that’. For this passage, the spelling ^o*ciṭca* is preserved by F11.

§ 19.2 *-anm-

In OAv. and YAv., the sequence *-anm- (and *-ānm- ?) is spelled as -qnm- in various good mss., but we also find -aṇm-, in agreement with the development of *-an- in front of stops. The most economic interpretation is to assume -aṇm- for the archetype, which was changed to -qnm- in the later pronunciation due to the nasalizing influence of -nm- on preceding *a; nasalization now being a characteristic of the vowel *a*, the following **n* was perceived as normal *n*.

In OAv., the evidence consists of forms continuing IIr. *-anm-: qnman- 'soul, spirit' < *HanHman 'breath', xšqnmānē 'to listen' (< *xšan-manai Beekes 1988: 199), duuqṇman- 'cloud' (< *d^huanHman-), friiqṇmahī 'we satisfy' (Y 38.4) and huuqṇmahicā 'we propel / provide with' (Y 35.5).

The latter two verb forms present a problem. The expected forms would be *pri-nH-masi > Av. †frinmahī and *su-nH-masi > †hunmahī. As for the context, there is no difference between Y 38.4 friiqṇmahī and the attestations of frīna-. The form friiqṇmahī is deviant by being the only athematic form of frīn- in Avestan, and by being the only form in Vedic and Avestan which does not show *prīn-. In YAv., the 1p. is attested as frīnāmahi. Hoffmann 1958: 13 assumed that -iiq- serves "lediglich zum graphischen Ausdruck für ein von -nm- sekundär nasaliertes i." Such a development would be unique, and is very unlikely. Lubotsky 1981: 81 has proposed that -qn- in friiqṇmahī and huuqṇmahī represents the vocalization of IIr. **n̥* in the position before *m*: *priH_{n̥}masi > PIr. *friHanmahī. In view of the original IIr. form *pri-nH-masi, the more recent structure *priH-*n̥*-masi can be explained from the introduction of the root form *priH-, which we also find in the other present forms of frīna-, cf. § 6.4.

YAv. -nm- can also be the result of *-dm-. Bartholomae 1904: 1577 writes "ich nehme jetzt an, dass ir. *dm* im jAw. allgemein zu *nm* geworden ist." Four forms are relevant to this problem, viz. dāδmainiia- (V 14.5, 18.73), dṇmahī (Y 68.1) / dadəmahī (Y 4,13,24 passim, Y 55), gəṛəδmahī (Y 62.11, Vr 17.1, 21.1f.) and šanman- (Yt 10.24).

Y 68.1 dṇmahī⁴⁶⁶ < *dadmahī 'we put' seems to be the regular YAv. form, since the form dadəmahī is only attested in OAv. and pseudo-OAv. text parts, and must be based on the OAv. forms in the YH. The 1p. gəṛəδmahī

⁴⁶⁶ V.II. Y 68.1 dṇmahī Pt4.Mf1 · dṇmahe J2, dṇmahe K5 · daṇmahe Jp1.K4.F11 · dṇmahī O2.P1, dā.mahī L1.B2.S2, dṇmahe L2.Dh1, dāmahe L3 · dā.mahī Jm1.K11, dāmahī H1.J7.

for expected **gərənmahi* (to *gar-* ‘to greet’, 3s. *gərənte*) has been explained by Kellens 1984: 178 as a falsely Gathicized form, on the model of the alternation between OAv. *dm* and YAv. *nm* which exists e.g. in OAv. *dəmāna-*, YAv. *nmāna-* ‘house’. If this is correct, it would prove that **dm* had become YAv. *-nm-* in inlaut, and we could date this change to the period when the texts were still understood although not alive anymore. There seems to exist reasonable agreement among scholars that Yt 10.24 *šanman-*⁴⁶⁷ ‘sharp point of an arrow’ may be connected with Skt. *kṣādman-* ‘knife’ (cf. Humbach 1960: 26 and Henning 1964), so that it would show the same sound shift⁴⁶⁸. It is uncertain whether the adj. *dāδmainiia-* ‘inflating itself’ is a real exception, since its etymology is uncertain (see § 3.7.1 above). Being a reduplicated form, we can easily imagine that a sequence *dāδm^o* was restored after the operation of the sound law **δm* > *nm*.

§ 19.3 Prevocalic and word-final **āN*

Ir. **ā* has become *-q-* in front of *n* and *m*, in inlaut when *n* or *m* are intervocalic, and in final syllable. This *q* thus differs from the *q* seen in the preceding sections: the nasal consonant did not disappear, and the only vowel affected is **ā*.

§ 19.3.1 In auslaut

There are no exceptions to the rule that **ā* yields *q* in front of *-n#* and *-m#*. In front of *-n*, the evidence comprises the nom.acc.pl.n. forms of (*m*)*an-*stems, and the 3p.subj.act. of thematic verb stems in *-a*. In front of *-m*, the main categories are the acc.sg. of *ā*-stem nouns *-qm*, the gen.pl. endings *-qm*, *-anqm*, *-inqm* and *-unqm*, the 1s. secondary ending act. *-qm*, the 1s.sec.opt. ending *-iiqm*, the 3s.sec.ipv. ending *-tqm* and the 3p. *-ntqm*. Among the isolated forms, I mention the personal pronouns (acc.) *mqm* and *θβqm*, and the endingless loc.sg. *dqm* of *dam-* ‘house’.

⁴⁶⁷ V.II. F1.Pt1.MI2 *šanmaōiiō* · J10 *sn moiō* · K12 *-š namnōiiō* · E1.H3.K40 *šnamanōiiō*.

⁴⁶⁸ The change *-δm-* > **-nm-* must post-date the change of **δm* > *θm* which appears e.g. in *uruθman-* ‘growth’ < Ir. **rud^h-man-*.

A particular subgroup is formed by the nom.acc.pl. *-*mān* of *man*-stems, which is often spelled -*mām*, i.e. with assimilation of final *-*n* to the preceding -*m*-. Yet close scrutiny of the forms as they are attested in the mss. reveals that the spelling -*mām* belongs to the Gāthās, whereas in the other texts, -*mān* is either the only reading or the majority reading. In view of the fact that -*mān* must chronologically be the older form, we can assume that the assimilation to -*mām* took place only in the tradition of the Gāthās; on the other hand, there is no reason to date the distinction between YAv. -*mān* and OAv. -*mām* later than the archetype. It must have arisen as a consequence of a separate treatment of the Gāthās in the oral tradition.

Thus, we find the following OAv. forms attested only with -*mām*: *anašmām* (46.17), *cašmām* (50.10), *dāmām* (48.7), *nāmām* (38.4), *varədāmām* (46.16), *rāmām* (Y 29.10, 48.11, 53.8), *šīaomām* (32.3) and *haxēmām* (40.4). We can add that no forms in -*mān* are attested in the Gāthās. In YAv., only one *man*-stem form has -*mām*, viz. V 19.26 *uruθmām*, but this spelling can be attributed to the influence of the surrounding forms in -*qm* in the text: *zqm ahuraδātqm nipāraiianta*, *āpəm tacintqm*, *yauuanqm uruθmām*, *aniiqm hē auuarətqm nipāraiianta*.

The regular YAv. form -*mān* is attested as the only spelling in *carəmān* (N 95), *dāmān* (Y, Yt and KA passim)⁴⁶⁹, *dunmān* (Yt 8.32f., 10.50, 12.23, V 5.17)⁴⁷⁰, *barəsmān* (N 74ff.), and *nāmān* (Y 15.1, Vr 6.1).

For all the YAv. forms with v.ll. -*mān* and -*mām*, the mss. suggest that -*mān* is the original spelling. In the Yasna and the Vīdēvdād, it is especially the InPY and the PV (J2.K5 and L4.K1 respectively; these mss. stem from the same scribe) which are fond of the spelling -*mām*. The forms concerned are *afsmān* (Y 19.16)⁴⁷¹, *gāmān* (V 9.9f.)⁴⁷², *dāmān* (Y 19.12,14, 46.6, V

⁴⁶⁹ Yt 8.43: as in the case of *dunmān*, K15 is the only mss. with °*mām*.

⁴⁷⁰ V.ll. Yt 8.32 *dunmān* F1.Pt1.E1, *dūnmān* L18.P13.J10; only K15 has *dunmām*; Yt 8.33, all mss. °*mān*; V 5.17 M13.B1.M3.P2 *dūmnāca*.

⁴⁷¹ V.ll. *afsmān* Pt4.Mf4.1 · *afsmām* J2.K5 · *afsmān* S1, *aβsmām* J3 · *aβsmān* Mf2.K4 · *afsmān* S2.L1.2 · *aβsmān* H1.Lb2.L13, *aβsmām* K11, *aβsmām* J7.

⁴⁷² V.ll. V 9.9 (1) L4.K1a °*qm*, Pt2 °*qn* · °*qn* Mf2.Jp1 · °*qn* L1.2.P10; (2) L4 °*qn*; V 9.10 L4 °*qn*, K1a °*qm*.

19.37, Vr 11.2)⁴⁷³, *dunmān* (V 5.15)⁴⁷⁴, *nāmān* (Yt 19.6)⁴⁷⁵ and maybe *šāmān* (V 5.51, P8)⁴⁷⁶.

Finally, the tendency to assimilate final *-qn* to a preceding labial may also be the reason for the frequent spelling *uruḍβqm* for the acc.pl. *uruḍβqn* attested in Yt 3.6, V 7.44 and Yt 13.11ff⁴⁷⁷. The v.ll. of V 7.44 clearly show that *-βqm* is a recent development of (again) K1, whereas in Yt 3.6, J10 and the good IrKA ms. K36 have preserved *-βqn*.

It follows that we must restrict the rule which says that PIr. **-n* (but not Av. *-n* < **-nt*) is assimilated to *-m* by a labial consonant in anlaut of the final syllable, as formulated by Hoffmann-Forsman 1996: 109⁴⁷⁸. The voc.sg. forms *ašāum* < **ártauan*, *āḍraom* < **āḍrauan* and *yum* < **yuuan* all have short **ā* in the final syllable, and so does the voc.sg. Yt 19.50 *ḍrizafəm* < **ḍri-zafan*. It now appears that **ā* impeded this change, probably because *ā* was a more open vowel than (**a* >) *ə*, so that no consonant assimilation could take place.

⁴⁷³ V.ll. Y 19.12 *dāmān* Pt4.Mf4, °*qm* Mf1 · °*qm* K5 · °*qn* S1.J3 · °*qm* Mf2.K4 · °*qn* L1.2.Bb1 · °*qn* L13, °*qm* J6.7; 19.14 °*qn* Mf4, °*qm* Pt4.Mf1 · °*qm* J2.K5 · °*qn* S1.J3 · °*qm* Mf2.K4 · °*qn* L1.2 · °*qn* J7.H1, °*qm* J6.K11; L13 has corrected *dāmān* pr.m. to °*qn*; Y 46.6 °*qm* Mf4.1 · °*qm* J2.K5 · °*qn* S1.J3 · °*qm* Mf2.Jp1.K4 · °*qn* L1.2.3.Jm3, °*qm* B2.O2.S2 · °*qm* J6.7.K11; V 19.37 L4.K1 °*qm* · Mf2.Jp1 °*qn* · L1.2.Br1 °*qn*; Vr 11.2 K7a °*qn* · H1 °*qn* · Br1 °*qn*, L2.S2 °*q* · F11 °*qn*, Kh1 °*qm* · Jp1 °*qn*, K4 °*qm*, Mf2 °*qmn*.

⁴⁷⁴ V.ll. *dunmānca* Pt2, *dūnmānca* M13.4.B1.M3.P2 · *dunmānca* Mf2.Jp1 · *dūnmānca* L1.2.M2.O2. Here, only the PV mss. descending from K1 have innovated.

⁴⁷⁵ V.ll. *nāmān* F1.E1 (in both mss. *n* struck out) J18.D; *āmān* Pt1.L18.K12.N107.B27.R115.J10; *nāmān* M12.

⁴⁷⁶ If with Bartholomae 1904: 1708 *šāma-* ‘sip’; v.ll. *šāmān* L4a.Pt2.M14, *šāmān* K1 · *šaōmān* Mf2, *šōmān* Jp1 · *šāmān* L1.2.Br1. P 8 *šamān* for **šāmān*.

⁴⁷⁷ V.ll. V 7.44 *uruḍβqn* L4a.Pt2, °*qm* K1, *uruuadqm* P10 · *uruḍβqn* Mf2.Jp1 · °*qn* L2.3.Br1; Yt 3.6 °*qn* K36.40.M12.J10; °*qm* Jm4.F1.E1.K18a.12.Mb1.M35; *uruuadβqm* Pt1.P13.L18.K19.O3; Yt 13.11ff. *uruḍβqmca* F1+.J10 · °*qasca* K13.14.Mf3; °*mca* is lectio diff. in the context.

⁴⁷⁸ Beekes remarks (1999: 67) that all the forms with final *-n* may have restored it because of paradigmatic analogy. This is possible in theory, but one might counter that the paradigms of *ašauuan-*, *āḍrauan-*, *yuuan-* and *ḍrizafan-* would also have given the opportunity to restore **-n*.

§ 19.3.2 In inlaut

The reflex of prevocalic **-āN-* as *-qN-* bears the mark of a phonetic tendency which made itself felt during the period of ms. copying, but which does not allow projection backwards into the archetype. The majority of forms retains Avestan **-ān-* as *-ān-* and **-ām-* as *-ām-*.

The spelling *-qn-* never occurs in front of the vowels *ǎ*, *ǝ* and *ĩ*, which may suggest that *q* had a less fronted realization than *ā*. Furthermore, it seems that the Indian mss. of the InSY and the YS spell *-ān-* sometimes where the Iranian mss. spell *-qn-*, which may suggest that the tendency to realize **-ān-* as *-qn-* is especially Iranian. This can be exemplified with the acc.sg. **uruuānəm* (28.1.4), which Geldner edited as *uruuānəm* in both cases. Bartholomae 1904: 1538 regards *uruuqnəm* as the better variant; in 28.1, it occurs in Pt4.Mf1.4.Pd (the IrPY), in 28.4 in addition to these mss. also K5 and S1.J3.

The sequence *-qn-* furthermore appears in Geldner's edition in the forms *uruuqnō* (Y 16.7, 19.15, 33.9, 45.2, 49.11), *kuxšnuuqnāi* (Yt 8.49), *xqniā* (nom.pl.f. of *xqniia-*, Y 68.8, Yt 8.41), *γəṇqəṇqmca*⁴⁷⁹ (gen.pl. of *γəṇā-* 'woman'), *γəṇqṇā*⁴⁸⁰ (acc.pl.), *jəṇaiiō* (V 7.59), *darəšuuqnō* (Yt 8.5), *uzduuqnaiiat* (Yt 5.61), *bəṇaiiən* (Y 30.6), *naotairiiqnō* (Yt 5.76), *maidiiqna-*, *masqṇā* (Vyt 7), *məṇaiiən* passim, *məṇaiiāt* (FrDk), *γqnahe* (Yt 16.6, against *yānəm*, *yānāiš* passim), and *rəṇaiiā* (31.19⁴⁸¹).

According to Bartholomae 1894-5: 172 and Reichelt 1909: 75, the sequence **-āmr-* has turned into **-ānr-* whence *-qnar-* in the form *məṇarōiš* (Y 48.10) and *aiپی.duuqnara-* 'overcast, misty' (Yt 11.4). Yet above we have argued that Avestan *-m-* is retained in **-amr-*. Bartholomae suggests that only long vowels underwent nasalization in front of **-mr-*, but this assumption is unlikely in view of the parallel nasalization of e.g. **-anš-* and *-ānš-*. Since *aiپی.duuqnara-* is better derived from the root *duuan-* 'to fly', and since *-nar-* in these forms can be explained from anaptyxis in **-nr-* (see § 25.4), we may

⁴⁷⁹ V.II. Y 1.6 *γəṇqəṇqmca* Pt4, °qn° Mf4.1 · °qn° J2.K5 · °ān° J3 · °qn° Mf2.K4 · °ān° C1; Y 3.8 Pt4 °ān°, Mf4 °ən°, Mf1 °qn° · °qn° J2.K5 · Mf3 °qn°; Y 7.8 Pt4.Mf4 °ān° · J2 °qn°, K5 °qn° · K38 °qn°; Y 13.1 °qn° Pt4, °qn° Mf4.1 · °qn° J2.K5 · °ān° S1 · °qn° Mf2 · °qn° Bb1, °ān° O2 · °qn° K11+ (YS); Yt 2.5 °qn° Jm4 · °ān° F1.Pt1.L11, °ān° Mb1; Vr 1.5 °qn° K7a.Mf2.Jp1.K4.Kh1, °ān° L27, °an° F11, °an° H1.Pt3.L1.3.O2; G 4.2 °ān° O3.L11.Lb1.K19, °qn° Mb1, °ān° Pt1.L18.

⁴⁸⁰ V.II. Yt 10.27 F1+ *γəṇqṇā* · J10 *gainānā* · K40 *yanānā*, H4 °γnānā.

⁴⁸¹ V.II. Mf4.J2.S1 *rəṇ°*, J3.L3 *rān°*.

reconstruct earlier **duuq̄nra-* and **maq̄nrōiš*. The sequence *-q̄n-* in front of a resonant may go back to **-an-* (e.g. OAv. *duuq̄nman*), so that the reconstructions **duuā̄nra-* and **mā̄nrōiš* are possible. For *duuq̄nara-* ‘cloudy’, **duuanra-* would be more in line with the expected word formation (full grade, not lengthened grade of the root). The etymology of *maq̄nrōiš* is unknown.

If we assume that **-ān-* can only become *-q̄n-* in open syllable, we must assume the chronology 1. anaptyxis **duuanra-* > **duuanara-*, 2. lengthening in initial open syllable after a labial **duuanara-* > **duuānara-*, 3. the tendency to realize **-āna-* as *-q̄na-*. If we assume that *-nr-* behaves like *-nm-*, the chronology 1. **duuanra-* > **duuq̄nra-*, 2. **duuq̄nra-* > *duuq̄nara-* must be followed.

In the case of **-ām-*, we can similarly observe that *-ām-* has been preserved in most of the forms. The spelling *-q̄m-* starts to appear especially in the more ‘learned’ Iranian mss., and with highest frequency in disyllables of the structure *Cq̄mV#*. Unlike *-q̄n-*, *-q̄m-* occurs especially often in front of *i*. The attested forms are *xštq̄mi* (in V 1.14 *xštq̄mi.caṭca*), *dadq̄mi* (Y passim), *dāma* (Yt 6.2, V passim, but e.g. *dāmaq̄n*, *dāmanō*, *dāmanq̄m*, *dāmabiiō*), *dāmi-* (Y 31.7, 44.4, 45.7 *dāmiš*⁴⁸², 34.10 *dāmīm*⁴⁸³, Yt 1.25 *dāmi*⁴⁸⁴, but e.g. *dāmōiš*, *dāmiδātəm*), *pāma* (Yt 8.56⁴⁸⁵), *nāma* (passim, but e.g. *nāmanəm*, *nāmēnī*), *nāmiīqsu-* (‘with pliant twigs’, cf. Schwartz 1989: 114; probably the archetype still read *nāmi.qsuš*, parallel to the preceding *zairi.gaonō*), *nāmištahiiā* (Y 36.2), *hāmina-* and *hāmq̄mō.nāfō* (Vyt 9, but elsewhere *hāmō*).

§ 19.4 Summary

Avestan *q* < **ā̄N* in front of a fricative can be divided into the following three positions: 1. in front of voiceless fricatives which were phonemes already in OAv. (**-anx-*, **-anθ-*, **-amf-*, **-ā̄ns(-)*, **-anz-*, **-anš-*, **-ā̄nš*,

⁴⁸² V.II. 31.7 *dāmiš* Pt4.Mf4.1, J2.K5, S1, Mf2.Jp1.K4, *dāmiš* YS and InVS; 44.4 Mf4, S1 *dāmiš*; 45.7 Pt4, S1.J3, J6.L3 *dāmiš*.

⁴⁸³ V.II. 31.8 *dāmīm* as 31.7 *dāmiš*; 34.10 S1.J3, H1.J6.7.L13, L1.2 *dāmīm*.

⁴⁸⁴ V.II. *dāma* Mf3, *dāmi* Pd · *dāmi* Jm4.O3 · *dāmi* Lb16.J9 · *dāmi* J10.Pt1.E1, *dāmi* P13.L18.K19 · *dāme* and *dāmi* F1.Mb1.L11.

⁴⁸⁵ V.II. F1+ *pāma*, J10.L18.P13 *pāma*.

*-a η hi-), 2. a few times in front of *-anš̌- < *-anci-, 3. once in front of a voiced fricative, viz. *any-. Thus, it appears that nasalization has applied in front of fricatives of different age: the voiceless ones *x*, *θ*, etc. were present in the language from the PAv. stage onwards, but š̌ probably did not arise before the YAv. stage (š̌ii is preserved in the OAv. transmission), and - γ - in *qymō* must be at least as recent as the YAv. lenition of intervocalic and preconsonantal **g* > γ , as in e.g. *aya-* and *γamatəm*.

Of course, a development **aN* > [*ā*] is phonetically so trivial that it might have occurred several times in the course of the Avestan history; nevertheless, to be on the conservative side, I would suggest that it happened only once, which must then be after the changes **cj* > *š̌j and **g* > γ . Note in support of this relatively recent date that there are no compelling reasons to assume an older one: the phonetic distribution is undamaged (i.e. no forms in -*aNC*_[+fric.] remain in the language) and there has been no analogical spread of *q*. The rise of *q* can be dated a little more precisely if we assume that it logically postdates the denasalization of the endings *-ā (< *-anh) and *-rāš̌ (*-rnš̌) to -ā and -rāš̌ (discussed in §§ 23.6.2.2 and 25.5, respectively). Especially the denasalization of *-rāš̌ would be difficult to understand if words in -*qš̌*-, -*qs*-, etc. would have existed next to it.

§ 20 Avestan *e* and *ē*

The vowels *e* and *ē* may continue PIr. **a*, **ā* and **ai*, depending on their position. In auslaut after a consonant, IIr. **ai* yields YAv. *-e*, OAv. *-ē* as described in § 14.1. Final *-e* and *-ē* also derive from IIr. **-iā̃*, which we will discuss in the first two subsections § 20.1 and 20.2 below. There are some unexpected forms in YAv. *-ē*, which require special attention (§ 20.3). In inlaut, the vowel *e* appears only in the case of *i*-mutation of **a* (20.4); *i*-mutation of **ā* is inexistent (20.5).

Finally, we must mention the occurrence of word-internal *-ē-* in the diphthong *aē* < IIr. **ai*. As in the case of *ao* < **au*, the second part of the diphthong has been lowered. In contradistinction to *ao*, we find a long vowel *ē* in *aē*. Morgenstierne 1942: 53 suggested that "long *ē* is intended to denote a greater preponderance of the *e*-element in *aē*, as compared with that of *o* in *ao*."

§ 20.1 **-iā̃*

Word-final **-ia* and **-iā* both yield *-e*; the evidence does not allow to distinguish between **-ia* and **-iā*. The development is absent from OAv., e.g. OAv. *yasnahiiā*, YAv. *yasnahe* < **iasnahiā*. Most of the relevant forms continue **-ia*, but there are a few forms in IIr. **-iā̃*, e.g. *kaine* 'girl' (Skt. *kanyā*), *fraṅrase* (nom.sg. of the PN *fraṅrasiian-*), and the dat.du. *pāḍauue* 'with both feet' (Skt. ending *-bhyām*). Paradigmatic analogy has often led to restoration of the ending with *-ii-*, as in *mainiia* 'I think', nom.pl. *mašiiia*, dat.abl.du. ending *-biia* (cf. dat.abl.pl. *-biiō*).

§ 20.2 YAv. *-he* versus *-fhe* < **-hiā̃*

In a few m. and n. pronominal forms, the same preforms in gen.sg. **-hiā* are reflected as *-ehe* and *-ahe* by one part of the forms, but as *-efhe* and *-afhe* by another part. This presents a problem for the relative chronology: *-ahe* < **-ahia* suggests that **-ie* was simplified to *-e* before **-hi-* could turn into *-fhi-*, whereas forms in *-afhe* seem to demand the reverse chronology.

It therefore becomes attractive to look for a morphological solution, especially since only demonstrative pronouns show *-afhe*, but not the nouns or adjectives, which always have *-ahe*. It seems to me that the co-occurrence within the pronouns is best explained by assuming that the forms in *-afhe* represent a more recent layer of language, in which the older pronominal endings in *-ahe* were analogically replaced by those in *-afhe*. The source for

this replacement can only have been the feminine sg. paradigm of the pronouns (thus Beekes 1999: 66), where *-ŋh-* is the regular result of **h_i* in front of **ā*, e.g. dat.sg.f. *aŋhāi*, gen.sg.f. *aŋhā⁴⁸⁶*, gen.sg.f. *yeŋhā*, and abl.sg.f. *yeŋhāda*. Within the feminine paradigm, *-ŋh-* has spread to the loc.sg. forms *yeŋhe* (**yah_iā*) and *aŋhe* (**ah_iā*), which would have yielded †*yehe* and †*ahe* by sound law. The same replacement of **-h_i-* by *-ŋh-* in the m./n. forms must have been motivated by the wish to distinguish the pronominal endings from those of the nouns and adjectives, which also had *-ah_ia*.

We may now discuss the evidence of the pronouns in which both *-ahe* and *-aŋhe* occur as a gen.sg.m/n. ending. Between the forms *ahe* and *aŋhe*, gen.sg. of *a-* ‘this’, there seems to be a partially complementary distinction in semantics.

The older variant *ahe* is found both as an attributive demonstrative and as an anaphoric pronoun. I find no clear distribution according to text genre or Avesta subdivisions (the two lists below are meant to be exhaustive):

- Attributive: *ahe nmānahe* ‘of this house’ (Y 4ff., V 3.3ff., Vr 11.1), *ahe dušsaŋhahe* ‘of the reviler’ (Y 10.12), *aheca aŋhāuš* ‘of this life’ (Y 57.25, Yt 10.93), *ahe narš* ‘of this man’ (Yt 1, V 3.21ff.), *ahe grauuahē* ‘of this stick’ (V 9.14), *aheca karšuuānā* ‘of this continent’ (Vr 10.1).
- Anaphoric: *ahe manō* ‘his mind’ (Y 10.12), *ahe raiia x^varənaŋhaca* ‘because of his wealth and fortune’, *mānaiiān ahe yaθa* (passim), *ahe yasna* ‘by his prayer’ (Y 57, Yt 11), *ahe paitiārəm* ‘his misfortune’ (V 1), *ahe cidrō daxštō*

⁴⁸⁶ Probably also in Y 57.3 etc. Compare the text

<i>ahe raiia x^varənaŋhaca</i>	‘Because of his wealth and abundance
<i>aŋhe ama vərəθraynaca</i>	because of her force and victoriousness
<i>ahe yasna yazatanəm</i>	because of his prayer to the deities
<i>təm yazāi surunuūata yasna</i>	him I will worship with audible prayer
<i>sraošəm ašīm zaodrābiiō</i>	righteous Sraoša, with libations
<i>ašīmca vaŋuhīm bərəzaitīm</i>	and the good high Aši
<i>nairīmca saŋhəm huraoδəm</i>	and well-shaped Manly Power’.

This introductory stanza is typical for Yašt in praise of a certain deity, e.g. Yt 5 *ahe raiia x^varənaŋhaca təm yazāi surunuūata yasna, arəduuīm sūrəm anāhitəm*. In Y 57, *ahe raiia x^varənaŋhaca* is followed by two subsequent praises; similarly, *sraošəm ašīm*, the deity which is praised in Y 57, is followed by two more lines; therefore, the first three lines refer to the last three lines. Accordingly, *ahe* in the first line refers to *sraoša-* (m.), *ahe* in the third line refers to *nairiia- saŋha-*, and *aŋhe* in the second line refers to *aši-*. Yet *aši-* is a feminine deity (f.adj. *vaŋuhīm bərəzaitīm*), and we must assume an original f. gen.sg. **aŋhā* which was provided with *-e* because of the surrounding forms.

‘a clear sign of this’ (V 1.14), *ahe vacō* ‘his word’ (V 22.13), *ahe vaca* ‘his words’ (Vr 8.1).

The only occurrence for which one might consider petrification of *ahe* is the expression *mānāiēn ahe yaθa* ‘just like’, which developed from the original meaning ‘making one think (*mānāiēn*) of that (*ahe*), how (*yaθa*)’. This is the only case where *ahe* does not refer to any preceding or following constituent in the sentence. Since such a use is unattested for *aṅhe*, one might consider this a proof of the older age of *ahe*. The expression *mānāiēn ahe yaθa* even induced Bartholomae 1904: 280 to set up a separate entry *ahe* ‘particle of assurance’, but this was rightly rejected by Hoffmann-Narten 1989: 55 because this *ahe* is identical to the gen.sg. of *a-*.

In all but one instance, the gen.sg. *aṅhe* is used as an anaphoric pronoun (the list is meant to be exhaustive):

- *ā tē aṅhe fracā stuiiē* (Y 1) ‘and I praise you for this’.
- *yezi tē aṅhe auua.urūraoda yaθ yasnahe vahmaheca* (Y 1) ‘if I have obstructed you in this, namely in praise and veneration’.
- *aṅhe xšadrāda* (Y 9.4) ‘in his reign’.
- *ātaṅ aṅhe ahi aiβiiāstō* (Y 9.26) ‘and with this you are girded’.
- *aētataṅ ... aṅhe auuaiiqm dānmahi* (Y 68.1) ‘this ... we make its exorcism’ (for *auuaiiqm* see § 3.2.2).
- *frā aṅhe vīsaiti miθrō* (Yt 10.46) ‘for him Mithra is prepared’.
- *ciš aṅhe asti baššazō* (Yt 14.34) ‘what is the remedy for this?’.
- *aṅhe haxaiiō frāiieinti* (Yt 19.95) ‘his companions come forward’.
- *disiiāt hē aṅhe auuaṅ mīždām* (A 3.7-12) ‘one should assign such an award to him for this’.
- *aom aṅhe asti uzuuarəzəm* (V 18.37ff.) ‘this is the reparation for this’.
- *kaṅ aṅhe asti paititiš, kaṅ aṅhe asti āpərəitiš* (V 18.68f.) ‘what is the compensation for this, what is the penance for this?’.

There is only one case in which *aṅhe* is used as an attributive demonstrative, viz. in *aṅhe aiiqn* ‘this day’ (Vyt 30, Yt 1.18, 11.5). Here, original **ahe* may have been replaced by *aṅhe* because this expression of time always occurs in combination with *aṅhā xšapō* (f.) ‘this night’.

We may explain the predominance of anaphoric use for *aṅhe* by the fact that anaphoric pronouns occur in (morphological) isolation, just like other pronouns such as personal pronouns. The attributive form *ahe* is always congruent with a noun, and among the nouns the *a*-stem gen.sg. ending *-ahe* was very frequent. The anaphoric form was less protected by its syntactic construction, and was therefore more liable to be attracted by other pronouns. Hence, it adopted *-ṅh-*.

The gen.sg.m. *auuaŋhe* to *auua-* ‘that one’ occurs attributively in *auuaŋhe ašnō* (Y 1,3,4,7,19,22), *auuaŋhe hū* (Y 19) and *auuaŋhe nmānahe* (V 18), while *auuaheca* is only attested in Yt 16.6 *auuaheca paiti yaŋahe*. Thus, we cannot discern a clear functional distribution, but all the attestations of *auuaŋhe* occur in relatively recent texts (the liturgical beginnings of the Yasna, Y 19, V 18), which would at least be in accordance with a possible later origin of *-ŋh-*.

The gen.sg.m. of *ka-* is attested as *kahe* and as *kaŋhe*. In Yt 13.50 and V 19.8, *kahe* is the independent interrogative pronoun ‘whose?’. In Y 61.4, the genitive of the indefinite *ka- ka-* ‘every one’ remarkably appears as *kahe kahiiācī*. The second form has preserved the OAv. sequence *-hii-* (cf. Y 43.7 *kahiiā* ‘whose?’) but it is unclear why, since Y 61 does not otherwise present OAv. phenomena. In Yt 5.101, the gen.sg. of *ka- ka-* is found as *kaŋhe kaŋhe*.

The form *yeŋhē* ‘whose’ is clearly the only living gen.sg.m/n. of the relative pronoun *ya-* in YAv.; it by far outnumbers the rare Yt and V variant *yehe*. *Yehe* looks as if it represents the older form **yahe*, but it seems unlikely that *yehe* ever really existed. The fact that *yeŋhe* is sometimes spelled as *yehe* by individual mss. suggests that *yehe*, where it occurs in Geldner’s text, is only a corruption of *yeŋhe*. It might be due to the occasional loss of nasalization between the two identical vowels *e* in the pronunciation of the transmitters.

Fischer-Ritter 1991: 10f. have claimed that a pronominal gen.sg. *anahe* exists in Y 8.4. The syntactic function of *anahe* in the sentence *aētəm ā yātum anahe jasaiti* ‘he lapses in this magic of it’ is unclear; if it really is a gen.sg. of a pronoun *ana-* ‘that’ (otherwise only attested in the ins.sg. *anā*), it seems that the paradigm is hardly productive anymore in Avestan (cf. Fischer-Ritter loc.cit.). No form †*anaŋhe* is attested.

§ 20.3 YAv. *-ē*

In YAv., final *-ē* is regular only in monosyllables. It is attested in the personal pronouns *mē*, *tē*, *hē* and *šē*. Other forms are corruptions. The form *stē* in Yt 10.106f. (from ungrammatical use of *sti-*, cf. Benveniste 1935: 37) is based on the spelling of F1; Geldner only once provides a v.l. from J10, which is *sti*; nevertheless, if by some means **ste* had originated, this would have been pronounced *-ē* in a monosyllable. In Ny 3.10 and Vyt 6, where Y 34.4 *stōi rapantē ciθra.auuaŋhəm* is quoted, the mss. point to *stē*. For *zəmē* < **jmai*, cf. § 25.6.

The form *bē* occurs only once in V 19.46: *zātō bē yō ašauua zaraθuštrō nmānahe pourušasphe* ‘but/and he was born, the righteous Zarathustra, in the

house of Pourušaspa'. The v.ll. are contradictory: L4.K1 *be* · L2.Br1 *bē* · Mf2 *baēn*, Jp1 *bīn*. In theory, a *t*-less variant **bai* of YAv. *bōit* < **bait*, also a particle 'but, and', is possible, but it would be a hapax. Rather, the original text will have had YAv. *bā* 'indeed', which was replaced in the archetype or later in the ms. tradition by the MP word *bē* (**bait*, just like *bōit*). N 79 *haē* represents **hē*. P *nē* 'not' is not an Avestan word but represents Pahlavī *nē* 'no'.

Another category of words in *-ē* is formed by the pseudo-Gathic text passages and the OAv. quotations in YAv., in which any word in **-e* is spelled with *-ē*. Furthermore, the Vīdēvdād PTr. has many words ending in *-ē* (*yimahē vīuuarḡhanahē, ahē, aetē, maeθəmnahē, bīuakaiiehē, ubjiiāitē, aetahē, pərəsahē, spānahē, kasištahē*) in YAv. texts. This must be a peculiarity of the PV mss.

The remaining YAv. polysyllables in *-ē* all go back to *-e*. In all of them, there is *-ii-* or **i* preceding *-ē*. This was already observed for the verb forms *mruiiē, stuiiē* and **zaozuiiē* by Kellens 1984: 210: "*-ē* est de règle après *-uii-* dissimilé de **-uu-*." This lengthening might be compared with the tendency to lengthen final **-u* to *-ū* after *-ii-*, cf. § 11.2. It seems to me that this lengthening is characteristic of some of the manuscript branches, and does not necessarily go back to the archetype.

Lengthening after *ii* explains Geldner's *aniiē* in Y 10.8 and 19.5⁴⁸⁷ (but J2 *aniiē* in 10.8, S1 in 19.5), Yt 8.11 *duiiē* (against usual and frequent *duiie*; here no v.ll.), Y 19.10 *mruiiē* (*-ē* in J2.K5, K4 and Mf1.Pt4, but *-e* in S1.J3), and Y 62.8 *hašē* (*-ē* in Pt4.Mf1.4, J2, K36, *-ī* in K5, *-ā* in Jp1.K4.Pd.Mf3 and Jm4; this points to *hašē* indeed being the original variant).

The form *sruuie* and its variants must be discussed more extensively. Our text edition shows the forms *sruuie* (V 3.14), *sruuē* (V 7.24,27) and *sraoe* (V 9.41), all of which represent the acc.du. **sruuāi* of *sruuā-* 'horn, nail'. In V 17.2 and 17.4, the acc.du. of *sruuā-*⁴⁸⁸ occurs with enclitic *-ca* protecting the older ending: *sruuāēca*. For the form without *ca*, we would expect *sruuie*, cf. *mruiie* < **mruuāi*. Let us have a look at the v.ll.

⁴⁸⁷ Probably Yt 5.69 *aniiē* (in F1; J10 has *aniiā*) instead of **aniiē* has arisen through an intermediate corruption **aniiē* too.

⁴⁸⁸ The following forms with the meaning 'nail' occur in YAv.: apart from the acc.du. here investigated, they are acc.pl. *sruuā* V 17.9f. and dat.du. *sruuābīia* V 17.7. These point to a stem *sruuā-*. V 19.42 acc.pl. *srauuō* has an ungrammatical ending anyway.

	PV	IrVS	InVS
V 3.14	<i>sruue</i> L4a, <i>sraoe</i> Pt2.B1.M13.P2, <i>sraoē</i> M14, <i>sruie</i> P10	<i>sruuī</i> Jp1.Mf2	<i>sraoi</i> B2.L1.2.Br1.Dh1.K10. O2.M2
V 7.24	<i>sruui</i> Pt2.P2 (s.m.), <i>sraoe</i> K1, <i>sruī</i> P10, <i>sraoi</i> M14	<i>sruuē</i> Jp1, <i>sruuī</i> Mf2	<i>sraōui</i> L1.2.Br1.K10
V 7.27	<i>sruui</i> Pt2.P2 (sec.m.), <i>sraoe</i> K1, <i>sruī</i> P10, <i>sraoē</i> M14	<i>sruuī</i> Jp1.Mf2	<i>sruui</i> K10.L2.Br1, <i>sraoi</i> L1
V 9.41	<i>sruui</i> L4, <i>sraoe</i> K1a	<i>sruuī</i> Jp1.Mf2	<i>sruui</i> L1.2.Br1.K10, <i>sraoi</i> M2

On the basis of this evidence, Bartholomae 1904: 1647 concluded that the three different forms which Geldner put in his text could all be edited as *sruuī*, an athematic dual form < **sruuī*, next to which *sruuaēca* showed the thematic variant. From the table above, it would indeed appear that all the v.ll. can derive from *sruuī*. PV *sruui* would show secondary shortening of final *-ī* in *sruuī*, which would retain the regular lengthening of **-uī* observed in § 7.1.

Yet there is no way to derive such a form from a stem *sruuā-*, and the co-occurrence of two different dual forms **sruuai-ca* and **sruuī* of the same stem *sruuā-*, both attested in the Vīdēvdād, is too implausible. Note that the ending **-ī* in the dual is usually reserved for neuter nouns. We must look for a different solution.

The only other philologically acceptable form would be original *sruue*. This would imply that the ending *-e* was replaced by *-i* in the ancestral ms. of the VS, which is trivial, especially with *paiti* preceding our word⁴⁸⁹. The IrVS went one step further, replacing *-i* by *-ī*⁴⁹⁰.

The original Vīdēvdād form **sruue* can be regarded as a corruption of the expected acc.du. **sruie* of f. *sruuā-* ‘nail’; for other Vīdēvdād-specific corruptions, cf. Humbach 1973: 113f.

⁴⁸⁹ The text in V 3.14 etc. reads *aēšqm paiti sr° aēša druxš yā nasuš upa.duuqsaiti* ‘that Nasu-druj flies towards their nails’.

⁴⁹⁰ This would then be a clear case where the word-final lengthening after *uu* is an innovation of the IrVS mss. Maybe the scribes were aware of the rule discussed in § 7.1?

A similar corruption of *sruie* can be observed in a more incipient stage in the v.ll. of the only acc.du. form of *sruuā-* in the Yašts (Yt 14.7). Whereas *sruie* is preserved in F1+, Pt1+ and M4.L11, the ms. J10 has *sraoiiē*, showing anaptyctic *a* and lengthening of final *-e* (cf. *aniiē*, *duiiē* in some Yasna forms), and K38 (an Iranian ms., just like Mf2.Jp1) *sruii* has replaced *-e* by *-ī*. The spellings found in the Vīdēvdād simply go one step further by assimilating *ii* to the preceding *u*.

§ 20.4 *I*-mutation of **a*

In inlaut, **a* became *e* in Avestan in the position after **i* (also *ʃh*), when the next syllable contained *i*, *ī*, *ii*, *e* or *ē*. Bartholomae 1894-95: 173 adds the specification that the mutation is prevented by intervening *hm*, *uu*, and sometimes by *r*; this was confirmed by Morgenstierne 1942: 41.

There is no certain evidence for the absence of *i*-mutation in front of *r*. The adj. *uzaiieirina-* shows *e* in all its forms, except for the corrupt Nērangestān spelling *uzaiiainam*. The form *fraiare*, which Bartholomae adduced, occurs thrice in the loc.sg. of the adj. *fraiia-* ‘in the morning’, viz. in F 537 *fraiaire*, in Aog. 53 *fraiiaire aiiqn* (thus corrected by Bartholomae 1904: 989; the mss. have *fraiiaēiri* and *fraiiaeirə*), and, as I would assume against Bartholomae’s reading **fraiarəne* and Kotwal-Kreyenbroek’s (1992: 52) **fraiarə*, in E 9 **fraieire*⁴⁹¹. Since late texts such as the E and the Vn frequently show the replacement of *-aiiei-* by *-aiiai-* (in the verb forms, see below), we may assume the same process for Aog 53 and F 537, especially since the actual v.ll. in Aog 53 still show *-e-*. I conclude that F 537, Aog 53 and E continue a loc.sg. **fraieire*; we can remove the entry *fraiarəna-*, which relied only on E 9 *fraiarəna*, from Bartholomae’s dictionary.

The absence of *i*-mutation in front of *hm* and *uu* is proved by *yahmi*, *yahmīa*, *aniiahmāi*, and by *yauue* and *mainiiauue*.

Word-internal **-hia-* surfaces as *-he-* in the f. comparatives *vahehī-* < **vahiahi-* ‘better’ (Y 35.9 *vahehīā*, 39.2, 52.3 *vahehīš*) and *zrahehī-* ‘weaker’

⁴⁹¹ The text reads *fraiarəna vā uzaiiēirine vā *aiiqn* in the mss., i.e. ‘in the morning or in the afternoon of the day’. The PTr. has *PWN pl’y’l/pl’yy’l ’ywp PWN ’w’wzyy’l*. The last adj. is a corruption of usual *’wzylyn*, which must have arisen under the influence of *pl’yy(’)l*. This is MP ‘the day before yesterday’, and will therefore reflect an original Avestan word containing *-e-* in the second syllable. As the same expression (loc.sg. of *fraiia-*) + (gen.sg. of *aiia-*) appears in Aog 53 as **fraieire aiiqn*, we must read **fraieire aiiqn* in E 9.

(P 24 ⁺*zrahehīm*, JamaspAsa-Humbach 1971: 38). Thus, we find *-heh-* in OAv. and in YAv. forms, although a sequence **-ahja-* usually yields **-aṣha-* in YAv. if no mutation occurs, cf. OAv. *vahiiō* ‘better’ < **vahjah* but YAv. *vaṣhō* ‘id.’, and **-aṣhe-* in the case of *i*-mutation, e.g. Y 9.29 *aēnaṣhəiti* ‘he damages’ for **aēnaṣheiti*⁴⁹². The retention of *-h-* points to the OAv. character of the forms in *-heh-*, also of Y 52.3 *vahehīš* and P 24 ⁺*zrahehīm* (for other Pursišnīhā forms which may be OAv. quotations see §§ 3.4.3, 30.4).

In other YAv. forms the sequence *-hiieh-* survives, viz. in the gen.sg. forms *vacahiiehe*, *paitiš.hahiiehe* and others. However, these contain an etymological suffix *-ija-*, so that they may have been pronounced as [*hiie*] when **-hie-* changed to *-he-* in *vaheh-*. In this way, we may assume regular loss of **i* in a sequence **-hieh-* in the post-YAv. period, which could only affect OAv. forms in which **-hi-* had survived and was not pronounced as [*hi*]: *vahehiā*, *vahehīš* and *zrahehīm*.

There is no way to check whether word-internal **ie* became *e* after (*ṣ*)*h* only. After all other consonants, we find *-iie-* preserved, but this is inconclusive, since nearly all of these forms involve a suffix **(i)ia-*, which stood in paradigmatic alternation with **(i)je-* (Beekes 1999: 66 already hints at this):

- In the gen.sg. of nouns formed in *-iia-*: OAv. *vāstriehiā*, YAv. *kairiiehe*, *tištriiehe*, etc. The only seeming exceptions E 6 *aniiahe*, N 52 *a.ḍāitiiahe*, N 53 *dāitiiahe*, Vn 10 *ašiiiahe* are due to the bad mss. in which these texts are preserved; we can restore *aniiehe* etc.
- The gen.pl. *miiezdiṇm* (to *miiezdi-*) may have restored *mii-* from its base noun *miiazda-*. In fact, many of the good mss. spell *miiazdanqm* instead of

⁴⁹² This is the only form with *-ṣhe-* in inlaut, due to the fact that the suffix *-iia-* apparently was not restored here. The spelling of the archetype must have been *aēnaṣhəiti*, cf. Kellens 1984: 209 (to the v.l. of Geldner’s edition we can add Mf4 *aēnaṣhəiti*, which confirms Kellens’ conclusion), but *-əiti* cannot be derived from **-aiti*, **-iīaiti* or **-iieiti* by any known phonetic rule. Therefore, we must assume a special case of dissimilation of **-ṣheiti* to *-ṣhəiti*, i.e. the vowel *e* was centralized because of *ṣh*. As *aēnaṣhəiti* is the only Avestan example of such a sequence, we cannot determine whether this change was a linguistic fact of YAv., or whether it only took place in this specific word as a lapsus of the transmission. Kellens 1984: 209 suggests that Yt 10.20,21 *aṣhiieiti* ‘he throws’ may also represent earlier **aṣhəiti*, but this seems unnecessary. It is more economical to assume that in *aṣhiieiti*, the suffix *-iia-* was restored during YAv. (although the other modes, e.g. inj. *aṣhaṭ* etc., do not show such a restoration; similarly, V 3.20 **barəzaṣhan*).

miiezdinəm. A similar restoration can account for *airiene* (loc.sg.n. of *airiiana-*) and *viiāne* (loc.sg. of *viiāna-*).

- The thematic verb suffix *-iia-* underwent mutation to *-iie-* in front of the active endings *-mi*, *-ni*, *-hi*, *-ti* and *-nti*, and the middle endings *-ne*, *-(ṣ)he*, *-te* and *-nte*, as well as in the infinitives in *-δiiāi* and the abstract nouns in *-ti*. The alternation between these forms and forms without mutation in front of the other endings is usually well preserved, except for some 1s. forms, see below⁴⁹³.

- V 18.26,51 *aošete* ‘talked’ continues **aociatai*. The simplification of **aošiiete* to *aošete* cannot be compared with that of **vahiiehī-* to *vahehī-*, but rather belongs to the much later simplification of **šii* to **š* in YAv (*šii* is preserved in Y 44.11 *vašiietē*). Similarly Yt 5.11 **dražete* < **dražiiete*.

- The 3p. in *-nti* of verbal stems in *-iia-* shows forms in *-iieintī* (e.g. *kiriieintī*; this is the majority) and in *-intī* (e.g. *yazintī*; this is a minority occurring mainly in the Yašts). The evidence has been assembled by Kellens 1984: 215f. As we will see in § 23.5.1.1, the phonetic development **-ant-* > *-ənt-* was undone to *-ant-* in most of the verb forms where it was preceded by *-ii-* (*fšuiiant-* etc.). Forms like *yazintī* < **yazjənti* are evidently among those which escaped this analogical restoration. Therefore, the larger group in *-iieintī* must reflect this restoration, and we deduce that the restoration of **-iiant-* (in verb forms) was anterior to the *i*-mutation.

The only forms which might have phonetically preserved **-iie-* after a consonant are *iḍiiejah-* ‘need’ (Skt. *tyájas-*), *iḍiiejaṣhant-*, *aiḍiiejah-* (< **a-tyajas-*), **aiḍiiejahiia-* and *aiḍiiejaṣhant-*⁴⁹⁴. Here, analogical restoration of *-iia-* seems out of the question. This has led to the opinion that *-j-* is a special conditioning factor for **ja* to **je* (Hoffmann-Forsman 1996: 65). If Hoffmann’s explanation (1976: 646ff.) of OAv. *ašā(i). yecā* as **ašāja-ca* is correct (see § 5.3.3), we may also regard *-c-* as a factor causing **ja* > *-iie-*. No real counterexamples exist, because those forms with *-iia-* in front of *-c-* all involve the enclitic particles *-ca* and *-ciṣ* (*māuuaiiaca*, *māuuaiiaciṣ* etc.), so that restoration is quite probable.

⁴⁹³ Again, due to the bad mss., *-aiti* and *-ainti* are found in the Nērangestān and all over in the Vaeḍa Nask. Difficult to judge is Yt 8.43 *baešaziatica*, where only K12 *baešazietaeca* looks like the expected **baešaziatica*.

⁴⁹⁴ In many forms, *iḍiiajah-* is found, but the forms with *-e-* are in the majority. Where Geldner edited *iḍiiajah-*, we mostly find good ms. spelling *iḍiiejah-*, e.g. Y 3.13 (J2.Mf1.K4.Pt4 *e*, Mf2.K5 *a*), Yt 13.130 Mf3.K13.H5 *e*, F1.Pt1 *a*. Another argument in favour of *-e-* in the archetype is the Pahlavī rendering *syč /sēj/*, not *†sy’c*.

The evidence in favour is meagre (*iθiiejah* for *-j-* and *ašā(i).yecā* for *-c-*), but the absence of counterexamples argues in favour of a sound change **-iia-* + palatal stop (*c* and *j*) to *-iie-*; this process was probably simultaneous with *i*-mutation elsewhere, since this sound change too is made undone by the effects of proportional analogy. In the case of *ašā(i).yecā*, the redactional split into a compound must have preceded the restoration of the ending *-aiiacā*. The form *iθiiejah-* shows that **Ciie* was not normally reduced to *-Ce-*, i.e., *hie* > *he* is a specific development after *h*.

ABSENCE OF *i*-MUTATION

I-mutation seems to be absent in the prs.ptc. forms Yt 19.94 *aməraḥšiiantīm*, Yt 13.33 *xruuīšiiantīš*, Y 34.4 *daibišiiantē* and Y 9.11 *yaēšiiantīm*, as against normal *būšiiieint-* etc. Yet these exceptions are probably illusory. The distribution of v.ll. in Yt 13.33 (*°aiieintš* in Mf3.K13.38.H5, *°iiantiš* in F1.J10) allows us to regard *xruuīšiiieintš* as the older form. The other forms may be explained in the same way: the ending *-iiant-* is due to a very recent and incidental preference for this form in the mss.

Both reflexes are also found in the dat.sg. of *fšuiiant-* ‘cattle-breeder’. Where v.ll. with *-e-* occur, Geldner edits *fšuiiente*, *-ē* (Y 29.5, Yt 13.88, 19.8), while apparently in V 5.57f. only *fšuiiante* is attested. But also in Y 29.5 and Yt 13.88, the majority of the good mss. spells *fšuiiant-*; this may be analogical after the rest of the paradigm, since *fšuiiant-* is a frequent noun in the texts; in view of the usual retention of the alternation *-iia-/-iie-* in other forms, we may posit **fšuiiente* in the archetype.

Two more forms are due to contextual analogy. Firstly, the form *yesniiāica* is often spelled *yasniiāica* in the mss. (IrPY, J3, YS) because of the frequent *yasna-*. Secondly, the spelling Yt 8.25 *yaze* ‘I worship’, instead of *yeze* elsewhere, immediately follows a form *yasna* (*aoxtō.nāmana yasna yaze*), which will have influenced **yeze*; there was no analogical restoration of **ya-*, as claimed by Bartholomae 1894-5: 173⁴⁹⁵.

⁴⁹⁵ Compare a case such as Yt 13.50 *frāieziāt*, spelled with *-e-* in F1.Pt1 and K38, but with *-a-* in K37.Mf3.K13.

§ 20.5 No *i*-mutation of **ā*

Ever since the development was formulated as a rule by Bartholomae 1894-5: 174, all handbooks teach that **ā* underwent *i*-mutation to *e* under the same circumstances as **a*. On the other hand, Meillet 1922: 221 expressly states that forms such as *zbaiiemi* and *bandaiieni* presuppose "**-yami*, **-yani* avec *a* bref." To my mind, the evidence is in favour of Meillet's explanation.

All the forms with alleged *i*-mutation of **ā* are restricted to the 1s.ind. and subj. verb forms of thematic stems, viz. the endings *-iiemi*, *-iieni* and *-iiene*⁴⁹⁶. We have seen several categories in which verbs in *-iia-* and especially *-aiia-* are liable to shorten the suffix vowel **-ā-* in paradigms where an alternation between *a* and *ā* is inherited: compare for example the 1p. ind. forms in *-aiiamahi* discussed in § 4.9.5. It seems quite likely that the same may have happened in the 1s. verb forms in *-iiemi* and *-iieni* which go back to IIr. ind. **-iāmi* and subj. **-iāni*. These endings could shorten **ā* all the more easily because the resulting YAv. endings **-jami* and **-iani*⁴⁹⁷ would still leave the 1s.ind. and subj. perfectly distinguished from all other 1s. verb forms. If we assume that the only relevant OAv. form, viz. *aiienī*, was adopted from YAv. at the canonization of OAv., then the replacement of **-iāmi* and **-iāni* by **-ia^o* can be regarded as a YAv. development, just like in the 1p. forms.

The probability of this scenario is enhanced by the fact that the few Avestan forms which do show the thematic endings *-iiāmi* and *-iiāni* are clearly recent formations:

- The OAv. form Y 28.3 *ufiiānī* is exceptional in the sense that it is the only OAv. 1s.subj. ending *-ānī* of thematic verbs which has a disyllabic ending instead of trisyllabic */-a'anī/* (Monna 1978: 102). We could solve this problem

⁴⁹⁶ The complete evidence comprises: OAv. 1sg.subj.act. *aiienī* (3x); YAv. 1sg.ind.act. *apaiiemi*, *frapaiiemi*, *ufiemi*, *haṅkārāiemi*, *gāraiemi*, *jaiḍiemi*, *tauruuāiemi*, *nīpaiiemi*, (*ā^o*, *ni*)*vaēḍaiiemi*, *vaiiemi*, *vīuuārāiemi*, *saḍaiiemi*, (*ni*)*zbaiiemi*; YAv. 1sg.subj.act. (*uz^o*, *pār*)*aieni*, *fraouruaēsaieni*, *xšaieni*, *tauruuaieni*, *ḡaṅjaieni*, *daēsaieni*, *uspataieni*, *frapāraieni*, *frāḍaieni*, *bandaieni*, *barəzaieni*, *upa^o*, *auuanaieni*, *varəḍaieni*, *vāḍaieni*, *hqm.raēḍβaieni*, *uzraocaieni*, *frasnaieni*, *srāuuaieni*, *upaṅhacaieni*; YAv. 1sg.subj.med. *hācaiene*.

⁴⁹⁷ Meillet loc.cit. assumes a rhythmic shortening in words of greater length, but this is an ad hoc assumption which cannot explain why the shortening happens *only* in *-(a)iiā-*stems.

by assuming original **ufiā /ufi'a'*⁴⁹⁸, to which **-ni* was added by the YAv. redactors.

• The remaining YAv. forms occur in the same verse as a regular *-āmi*-form, so that the ending *-iiāmi* or *-iiāni* may be due to contextual analogy:

Y 65.11 *jaiḍiiāmi*:

āpō yānəm vō yāsāmi ... āpō īštīm vō jaiḍiiāmi ‘O waters, I ask a wish of you ..., o waters, I ask power of you.’

Yt 17.57f. *ni.uruiisiiāni*:

kuḍa hīš azəm kərənauuāni asmanəm auui frašusāni zqm auui ni.uruiisiiāni ‘what shall I do with them, shall I go to heaven, shall I turn down to the earth?’

V 5.18 *frazaiiāiāmi, frafrāuuaiiāmi*:

auui nasūm vazāmi azəm yō ahurō mazdā, upa daxməm vazāmi ..., upa hixrəm vazāmi ..., upa astəm frazaiiāiāmi ..., aṅhaiḍīm frafrāuuaiiāmi ..., tā haḍra frafrāuuaiiāmi auui zraiō pūtikəm ‘I lead it to the corpse, I who am Ahura Mazda, I lead it onto the burial mound ..., I lead it onto the corpse liquid ..., I let it flow over the bone ..., I wash away what is impure ..., those things all together I wash away to the purifying lake.’

V 22.6 **bišaziāni*:

*kuḍa tē azəm *bišaziāni*⁴⁹⁹, *kuḍa tē azəm apa.varāni* ‘how shall I heal for you, how shall I remove for you?’

Yt 15.44 *vərəziiāmi*:

auuat vanō.vīspā nqma ahmi yaṭ uua dqma vanāmi ... auuat vohuuaršte nqma ahmi yaṭ vohū vərəziiāmi ‘I am called Conqueror of All for this reason that I conquer both creations ... I am called Achiever of Good for this reason that I achieve good things.’

The second part of the evidence consists of all Avestan forms in which **ā* is preserved under conditions which would normally provoke *i*-mutation of **a*: the nouns *°jiiāiti*- ‘life’ and *vasē.yāiti*- ‘going at will’, the adj. *yāiriia*- ‘yearly’ and its compounds *hiiiāiriia*-, *duziiāiriia*-, *maidiiāiriia*-, the pronominal forms *yābiō*, *yābiia* and *yāhī* (f.pl. of *ya*-). The thematic subj. also lacks *i*-mutation: *fraouruuaēsaiiāiti* ‘may turn towards’, *paiḍiiāite* ‘could reach, fall into’, *miriiāite* ‘may die’, *us.zaiiāite* ‘will be born’, *frasaocaiiāhi* ‘you should burn’, and others.

⁴⁹⁸ Mutatis mutandis, the same explanation could be proposed for the only problematic thematic medial 1sg.subj. form *səraoḍānē*: OAv. trisyll. **srauša'āi* → **sraušanai*.

⁴⁹⁹ For **bišaziāni* instead of attested *bišazāni*, see Kellens 1984: 132.

It seems unlikely that we can ascribe *ā* in all these forms to analogical retention. It might be argued that the f.pl. forms of *ya-* have retained *ā* by analogy with a case such as the gen.pl. *yānqm*, but the fact remains that the m. gen.sg. *yēḡhe* did not restore *ya-*. And although V 5.16 *frazaiiāiāhi* ‘may you let flow’ and *frafrāuuaiāhi* ‘may you wash away’ have *-āhi* from *vazāhi* ‘may you lead’ in the same verse, or V 18.76 *paiθiiāite* ‘could reach’ may have been modeled on *azāite* ‘should assume’, it seems unlikely that all subj. forms in *-ā-* were restored. Consider especially the fact that in the indicative, the vowel *-a-* was not restored in the endings *-iieiti*, *-iieinti*, etc. We must accept that *i*-mutation occurred too recently in the transmission for the original endings to be restored.

§ 20.6 Summary

The results of the investigation may be summarized as follows:

1. YAv. **-Cīā̄ > -Ce*.
 Exceptions: 1. restoration of **īa*: *-iia*, *-iiā*.
 2. post-archetype lengthening: *aniiē*, *duiiē*, *mruiiē*, *stuiiē*, *sruiiē*, **zaozuiiē*, *hašē*.
2. Av. **(-)īa-*, **-ḡha-* > *(-)iie-*, *-ḡhe-* / *_ \$ē, ī* (*i*-mutation).
 Exceptions: 1. *-īa-* > *-iia-* if *\$ = hm* or *uu*.
 2. **-hīahī-* > *-hehī-*.
3. Av. **-īa-* > *-iie-* / *_ c j*.
 Exceptions: Restoration of *-iia-* in individual mss.

Chronologically, the difference between the reflex *-ahe* < **-ahīa* and the reflex *-aḡhe* < **-ahai* (regularly in all such forms, e.g. *auuaḡhe*, *drājaḡhe*, *manaḡhe*, *sauuaḡhe*, *srāuuaiieḡhē*, etc.) proves that **-ahīa* had become **-ahe* before **ḡh* arose, whereas **-ahai* must have developed into **-aḡhai* before **-ai* became *-e*. This yields a relatively early date for **-Cīā̄ > -Ce*, and in fact such an early date is needed to make the analogical restoration of *-Cīia* in several morphological categories understandable. An early date also explains why the OAv. ending **-hīa* was retained as *-hiiā* at the canonization of OAv.: the YAv. ending had already become *-he* in Early YAv., and the replacement of OAv. allophones by YAv. ones had become impossible. The change of **-h-* > *-ḡh-* is also firmly rooted in the YAv. language, since it has afterwards

yielded the analogical replacement of **-he* by *-fhe* in the pronominal forms discussed above.

I-mutation must at least be dated after the change of final **-ai* to *-e*, because *-e* is one of the conditioning factors. Other developments which must have preceded *i*-mutation are the change of **-iant-* to **-iənt-*, and the subsequent restoration of *-ia-* in many verb forms; otherwise, we would not be able to explain the sequences *-iieinti* and others, which cannot be based on **-iənti* but on **-ianti*.

As pointed out by Beekes 1988: 31, the RCS must also be dated before this mutation. The replacement of the ending **-a* of the first member by *-ō* (see § 22.5) must have preceded a possible mutation of **a* to *e*: we find *θrāiōidiāi*, not †*θraiiēidiāi* < **θrajadiāi*, and the same even applies to wrongly split OAv. sequences such as *θβōi.ahī* < **θβajahi*, not †*θβaiiehī*.

The recent date of *i*-mutation is also apparent from the difference in reflexes of **paiti.asti-* ‘obedience’: unsplit in V 22.13 *paitiēsti* (replaced in Jp1.Mf2 by *paiti.asti!*) but when the two parts remained split, we find Yt 15.1 *paiti.asti*, A 1.8 *paiti.astīmca*.

A change which might post-date *i*-mutation is the specific sound change **-h̥eh-* > **-heh-*, which explains the forms *vahehī-* and *zrahehī-*. As **i* is a necessary condition for the mutation, its loss must post-date the mutation.

§ 21 Avestan *o*

The three major sources of *o* are Iir. **a*, **u* and **u*. The first subsection below will discuss the presence and absence of *u*-mutation of **a*. The second subsection turns to the sequence **-aru-*, which may give a grapheme *-aor-* as the result of *u*-epenthesis; the other environment where we find **u* as *o* is the diphthong *ao* < **au*, but this has already been discussed in § 16. The third subsection deals with the spelling *o* for **u*, which is merely a very recent aberration of the spelling *-uu-*.

§ 21.1 *u*-mutation of **a*

Iir. **a* yields Avestan *o* in the position after a labial consonant and in front of *u* (not *u*) in the next syllable; however, some of the intermediate consonants between **a* and *u* block *u*-mutation. In front of *r*, where *u*-umlaut occurs together with *u*-epenthesis, the result is a grapheme *-ou-*.

§ 21.1.1 Forms showing *u*-mutation

• **paru-* ‘numerous, many’: nom.acc.sg.n. *pourūm*, nom.acc.pl.n. *pouru*, acc.pl.m. *pourūš*, dat.abl.pl. *pourubiīō*, loc.pl. *pourušū*, gen.pl. *pourunqm*, derivatives like *pourutāt-* ‘large amount’ and the superlative *pourutəma-*, and *pouru* ‘many’ as the first member of a compound, e.g. in *pouru.aspa-* ‘with many horses’⁵⁰⁰. The regular absence of *u*-mutation is preserved in the gen.sg. *paraoš*.

The spelling *ou* in *pour-* is attested for every form in at least one of the better mss., although many of them have replaced *pour-* by *pōur-* or *paōur-* (by analogy with the spelling *paouruua-*). In the Yasna, especially Pt4, Mf1 and J2 preserve *pour*^o. The InSY ms. S1 usually displays *pōur*^o, while the IrVS shows *pour*^o or *paōur*^o (K4), and Mf2 has *paur*^o several times (analogy with *pauruua*^o). The spelling of the InVS and YS is not worse than that of the other ms. branches. For the Vīspred and the Yašts we do not dispose of enough v.ll. to make a claim about the spelling of *pouru*. In the Vīdēvdād, the PV seems somewhat more liable to a replacement by *paour*^o than the VS branch.

⁵⁰⁰ As I have argued in De Vaan 2000b, Yt 10.113 *gouru.zaōθranqm* must be corrected to **pouru.zaōθranqm*.

- *moyu.tbiš-* ‘who is hostile towards the magians’, with the noun **magu-* ‘magian’ (OP nom.sg. *maguš*, acc.sg. *magum*) as the first member.
- *mošu* ‘soon’, cognate with Skt. *makṣú* < Ir. **macšū*.
- *mourum*, acc.sg. of *maryu-*, the name of a country.
- *vouru-* ‘broad’. The adj. Ir. **HurHu-* ‘broad’ > PIr. **varu-* is only found as the first member of a compound, e.g. in *vouru.kaša-* ‘with broad bays’.
- **vahu-* ‘good’. All forms in which **h* is preserved show *u*-mutation: *vohu*, *vohū*, *vohunqm*, *vohūm*, and compounds such as Y 12.1 *vohumaite*. The spelling *o* is usually preserved in the better Yasna mss., with the exception of Pt4.Mf4 which show *vōh^o* many times. In these and other mss., a spelling *-ū* (by analogy with OAv. *vohū*) often goes together with *ō*, so that it seems that the scribes could choose between two variants, viz. *vohu* or *vōhū*. The YS and the InVS also replace *o* by *ō* in many instances.

Outside the Yasna, we do not find many attestations of *vohu*. Where we do, it seems that the same two variants *vohu* and *vōhū* are predominant⁵⁰¹.

- *vohunī-* ‘blood’, *vohunauuant-* ‘with blood’ (said of a menstruating woman) and the compound *vohunazga-* ‘who follows the blood’ (epithet of dogs), are derived from **vahuna-* ‘blood’ and a root **saq-*; if the latter is cognate with Skt. *sájati* ‘to hang’, *vohunazga-* might mean ‘(a hound) hanging itself to the blood’. By analogy with *vohu* ‘good’, some mss. split the word into *vohu.nazga-*.

§ 21.1.2 Forms without *u*-mutation

- *pasu-* ‘cattle, sheep’ *pasu*, *pasūm*, *pasēuš*, *pasuuō*, *pasubiia*, *pasuuasca*, *pasuuqm*, *pasūš*, *pasuuō*, *pasuš.huua*, the derivative *pasuka-*, and compounds in *pasu^o*.
- *maδu-* ‘mead’: nom.acc.sg. *maδuca*, gen.sg. **maδaoš⁵⁰²*, derivative *maδumant-*.
- *manuš(a)-* ‘man’: *manuš.ciθrahe*; gen.sg. *manušahe*.
- *maṇtu-* ‘adviser’: acc.sg. *maṇtūm*, ins.sg. *maṇtū*.
- *vaδū-* ‘wife’: nom.sg. *vaδu*.
- *vaδut-*: gen.sg. *vaδūtō*.
- *vafu-* ‘regulation’: nom.sg. *vafuš*, acc.pl. *vafūš*.

⁵⁰¹ E.g. Vṛ 11.5 *vohu* K7b, K4.Mf2.Jp1 and F11.Kh1 · *vōhū* H1.J8.Pt3 and L2; V 11.1 *vōhū* L4, *vohu* K1a · *vohu* Jp1.Mf2.

⁵⁰² V 14.17; the mss. have *gδuš vā x'arəθahe vā huraiiā vā maδuš vā*. Bartholomae 1904: 1114 conjectures **maδəuš*, which would be an OAv. form.

- *vaiiu-* ‘air’: nom.sg. *vaiiuš*, gen.sg. *vaiiaoš*, voc.sg. *vaiiō*.
- *vaiiū* ‘woe’ Y 53.6.
- **vahu-* ‘good’. Forms in which **h* turned into *ḡh*, never show *u*-mutation: m.n. *vaḡhuš*, *vaḡhu*, *vaḡhūš*, *vaḡhušu*, f. *vaḡ^hhi*, *vaḡ^hhīm*, *vaḡhuiiā*, *vaḡhuiiāi*, *vaḡhuiiā*, *vaḡ^hhīš*, *vaḡ^hhībiō*, *vaḡ^hhīnqm*, and compounds with *vaḡhu-* as a first member.

The original locus for **h > ḡh* was between two *ā*'s; from there, it was imported into forms like *vaḡhuš* and *vaḡhuiiā*. However, *ḡh* is absent from the forms *vohūm* (acc.sg.) and *vohunqm* (gen.pl.), and from the n. *vohu*. Hoffmann 1976: 599, fn. 14 ascribes this absence of *ḡh* to a preventive dissimilation due to the following nasals *m* and *n*: the presence of these nasals would have prevented the introduction of another nasal into the word, i.e. **vahuš* → *vaḡhuš* but **vahum* not → †*vaḡhum*. Hoffmann's explanation does not account for *vohū*, a form which is all the more strange since a doublet acc.sg.n. *vaḡhu* exists in Y 52.1 *vaḡhuca* and Y 59.30 *vaḡhu*. Furthermore, compounds occur both with *vohu* and with *vaḡhu* as a first member.

A hint at a more satisfactory solution was given by Beekes 1988: 19f., who ascribes the attested distribution to the distinction between the OAv. and the YAv. language. As Hoffmann-Narten 1989: 50 have argued, the development and analogical spread of *ḡh* belong to the YAv. period. This implies that the feminine forms of *vaḡ^hhī-*, the acc.pl.m. *vaḡhūš* (YH) and the compound *vaḡhudā-* (YH) which we find in OAv. are due to the introduction of the YAv. form into OAv. We may then reverse the question which Hoffmann tried to answer: not ‘why do we not find *-ḡh-* in *vohu*, *vohūm* and *vohunqm*?’ but ‘why do we find *-ḡh-* in *vaḡhu*(^o) and *vaḡhūš*?’ This must be explained by means of analogical developments within YAv.; the answer to this question is irrelevant to the present study of vowel phenomena⁵⁰³.

⁵⁰³ All the evidence for the vacillation *-h-* vs. *-ḡh-*, which occurs in the stems *ahu-* ‘life’, *daxīiu-* ‘land’ and *vahu-* ‘good’, has been gathered by Testen 1994. Yet his attempt to explain the retention of *-h-* and *-xīi-* as the phonetic result of a following **-ū-* (as opposed to *-ḡh-* in front of **-u-*) requires too many unwarranted assumptions about the history of the nominal inflexion. The amount of vacillation found even within one and the same form, e.g. YAv. acc.sg. *daxīiūm* and *dajḡhaom*, acc.du. *daiḡhu* and *daxīiu*, suggests that these irregularities are — at least partly — due to analogical rearrangements going on while the texts were composed. Only a detailed philological investigation of the attestations of *ahu-*, *vahu-* and *daxīiu-* might shed some light on this problem.

§ 21.1.3 Conclusion

The phonetic conditions which cause *u*-mutation of **a* have always been clear to Avesta scholars. Yet few people have commented on the reasons for the partial absence of *u*-mutation in the forms where these conditions seem to be fulfilled, such as *pasu-*, *maδu-* and *maṇtu-*.

The first possible explanation would be to assume that *u*-mutation originally affected all forms with a sequence labial consonant + **a* + *u* in the next syllable, the exceptions being due to later paradigmatic levelling. Three objections plead against this possibility. In the first place, it assumes that *u*-mutation took place when Avestan was still a living language; this cannot be proven, since the conditions for *u*-mutation are still present in all forms showing this mutation. In the second place, this assumption would mean that e.g. *pasu-* 'small cattle' has levelled its paradigm after the weak cases *pasāuš/pasuuō* etc., because most of the strong cases (*pasūm*, *pasu*, *pasūš*) would favour *u*-mutation; this is improbable. Thirdly, one would still like to know why the paradigm was levelled to forms with *o_u* in some cases (*pouru*, *moγu*) while it was levelled to forms with *a_u* in others (*maδu-*, *vaiiu-*).

It rather seems that we must regard the consonant between **a* and **u* as the cause of the absence of *u*-mutation in the forms mentioned in § 21.1.1 above. This was essentially proposed by Morgenstierne 1942: 45: "several consonants have the power of obstructing the rounding of *a*". When we look at the consonants preceding **u* in the forms with and without *u*-mutation, we find not a single case of overlap. Mutation takes place in front of the consonants *r*, *š*, *γ* and *h*, while it is absent in front of the dental consonants *δ*, *n*, *ń*, *ṇt* and *s* (*maδu-*, *vaδū-*, *manuš-*, *mańiiu-*, *maṇtu-*, *pasu-*), in front of *ii* (*vaiiu-*, *vaiiū*), in front of *f* (*vafu-*) and in front of *ḡh*.

Phonetically, this probably means that the consonants *r/š/γ/h* allowed rounding on them, so that the rounding moved regressively from *u* via the consonant to **a*. The fact that *r* allowed rounding is obvious from the Avestan *u*-epenthesis in front of *r* (*auruuānt-* etc.); for the velar and uvular *γ* and *h* this is also not problematic (cf. the development of **vi-* to *gu-* in MoP), and also for *š* a rounded pronunciation is not uncommon: many varieties of English have it.

For the dental consonants and [*i*], we can assume that they resisted rounding. For *f*, we can assume a labio-dental articulation, which is difficult to combine with lip-rounding. The resistance of *ḡh* is less comprehensible, since it is evidently combined with lip rounding in the sound *ḡ^h*.

§ 21.2 *-aru- and *-aur-

The sequence *-aru- yielded *-auru- by means of *u*-epenthesis, thereby merging with the reflexes of IIr. *-aur- and of the sequence *-a + *ur*- in compounds. Additional complications are raised by a following **i* or **j*. The three subsections below will discuss the sequences -au(*o*)r-, -aoir-, and the OAv. forms of **parui*̄a-.

§ 21.2.1 Avestan *aur* and *aour*

The regular reflex of *-aru- is Av. -auruu-, e.g. in *hauruua*- ‘whole’ to Skt. *sárva*-.

After a labial consonant, the spelling -aouruu- or -auruu- is found (Morgenstierne 1942: 45): *aš.baouruua*- ‘with much food’, *paouruua*- ‘farther; earlier’. This last form also shows the variant *pouruuō*, but this is due to analogy with *pouru*⁵⁰⁴; the original spelling was *paouruuō* < **paouruuō*⁵⁰⁵, and there is no need to assume *u*-mutation of **paruuō* > *pouruuō*.

The univerbation of a word ending in *-a and one beginning in **uruu*- also led to a sequence pronounced *-auruu-, which could be spelled with -aour- or -aor-, e.g. *fraouruuaēštrima*-.

§ 21.2.2 YAv. *aoir*

YAv. *aoir* may in the first place reflect IIr. *-aur- + *i*-epenthesis, as in V 5.52 *hqm.vaoirinqm* and *us.vaoirinqm*, two gen.pl. forms of *hqm.vaoiri*- ‘with cream’ and *us.vaoiri*- ‘without cream’. The word *vaoiri*- ‘cream’ probably denotes the skin on the milk, and is cognate with Skt. *vavri*- ‘cover’ (EWAia II: 513). The connection points to a reduplicated derivative from the IIr. root **Huar*- ‘to cover’, viz. **Hua-Hur-i*- ‘cover’. The loss of laryngeals yields PAv. **uauri*-, the direct input for Avestan *vaoiri*-. At a prestage of Skt., we

⁵⁰⁴ Morgenstierne 1942: 45 attributes *o* in *pouruuō* to the labializing influence of the final -*ō* in **paouruuō*. This seems less probable to me.

⁵⁰⁵ Yt 14.44 *pouruuō* has the v.ll. *pouru* K38.36 · *pōuruuō* F1.E1.K16 · *paouruuō* Pt1.L18.P13.M4. The older spelling is preserved in Pt1, which in Yt 14 is independent of F1. The IrKA has interpreted the form as *pouru* ‘many’. V 19.42 *pouruuō* (cf. Bartholomae 1904: 904) is given without v.ll.

must assume resyllabification to **Huauri-* on the model of the root form *v(a)r-*.

We may add *kaoirisasca* (Yt 19.6), the nom.sg. of a mountain name, which used to be connected with Av. *kauruua-* ‘bald’, Skt. °*kūlvá-* (Bartholomae 1904: 432, Hintze 1994: 421). A better etymology has been proposed by Humbach-Ichaporria 1998: 78, who connect Av. *kuiris* ‘neck-helmet’ (nom.sg.), i.e. ‘a neck-protection hanging down from the helmet’ < **kuris-* (Bailey 1954b: 7f.), to the root Ir. **kur-/gur-* ‘neck, throat’ (Abaev II: 330). The name *kaoirisa-* can represent a derivative with a full grade of the root and a thematic vowel (**kaurisa-*), and would invalidate the *t*-stem **kuirit-* postulated for *kuiris* by Bartholomae 1904: 474. Since Pahlavī renders this mountain name as *kwɔyl’s /kōirās/*, this means that *i*-epenthesis had taken place in Avestan before Pahlavī adopted the name from the Avestan texts.

In the second place, Avestan *-aoir-* results from the univerbation of a preverb in *-a* and a word in **uri-* (which in isolation would yield **uruui-*). We find this combination with the root **uric-* ‘to turn’:

- *fraoiris(ii)a-*, a compound of the verb *uruuis-* ‘to turn’ plus the preverb *fra*. This suggests a development **fra-uric-* > **fraoris-* > *fraoiris-*. An original spelling *fraoir-* can be established in each case, also where Geldner edits *fraor*⁵⁰⁶.
- V *auuaoirišta*⁵⁰⁷ ‘assault’ < **aua-uricēta-* ‘turned towards’.
- The form *auuōirisiiāt* (Yt 5.62), 3s. prs.opt. to *uruuis-*, was already mentioned as an exception by Bartholomae 1894-5: 157. The transmission of Yt 5 rests on few mss., and the v.ll. *auuōirišiiāt* F1+, *auuōi.rišiiāt* J10, *auuō.airišiiāt* K12 are simply corruptions of earlier **auuaoirisiiāt*. Compare

⁵⁰⁶ V.ll. Vr 12.5 *fraoris*° K7a · *fraōirās*° F11, *fraoiris*° Kh1 · *fraōris*° Mf2, *fraoiris*° K4, *fraōiris*° Jp1 · *fraoris*° K7b, *fraoir*° K11, *fraor*° H1.L27.Jm5.Pt3, *fraour*° J8 · *fraōris*° Br1.L2.Dh1.L1, *fraor*° M2.O2.B2; V 8.104 all mss. *fraoiris*° (sic!), V 8.106 K1 *fraoris*°, the rest *fraoiris*°; V 9.40 *fraoiris*° K1.L4 · *fraōiriis*° Mf2, *fraōiris*° Jp1 · *fraoris*° Br1.L2.1, *fraoiris*° L3; V 14.16 *fraoiris*° L4.K1 · *fraōiriz*° Mf2, *fraōirəz*° Jp1 · *fraoiris*° L2.M2; Yt 10.9 *fraoris*° F1, *fraōis*° Pt1, *fraōrais*° H4, *fraoš*° K12; Yt 13.36 *fraoiris*° K13.Mf3.H5 · *fraouris*° F1+; Yt 13.47 *fraoris*° K38, *fraōirās*° K13.14.Mf3 · *fraoirəs*° F1+J10; Yt 13.48 *fraoiris*° K38.Mf3.H5 · *fraoiris*° F1+. With the exception of K38 in Yt 13.47, it is the more recent Indian mss. (InVS, F1, InVrS) which leave out *i*-epenthesis on several occasions.

⁵⁰⁷ V.ll. 4.17 *auuō.irištəm* L4a, *auuāur*° M13.B1.P2 · *auuaoir*° Jp1.Mf2 · *auuō.ir*° K10; 4.22 *auuaoir*° L4.Pt2, *auuāur*° M13.B1.M3.P2 · *auuaoir*° Mf2.Jp1 · *auuōir*° Br1.L2.K10.L1.B2.

the v.ll. of V 4.17ff. *auuaoirištəm*, where we also find the spelling *auuō(.)ir-* attested beside *auuaoir-*.

Finally, we find YAv. *-aoirii-* as a result of PAv. **-aru(i)j-*, e.g. in YAv. *paoiriia-* ‘first’. This points to a metathesis of **-aruṣ-* to **-aurṣ-* (whence *-aoirii-*), which matches the YAv. development **-ruṣ-* > **-urṣ-*, cf. § 24.4. Because of the difference between the spelling of OAv. nom.sg. *paouruiiō* and other OAv. forms on the one hand and YAv. *paoiriia-* on the other, we have to assume that the original sequence **paruṣa-* was preserved in OAv., but underwent metathesis of **-ru-* to **-ur-* in YAv; thus e.g. Hoffmann-Forssman 1996: 52. This would explain the resulting forms without problems.

Fischer 1998: 81 objects that this implies a dialect difference between OAv. and YAv., whereas he would rather assume a chronological continuity from OAv. into YAv. To my mind, however, the proposed metathesis does not conflict with the assumption that OAv. is an older stage, and YAv. has undergone further development.

Fischer assumes that *u*-epenthesis took place in OAv. (**pauruṣia-*), after which **u* was lost in YAv. in front of *-i-*: **pauriṣa-* (> *paoiriia-*). However, it seems unlikely that *u*-epenthesis was OAv. On the contrary, we see that *u*-epenthesis is still allophonic in each case, and we would rather suggest a very late date, possibly after YAv. had ceased to be spoken.

Most probably, OAv. **paruṣa-* was retained until, at a very late stage, *u*-epenthesis led to **pauruṣia-* and attested *paouruiia-*; in early YAv., in any case before OAv. started to be transmitted by YAv. speakers, **paruṣa-* underwent metathesis to **paurṣa-*.

Three YAv. words display this development:

- YAv. *paoiriia-* ‘first’ (also in *paoiriiaēiniia-* ‘Pleiad’) is a derivative of **paruṣa-* ‘first’, and together with OP *paruviya-ta* ‘from the start’ and Skt. *pūrvyá-*, it points to Ilr. **prHu(i)ja-*. If the oxytonesis of Skt. *pūrvyá-* is original, Iranian **paruṣa-* has adopted the form **par-* of **paruṣa-*, since Lubotsky 1997b: 147 has shown that the expected outcome in Iranian of Ilr. **prHu(i)ja-* would have been **pruṣia-*.
- Y *baoiriia-* ‘to be chewed’ < **b^haruṣHa-*, the gerund to **b^haruṣa-* ‘to chew’, Skt. *bhārvati* ‘to chew’ (EWAia II: 253). The form only occurs in the expression *gqm baoiriiqm* Y 3.3 and 7.3 and only in the SY mss. J3.P11 and in the YS. Unfortunately, these passages are not transmitted in S1 (or at least Geldner does not mention the ms.), the ancestor of J3, but since J3 is known to have altered the text of S1 on many occasions towards that of the YS and InVS ms. branches (Geldner 1886-96: xxxii a), it is possible that *gqm baoiriiqm* was preserved only in the latter ms. traditions.

• V *maoiri-* m.⁵⁰⁸ ‘ant’. The comparative evidence suggests a reconstruction **maruī-* or possibly **marūī-*. Oss. *mærzyg/murzug*, Pašto *mežay* and Sogd. *ym’wrc* point to PIr. **marūika-*, whereas Sogd. *zm’wr’k /zmōrē/*, Khwar. *zmrwk*, MP, MoP *mōr* and probably Khot. *muṃjaka* point to PIr. **maruaka-*. Skt. *vamrá-* m., *vamrī-* f. ‘ant’ has reshaped the word for taboo reasons (EWAia II: 507), but we can posit IIr. **marua-/marūī-* ‘ant’. This stem may be compared with Russ.CS *mravījī* (an *i*-stem) and OIr. *moirb* (< **maruī-*). Skt. also attests a form *valmīka-* (YV +) m. ‘ant-hill’, Middle- and Modern Indic *vammīka-* ‘id.’, which may correspond to Latin *formīca*, Gr. *bórmaks*, *múrmēks*. Maybe IIr. inherited two different forms, **marua/i-* and **uarma/i-*.

One form in *-aoir-* is irrelevant:

• *auuaoiriṭəntəm* (Yt 16.9), acc.sg.m. of *auua-iriṭiṇt-* (**riṭiant-*) ‘sticking to’. As Bartholomae 1904: 1522 rightly saw, the variant *auuō.iriṭəntəm* is equally well attested in the mss.⁵⁰⁹. This form does not represent **aua-urui-*, but belongs to the root *riṭ-* ‘to stick; die’.

§ 21.2.3 OAv. **parūia-*

In OAv., the reflexes of **parūia-* ‘first’ present some phonetic complications. In addition, the mss. often disagree about the spelling of these forms, so that their original form is disputed. Kellens 1986a has tried to shed light on this matter, and he provides a detailed survey of the v.ll. in the Gāthās⁵¹⁰. The discussion centers around the following forms: nom.sg.m.

⁵⁰⁸ The m. gender of the word seems to be indicated by the adjective V 16.12 *dānō.karšəm* ‘dragging corn’ (without v.ll.). However, several examples exist in the V where the f. ending *-qm* is transmitted as *-əm* in our mss., e.g. V 9.20 *dašinəm sraonīm*. In the text of V 16.12 *xrafstrəm auua.janaēta maoirīm dānō.karšəm* ‘one shall kill the beast, the corn-dragging ant’, the ending of *xrafstrəm* could have influenced that of *dānō.karšəm*. Therefore, it cannot be excluded that the word for ‘ant’ is f. *maoirī-*.

⁵⁰⁹ V.ll. *auuaoiriṭ°* F1 · *auuō.airiṭ°* J10 · *ahuuō.arəṭ°* Pt1.O3 · *auuō.iriṭ°* Jm4.

⁵¹⁰ The v.ll. of Mf4 may be added here: nom.sg.m. Y 28.11 *paouruiiō*, 30.7 *pouruiiō*, 31.7 *paouruiiō*, 44.3 *paōuruiiō*, 44.11 *pouruiiē*, 46.9 *pōuruiiō*, 51.3 *paouruiiō*, 51.15 *paōuruiiō*, nom.sg.f. 44.19 *paouruiiō*, nom.acc.du.n. 30.3 *paouruiiē*, 45.2 *paouruiiē*, gen.sg.m. 33.1 and 48.6 *paouruiiehiā*, acc.pl.f. 46.6 *paōiriā*, ins.pl.m. 46.15 *paōiriāiš*, acc.sg.m.n. *paouruiim* in all instances.

**parūiah*, acc.sg.m/n. **parūiam*, gen.sg.m. **parūiahīa*, nom.sg.f., ins.sg.n.⁵¹¹, acc.pl.n. and nom.acc.du.m. **parūiā*, acc.pl.f. **parūiāh* and ins.pl.m. **parūiāiš*.

For the last two forms, the spellings *paoiriā* and *paoiriāiš* must be posited for the archetype. Since the other OAv. forms of **parūia-* have retained **u* after *r*, these two are probably due to the introduction of the YAv. spelling *paoiriā-*. A similar replacement occurred in the gen.sg. *paouruiēhiā* in Y 33.1, where the IrVS is the only branch that has replaced the older spelling by *paōiriēhiā*.

For the remaining OAv. forms, Kellens reconstructs the following original spellings: *paouruuīm* for **parūiam*, *paouruiēhiā* for **parūiahīa*, *pouruiō* for **parūiah* and *pauruiē* for **parūiā*. With the first two I agree, but the last two may be contested.

For **parūiā*, we dispose of one certain reading *paouruiē* (Y 36.1) and three readings where, as Kellens has shown (1986a: 223), we must make a choice between *paouruiē* of the PY and *pauruiē* of the SY and the IrVS. Of these two, *pauruiē* is lectio difficilior because *paour^o* occurs in many other Avestan forms. Moreover, Kellens argues, *paur^o* occurs only with the ending *-ē* and may be phonetically conditioned by it.

These are legitimate arguments. Yet I doubt that the ending *-ē* could have such an influence on the vowel of two syllables before so as to prevent the rise of *o*. Compare *paouruuīm*, where *[*paur*] is followed by [*u*] which we know to have less rounding effects on **a* than a following [*u*], and where a front vowel follows in the adjacent syllable. Thus, I would rather regard *paouruiē* as the oldest reconstructible spelling and explain *pauruiē* in the SY and the IrVS as forms from which *o* was lost.

For the nom.sg.m., we must choose between *paouruiō* and *pouruiō*. Kellens 1986a: 220 opts for the latter because *aou* could be due to the influence of *paouruuīm* and because *pour-* is only found "de manière insistante" when the ending is *-ō*. The latter argument has little force, since *pour^o* occurs with consistency only in one branch, viz. the IrVS. The other ms. branches have at best *pour^o* in some forms against *paour^o* in others; in this respect, it is important to consider the readings of Mf4. As a counterargument, one could furthermore adduce that *pour^o* is also suspect of

⁵¹¹ Kellens omits this form, YH 36.1, from his discussion (he only draws attention to it in footnote 8). The mss. have *paouruiē* Pt4.Mf4.1 · *paōiriō* J2, *paouruiē* K5 · *paōiruiē* S1, *paōiriō* J3 · *paōuruiē* Mf2, *paouruiē* Jp1.K4 · *paōuruiē* L2, *pōuruiē* L1.O2.B2 · *paouruiē* C1, *paōiruiē* K11, *paouruiē* H1.J7.6.L13.

being an analogical spelling, viz. after the form with *u*-mutation *pouru*. I thus assume *paouruiiō* to be the original spelling.

All this accords well with the spelling *paouruiiehiā* for the gen.sg. The absence of *u*-mutation in *paouruiiehiā*, *paouruiiō* and *paouruiē* shows that at the time of this mutation, the sonant following the *r* was not pronounced as syllabic [u] (/parui-/) but as a glide [ɥ] (/parui-/). Hoffmann-Narten 1989: 46f. (already Hoffmann 1971: 71) have suggested that the scattered spellings *paouruiiō* vel sim., which occur especially in the SY, have retained the original sequence *-ruui-* for **/rui/*. Their key argument was Y 33.1 K5 *paouruuiiehiā* against J2 *paouruiiehiā*, showing that **paouruuiiehiā* of their original copy was dissolved in two different ways by the same scribe. Although one can still be sceptical about the value of this philological argument (as Kellens 1986a: 225 is), the absence of *u*-mutation clinches the matter in favour of Hoffmann's conclusion.

We can summarize the different Avestan reflexes of **paru-*, **parua-* and **paruia-* as follows:

<i>*paru</i>	Av. <i>pouru</i> , <i>pourutās</i> , etc.
<i>*parua-</i> 'first, front'	Av. <i>pa(o)uruua-</i>
<i>*paruia-</i> 'first'	YAv. <i>paoiriia-</i> , <i>paoirīm</i>
<i>*paruiāh</i>	OAv. <i>paouruiō</i>
<i>*paruiā</i>	OAv. <i>paouruiē</i>
<i>*paruiāhā</i>	OAv. <i>paouruiiehiā</i>

§ 21.3 *o* for **uu*

In some forms where we find intervocalic *uu* (from PIr. **-u-* and in YAv. also from **-b-*) followed by a front vowel *ē*, *i*, *ii*, the labial glide is spelled with *o* or *ouu*; cf. Reichelt 1909: 41. Although the ms. variants force us to assume the spelling with *o* at least for the Yasna in many cases, the preponderance of forms with *uu* in the Yašts and the Vīdēvdād suggests that the archetype still wrote *uu* in all these forms.

• *aoi* ‘*auui*’ < **abi*. One typical example of the Yasna v.ll.⁵¹² is Y 10.17: *aoi* Pt4.Mf1.4 · *aoi* J2, *aoui* K5b · *aoi* S1, *aouui* J3, *aōuue* P11 · *aōuue* Mf2 · *aoi* L2 · *aouui* J7.H1.L13, *aōuue* J6. The original spelling of the PSY is *aoi*. The IrVS has several different spellings, of which *aōui* seems to be the oldest. Seeing that the diphthong *ao* has often become *aō* in the IrVS, *aōui* can be traced back to **aoui*. The oldest spelling of the YS mss. is *aouui*. The evolution must have gone along the following lines: *auui* → *aouui* → *aoui*, *aōui* → *aoi*, *aōi*.

In the Yašts, we find both *aoi* and *auui* in Geldner’s edition. Remarkably, the form *aoi* is the only form in Yt 5 (15 times), and it is also found in Yt 8.5, but from Yt 8.6 onward we only find *auui* (many occurrences, especially in Yt 8, 10, 12 and 13), with the exception of *aoi* in Yt 11.5,14 and 13.2. Comparing these facts with the spelling of F1 (JamaspAsa 1991), we find that this distribution nearly exactly corresponds with that of F1⁵¹³.

The peculiar distribution of *auui* and *aoi* throughout the Yašts is thus for a large part due to the spelling in F1, of which we have seen before that it contains remarkable internal differences (cf. § 8.1.2, 9.1 and others). The spelling *aō(u)i* of F1 agrees with the Iranian habit of spelling **aoi*, so that the facts observed for the endings containing *ī* and *ū* (where the first half of F1 was seen to preserve the original forms better than the last half) are confirmed in the sense that F1 has probably leaned on an Iranian original, or at least more faithfully, in its first part. The spellings *auui* in the second part would then confirm the Indian spellings in the Yasna (*aouui*).

Furthermore, from the few v.ll. Geldner gives we can see that the spelling *auui* has been better preserved in the Yašts than in the Yasna, or has been changed to *auua* in many mss. The Yašts probably had the same spelling for all the forms of this preverb⁵¹⁴.

⁵¹² Geldner edits *auui* in a few Yasna forms, but the v.ll. are basically the same as for *aoi*: Y 8.3 *auui* Pt4.Mf4, *aōui* Mf1 · *auui* J2 · *aoi* J3 · *aoi* Mf2, *aōui* K4 · *aouui* J6 · *aoi* Mf3; 10.11 *aoi* Pt4.Mf4, *aoi* and *aoui* Mf1 · *aoi* and *aoui* J2, *aouui* K5b · *aouui* J3 · *aoui*, *aōui* and *aoi* Mf2.K4 · *aoi* L2, *aouui* O2.Bb1 · *aouui* H1.J7, *auui* and *aouui* J6. Nevertheless, the spelling *auui* in Y 8.3 in Pt4.Mf4 and J2 must be regarded as an archaism.

⁵¹³ With the addition that F1, in Yt 5, spells *aō(u)i* more often than *ao(u)i*.

⁵¹⁴ Compare the v.ll. 8.5 *aōui* F1.Pt1.E1 (*aoi* in Geldner) and 13.94 *auui* F1.Pt1.E1, *auua* L18.P13 · *aōi* Mf3.K13; 15.20 *auui* F1.Pt1.E1 · *aōi* J10 · *auua* K12 (both *auui* in Geldner).

In the Vīdēvdād, not a single form is edited as *aoi* by Geldner, whereas *auui* occurs many times. The v.ll.⁵¹⁵ show that, once again, the Iranian mss. have replaced *auui* by **aoi*.

The same is confirmed by the attestations in the Vīspere, where the Iranian mss. Mf2.K4.Jp1 and F11.Kh1 spell *aōi* or *aōui* against *auui* or *auua* in the Indian ms. branches.

We can conclude that *auui* was the spelling of the archetype. This was retained in the Indian pronunciation, but changed to *aoui* and *aoi* in the spelling of the Iranian scribes at the last stages of the transmission.

- The variant spelling *ōi-* for *aoi-* is attested in Yt 13.104 *aoifranqm*⁵¹⁶ and Yt 13.125 *aoiγmatastūrahe*⁵¹⁷.
- *mraoī* 32.14 3s. prs.inj.pass. of *mrū-*, probably from OAv. **mrāui* (cf. § 16.4).
- The dat.sg. of *u*-stems **-auai* is sometimes edited as *-aouue* by Geldner, sometimes as *-auue*. The latter spelling was the one of the archetype in each case. Thus, the v.ll. of Y 53.4 *x^vaētaouue* are nearly identical with those of Y

⁵¹⁵ V 2.10 *auua* M13.B1 · *aōui* Jp1 · *auui* Br1.K10.O2.L1.2; 2.22 *auui* M14, *auua* B1.M13.Pt2 · *aōui* Mf2.Jp1 · *aoi* O2.L2; 2.26 *auui* B1.M13.Pt2 · *aōui* Mf2.Jp1; 15.7 *auui* L4.K1 · *auua* Jp1.Mf2 · *auui* L2; 18.12 *auui* L4 · *auua* Jp1.Mf2 · *aōi* L1.M2; 18.65 *auui* L4, *auua* K1 · *aōui* Jp1.Mf2 · *aōui* L2.Br1.

⁵¹⁶ V.ll. *aōiβranqm* K38.37, *aōi.varanqmca* K14 · *ōifranqm* F1, *aōiβranqm* J10. There can thus be no doubt that the original form was **auuifranqm*. Since PIr. **auifra-* would have yielded †*auifra-* in Avestan, *aoifra-* can only be derived from **abifra-*, which invalidates Bartholomae's (1904: 357) etymology **vifra-* 'homosexual' (to the Ir. root *vip-*). We may rather connect *aoifra-* with V 13.44 *bifrəm* 'image, resemblance' in *sūnahe aēuuahe aštā bifrəm* 'of one dog there are eight images' (cf. Duchesne-Guillemin 1936: 182f.). The etymology of *bifra-* may be **duiplo-* 'double', as claimed by Bartholomae. For *aoifra-*, a meaning 'having no equal' → 'incomparable' would well fit the context: Yt 13.104 *paitištātē ayanqm aoifranqm pairikanqm* 'to withstand the evil, incomparable Pairikas'. It is uncertain whether Y 33.13 **aibifrā* (epenthesis is attested in the mss. Mf4 and K37) belongs here: the form could be identical to *aoifra-*, but the different translators of the Gāthās do not agree on its analysis.

⁵¹⁷ V.ll. *aōiγmatastūrahe* K13.Mf3 (in Mf3 the first *a* and *i* appended secondarily), *aoigəm*^o K14, *aoiγm*^o K37 · *ōiγmatas.turahe* F1 · *aoiγm*^o J10. Bartholomae's etymology as **vi-γmata-* was accepted by Mayrhofer 1979: I/65, who argues «nicht besser ... *Aoiγm*^o». Yet philologically, the form *aoiγm*^o seems indeed the older variant, in which case a form **auuiγmatastūrahe* from **abi* + *gam-* 'to approach' may be reconstructed for the archetype.

20.1 $x^v aētauue$ ⁵¹⁸. The same form *-auue* underlies Y 43.5 *vaṇhaouuē* and Y 1.2 *vaṇhauue*. Geldner's *vaṇtaoe* at V 3.25 is only attested in the InVS, and can be corrected to $^+vaṇtauue$ ⁵¹⁹. Compare also the v.ll. of Y 40.2, 41.2 and 41.6 *yauuē*, with many variants *yaouuē* and *yaoē*.

• To this category also belong the forms with *o* representing $*\beta$ - in front of *ii*, which occur in the dat.pl. Y 9.8 *gaēθāuuuīō* and abl.pl. Y 68.13 $^+vōiγnāuuuīō$. Since this sequence equals the input of the change $*-auja-$ > $-aoiia-$ (gen.pl. of *kauui-* *kaouiqm*, acc.sg.f. of *hauuiia-* *haoiiqm*), this implies that $*\beta$ in $*-aβia-$ had merged with $*u$ in time to be reinterpreted as the diphthong *ao* in front of *ii*. Examples are *ašāuuaoiīō* Yt 3.4 ($*ašāuαβiiō$), *rasmaoiīō* ($*rasmaβiiō$) Yt 5.68 etc., *aḍaoiiamnō* ($*aḍaβiamnō$) Yt 10.24 etc. Y 68.13 $vōiγnāuuīō$ < $^+vōiγnāβiō$ of Geldner's edition must be corrected to $vōiγnāuuuīō$ ⁵²⁰.

§ 21.4 Summary

The investigation in this section has yielded the following results:

1. $*a > o$ / $C_{[+labial]}$ - Cu if $C = \gamma, r, š$ or h (*u*-mutation).
Attested in: $*paru(^\circ)$, $*ma\gamma u$, $*maš u$, $*marum$, $*varu$, $*vahu$.
2. $*-aru-$ and $*-a + ru-/ur-$ > $-auruu-$.
Exceptions: $*baru-$, $*paru-$ > $baouruu^\circ$, $paouruu^\circ$.
3. $*-auri-$ and $*-a + uri-$ > $-aoiri-$.
4. $*-aru(i)j-$ > $-aoirii-$.
5. $*u > o$ in front of $-ī, -ē, -ii-$, viz. in:

⁵¹⁸ V.ll. Y 53.4 *xaētauuē* Pt4.Mf1.4 · $x^v aētui$ K5, $x^v aētui...$ J2 · $x^v aētū$ J3.4 · $x^v aētaouuē$ Mf2.K4, $x^v aētui$ Jp1 · $x^v aētaouuē$ K10.S2.L2, $x^v aētū$ L3 · $x^v aētaouuē$ J6.H1, $x^v aētui$ K11; Y 20.1 *xaētauue* Pt4.Mf1.4 · $x^v aētauue$ J2, $x^v aētui$ K5 · $x^v aetaoe$ S1, $x^v aētaouue$ J4 · $x^v aētauue$ Mf2.K4 · $x^v aētaouue$ J6.7.H1.L13.

⁵¹⁹ V.ll. *vaṇtauuaē* L4.B1.M13 · *vaṇtauue* Jp1.Mf2 · *vaṇtaoe* InVS.

⁵²⁰ V.ll. $vōiγnāuuīō$ Pt4.Mf1.4 · $^\circ aīiō$ J2.K5 · $^\circ auiiō$ Jp1.K4 · $^\circ āuuaiiō$ L1.2.B2, $^\circ ābiiō$ L3, $^\circ āuuīiō$ S2 · $^\circ āuuaiiō$ L13, $^\circ āiīō$ J6.H1, $^\circ āuiiō$ Jm1, $^\circ ābiiō$ J7.K11 · $^\circ āuuīiō$ F11.

aoi (PSY, F1, IrVrS), *mraoi*, dat.sg. *-aouuě* for *-auuě*, gen.pl. *-aoiiqm*, dat.abl.pl. *-aoiiō*, *-āoiiō*.

Chronologically, *u*-mutation must be dated after the analogical introduction of *ḡh* into **vahuš* etc. (so as to explain *vohu* as well as *vaḡhuš*) and after the change of the ending **-uam* into **-ūm* (*mourum*). For the former, we know that it took place when Avestan was still a living language, while for the latter the same is suggested by the type *vīdōium*, see § 14.2 above. The form *paṅtaḡhəm* shows that **-uam* > *-um* was posterior to **-hu-* > *-ḡh-*, and therefore at least possibly postdates the replacement of **vahu-* by *vaḡhu-*.

A terminus ante quem is provided by the absence of *u*-mutation in front of *uu* < **u*: the pronunciation must still have been [u], not [uu], since vocalic [u] usually causes *u*-mutation. It seems likely that *u*-mutation took place somewhere during the transmission of the Avesta, after Avestan had ceased to be a spoken language.

The contrast between OAv. **paruiā-* (before *u*-epenthesis) and YAv. **pauriā-* suggests that the YAv. metathesis of **ruī* to **urī* took place before the OAv. texts started to be transmitted by YAv. speakers.

Forms such as *vōiḡnāuuiō*, with *-uui-* < **-βi-* and no *i*-epenthesis on the preceding vowel, suggest that **-β-* had already become **-u-* when *i*-epenthesis arose. Similarly, *auui* < **abi* must have existed before *i*-epenthesis started.

§ 22 Avestan \bar{a} , \bar{o} and $\bar{a} < \text{PIr. } *ah$

The change of $*ah$ to Av. \bar{a} and \bar{o} is restricted to word-final position, with the exception of $-\bar{a}hm-$. This restriction is shown especially clearly by the only case where $*-ah$ came to stand in inlaut and was therefore preserved, viz. in Y 31.12 *miḍahuuacā vā arəš.vacā vā* ‘one who speaks wrongly or one who speaks rightly’. The adverbs $*miḍah$ ‘wrong’ and $*rš$ ‘right’ are used as first members of a compound in *vacah-*. The form *miḍah^o* was preserved because — for unknown reasons — *miḍahuuacā* was not treated as a compound with two separate members; compare the usual reflex in YAv. *miḍō.mata-*, $^xmiḍō.uxta-$ and *miḍōuuaršta-*. Intervocalic $-uu-$ instead of initial $v-$ in $^o uuacā$ also shows that $*miḍah-uacāh$ was kept as an unsplit form.

This section will first discuss the phonetic reflexes $-\bar{a}$ and $-\bar{o}$ of PIr. $*-ah$. As is well-known, $-\bar{o}$ is a more recent development of the more archaic $-\bar{a}$. The second and third subsections discuss a subcategory of $-\bar{a}$, viz. the endings $-\bar{a}bīš$ and $-\bar{a}biiō$. The fourth subsection shows that a change of $*ah$ to $*-\bar{a}h-$ must have taken place in at least one more environment, viz. in front of $-m-$. In § 22.5, we will discuss the analogical spread which the ending $-\bar{o}$ of the nom.sg. has undergone to compounds, where it was used instead of the bare stem vowel $*-a$ of the first member of a compound; this extension of the use of $-\bar{o}$ has also spread to several nominal and verb forms which originally were not compounds. Another result of this tendency is the occasional replacement of $*-\bar{a}$ by $-\bar{o}$ in OAv., § 22.6. Finally, we will try to explain the restricted number of forms where IIr. $*-ah$ is seemingly reflected as $-\bar{a}$.

§ 22.1 $*-ah$

OAv. has two reflexes of $*-ah$, viz. $-\bar{a}$ and $-\bar{o}$. The vowel $-\bar{a}$ especially appears in short words in verse-internal position in the Gāthās, as well as in other OAv. and pseudo-Gāthic texts such as Y 12-15, 55, 56 and Yt 1-4: in the monosyllables \bar{a} ‘the’, $k\bar{a}$ ‘who?’, $x'\bar{a}$ ‘own’, $\bar{a}β\bar{a}$ ‘your’, $n\bar{a}$ ‘us’, $m\bar{a}$ ‘my’, $y\bar{a}$ ‘who’, $v\bar{a}$ ‘you’, $h\bar{a}$ ‘he’ (Y 58.4⁵²¹), and in the disyllables $y\bar{a}.t\bar{a}$ ($*y\bar{a}tas$

⁵²¹ Next to the nom.sg.m. $h\bar{a}$, we find the same form with enclitic $*-ca$ as $h\bar{a}c\bar{a}$ (instead of $^{\dagger}hac\bar{a}$), similarly Y 27.6 $h\bar{a}ca$. We may assume that $h\bar{a}c\bar{a}$ is a secondary creation of the text composers on the basis of $h\bar{a}$. OAv. $h\bar{a}c\bar{a}$ (46.1) is ambiguous; the contextual relations indicate that $h\bar{a}c\bar{a}$ cannot be derived from $ha-$. Moreover, the metre of the line as it runs lacks one syllable and a solution is difficult to find, cf. Monna 1978: 66f. Kellens 1984: 384 and Hoffmann-Forssman 1996: 226 hesitantly regard the form as a 1s. aor.subj.act. of $haca-$ ‘to follow’.

‘inasmuch’, Narten 1986a: 120), *adē* (**adah* ‘below’), *kāθrē* ‘?’ (**kād u* according to Kellens-Pirart 1988-91 II: 230), *ciθrē* ‘bright’, *tarē.° (**tarah* ‘superior to’), *parē* (**parah* ‘over, above’), *nəmē* ‘reverence’, *manē.vistāiš* (**manah* ‘mind’), *mazē* (gen.sg. **mazah* ‘big’), *vacē* (1 x; twice *vacō* at the end of the pāda), *vasē* ‘at will’, *sarē* (gen.sg. of *sar-* ‘union’) and *hazē* ‘power’.*

For a discussion of the condition ‘in short words which do not stand at the end of a verse’, I refer to Narten 1986b: 273, and to § 14.1 above where the same reason was given for the occasional preservation of OAv. *-ōi* as against *-e*, both from **-ai*, and to § 23.1 for the OAv. vacillation *-əm/-ām* < **-am*.

Outside the position where *-ē* could be retained, OAv. has undergone the same change of **-ā* > *-ō* which is characteristic of YAv. The YAv. origin of *-ō* < **-ah* is clear from the fact that *-ē* has mainly been preserved pāda-internally in OAv., and not at all in YAv. This suggests a YAv. phonetic development **-ā* > *-ō*, which got hold of most but not all OAv. forms in **-ā*. There are several other indications which suggest that the sound **-ā* must also have been present in YAv., and that the change of *ā* > *ō* was quite recent:

1. The YAv. ins.pl. and dat.abl.pl. endings *-ēbīš* and *-ēbiiō* have preserved *-ē* < **-ah*, whereas in auslaut this ending has further developed into *-ō*.

2. The dat.sg. ending OAv. *-ōi*, YAv. *-e* must have passed through a stage **-āi*, as has been preserved in YAv. *i*-stem dat.sg. *-ēe* < **-āje* < **-aiai*. For these forms, see § 14. The change of **āi* > *ōi* is very similar to *-ā* > *-ō*.

3. The YAv. *i*-stem gen.sg. ending *-ōiš* < **-aiš* is not attested in a form †*-āiš*; yet the OAv. *u*-stem gen.sg. ending *-āuš* < **-auš* has a parallel structure, which renders it very likely that *-ōiš* goes back to an immediate preform **-āiš*. For these forms, see § 14.3 and § 16.5.

§ 22.2 **-ah-bīš*, **-ah-biiāh*

All OAv. and YAv. ins.pl. and dat.abl.pl. forms of *ah*-stems show the endings *-ēbīš* and *-ēbiiō*. Kuiper 1967: 105f. has shown that these endings may be reconstructed as **-ah.bīš* and **-ah.bīās* respectively. As in the case of e.g. YAv. *vayžiibiš* < **vaxš-biš*, where Kuiper 1967: 118 assumes that the form of the nom.sg. (**vaxš*) has replaced the stem form (**vač-*) in front of the Avestan *b*-endings, we may assume that the endings *-ēbīš* and *-ēbiiō* show the introduction of the nom.sg. ending **-ah*, i.e. **-ah.bīš* > **-ā.bīš* > *-ēbīš*. Important in this respect is Kuiper’s demonstration that OAv. dat.pl. *hudābiiō* to the stem *hudāh-* ‘beneficent’ /*huda?ah*/ shows the same use of the nom.sg. form in **-ah*: **huda?ah.bīāh* > **hudāh.bīāh* > *hudābiiō*.

The evidence for this development is provided by:

- YAv. *auuābīš*, *asābīš*, *tbaēšābīš*, *manābīš*, *ā.gaošō.masābīš*, *axmō.frānō.masābīš*, *zastō.frānō.masābīš*, *vacābīš*, *raocābīš*, *raocābīiō* and *staoiiābīš*, to the *ah*-stems *auuah-*, *asah-*, *tbaēšah-*, *manah-*, *masah-*, *vacah-*, *raocah-* and *staoiiah-*.
- OAv. *vacābīš* and *raocābīš*.

§ 22.3 Analogical *-ābīš* and *-ābīiō*

The normal forms of the ins.pl. and the dat.abl.pl. of *n*-stems would be *-abīš* and *-abīiō*, which are in fact attested in e.g. *dāmabīiō*. Two forms with \bar{a} are found, which must have adopted the ending of the n. *ah*-stems discussed above (Hoffmann-Forssman 1996: 144), viz. *dāmābīš* Y 19.19 (*dāman-* ‘creation’) and *draomābīiō* Y 57.25, Yt 10.93 (*draoman-* ‘attack’⁵²²).

Two \bar{a} -stem forms display a similar analogy:

- *pārənābīiō* (Yt 15.2 = 39). In Yt 15.2 we read *pārənābīiō paiti γžāraiiatbīiō* in Geldner’s edition, which Bartholomae translates as ‘bei überfließenden Hohlhänden’. He interprets *pārənābīiō* as the dat.abl.pl. of *pārənā-* ‘hollow hand, hand used as a saucer (in ritual context)’, which is attested in combination with *vīγžāraiiant-* ‘abundant’ in other passages. Yet the dat.abl.pl. of \bar{a} -stems is usually *-ābīiō*, and a feminine *pārənā-* would have us expect a f. ptc. form †*γžāraiiētibīiō* instead of the attested m.n. *γžāraiiatbīiō*.

Since there is no viable alternative (reading †*pārənāētibīiō paiti γžāraiiatbīiō* with J10 would yield a meaning ‘in the full (*pārənā-*) streams’, which does not fit the context), we must assume that *pārənābīiō paiti γžāraiiatbīiō* was a linguistic reality and reflects an inflexional switch of a f. \bar{a} -stem **pārənā-* to the class of the n. *ah*-stems. This change must have been triggered by the identity of the nom.acc.pl. in $\bar{ā}$ in both classes, cf. Bartholomae 1894-5: 133: \bar{a} -stem *daēnā* ‘religions’, *ah*-stem *vacā* ‘words’. The participle *γžāraiiatbīiō* then has the correct neuter form.

- *haēnābīiō* (Yt 10.93 = Y 57.25). Although Yt 10.93 and Y 57.25 are completely identical stanzas, Geldner has edited *pāiri druūataēibīiō haēnābīiō* in the case of Yt 10.93 but *pāiri druūatbīiō haēnāēibīiō* in Y 57.25. Bartholomae 1904: 777 and 1729 noticed the difference and, with due regard

⁵²² The actually attested forms of this stem are *draomōhu* Yt 13.57 and *draomābīiō* Y 57.25. From these forms alone we cannot tell whether we are dealing with a stem *draoman-* or *draomah-*. The root etymology **drau-* ‘to run’ suggested by the meaning points to a suffix *-man-*.

to the ms. variants, writes *pairi druuatbiiō haēnēbiiō* ‘(protect us ...) from the evil hostile armies’ for both attestations.

Since *druuatbiiō* is the m.n. dat.abl.pl. form of *druuant-*, we must conclude that *haēnā-* f. ‘hostile army’ has switched to the neuter gender, adopting the ending used for *ah*-stems. As with *pərənēbiiō*, this switch must have been triggered by the identical forms of neutral *ah*- and f. *ā*-stems in the nom.acc.pl.

The analysis of a third form in *-ēbīš* is uncertain:

- *fšēbīš* (V 4.51) ‘with fetters’ is presumably related to Ir. **pāca-* ‘binding’ as attested in Khot. *pāsa-* ‘load, leash’ (Bailey 1979: 234) and in Skt. *pāśa-* m. ‘noose’, but Av. *fša(h)-* is of a different formation type. Within Avestan, the closest relative is found in the same sentence, viz. *auua.pašāt* ‘may he tie together’ (maybe **pasiāt*, cf. Kellens 1984: 109; another possibility is **pāšāt* with dissimilation of the first **ā* according to § 4.8). This verb stands a fair chance of being denominal to a noun **pāca-* cognate with the Khot. and Skt. forms.

Close in form to *fšēbīš* is the verb *fšānaiia-* in Yt 14.56 *vī maidiianəm fšānaiieinti* ‘they wrench the middle (body) (to pieces)’, used in the description of a cow tortured by the *daēvas*. The preverb *vī* has the literal meaning ‘apart’, so that *vī fšānaiia-* means ‘to wrench apart’. This may easily derive from a meaning ‘to bend apart’, which would enable a connection with *fšēbīš*. The verb *fšānaiia-* (without cognates in Avestan, without certain cognates in other Iranian languages) may be denominative to a noun **fšan-* or **fšāna-* ‘a binding’, while *fšēbīš* might continue a neuter *n*-stem which switched to the *ah*-declension, as e.g. *dāmēbīš*. This explanation comes close to Bartholomae’s (1904: 1029), who argues that *fšah-* might have originated through ‘decomposition’, i.e. in a compound **X-fšá-* ‘with X fetters’. However, the alternation between simplex and compound forms is preserved unchanged in other Avestan forms, cf. especially *pasu-* ‘cattle’ vs. *varəta-fšu-*. Furthermore, **X-fšá-* would not necessarily have the neutre gender which is required for the formation of *fšēbīš*.

§ 22.4 **-ahm-*

Although most OAv. words display the YAv. reflex *-ahm-*, e.g. *ahmāi* ‘to him’, *mahmī* ‘in mine’ or *dahmahiiā* ‘of the pious’, the following forms have *-ēhm-*:

- *amēhmaidī* (Y 35.7), *mēhmaidī* (46.13), 1p. aor.ind. and inj.med. of *man-* ‘to think’. For an explanation of the preform **a-mahmadi* rather than

$*a$ -*manhmadi* with expected full grade of the root, cf. Hoffmann 1976: 366, who assumes a nasal dissimilation $*mansm^o > *masm^o$ in the IIr. period.

- $\bar{a}hmā$ (34.1, 43.10), acc. of the 1p. pers.pron. ‘we’. According to Insler 1975: 158, Y 29.11 $\bar{a}hmā ratōiš$ may represent an original compound $*ahmarataiš$; Kuiper 1978: 16 agrees.
- $gr\bar{a}hma$ - (32.12-14) PN, spelled $gr\bar{a}r\bar{a}hma$ - in Geldner’s edition, < $*grahma$ -.

At first sight, these forms might be regarded as the only relics of a genuine OAv. reflex $*-\bar{a}hm-$, but this seems unlikely. Although the PN $*grahma$ - and the finite forms of the *s*-aorist of *man*- are unattested in YAv., the pers. pron. *ahma* ‘us’ is securely attested in YAv., so that it is difficult to see why $\bar{a}hmā$ would not have been replaced by the corresponding YAv. form at the canonization of OAv. Rather, we may follow the indications given by the endings $-\bar{a}$ and $-\bar{o}$ (see above), and suppose that OAv. still had $-ahm-$ but that the YAv. allophone $[\bar{a}hm]$ replaced it at the canonization of OAv. This $[\bar{a}hm]$ was mostly restored to $-ahm-$, but stayed in a few isolated OAv. forms as $-\bar{a}hm-$.

We may conclude that $*-ahm-$ yielded $*-\bar{a}hm-$ or $*-\bar{ə}hm-$ in YAv. This seems to be confirmed by the only YAv. form which does not show a reflex $-ahm-$, viz. the dat.sg.m. $vīspāmāi$ of $vīspa$ - ‘all’, attested in Yt 10.5, Ny 2.14 and F 316. The reconstruction $*vīspahmāi$ seems to demand a development via $*vīsp\bar{a}hmāi$ to $*vīsp\bar{ə}hmāi$ in the archetype, from which the special sign for \bar{m} was lost in the process of ms. copying (Hoffmann-Narten 1989: 70).

One might suggest that $*vīsp\bar{a}hmāi$ was an OAv. loan word in YAv., but this is improbable. The stem $vīspa$ - in YAv. shows several forms with a pronominal ending which has replaced the older nominal ending (e.g. nom.pl. YAv. $vīspe$ for OAv. $vīspā\bar{h}hō$), and also $*vīspahmāi$ has replaced an earlier form $vīspāi$, which is still the only dat.sg.m. form of $vīspa$ - in OAv. We must therefore accept $*vīsp\bar{ə}hmāi$ as a real form. It is possible that the replacement of $-\bar{m}$ - by $-m-$ in the mss. caused the simultaneous replacement of $-\bar{a}$ - by $-\bar{ə}$ - on the part of the scribes.

§ 22.5 Av. $-\bar{o}$ for stem-final $*a$

When a compound with the first member in $*-a$ (*a*-stems, *n*-stems, adverbs, numerals) is spelled as two separate words in the mss., the first member receives an ending $-\bar{o}$ nearly without exception, e.g. $sp\bar{ə}nt\bar{o}.mainiiu-$ for $*spanta-manīu-$, $sp\bar{o}.b\bar{ə}r\bar{ə}ta-$ for $*spa-br̥ta-$, $upar\bar{o}.kairiia-$ for $*upara-karīa-$, $hapt\bar{o}.karšuuairī-$ for $*hapta-kṛšuarī-$. If the compound was

left unsplit, the original ending *-a* is preserved, e.g. *daēuuaiiasna-* for **daiua-iasna-*, *ərəδβafšna-* for **rdya-fšna-*, *duuadasa-* for **duua-dasa-*.

Bartholomae 1894-5: 150 explains the ending *-ō* from analogical replacement of the m. *a*-stem form in **-a* by the nom.sg. form in *-ō*, by analogy with neuter *a*-stems where the nom.acc.sg. and the stem form are identical. Subsequently, he argues, the ending *-ō* came to be used for all first members in **-a*.

Bartholomae's view is attractive since we may then regard the compounds as parallel to the forms of the *b*-cases in Avestan, where we have seen that e.g. *ah*-stem *-əbīš* and *-əbiiō* presuppose the introduction of the nom.sg. form as the first member of the compound. Yet Bartholomae's theory does not explain why we find not only split compounds with the first member in *-ō* side by side with unsplit ones with the first member in *-a* in the m. *a*-stems, but also both variants in the *n*-stems and in compounds with adverbs as the first member.

Hoffmann has therefore suggested (1958: 8) that the text was reshaped by 'diasceuaists' at a certain point (the 'orthoepic diasceueasis', dated in the 6th century BC in Narten 1986b: 258) before the text was committed to writing, and that this reformation included the etymologically inconsistent splitting of compounds into two words, and the introduction of the nom.sg. ending *-ō* for any **-a* that came to be word-final in the first member of a compound. I have chosen to operate with the term Redactional Compound Split (RCS) for this intervention.

Compounds such as *kərəfš.x^var-*, *druxš.manah-* or *vāxš.bərəiti-* show that it really was the nom.sg. which was introduced by the redactors: the first member of these cpd. can only be the nom.sg. of the nouns *kərəp-*, *druj-* and *vāc-* (Kellens 1974a: 40). In order to explain the spread of *-ō* in the first member of compounds, we must assume that it spread from the forms where *-ō* was the phonetic result of **-a*, which is in front of *h* (thus Narten 1986b: 274). The model must have been provided by compounds where the first member ended in **-ah*, e.g. an adverb (*miθō.^o*, preserved in *miθahuuacā*, *parō.^o*), the gen.sg. of a consonant stem (*zəmōištuua-*, preserved *s* in *zəmasciθra-*) or the nom.acc.sg. of an *h*-stem (*manē.vista-*, preserved *s* in *təmasciθra-*).

Hoffmann-Forssman 1996: 65 have suggested that *u*-mutation also served as the phonetic input which provided a model for *-ō* within compounds. However, only a few forms where *u*-mutation could have taken place are attested (*āθrauuō.puθrīm* Yt 10.15, *daēuuō.zuštā* 32.4, *kauruuō.dūmahe* Yt 8.21 and maybe *dunmō.frūtō* Yt 13), and these are just as easily explained as cases of analogical replacement of final **-a* by *-ō*. Furthermore, *u*-mutation

usually occurs only in the initial syllable of words, which is not the case here; finally, *u*-mutation of $*a$ results in *o*, not \bar{o} ; see § 21.1 for the precise conditions.

The fact that all first members of compounds ending in *-a* can replace this by $-\bar{o}$, and the arbitrary way in which some compounds apply this split and others do not, might point to the interference of transmitters who were no longer fluent in Avestan. On the other hand, compounds were still recognized as such, since otherwise the vowel *-a* at the end of an uncompounded word (e.g. \bar{a} -stem f.sg., *a*-stem nom.acc.pl.n.) or at the end of the second member of a compound might also have been replaced by $-\bar{o}$, which is not the case. This, and the arbitrary way in which the replacement $-a^{\circ} \rightarrow -\bar{o}$ takes place, suggests that the replacement and the RCS were concomitant.

We can observe the introduction of stem-final $-\bar{o}$ in various categories. The nominal compounds where this replacement happens will not be discussed, since they are very numerous and the process to be observed is clear. Besides *a*-stems and *ah*-stems, where the nom.sg. was $-\bar{o}$ and may have been introduced directly from the nominal paradigm (e.g. *daēuuō.zušta-* to *daēuuā-*, *aiiō.xšusta-* to *aiiah-*), $-\bar{o}$ has also been introduced for other stems which had $*-a$ when occurring as the first member of a compound, especially the \bar{a} -stems (*uruuarō.ciθra-*), *n*-stems and adverbs.

The introduction of $-\bar{o}$ for $*-a-$ also frequently occurs when the word contains a well-known suffix, which could apparently be analyzed as a meaningful part of the word by the text redactors. It is unclear whether they always knew what the suffix meant, or whether in some cases the analysis was a purely morphological cutting-up of the word; in any case, the split and the concomitant introduction of $-\bar{o}$ seem especially to take place if the second member, which remained after the split, had the appearance of a separate Avestan word.

This process appears especially often with the superlative suffix *-təma-* and the comparative *-tara-*; less frequently we find it with the abstract suffix *-tāt-*, and only sporadically with *-ti-* and *-tu-*. All of these are discussed in the first subsection below. In the second subsection, we will discuss the forms with $-\bar{o}$ in front of the *u*-containing loc.pl. endings *-hū*, *-huuā* (loc.pl., loc.pl. + $*\bar{a}$) and *-huuā* (2s. imperat.med.), which I also regard as cases of RCS. The third subsection deals with the OAv. endings *-dəbīš*, *-duiē*, *-dūm* and *-tū*, which also cause the introduction of $-\bar{o}$. Subsequently, we will address the forms where a ‘wrong’ RCS took place: not along an IIr. morpheme boundary, but due to a clearly later analysis of the forms in question, e.g. *vīmanō.hīm*,

rafənō.xiiāi, *vouru.rafnō.stəma-* and others. Finally, the fifth subsection tackles the exceptions, i.e. split compounds with a first member in *-a*.

§ 22.5.1 Split off suffixes *-təma-*, *-tara-*, *-tāt-*, *-ti-*, *-tu-*

Superlatives of *a*-stem adjectives nearly always show the stem ending *-ō*, due to the redactional separation of the stem and the suffix **-tama-*: *fərašōtəma-*, *apanōtəma-*, *spəntōtəma-*, etc. A small minority has not undergone this split: *fratəma-*, *ašəθβō.zgatəma-* (Y 13.2), *aiβiiāmatəma-* (Y 13.3, Vr 3.5), *āθrauuatəma-* (Yt 1.12), and *išuuatəma-* (Yt 8.6f.).

The same phenomenon is encountered when the suffix is *-tara-*: erstwhile split into *-ō.tara-* occurs in *aošō.tarasca*, *ižiiōtara* (Vr 12.4), *upa.bəraθβōtarəm* (V 8.2f.), *jaθβō.tara* (V 18.65), *dužitō.tarasca* and *humāiiōtara* (Y 27.7, Vr 12.4), whereas presuffixal *-a-* is preserved in *akatarā-* (Yt 10.26), *katara-*, (*gaēθō.*)*jatarasca* (Yt 19.6, V 13.42f.), *pauruuatarə* (71.1), *fratarā-*, *rapiθβənataraūt* (A 4.6) and *huiiaštatarā* (Yt 5.9).

With the suffix *-tāt-*, secondary split is found sporadically: *šiiəoθnō.tāitiia* (Y 19.9), ins.sg. of **šiiəoθnatāt-* ‘the locus *šiiəoθnanəm*’, *ūθō.tās* (V 6.10ff.) ‘fat’, *karapōtāscā* (Y 32.15) < **karpātāt-* ‘karpan-hood’, *daēuuō.tātəm* (Yt 13.90) ‘daēva-hood’.

The suffix *-ti-* is split off from its base only in the word **gadati-* ‘robber’, attested in the acc.pl. N 53 *gaδōitišca* and Yt 11.6 *gaδō.tūšca* (K36.Jm4), a corruption of **gaδō.tišca*, cf. Hoffmann 1975: 200ff., and in the gen.pl. **gaδō.tinəm* in N 26, where the separation point is still attested. These forms suggest that the RCS antedates *i*-epenthesis.

Secondary split is found twice in front of the suffix *-tu-*, in forms conventionally regarded as examples of *u*-mutation of **ā* (cf. Bartholomae 1894-5: 174, Hoffmann-Forssman 1996: 71):

- *jiiōtūm* (Y), acc.sg. of *jiiātu-* ‘life’, the gen.sg. of which is attested as *jiiātəuš*.

- *astō.vīδōtuš* (V), nom.sg. of *astō.vīδātu-* ‘partition of bones’, containing the word *vīδātu-* ‘partition, dissolution’ also attested in the abl.sg. *vīδātaošt*.

Since the conditions for *u*-mutation are not fulfilled (there is no preceding labial consonant) and since the result of *u*-mutation is normally *o*, not *ō*, we must regard these forms as cases of secondary split on the analogy of compounds. The split of **jiiātūm* into **jiiā.tūm* is especially easy to imagine since *tūm* occurs as a separate word in YAv.

§ 22.5.2 YAv. split off endings in *h-*

Hoffmann-Forssman 1996: 65 claim *u*-mutation of **a* > \bar{o} in front of the endings *-hū*, *-huuā* (loc.pl. **-hu*, **-hu-ā*), *-tū* (3s. imperat.act.), *-huuā* (2s. imperat.med.), *-duiē*, and *-dūm* (2p. med.). The forms concerned show endings with a *u*-vowel, and in many cases a labial consonant precedes the vowel \bar{o} .

I consider such a mutation unlikely. We have established in § 21.1 that the semivowel *uu* does not cause *u*-mutation, and furthermore that the result of *u*-mutation of **a* is *o*, not \bar{o} . The ending *-ō.huua* is also found in *raocōhuua* and *uzīrō.huua*, where no labial consonant precedes it.

Nearly all of the forms with a labial consonant preceding \bar{o} are found in the loc.pl. **-ahu* of *n*-stems, which by virtue of the suffixes **-man-* and **-uar/uan-* often have a labial consonant preceding the ending. I think that this is merely a coincidence. Since the *a*-stems have a loc.pl. **-aišu*, the \bar{a} -stems **-āsu*, the *i*-stems **-išu*, etc., the only categories where the development **-ahu* > **-ō.hu* could take place anyway are the *n*-stems and the *h*-stems⁵²³.

It is unjustified to separate the occurrences of \bar{o} in front of *-hu* etc. from the development of split compounds⁵²⁴. In fact, most of the attestations still show the separation into *-ō.hu* etc. in the mss. The words *huua*, *hu* and *tu* occur as separate lexemes of Avestan, which will have reinforced the tendency to split up the originally unsplit word. I now provide a list of all the relevant forms:

n-stems:

- *uruθβō.huua* (V 5.51): *uruθβuuar-/n-* ‘intestines, belly’.
- *haptō.karšuuōhuua* (Yt 6.3, Ny 1.13), *karšuuōhu* (Yt 10.16): *karšuuuar-/n-* ‘region, part of the world’.
- *xšapō.huua* (V 21.3): *xšapan-* ‘night’.
- *garəmōhuua* (V 15.4): *garəman-* ‘throat’.

⁵²³ Where **-as-su* merged into PIr. **-asu* early enough to give PIr. **-ahu*.

⁵²⁴ In fact, this very solution is pointed out by Osthoff 1879: 3f., when he argues that forms such as *rauuōhu* look as if the form of the nom.sg.n. in \bar{o} had been introduced, «so dass sich das \bar{o} - jener locative von *-as*-stämmen dem \bar{o} - der altbaktrischen ableitungen und compositen wie *spentō-tema-*, *spentō-dāta-* von *a*-stämmen gleichstellt.» He furthermore argues that the analogy may have started in the *n*-stems, where the original loc.pl. **dāmahu* may have seemed to the Avestan speakers to be built on the nom.sg. *dāma*.

- *dāmōhu* (Yt 10.6,92, Ny 2.15⁵²⁵) as well as *dāmahuua* (V 21.5ff.): *dāman-* ‘creature, creation’.
- *draomōhu* (Yt 13.57): *draoman-* ‘attack’ (cf. fn. 522).
- *barəsmōhu* (Yt 13.27): *barəsmān-* ‘twig (of sacred wood)’.
- *yauuō.huua*⁵²⁶ (V 17.3): *yauuan-* ‘corn shed’.
- *viiāxmōhu*⁵²⁷ (Yt 13.16): *viiāxman-* ‘congregation, meeting’.

h-stems:

- *arəzahuuua* (V 21.3): *arəzah-* ‘evening’.
- *uzīrō.huua* (V 21.3): *uzīrah-* ‘afternoon’.
- *ušahuua* (V 21.3): *ušah-* ‘dawn’.
- *təmōhuua* (H 2.33), *təmō.huua* (V 19.30) as well as *hazaṅrō.təmahuuaca* (Yt 15.53)⁵²⁸: *təmāh-* ‘darkness’.
- *raocōhuua* (H 2.15): *raocah-* ‘light’.
- *rauuōhu* (Yt 3.4, V 18.10): *rauuah-* ‘free space, freedom’.

The choice between original *-ōhu(ua)* or *-ō.hu(ua)* does not seem easy. However, the forms with unsplit *-ōhuua* occur for a large part in the Yašts, for which our transmission is less trustworthy than for the Vīdēvdād. We may suppose that *-ōhuua* represents a very recent univertation of the formerly split sequence. Note that in Ny 2.15 and Yt 10.6 *dāmōhu* and Yt 13.16 *viiāxmōhu*, the variant readings give reason to edit ⁺*dāmō.hu* and ⁺*viiāxmō.hu* respectively.

The variant *-ahuua* is only attested in V 21, and in Yt 15.53 *təmahuuaca*. The v.ll. of the latter form, as well as those of V 17.3 *yauuō.huua*, point to *-ahuua* being a very late corruption of earlier *-ō.huua* of the archetype. This would also explain the co-occurrence of forms in *-ō.huua* and *-ahuua* in V 21.3, and the fact that we have V 21.5 *dāmahuua* but elsewhere *dāmō.hu*.

In OAv., one instance of split off *-huuā* is found in Y 33.10 *ābaxšōhuuā*, the 2s. prs.ipv.med. of *baxša-*. Bartholomae 1904: 924 corrects it to

⁵²⁵ V.ll. Ny 2.15 *dāmōhu* Pt1.L18 · *dāmōi* F1 · *dāmōi* J10 · *dāmō.hu*^o Mf3, *dāmōi* K18b.c.L25 · *dāmōhuš* J9, *dāmōiš* Jm4, *dāmōi* O3.L11; Yt 10.6 *dāmōhu* F1.Pt1 · *dāmō* J10.Ml2 · *dāmōi* H4.

⁵²⁶ V.ll. *yauua.huua* Jp1.Mf2, *yauuō.huua* the other mss.

⁵²⁷ V.ll. *viiāxmōhu* F1 · *viiāxmō.hu* J10 · *viiāxmō.hu* K14.H5 · *viiāxamō* Mf3.K13.38.

⁵²⁸ V.ll. V 19.30: only L4 *təmahuua*; Yt 15.53 *tīmō.huuaca* J10 · ^o*təma.huuuaca* F1.Pt1.E1, *təmahuuaca* K12.

ābaxšō.huua on the basis of the mss. In Y 49.7 *gūšahuuā*, 2s. prs.ipv.med. of *guša-*, we find the sequence preserved.

§ 22.5.3 OAv. \bar{o} < *a in front of *t* and *d*

The following OAv. forms are concerned:

- *gūšō.dūm* (Y 45.1), 2p. prs.ipv.med. of *guša-* ‘to hear’. Separation point according to Bartholomae 1904: 486.
- *didrayžō.duiiē* (48.7), 2p. prs.ind.med. of *didrayža-* ‘try to hold’. Separation point according to Bartholomae 1904: 772.
- *drəguuō.dəbīš* (29.2, 48.11), *drəguuō.dəbiiō* (30.11, 31.14, 53.6), ins.pl. **druguatbiš* and dat.pl. **druguatbiāh* of *drəguuañt-* ‘deceitful’.
- *mazdāñhō.dūm*⁵²⁹ (45.1), 2p. prs.ipv.med. of *mazdāñha-* ‘to bear in mind’.
- *vaēdō.dūm* (53.5), 2p. prs.ipv.med. of *vid-* ‘to find’. Correction of Geldners *vaēdōdūm* by Bartholomae 1904: 1314.
- *vātōiiō.tū* (35.6), 3s. prs.ipv.act. of *vātāiia-* ‘to announce’. Most of the mss. spell *vātōiiō.tū*.
- *vərəziōtūcā* (35.6), 3s. prs.ipv.act. of *vərəziia-* ‘to make’.

Narten 1986a: 115 argues that $-\bar{o}$ - in these forms is not, as Bartholomae 1894-5: 173 claimed, due to the secondary split of a word into two parts, but to the slower, liturgical recitation of the texts. She tentatively suggests that *a first gave \bar{o} or \bar{a} (i.e. **vərəziōtūcā*) whence \bar{o} , or that * \bar{a} became \bar{o} under influence of the following vowel \bar{u} . She explains the presence of the separation points after $^{\circ}\bar{o}$ from a more recent graphic analogy of these verb forms with compounds in which $-\bar{o}$ appears in the first member.

Narten’s explanation for the rise of $^{\circ}\bar{o}$. was probably inspired by the fact that only the OAv. texts display a significant number of forms with *a > \bar{o} other than in front of *h. However, this does not explain the precise *distribution* of such split forms, as Lubotsky 1994: 94 has objected. He returns to the idea that we are dealing with cases of analogical split by the text redactors. To my mind, this split may have been relatively late; the fact that especially OAv. endings were affected can be explained by the form of the endings: *-dūm* and *-dəbīš* do not occur intervocalically in YAv., so that *d-* may easily have seemed word-initial to the text redactors. The forms *tū* and

⁵²⁹ Only S1.J3 write *mazdāñhōdūm* without separation point, compare the v.ll. of Y 13.2 *ašəθβōzgatəma*.

duiie occur as independent words in YAv., so that for these forms too, a later analogical split is unproblematical.

§ 22.5.4 -ō for non-stem-final *a

Like the forms *drəguuō.dəbīš* and *drəguuō.dəbīō*, several other forms in both OAv. and YAv. display an etymologically unjustified separation of members. They confirm that a certain intervention in the text must have taken place at a time when the language was no longer alive.

In the following three forms, the RCS was applied in front of *h/x* plus a front vowel. The reason for the split probably was the fact that *hī*, *hīm* (**hiiam*) and *xīiāi* (**hiāi*) could be analyzed as separate words:

- *uzəmōhī* (Y 46.9). The interpretation of this form is controversial, but it is clear that *uzəmōhī* must continue either **uzmahī* or **uzmāhī*.
- *vīmanō.hīm* (V 1.7), acc.sg. of *vīmanahiia-* ‘discord’. This stem has preserved *-h-* because of the disyllabic suffix **-iia* (see § 28.3).
- **rafənō.xīiāi*⁵³⁰ (Y 58.7) < **rafnahiāi*, dat.sg. of *rafnahiia-* ‘support’, a derivative of *rafnah-* ‘id.’ The consonant **-h-* (whence *-x-*) has been preserved because Y 58 is an OAv. text.

Three more forms with a second member in *-h-* are provided by the OAv. adjectives in **-ahuant-*, showing an ending *-ōṅhhuuant-* which cannot be the phonetic outcome of the preform:

- *aojōṅhhuuant-* (5x) ‘strong, powerful’ < **aujahuant-*.
- *cazdōṅhhuuant-* (2x) ‘intelligent, prudent’⁵³¹ < **cazdahuant-*.
- *raocōṅhhuuat* (Y 37.4) ‘shining’ < **raucahuat*.

⁵³⁰ Geldner edits *rafənō.xīiāi*, but Bartholomae 1904: 1510 adopts the word split which most mss. attest: v.ll. *rafənō.x°* Pt4.Mf4, *rafnō.x°* Mf1 · *rafənō.x°* J2, *rafənō.x°* K5 · *rafnō.x°* Mf2.Jp1, *rafənō.°* K4 · *rafənō*. L2, *rafnō.x°* L1 · *rafənō*. H1, *rafnō*. J6.

⁵³¹ This meaning of *cazdōṅhhuuant-* is disputed; Kellens-Pirart 1988-91 II: 241 connect Skt. *cānas-dhā-* ‘to delight in’. Werba 1986 has adduced various formal and semantic arguments against this Ir. etymology, the strongest of which are: the lack of any cognates for Ir. **cazd^h-*, and the fact that the base word in *-ah-* from which adj. in *-uuant-* are derived is usually attested in Avestan. Yet I disagree with Werba’s solution that *cazdōṅhhuuant-* is a corruption of **vazdōṅhhuuant-* ‘strengthening’. This would require a spelling corruption of **v* to *c*, but the two letters are not really similar; this would have occurred at two different Gāthā passages, and in the ancestral ms. of the Yasna.

These forms have been explained by Hoffmann (1976: 596, see also Hoffmann-Narten 1989: 78) as mixed forms, in which $-ŋ^h-$ of the YAv. reflex $-arŋ^hant-$ was introduced into the OAv. form. i.e. $*-arŋ^hant-$ x $*-ōhūuant-$ → $-ōŋ^hūuant-$. In principle this scenario can be adopted, but with a slight modification. The postulated prestage OAv. $*-ōhūuant-$ cannot have been the phonetic result of $*-ahūant-$, since this would have yielded either $†aojahūuant-/aojax^v ant-$, or, when split, $†aojē.vant-/aojō.vant-$. We must assume that the YAv. transmitters split original OAv. $*aojahūuant-$ into $*aoja.hūuant-$, and replaced $-a$ by $-ō$ → $*aojō.hūuant-$. Contamination with YAv. $aojaŋ^hant-$ subsequently led to the attested form $aojōŋ^hūuant-$ ⁵³².

In a few forms, the sequences $-sT-$ and $-zD-$ were reinterpreted as word-initial $sT-$ and $zD-$, and consequently the preceding $*-a$ was replaced by $-ō$:

- OAv. $rāniiō.skərāiti-$ ‘joy-bringing’ (Insler 1975) or ‘creation of something more joyful’ (Hoffmann-Forssman 1996: 64) from $*rāñias-kṛti-$. This word was reinterpreted by the redactors as $*rāñia-skṛti-$, after which the ending $-ō$ was introduced into $*rāñia$.
- A 3.4 $^+vouru.rafnō.stəma-$ (thus Bartholomae 1904: 1431 for Geldner’s $vouru.rafnōstəma-$; most mss. have unsplit $rafnōstəma$), acc.pl. of $vouru.rafnō.stəma-$, the superlative of $vouru.rafnah-$ ‘providing broad support’ (in Y 1.1 and Vyt 14). The preform $*vouru.rafnastəma-$ was split into $*vouru.rafna.stəma-$ by the redactors.
- Y 13.2 $ašəθβōzgatəma-$ is the superlative of $*aš.θβazga-$ ‘having a strong impulse’ (to the verb stem $*θβang-$ ‘to press’, inchoative $θβazja-$; cf. Tremblay 1996: 126), and we may therefore with Bartholomae 1904: 263 edit $ašəθβō.zgatəma-$ in accordance with the majority of the mss⁵³³.

The remaining forms are isolated cases. We find in OAv.:

- Y 28.3 $^*aγzō.nuuamnəm$ ⁵³⁴, nom.acc.sg.n. of $*aγžanuamna-$. If Klingenschmitt’s connection (1982: 187, fn. 32) with PIE $*d^h g^{wh}-n(e)u-$ is correct (to Skt. $daghnuyāt$ ‘to miss by an inch’, Gr. $phthánō$ ‘to be earlier, to overtake’), we may reconstruct Av. $*a-gžanuamna-$ ‘which cannot be missed’.

⁵³² The same chain of events is assumed by Werba 1986: 338, but with a different chronology.

⁵³³ V.II. $ašəθβō.$ ° Pt4.Mf1.4 · $ašīθβō.$ ° J2.K5 · $ašəθβōzgatəmaq$ S1, $ašīθβō.$ ° J3 · $ašəθβō.$ ° Mf2.K4 · $ašəθβō.$ ° L1.2 · $ašəθβō.$ ° J6.H1.K11.L13, $aša.θβō.$ ° J7.

⁵³⁴ Thus Bartholomae 1904: 50f.; the spelling $aγzōnuuamnəm$ is only attested in the IrKA ms. K37 and in the YS ms. C1. In the other mss., it was replaced by $aγžāōn.$ °.

This was then split into **aγža.nuuamnəm*, and subsequently developed into *aγžō.nuuamnəm*.

• The etymology of OAv. *siiōzdūm* (Y 48.7), 2p. ipv.med., is disputed. The learned mss. have *siiōzdūm*, *siiōždūm*, and with the loss of -z- or -ž- *siiōdūm* (IrPY, IrVS), whereas the branches InVS and YS have *s/šiiāoz/ždūm*. It seems best to connect this form with Y 34.9 3s. aor.subj. *siiazdat* ‘chase away!’, also because of the meaning⁵³⁵: Y 48.7 *nī aēšəmō [nī]diiātqm, paitī rəməm [paitī]siiō(z)dūm*, translated by Humbach 1991 I: 177 as ‘Let wrath be laid down! Chop up fury’. Instead of ‘chop up’, a translation ‘chase away’ would be envisageable. In that case, we might reconstruct a 2p. aor.ipv.med. **siazduam*. The ms. branches which have lost -z- have then replaced **siiadūm* by *siiōdūm*.

In YAv., several verb forms show this replacement:

- YAv. *uziiōrəntəm* (Yt 8.36) and *uziiōraiti* (V 19.28), prs.ptc.act. and 3s. prs.ind.act. of *uziāra-*, thematic red.pr. to *ar-* ‘to move’. For *uziiōrəntəm*, a compound split is rendered likely by the fact that it occurs side by side with *hispōsəntəm*, for which see below. *Uziiōraiti* represents **uziārti*; with Hoffmann-Narten 1989: 40, fn. 9, we may restore its expected outcome **uziiōraiti* (cf. § 24.1.3) into the text on the basis of the v.ll.⁵³⁶. Klingenschmitt 1970: 74 has shown that F 444 *uziō* may point to an originally split spelling **uziō.rāiti* for V 19.28 *uziiōraiti*.
- The verbs *aδβōžən*, *vīδβōžən* and *fraδβōžən* (Yt 14.45) are 3p. prs.inj.act. forms of *δβαža-* < **duj-ja-*, present to the root **d^huag-* ‘to flutter’ (compare Skt. *dhvajá-* ‘flag’; Sogd. *wy-δβγs* ‘to strew, unfold’, *wyδβ’γ* ‘explanation’, Khwar. *bδβxs* < **vi-duaxša-*). Bartholomae 1894-5: 159 corrects these forms to *aδβō.žən*, *vīδβō.žən* and *fraδβō.žən* on the basis of the v.ll., which show a separation point after *ō* in many instances. Although a separate word *žən* does not make sense in Avestan, we must still see the origin of *ō* in the light of this separation.
- Yt 1.19, 13.71 *druuōiθiiāṭ* for **druuāθiiāṭ* is the abl.sg.f. of *druuānt-*. Analogical split led to *druuō.θiiāṭ*, after which *i*-epenthesis in front of *θii-* yielded *druuō.iθiiāṭ*, the form preserved in the best mss. The same split may be conjectured for *jasōiθiiā* H 1.5 (prs.ptc.act. *jasānt-*, see Bartholomae 1904: 502¹²), but here we have no v.ll. to confirm this hypothesis.

⁵³⁵ See also Lubotsky fthc. on these verb forms.

⁵³⁶ V.ll. Yt 8.36 *uziō.rəntəm* J10 · *uziōirəntəm* F1.Pt1.E1; note *ōir* for **ōr* as in *cō(i)rəṭ*. V 19.28 *uziōriθi* L4, *uziōriθe* K1 · *uziōraiti* Jp1.Mf2 · *uziōraiti* L2.Br1.K10.

- The present **hispa-* ‘to look at’ (**hispōsante* Yt 8.36, *hispōsəmna* Yt 10.45) has also undergone the analogical split, viz. to **hispō.sa-*.

§ 22.5.5 First member in *-a*.

Obviously, the view defended here about the spelling of split compounds has its implications for the analysis of the exceptions to this rule, viz. compounds in which we find the final vowel *-a* of the first member and yet a split into two words in the mss. The index in Duchesne-Guillemain 1936 provides an easy survey of the forms concerned. Most of the exceptions can be explained.

The majority regards prepositions and numerals: *apa.*^o, *haca.*^o, *ana.*^o, *auua.*^o, *upa.*^o, *para.*^o, *paṇca.*^o, *haḍa.*^o, *haṭra.*^o, *ašta.*^o, *nauua.*^o, *dasa.*^o, *hazaṇra.*^o; here, the redactors had recourse to the normal forms in *-a*, and were less tempted to replace these by *-ō*. For the adjective *ašauua.*^o, note that the nom.sg. was *ašauua*.

Other split compounds with a first member in *-a* are few, and it may be surmised that most of these forms were seen as two separate words by the redactors splitting up compounds. Among the words with a certain etymology, we find *ahura.ṭkaēšō*, *aēṭra.paiti-*, *uṇra.bāzu-*, *uṇra.zaoša-*, various compounds in *aša.*^o, Y 10.9 *vərəṭra.tauruuan-*, Yt 13.46 *vərəṭra.baodah-*, Yt 13.142 *vīspa.tauruuir-*, Yt 5.128 *raṭa.kara-*, Y 10.11 *spita.gaona-* and Y 10.6 *haoma.hūiti-*, *haoma.stūiti-* and *haoma.x^varəiti-*.

The form *druua.ašaciṭrahe* (Y 16.10), which is preceded by *druuafšaoš*, was probably spelled as *druuō.ašaciṭrahe* originally, the spelling still attested by J2.K5, J3 and Mf2; note that the same mss. which spell *druua.fšaoš* are the ones that spell *druua.ašaciṭrahe*. A theoretical **druua-aša-* should have yielded **druuāša-*.

Similarly, Yt 19.6 *kadruua.aspa-* ‘having brown horses’ must represent a later remake of original **kadruuaspa-*, from an adjective **kadru-* ‘brown’ (related to Skt. *kādru-* ‘tawny’) and *aspa-* ‘horse’. The preform **kadru-aspa-* is indirectly attested in Phl. *kwdlwsp*, which excludes an original compound **kadrua-aspa-*: this would have yielded †*kadruāspa-*, and the long vowel \bar{a} would be preserved in the Pahlavī mountain name. It seems that **kadruuaspa-* was remade into *kadruua.aspa-* by a desire to restore the noun *aspa-*.

§ 22.6 OAv. -ō for *-ā

In a few OAv. forms, the ending -ō appears instead of *-ā. It seems that these are exceptional cases, where the YAv. transmission consciously replaced *-ā by -ō.

- *apō* (Y 32.9) < **apa* ‘away, off’ is followed by the particle *mā*. Humbach 1959 I: 19 suggested that here, as opposed to e.g. Y 33.4 *apā*, **apa mā* developed into **apə mā*. Yet in the light of the usual retention of *ə/ē* in OAv., especially in front of nasals, *apō* can hardly be due to a phonetic change alone. Possibly, **apā.mā* was considered to be a compound, which would make the replacement by *apō.mā* another case of analogical -ō in compounds.
- The preverb **fra* is spelled *frō* in the mss. if it occurs as an independent word, and *f(ə)ra-* or *frā-* when attached to the verb (total number of OAv. **fra*: 30x). On the basis of forms like *frō.mā* (28.11, 45.6) and *frō.mōi* (33.8), Hoffmann-Forssman 1996: 65 assume that the preverb **fra* was univerted with the following enclitic pronoun in **fra mā*, **fra mai*, whence **frāmā* or **frāmā*, which eventually yielded *frō-*. This *frō* would then have spread to the occurrences of **fra* in front of other consonants. This scenario meets with the important objection that prenasal *ə/ē* is usually retained in OAv. It seems safer to assume that *frō* has replaced **frā* in those cases where the text redactors judged it to be the first member of a compound. We can include the apparent exception Y 46.8 *frōsiiiāt*, where *frō* is written attached to the following word. There is no other way to explain *frō-* in this form, so that we must assume **frāsiiiāt* → **frō.siiiāt* by means of the RCS (thus already Humbach 1959 I: 19). For the form Y 46.4 *frōrətōiš*, a replacement **frā.ərtōiš* → **frōrtōiš* seems less likely; we may rather connect this form with the YAv. development of **fra-ər-* > *frēr-* (see § 24.1.4).
- The original dat. ending of the 1s. and 2s. pers.pron. Ilr. **-bia* was retained in PAv. We find its reflex in 1s. OAv. *maibiiā(cā)* (4x), YAv. *māuuōiia* < **mabīa* ‘to me’, 1p. OAv. *ahmaibiiā(cā)* ‘to us’, 2s. OAv. *taibiiā-cā* (1x) ‘to you’, 2p. OAv. *xšmaibiiā(cā)*, *yūšmaibiiā* and YAv. *xšmāuuōiia* < **(iū)šmabīa* ‘to you’. However, a few of the dat. forms take final -ō, viz. OAv. *māibiiō* (6x) and *taibiiō* (5x), and YAv. *yūšmaoiio* (Yt 13.38). Concerning the 2s., Bartholomae (1894-5: 140) suggests that "jAw. -byō wird von den Pluralformen stammen", which means that *-biiō* in *taibiiō* was a YAv. form which was adopted by analogy with the YAv. dat.abl.pl. ending *-biiō*. Bartholomae assumes that the 1s. *maibiiō* adopted *-biiō* in an indirect way: "vom Pron. 2. Pers. ging im Iranischen das Suffix auf das der 1. Pers. über." This explanation was copied off-hand by Reichelt 1909: 206.

This explanation must be based on the occurrence of YAv. *yūšmaoiio* (1x) ‘to you’, but we have seen that *yūšmaoiio* occurs beside *xšmāuuōiia* (1x), so

that YAv. too will originally have had the ending *-*bīā*. It seems likely that *yūšmaoiīō* itself is due to a later analogy with the nominal ending -*bīīō* (> -*uīīō*), so that it cannot be used to advocate a linguistically real spread of - \bar{o} to the 2s. and afterwards to the 1s. Therefore, we may assume that *maibīīō* and *taibīīō* are due to a replacement by YAv. speakers of OAv. -*bīīā* by -*bīīō* at a certain moment during the text tradition. The process may thus be compared to the replacement of the OAv. endings - \bar{a} , - \bar{o} i, - $\bar{ə}$ m by YAv. - \bar{o} , - \bar{e} , - $\bar{ə}$ m, which also took place in YAv. times but was not fully completed (see §§ 22.1, 14.3, 24.1). In favour of this explanation, we may also adduce the fact that - \bar{a} is never replaced by - \bar{o} when enclitic -*cā* ‘and’ follows: *maibīīācā* (3x), *taibīīācā* (1x).

Gotō (1999: 139ff.) has recently proposed a different solution, viz. that *maibīīō* and *taibīīō* contain the pers. pronouns **mabīa* and **tabīa* followed by the particle **u* (Skt. *u*). This is certainly possible from the phonetic point of view (cf. § 16.3.2, where we have shown that *-*iau* yields -*īīō*), but it leaves a number of questions unanswered. Kellens-Pirart 1988-91 II: 131ff. assume the presence of the particle **u* in the Gāthās and the YH on a much larger scale than had hitherto been done, but their discussion is not addressed by Gotō. I find two points of conflict between Gotō’s theory about *maibīīō* and *taibīīō*, and the view of **u* by Kellens-Pirart: 1. each case of **u* assumed by Kellens-Pirart occurs after conjunctions (*at*, **na*) and relative, interrogative and demonstrative pronouns, but never after a personal pronoun⁵³⁷. Of course, this is a minor point, since one might argue that we now find two such cases. 2. Kellens-Pirart assume that **u* counts as a separate syllable for the metre, by which means they try to solve metrical problems. But all verses in which *maibīīō* and *taibīīō* occur have the expected number of syllables if we analyze them as disyllabic *ma-byā* and *ta-byā*⁵³⁸; if we would add another syllable for **u*, the lines would have one syllable too many.

⁵³⁷ The alleged occurrence in Y 44.13 *ahmaṭ ā [nīš] nāšāmā* is too uncertain. It seems better to take *ā* as the preverb belonging to *nāšāmā*.

⁵³⁸ Compare the metrical analysis of Y 28.2, 31.4, 43.14, 46.3, 48.8, 51.10 *maibīīō* and 30.8, 44.6, 53.3 *taibīīō* in Monna 1978. The only deviant verse is Y 28.2, where Monna analyzed *maibīīō dāuuōi ahuuā* — which should have 7 syllables — as hexasyllabic *mabya dāvai ahvāh*. Beekes 1988: 2 has corrected this to heptasyllabic *mabya dāvai ahvāh*.

§ 22.7 YAv. -ə < *-ah

This section discusses two sets of forms in which the nominative of an (original) *a*-stem is reflected as -ə. This ending is of secondary nature, and betrays a more recent layer of YAv. language. The two sets of forms in which -ə occurs are the nom.sg. of PN in the Yašts (§ 9.7.1) and the nom.sg. of nouns which form the subject complement of the verb *bū-*. Among the last category, I also include the alleged *cvi*-formations of YAv.

§ 22.7.1 Yašt nominatives in -ə

In the passages Yt 1.12-15 and Yt 15.43-48, Ahura Mazda and Vayu enumerate their names in front of Zarathustra. The names are given one after the other in the form [*X* in nom.sg.] + *nəma* (acc.sg.) + *ahmi* 'I am *X* by name', e.g. *ībaēšō.tauruuā nəma ahmi* 'I am Overcomer of Enmity by name'. It is a well-known problem that these names do not always display the expected nom.sg. ending according to their inflexional class, cf. Kellens 1974a: 178f. The account given of these deviations by Bartholomae 1904 is unsatisfactory ("statt nom.sg."), while Kellens discussed only a few of the problematic forms. It appears that we can explain part of the exceptions as perseveration of the ending of a preceding word (i.e. from text corruption), but the ending -*e/-ə* in *a*-stems must be regarded as original.

The text of Yt 1.12-15 presents a large number of nom.sg. forms of *a*-stems ending in -*a* instead of expected -*ō*, viz. 1.12 *baēšaziia*⁵³⁹, *baēšaziīōtəma*, *āθrauuatəma*, *ašauuastəma*, *x^varənaŋ^hhastəma*, *pouru.darštəma*, *dūraēdarštəma*, 1.13 *žnōišta*, 1.15 *vərəzi.saoka*, *səuuīšta*, *xšadriia*, *xšadriīōtəma*⁵⁴⁰, *dūraē.sūka*; in Yt 15.46, we find *taxmōtəma*⁵⁴¹. Some of the correct forms in -*ō* are also spelled -*a* in part of the mss., e.g. *hudānūstəmō* with -*təma* in F2.Mf3.Lb16.K36.M12. We can posit the spelling -*ō* for all these forms in the archetype. The spelling -*a* for *-*ō* is certainly due to the example set by the many names derived from stems in -(*t*)*ar*- and in -*uuan*(*t*)-, which have a regular nom.sg. ending -*a*: 1.12 *dātāca*, *θrātāca*, *žnātāca*, *āθrauua*, *ašauua*, *x^varənaŋ^hha*, *pouru.daršta*, *dūraēdaršta*, 1.13

⁵³⁹ Thus edited by Geldner on the basis of the majority of mss. But part of the Indian mss. preserves °*ō*: Pt1.O3 *bišaziīō*, L18.K12 *baēšaziīō*.

⁵⁴⁰ But °*təmō* preserved in Mf3.W1.L9.H2.M12.

⁵⁴¹ Thus in F1; but J10 has °*timō*.

spašta, *vīta*, *dāta*, *pāta*, *θrāta* and *žnāta*. Probably, the recurring form *nqma* has also influenced the replacement of original endings by *-a*.

The problem of the words ending in *-ə* or *-e* is different. This concerns the expected YAv. ending *-ō* of the nom.sg. of m. *a*-stems, which surfaces as *-ə* or *-e* in the mss. The situation is clearest in Yt 15, where the intrusion of v.ll. in *-a* is less massive than in Yt 1. The evidence comprises 15.43 *apaiiate*⁵⁴² (2x; stem *apaiiata(r)-*), 15.44 *vohuuaršte*⁵⁴³ (2x; stem *vohuuaršta-*), 15.45 *fracarə* (*fracara-*), *aipicarə* (*aipicara-*), *aipiḍbaoyə* or *-γə*⁵⁴⁴ (*aipiḍbaoyə-*), *dahakə* (*dahaka-?*), *zinakə* (*zīnaka-?*), *vīdakə* or *vīdakə*⁵⁴⁵ (*vīdaka-?*), ⁺*viṇḍa.x^varənə*⁵⁴⁶ (*viṇḍa.x^varəna(h)-*), 15.46 *vīdaēuuō.karə*⁵⁴⁷ (*kara-*), *karədarəsə*⁵⁴⁸ (could be a corruption for **huuarə-*, as Bartholomae 1904: 451 suggests, or **darə-*; *karə-* could have been copied from the preceding *vīdaēuuō.karə*), 15.48 *tižiiarštə*⁵⁴⁹ (*tižiiaršta-*), *pəṛəθuuarəštə*⁵⁵⁰ (*pəṛəθuuaršta-*), and *vaēžiiarštə*⁵⁵¹ (*vaēžiiaršta-*). Here also belongs the nom.sg. 15.46 *haθrauuənə*, which Geldner edited as *-a*: F1 *haθrauuənə*, J10 *haθrauuana*. Outside Yt 15.43-48, we find the same phenomenon in 15.53 *vimanəkarə*⁵⁵² and *vīdaēuuō.karə*⁵⁵³, and in 15.54 *anāxruuīḍa.dōiθre*.

In Yt 1.12-15, the v.ll. allow us to restore forms in *-ə* or *-e* for Geldner's *fšūše.məθra*⁵⁵⁴ (1.13; in fact, we must restore *fšūšō.°*), *isə.xšəθra*⁵⁵⁵

⁵⁴² F1 *°te* · J10 *°ta* and *°ti* · K12 *°ta*.

⁵⁴³ F1 *°te* · J10 *°təm*.

⁵⁴⁴ F1 *°γə* · J10 *°γə*.

⁵⁴⁵ F1 *vidakə* · J10 *viḍake*.

⁵⁴⁶ F1 *viṇḍix^varənə* (correction for the scribe's initial, mistaken *viṇḍikaə*) · J10 *viṇḍa.x^varəne*; Bartholomae edited *vindi-x^varənah-* (1904: 1449).

⁵⁴⁷ F1 *°karə* · J10 *°kare* · K12 *°kəṛə*.

⁵⁴⁸ F1 and M12 *darəsə* · J10 *drəsē*.

⁵⁴⁹ F1 *°arštə* · J10 *°rasti*.

⁵⁵⁰ F1 *°arštə* · J10 *°rastəm*.

⁵⁵¹ F1 *°arštə* · J10 *°rasti*.

⁵⁵² F1 *°karə* · J10 *°kare*.

⁵⁵³ F1 *°karə* · J10 *°kare*.

⁵⁵⁴ F2.Mf3.K36 *fšūšaməθrə* · Jm4 *°ə*, J9.H2 *°e* · F1 *fšūše.məθre*.

(1.13), *vīspa.x^vāθra*⁵⁵⁶ and *pouru.x^vāθra*⁵⁵⁷ (1.14), and maybe also for *aša*⁵⁵⁸ (1.15). Add furthermore **fraxstiie* for Yt 1.7 *fraxštīia*⁵⁵⁹ *nāma ahmi*.

In Yt 1.14, the same *a*-stem nom.sg. in *-ə* or *-e* is attested in *haθrauuane* and *vīspauuane*⁵⁶⁰. The form *vīspataš* is hesitantly regarded as original by Kellens 1974a: 179, but this conclusion is unwarranted. The majority of mss. has *-taše*, while two of the most reliable mss. Jm4 and K36 have *-tašə*. The form *-taš*, attested in the Indian mss. Pt1.E1, O3 and L9, may have been influenced by the nom.sg. forms *adauiš*, *vīdauiš* and *paiti.pāiiuš*, which also occur in Yt 1.14. Yet it is uncertain whether *vīspatašə* was really the form of the archetype. The noun must obviously derive from the verb *taš-* ‘to fashion, create’, but the well-known noun *tašan-* would have a nom.sg. **taša*. Therefore, there are two possible ways to explain *vīspatašə*: either a thematic derivation of the root *taš-* was formed in Avestan, which yielded the nom.sg. *tašə* in Yt 1.14; or original **vīspataša* (nom.sg. of *tašan-*) received the ending *-ə* by analogy with the preceding forms *haθrauuane* and *vīspauuane* (**-ə*) in the course of the transmission.

It will be clear from the preponderance of forms in *-ə* in Yt 15, and from the fact that the oldest mss. (Jm4, K36) often spell *-ə* for *-e* in Yt 1.12-15, that we must regard the nom.sg. *-ə* as the older spelling, which was replaced by *-e* due to the similarity of *ě* and *ē* in the contemporary pronunciation. How is the ending *-ə* to be explained?

There is no way to regard *-ə* as a corruption of expected *-ō* or even of *-a*: those endings are preserved in the text parts here concerned. Theoretically, *-ə* might be a corruption of *-e*, but it is very unusual for an ending *-e* to have so many v.ll. in *-ə* in the Avestan mss. Therefore, the ending *-ə* belonged to the archetype. In fact, it is the only time we find *ə* as a phoneme, i.e. not as an

⁵⁵⁵ Mf3.K36 *isəxšaθrə*, F2.Pd.K18a ^o*e* · Jm4 *xšaθrə*.

⁵⁵⁶ K36 *x^vāθrə*, F2.Mf3.K18a ^o*e* · K7 ^o*ə*, Jm4 *x^vāθre* → *x^vāθrə*, J9.H2.L11 ^o*e* · L12 ^o*e* · F1 ^o*e*.

⁵⁵⁷ F2.Mf3 *x^vāθre* · J9.H2.L11 ^o*e* · L12 ^o*e* · F1 ^o*e*.

⁵⁵⁸ F2.Mf3.Lb16 *aša*, K18a *ašahe* · Jm4 *ašə*, L9.Mb2.K7.L11 *ašahe* · L12 *id* · Pt1 *id*; the v.l. *ašahe* seems to reflect **aše*.

⁵⁵⁹ V.ll. F2.Mf3.K36.L25 *fraxštīia* · J9.H2 *fraxštīia*, Jm4 *fraxraštīia*, L9 *fraxstaiiie*, K7.L11 *fraxa(.)štīiie* · L12.P14 *fraxštīia* · J10 *fraxštōiie*, O3.Mb1.F1 *fraxa.stūiie*.

⁵⁶⁰ Most mss. spell ^o*ne*, but ^o*na* is also attested: F2.K36.18a.12.L12.25.J15 *haθrauuana*, K36.18a.12.L12.25 *vīspauuana*.

automatic anaptyctic vowel or as an allophone of *a* in front of certain consonants. One might argue that it reflects **-ā*, but *-ā* is preserved in the acc.pl. of *a*-stems, also in the Yašts. Besides, *-ā* could only be the nom.sg. of *a*-stems in OAv., but we have no other trace of its preservation in YAv.

We could assume that the forms in *-ə* in Yt 1.12-15 and 15.43-48 have originated in a different dialect than mainstream YAv. This dialect could have had a reflex *-ə* < **-ah*, instead of *-ō* < **-ah*. Yet this would not explain why we also find *-ō* as a nom.sg. of *a*-stems in Yt 1.12-15 and 15.43-48, in the basic vocabulary. The assumption of dialect difference must be dismissed.

It seems probable to me that the names of Yt 1.12-15 and 15.43-48 represent a more recent linguistic layer. This is borne out by the nature of the texts, which are simply enumerations of names, where words and phrases from other Avestan texts have sometimes been adopted in order to create new names. E.g. 15.48 *tižiiarštə nąma ahmi tižiiarštiš nąma ahmi, pərəθuuarəštə nąma ahmi pərəθuuarəštiš nąma ahmi, vaēžiiarštə nąma ahmi vaēžiiarštiš nąma ahmi*, which is clearly built on Yt 13.101 *tižiiarštōiš ašaonō frauuašīm y(azamaide), pərəθuuarštōiš ašaonō frauuašīm y(azamaide), vaēžiiarštōiš ašaonō frauuašīm yazamaide*, or 1.15 *bərəza nąma ahmi xšaθriia nąma ahmi* which is built on Y 65.12 *bərəza ahura xšaθriia*. Compare also the ‘wrong’ inflexion of e.g. **vin̄da.x̄arəna-* (for **vin̄da.x̄arənah-*, cf. *vīdat̄.x̄arənah-*), and the triad *dahaka-*, *zīnaka-*, *vīdaka-*, formed with the suffix *-ka-* from what seem to be verbal stems.

It is important to emphasize the fact that it is merely the *names* in the texts under scrutiny which give the impression of being ad hoc-formations. The general make-up of the texts does not present other features of deficient grammar, but of course this hardly concerns anything else than the expression *nąma ah-* ‘to be called’, which occurs elsewhere in Avestan too. I would therefore propose that the names bearing a nom.sg. *-ə* were formed ad hoc by speakers of a different language than Avestan, who did not fully master Avestan grammar anymore.

This recalls the idea put forward by Back 1978: 39ff., viz. that the final *-y* in the Middle Persian inscriptions represents spoken *-[ə]* from the ‘spätaltpersischen’ period. As the more recent Old Persian inscriptions show, final syllables had begun to collapse, and Back assumed that final *-y* of the Middle Persian inscriptions is a remnant of that stage of development in which only a single final vowel served as an ending for the sg. Klingenschmitt 2000: 194 points to the same phenomenon in MP inscriptions, and reconstructs the ending *-y* as *-i* < **-əh*; the examples he gives are *dpywr(y)* ‘writer’ < **dip̄īwari* < **dip̄ībara-*, and *gwpty* ‘said’ (ptc.) < **gufti*

< **guftəh*. The final stroke of Book Pahlavī, which seems to occur without any rule in the extant mss., could have the same origin, cf. e.g. Nyberg 1964: 131.

The Avestan ending *-ə* which we observe in Yt 1.12-15 and 15.43-48 could provide independent proof for the vocalic reflex of *-*ah* in early Middle Iranian times, if our conclusion is accepted that the names in those texts are of a more recent make. In fact, the occurrence of the ending *-ə* in *viṇda.x'arəna* and *vīspatašə*, which are not *a*-stems but *ah*- and *an*-stems respectively, would tally with the merger of the nom.sg. of these stems with *a*-stems already in OP. The Avestan names in *-ə* would then suggest that the Avesta was handed down by people in south-west Persia in the period of 'late OP', i.e. after the merger of final syllables in [-ə] but before this final vowel was dropped in MP (before 250 AD)⁵⁶¹.

§ 22.7.2 Subject complement in *-ə* + *bū-*

There are two YAv. texts in which we find a form of the root *bū-* 'to become' together with a subject complement displaying an unexplained ending *-ə* or *-i*. This syntactic combination is otherwise unknown in YAv., and has not been satisfactorily explained yet. It is my contention that the ending of the subject complement was *-ə* in all the relevant forms in the archetype. The text of A 1.10-11, in which the ending is generally acknowledged to be *-ə*, will be discussed in the first part of this subsection. The second and third part will discuss the ending *-i*, which occurs in Y 62.2 and 62.3.

• A 1.10-11

The forms *vanat.pəšənə* (A 1.10), *vauuanə*, *nijanə* and *zazə* (A 1.11) occur in front of *buiie*, the morphological status of which is disputed. In his edition,

⁵⁶¹ Klingenschmitt 2000: 194 has proposed to regard the nom.sg. *būiti*, the name of a *daēuua* in V 19.1ff., as a pseudo-Avestan form with the nom.sg. ending *-i* < *-*əh* from pre-Sasanian Middle Persian. He assumes that *būiti* represents the Iranian adoption of *Buddha*, and compares B.-Phl. *bwt'*, MMP *bwt* 'Buddha'. This is an interesting possibility, but very speculative. It would mean that the text of V 19 considerably post-dates 500 BC, which in itself is conceivable; but other evidence for such contemporary themes is missing. In V 19.43, *būiti* is only one of the *daēuuas* mentioned; others are *iṇdra-*, *sauruua-* and *nāḥaiḍiia-*, which continue inherited Ir. deities, and are only mentioned here in V 19.43, and in V 10.9.

Geldner edited four sequences of separate words: *vanat.pəšənə buiie*, *vauuanə buiie*, *nijanə buiie* and *zazə buiie*⁵⁶². We may give the whole context and the translation of Wolff 1910: 307, which is based on Bartholomae:

- A 1.10 *āfrīnāmi vauuanuuā vanat.pəšənə buiie*
vīspəm auruuadəm tbišiiantəm ...
- A 1.11 ***vauuanə buiie*** *radβiia manarha radβiia vacarha radβiia šīiaodna;*
nijanə buiie *vīspe dušmainiū vīspe daēuuaiiasnē,*
zazə buiie *varhāuca mižde varhāuca +srauuahi urunaēca darəye*
+hauuaj^hhe.
- A 1.10 'Ich flehe (darum), **als Gewinner der Schlacht** siegreich **zu werden** über jeden hassenden Feind ...,
 [note that B.'s translation is not parallel to the next sentences; a more literal rendering would be 'Ich flehe (darum), als Siegreicher **Gewinner der Schlacht zu werden**']
- A 1.11 (ich flehe darum), **siegreich zu werden** durch zeitentsprechendes Denken, zeitentsprechendes Reden, zeitentsprechendes Handeln; **niederschlagen zu können** alle Übelgesinnten, alle Daēvaanbeter, **damit ich mir** den guten Vorteil und den guten Leumund **erwerbe** und für die Seele die langdauernde Seligkeit.'

Several deviations from the grammatical standard of YAv. point to a more recent origin of this text portion: 1. the stem *vanat.pəšana-* is known as a thematic stem; this suggests that *-ə* is another irregular nom.sg. ending, like

⁵⁶² The v.ll. are:

A 1.10f.	IrKA	InKA (I)	InKA (II)	YtS
<i>pəšənə</i>	F2.Mf3. K36 ° <i>əne</i>	Jm4 ° <i>ənə</i> , H2 ° <i>nə</i> , J9 ° <i>nə</i> , O3 ° <i>əna</i>	P14 ° <i>əne</i> , J15 ° <i>ne</i>	Pt1 ° <i>ənə</i>
<i>vauuanə</i>	F2.Mf3. K36 ° <i>əne</i>	Jm4.H2.J9.L9.Mb2.K7c ° <i>anə</i> , O3.L11 ° <i>e</i> , K15 ° <i>i</i>	J15 ° <i>anē</i>	Pt1.E1 ° <i>anə</i> , J10 ° <i>a</i>
<i>nijanə</i>	F2.Mf3.K36 ° <i>jəne</i>	Jm4.J9.H2.L9.K7c ° <i>janə</i> , K15 ° <i>zani</i>	J15 ° <i>jane</i> , P14 ° <i>jine</i>	Pt1.E1 ° <i>jane</i>
<i>zazə</i>	Mf3.K36 <i>zazə</i> , F2 ° <i>e</i>	Jm4.H2.J9 ° <i>ə</i> , K15.L9.K7c ° <i>i</i> , O3 ° <i>a</i>	J15 ° <i>e</i>	Pt1 ° <i>ə</i> , E1 <i>zaoza</i>

The v.ll. of *zazə* in the parallel passage Y 62.6 are: Pt4.Mf4 °*ə*, Mf1 °*e* · J2.K5 °*ə* · Jp1.K4 °*ə* · Pd.Mf3 °*ə* · Jm4, H1, J15 °*ə*, J9.H2 °*e*, Pt1 °*e*, F1 °*a*.

in the preceding subsection; 2. *vauuanə*, *nijanə* and *zazə* are closely similar in form to the pf.ptc.act. *vauuanuuah-*, *ni-jaynuuah-* and *zazuuah-* of the corresponding verbs roots *van-* ‘to conquer’, *ni-jan-* ‘to slay’ and *zā-* ‘to leave behind’ → ‘to win’⁵⁶³, but they do not agree completely; 3. the acc.pl. *dušmainiiū* is based on a later reflection of original **dušmainiiūš*, cf. Bartholomae 1894-5: 229 and § 11.1.1 above.

The main crux of A 1.10-11 is the analysis of *buiie* < **buuiai*, which can hardly represent anything else than a dat.sg. **b^huHai* to a root noun **bū-* ‘being, becoming’. It was thus analyzed by Bartholomae 1904: 969, and this analysis was supported by Schindler 1979: 58. On the basis of the close resemblance of *vauuanə* to the perfect participle *vauuanuuah-* ‘having won’, Hoffmann 1968b: 285f. assumed that the words in *-ə* *buiie* were actually compounds, positing *zazə.bū-* ‘becoming a winner’, *vauuanə.bū-* ‘becoming a victor’ and *nijanə.bū-* ‘becoming a slayer’. He surmised that all three first members in *-ə* were derived from the regular pf.ptc.act. by means of dissimilation of **-u-* in the suffix **-uah-* in anticipation of the following **buue*: **zazuah-buuai* > **zazə.buue*, etc. Note, however, that this does not work for *nijanə*, because we would still expect †*nijaynə*.

Hoffmann explained final *-ə* as the regular result of **-ah* and compared the development of **raucahbīš* to *raocəbīš*; however, this leaves the difference between *ā* in *raocəbīš* and *ə* in *zazə.buiie* etc. unaccounted for: as we have seen above, the expected outcome of **zazuah* would have been **zazuuə*. Another difficulty with his analysis is the form *vanat.pəšənə buiie* ‘becoming a winner in battle’, where the first member is a stem *vanat.pəšana-*, and not a pf. participle.

It seems to me that Hoffmann’s analysis of *vauuanə*, *nijanə* and *zazə* as corrupted perfect participles is correct, but they must be regarded as independent words, not as parts of a compound. Maybe there once were real *a*-stems **vauuana-*, **nijana-* and **zaza-* in the language, but it must have been at a very recent stage, or in a very colloquial register, in which the endings had collapsed and word formation types had lost the meaning which they had in classical Avestan.

If we assume that *vanat.pəšənə buiie*, *vauuanə buiie*, *nijanə buiie* and *zazə buiie* are parallel formations, we have a fourfold expression *āfrīnāmi* + nom.sg.-*ə* + *buiie* ‘I pray for becoming X’ = ‘I pray to be X’. Although the object of *frī-* is usually in the accusative or in direct speech, a dat.sg. is attested two verses earlier in A 1.8: *āfrīnāmi ... uparāi amāi uparāi vərəθrāi uparāi xšaθrāi* ‘I wish ... for higher force, higher resistance, higher power.’

⁵⁶³ For the semantic shift from ‘leave behind’ to ‘win’ see Hoffmann 1968b: 283f.

Thus, we may subscribe to the generally acknowledged analysis of *buiie* as dat.sg. of a noun *bū-* ‘the becoming’. The construction of *frī-* + dative might be regarded as a sign of the recent character of the passage, but a recent date of composition does not necessarily mean that *all* the elements are recent, a point which is rightly stressed by Kellens 1974a: 99. It is difficult to see how and why Avestan could have independently created a root noun **bū-* with an abstract meaning. Therefore, it is quite likely that *buiie* and Skt. (°)*bhū-* ‘the fact of being; world’, dat.sg. *bhūvé* ‘to become’, continue an Ilr. root noun **b^huH-*.

• Y 62.2

In Y 62.2, Geldner’s edition presents six instances of a compound in *-i* followed by the 2s. aor.opt.act. *buiiā* of *bū-*:

<i>dāitiio.aēsmi buiā</i>	‘May you be with the required firewood,’
<i>dāitiio.baoiḍi buiā</i>	‘may you be with the required fragrance,’
<i>dāitiio.piṭṭi buiā</i>	‘may you be with the required meals,’
<i>dāitiio.upasaieni buiā</i>	‘may you be with the required lair,’
<i>pərənāiuš.harəṭri buiā</i>	‘may you be with the care of an adult,’
<i>dahmāiuš.harəṭri buiā</i>	‘may you be with the care of someone who has the age of a <i>dahma</i> ,’
<i>ātarš puṭra ahurahe mazdā</i>	‘O Fire, son of Ahura Mazdā!’

The six compounds in question are all possessive compounds which describe the ideal conditions for the fire to be tended in. Five of the six formations have a thematic noun as their second member: *aēsmā-* ‘firewood’, *piṭṭā-* ‘meal’, *upasaiiana-* ‘lair’ and *harəṭra-* ‘care’; *baoiḍi-* ‘fragrance’ is an *i*-stem. The sequences *dāitiio.aēsmi buiā* etc. have often been compared with the so-called *cvi*-construction of Sanskrit, in which a thematic noun receives the ending *-ī* and is used as a complement of one of the verbs *kr-* and *bhū-*, e.g. *mithunī-kr-* ‘to make into a pair’, *mithunī-bhū-* ‘to become a pair’ which are derived from *mithunā-* ‘paired’ (e.g. Bartholomae 1894-5: 148, Benveniste 1935: 65, Schindler 1979: 58 and 1980: 387). The form *buiā* was analyzed as part of the compound (e.g. *dāitiio.aēsmi.buiā*) by Bartholomae, against which see Schindler 1979: 58.

However, it seems unlikely to me that these forms really are *cvi*-formations comparable to those in Skt. In Skt., *-ī bhū-* clearly has the meaning ‘to be made into that which is indicated by the derivational basis of the word in *-ī*’, but the Y 62.2 sequences mean ‘may you be in possession of X’, in which ‘in possession of X’ is expressed by a *bahuvrīhi* in *-i*. Since the

compound acts as a subject complement to *buiiā*, we would expect a nom.sg. ending. In fact, we find this very structure one verse earlier, viz. in Y 62.1 (addressed to the Fire): *yesniiō ahi, vahmiiō yesniiō buiīā, vahmiiō nmānāhu mašiiākanam* ‘you are worthy of praise, **may you be worthy of glory and praise**, worthy of glory in the houses of the people.’ This example provides the construction which we would normally expect in Y 62.2 too, viz. nom.sg. + *buiiā*: **dāitiīō.aēsmō buiīā, *dāitiīō.baoidiš buiīā*, etc.

The v.ll. of the compounds show vacillation in the ending between *-i*, *-e*, *-ə* and *-a* which may point to original **-ə*, like in the passage A 1.10-11 discussed above:

Y 62.2	PY	IrVS	IrKA	YS, InKA, YtS
<i>°aēsmi</i>	Mf4 °ə, Pt4 °a → °i, Mf1 °i · J2 °i, K5 °e	Jp1 °e, K4 °i	Mf3.K36. Pd °i	H1 °e · J9.H2.Jm4.K7c °e · J15 °a · F1 °e, Pt1 °a
<i>°baoidi</i>	all °i except K5 °e	Jp1 °i, K4 °e	Mf3.Pd °i	all °i except H1 °a
<i>°piθβi</i>	Pt4.Mf4 °e, Mf1 °ə · J2.K5 °i	Jp1.K4 °e	K36.Pd °e, Mf3.K18a °i	H1 °i · J9.H2 °i · J15 °i · F1 °e, Pt1 °i
<i>°upasaieni</i>	Pt4.Mf4 °ən [sic], Mf1 °ene · J2 °əni, K5 °anə	Jp1 °əne, K4 °ene	Mf3 °əni, K36.Pd °ene	H1 °ane · J9.H2.Jm4 °eni, K7c °ene · F1 °ene, Pt1 °ane
<i>p°harəθri</i>	Pt4.Mf4.1 °e · J2 °a → °i, K5 °e	Jp1.K4 °e	Mf3.Pd °ə	H1 °əe · Jm4 °ə · J15 °ə · F1 °ə, Pt1 °e
<i>d°harəθri</i>	Pt4.Mf4.1 °e · J2 °i, K5 °e	Jp1.K4 °e	Mf3.Pd °ə	H1 °e · J9.H2.Jm4 °ə · J 15 °ə · F1 °ə, Pt1 °e

Note first of all that *dāitiīō.baoidi* stands apart, because nearly all mss. write °i. This agrees with the different stem-class of *baoidi-*. For the other forms, the ending *-i* which was adopted by Geldner in his edition is clearly

preferred by J2, so that this will be another case of the disproportionately great influence of J2 on Geldner's text. In the other mss., $^{\circ}i$ is in the minority and can be explained as a corruption of $^{\circ}e$. The endings $-e$ and $-\bar{ə}$ are both well attested in the older mss. Since the occasional variant $-a$ is easier to explain as a corruption of $-\bar{ə}$ than of $-e$, and since we already know $-\bar{ə}$ as a post-YAv. nom.sg. ending in (especially) a -stems, we may assume that $-\bar{ə}$ was the ending of these compounds in the archetype. Thus, we may directly compare $^+dāitiiō.aēsmə buiiā$, $^+dāitiiō.piθβə buiiā$ etc. with A 1.10-11 *vanat.pəšənə buiie* etc. The (alleged) form *upasaiieni* provides another argument in favour of $^{\circ}ə$, since many good mss. show $-iian-$ or $-iiən-$ in the pre-desinential syllable. This means that there was no palatal vowel in the final syllable which could have caused i -mutation to \ddot{i} -*iene*; we may restore $^+dāitiiō.upasaiianə$ (for prenasal $-a-$ in $^{\circ}saiiana-$, not $^{\circ}saiianə-$: cf. § 23.3.2.2).

Note that the difference of ending between Geldner's A 1.10-11 $-\bar{ə}$ and Y 62.2 $-i$ is even smaller than we have seen until now. The v.ll. of A 1.10-11 (given above in fn. 562) do not unanimously transmit $^{\circ}ə$: the ending $^{\circ}e$ is found quite often, especially in the IrKA, and some mss. have $^{\circ}i$ or $^{\circ}a$. The larger number of v.ll. in $^{\circ}e$ will be due to the form *buiie* which follows in the text of A 1.10-11. This takes away the last doubts which one might have about the identity of the endings in A 1.10-11 and Y 62.2.

The only form left to be explained is *dāitiiō.baoiði buiiā*. It is unlikely that this represents the grammatically correct ending $*-iš$, because such a corruption would be unparalleled. It rather seems that $*daitiiō.baoiði-$ also received the post-YAv. ending $-\bar{ə}$ of the other compounds. This ending may have been replaced by $-i$ at an earlier stage than in *dāitiiō.aēsmə* etc. because the priests were familiar with the i -stem forms of *baoiði-*, which is quite a frequent noun in ritual texts.

• Y 62.3

We may now turn to Y 62.3, where the address to the Fire from Y 62.2 is continued:

<i>saoci.buiie ahmiia nmāne</i>	‘To be flaming in this house,’ (or: ‘that you may be flaming in this house’)
<i>mat.saoci.buiie ahmiia nmāne</i>	‘to be with flames in this house,’
<i>raocahi.buiie ahmiia nmāne</i>	‘to be light(ing) in this house,’
<i>vaxšaði.buiie ahmiia nmāne</i>	‘to be growth in this house,’
<i>darəγəmcit̄ aipi zruuānəm</i>	‘for a long time.’

Here too, it seems uncertain that we are dealing with compounds, although this has been assumed by most scholars, including Schindler 1980: 387. Note first of all that *mat.saoci.buiie* would have three compound members, which is very rare in Avestan. Furthermore, we only find the ending *-i* in a minority of the mss.:

Y 62.3	PY	IrVS	IrKA	YS, InKA, YtS
<i>saoci</i>	Pt4.Mf1 °i, Mf4 °a → °i · J2 °e, K5 °a	Jp1 °i, K4 °e	Mf3 °i, K36 °e/i, Pd °e	H1 °i · Jm4 °ə, J9.H2.K7c °e · J15 °a · F1 °e, Pt1 °i
<i>mat.saoci</i>	Pt4.Mf4.1 °i · J2.K5 °e	Jp1.K4 °e	Mf3.Pd °e, K36 °i	H1 °i · H2.J9 °i, K7c °e · F1 °e, Pt1 °i
<i>raocahi</i>	Pt4.Mf4.1 °e · J2.K5 °e	Jp1.K4 °e	Mf3.Pd. K36 °e	H1 °e · J9.H2 °e · F1 <i>raoce</i> , Pt1 °ci
<i>vaxšadri</i>	Pt4 °ə, Mf4 °rə → °ə, Mf1 °e · J2 °e, K5 °ə	Jp1.K4 °e	Mf3.Pd °a	H1 <i>vaxšadre</i> · Jm4 °rə, H2.J9.K7c °re · F1 °re, Pt1 <i>vaxšdri</i> .

The forms *raocahi* and *vaxšadri* have no v.ll. in °i (except for Pt1), and Geldner notes in his critical apparatus that these readings are corrections of his own; in both forms, °e is the best attested ending. In the case of the alleged *vaxšadri*, the rules of *i*-epenthesis (cf. § 26) show that an ending *-i* or *-e* should yield *i*-epenthesis in this form, i.e. †*vaxšaidri* or †*vaxšaidre*. However, epenthesis is not attested, and we must reconstruct **vaxšadri buiie* accordingly.

This conclusion implies that the original ending °ə was preserved in some of the good mss. (Pt4.Mf4, K5, Jm4), and was changed to °e in most other mss., but also to °a and to °i — just like we have assumed for other forms above. We can see that in **saocə*, **mat.saocə* and **raocahə*, the ending °ə has hardly survived (Jm4 1x) and has been replaced especially by °e, but this is not surprising in view of the fourfold occurrence of *buiie* in this passage. The ending °i is most numerous with *saoci*, which may be due to the palatal quality of the stop, compare the change of **-cənt-* > *-ciñt-* (§ 23.5.1.2).

If the ending was °ə, the four forms in Y 62.3 cannot be *cvi*-formations. The form *buiie* may be analyzed as a dat.sg. ‘in order to become’ with a

subject complement in - $\bar{ə}$; in other words, the construction may be identical to A 1.10-11:

⁺saocə buiie ahmiia nmāne, ^xmaṭ.saocə buiie ahmiia nmāne, ^xraocahə buiie ahmiia nmāne, ⁺vaxšaṭṭə buiie ahmiia nmāne
 ‘to be flaming in this house, to be with flames ..., to be light ..., to be growth ...’

The four nominal stems which have been used in Y 62.3 are probably nonce formations, or in any case they must have belonged to the colloquial register of speech, just like the (approximations of) perfect stems in A 1.10-11. An adj. **saoca-* is otherwise unknown⁵⁶⁴, but the meaning of *^xsaocə* recalls the prs.ptc. *saocant-* ‘burning’, attested e.g. in V 9.56 *saocīntaṭ paiti āṭraṭ* ‘from a burning fire’. The form *^xraocahə* cannot phonetically continue a form of *raocah-* ‘light’ because of the absence of -*ṛh-*, and furthermore the meaning will have been ‘giving light’ rather than ‘the light’. Thus, the meaning suggests a connection with the stem *raocahiia-* ‘light, clear’ which was posited by Bartholomae 1904: 1491, but its existence in N 68 is far from certain: Waag 1941: 77 regards *raocahe* there as a loc.sg. **raocahi*, which seems a better solution. The approximate meaning of Y 62.3 *^xraocahə* rather suggests a connection with the adj. *raocahina-* (Yt 13.2) ‘giving light’. The stem *vaxšaṭṭa-* is known from V in the meaning ‘growth’, but since in Y 62.3 the Fire is addressed, it seems more likely that the intended meaning is ‘to be growing’ than ‘to be growth’ (thus also Bartholomae 1904: 1339). Thus, *vaxšaṭṭa-* also presents the irregular use of an attested Avestan form. In short, the forms in Y 62.3 seem to be built on existing Avestan words, but deviate from them in meaning, in the (nonce) formation of the suffixes and in the (mis)use of the inflexional ending. This is precisely what we found in the case of the ‘misformed’ perfect participles in A 1.10-11.

We may now summarize the construction of Y 62.2-3, as it can be explained using the new insights. The whole text from Y 62.2 to 62.4 is an unbroken address to *Ātar* ‘Fire’. The instructions of Y 62.2 (‘may you have the required wood, the required lair, the required care, etc.’) represent the preparations for the following step, viz. the undisturbed burning of the fire in the house. In this way, the use of the optative in Y 62.2 and the dative of goal in Y 62.3 becomes fully understandable:

⁵⁶⁴ A form *saoca* occurs in Yt 4.7 in an unclear passage.

- 62.2 ⁺*dāitiio.aēsmə buiiā*, ^x*dāitiio.bao(i)δə buiiā*, ⁺*dāitiio.piθβə buiiā*,
⁺*dāitiio.upasaiianə buiiā*, ⁺*pərənāiiuš.harəθrə buiiā*,
⁺*dahmāiiuš.harəθrə buiiā*, *ātarš puθra ahurahe mazdā* ‘May you be
with the required firewood, ... with the required fragrance, ... with the
required meals, ... with the required lair, ... with the care of an adult, ...
with the care of someone the age of a *dahma*, O Fire, son of Ahura
Mazdā!’
- 62.3 ⁺*saocə buiie ahmīia nmāne*, ^x*maṭ.saocə buiie ahmīia nmāne*, ^x*raocahə*
buiie ahmīia nmāne, ⁺*vaxšadθə buiie ahmīia nmāne darəγəmcit̄ aipi*
zruuānəm (...) ‘In order to be flaming in this house, to be with flames
in this house, to be light in this house, to be growing in this house, for
a long time (...)’
- 62.4 *dāiīā mē ātarš puθra ahurahe mazdā āsu x’ādθrəm* etc. ‘Give to me
soon, O Fire, son of Ahura Mazdā, well-being,’ etc.

§ 22.8 OAv. ə, ē and ēə < *ā in front of -ū-

Two words show raising of **a* to *ə* or *ē* when followed by *-Cuu-*. Since **-aCuu-* is usually retained as such (e.g. in *saduuarəm*, *aduuān-*, *dasuuā*), we may attribute the change to *-ē-* to the specific recitation of Old Avestan.

• Y 38.3 *həbuuaintīš* (or ⁺*həbuuaintīš*) is acc.pl.f. of a stem *həbuuant-*. Narten 1986a: 211f. compares Skt. *sabar-dúh-* ‘yielding juice’, an epithet of the milk cow, and *sabvām* (TB *sabúvam*), possibly ‘the liquid part of the sacrificial meal’. Narten posits a present stem **hab-ua-* ‘to be juicy’ for Avestan, but maybe we may rather reconstruct an Ir. adjective **sabúya-* (**sabuHa-*?) ‘juicy’, which was reformed to **habuuant-* in Proto-Iranian.

• Y 40.3 *bəzuuaitē* is dat.sg.n. of an adj. *bəzuuant-* < **baz-uant-* ‘numerous’ which may be connected with Skt. *bahú-* ‘thick, many’ < Ir. **b^ha^hu-* < PIE **b^hng^hu-* ‘thick’ (EWAia II: 221). Narten (1986a: 279, fn. 34) has argued that the meaning of *bəzuuant-* suggests a connection with OAv. *dəbqza-*, YAv. *bqza-* ‘to consolidate, support’, OAv. *dəbqzah-*, YAv. *bqzah-* ‘thickness, support’, YAv. *bqšnu-* ‘thickness’ < PIr. **dbanz-*. This PIr. root may be cognate with PIE **b^hng^hu-* ‘thick’, viz. in the form of a root **d^hb^heng^h-* ‘to be thick’, cf. Beekes 1988: 78.

In a few words, original **a-* and **ā-* are written with *ēə-* prefixed to them. In the case of Y 32.16 and 47.2 *ēəānū* (**anu* ‘along’) and Y 35.6 *ēəādū* (**aṭ u*), Kellens-Pirart 1988-91 I: 44 suggest a kind of *u*-infection. Also for *ēəāuuā* 29.7 and *ēəāghā* 28.11 one may envisage the influence of the back vowel and glides to have caused a centralized off-glide. At all events, this is only a

sporadic development characteristic of OAv., and can therefore be traced back to the more dragging recitation of those texts⁵⁶⁵.

For Y 53.4 *bāduš*⁵⁶⁶, no convincing etymology has been offered. Kellens-Pirart 1988-91 and Insler 1975 leave the word untranslated, while Humbach 1991 II: 242 interprets it as **mān.bāduš* ‘valuing the bonds of kinship’; yet the noun *bāduua-* has been preserved in its expected form twice in the Gāthās.

§ 22.9 Summary

The results of this section can be summarized as follows:

1. *-*ah* > -*ā*, viz. in

a. OAv. and pseudo-Gāthic:

<i>ā</i>	<i>θβā</i>	<i>yā</i>	<i>yā.tā</i>	<i>ciθrā</i>	<i>nāmā</i>	<i>vacā</i>	<i>hazā</i>
<i>kā</i>	<i>nā</i>	<i>vā</i>	<i>adā</i>	<i>tarā</i>	<i>manā</i> ^o	<i>vasā</i>	
<i>x^hā</i>	<i>mā</i>	<i>hā</i>	<i>kāθā</i>	<i>parā</i>	<i>mazā</i>	<i>sarā</i>	

b. the *b*-cases of *ah*-stems:

OAv.	YAv.		YAv. analogical:
<i>raocābīš</i>	<i>auuābīš</i>	^o <i>masābīš</i>	<i>dāmābīš</i>
<i>vacābīš</i>	<i>asābīš</i>	<i>raocābiiō</i>	<i>draomābiiō</i>
	<i>tbaēšābīš</i>	<i>staoiiābīš</i>	<i>pārānābiiō</i>
	<i>manābīš</i>		<i>haēnābiiō</i>
			? <i>fšābīš</i>

2. *-*ahm-* > YAv. *-*ahm-* > YAv. -*ahm-*, OAv. -*ahm-*:

OAv.		YAv.
<i>amāhmaidī</i>	<i>āhmā</i>	<i>vīspāmāi</i>
<i>māhmaidī</i>	<i>grāhma-</i>	

3. *-*ā* > -*ō* in YAv. and OAv.

Exceptions: OAv. mono- and disyllables in which -*ā* was preserved.

⁵⁶⁵ The spelling *ān^o* has also arisen as a variant spelling for *ān^o* in the InVS mss. in Y 30.11 *ānaitī* and Y 32.6 *ānāxštā*.

⁵⁶⁶ V.II. *bāduš* Pt4, *bāduš* Mf1, *bāduš* Mf4 · *bāduš* K5, *bāduš* J2 · *bāduš* J3 · *bāduš* Jp1, *bāduš* Mf2, *bāduš* K4 · *bāduš* K10.L2, *bāduš* S2, *bāduš* Dh1.O2.Bb1.L3 · *bāduš* H1, *bāduš* L13, *bāduš* Lb2, *bāduš* J7, *bāduš* K11.

4. *-ah > -ə in a recent text layer, attested in:
- b. the nom.sg. of personal names in Yt 1.12-15 and Yt 15.43-48.
 - a. the subject complement of the verb form *buiiā* in Y 62.2 and of the dat.sg. *buiie* 'to be' in Y 62.3 and A 1.10-11.
5. Analogical replacement of stem-final *-a by -ō:
- a. In compounds:
 - a*-stems, e.g. *daēuuō.zušta-* to *daēuuā-*.
 - ah*-stems, e.g. *aiiō.xšusta-* to *aiiah-*.
 - ā*-stems (more sporadically), e.g. *uruuarō.ciθra-*.
 - n*-stems, e.g. *spō.bərəta-*.
 - adverbs and numerals, e.g. *uparō.kairiia-*, *haptō.karšuuairī-*.
 - b. In front of suffixes:
 - tama-*, e.g. *spəntōtəma-*.
 - tara-*, e.g. *aošō.tara-*.
 - tāt-*, e.g. *šiiāoθnō.tāt-*.
 - tī-*, e.g. *ᵛgaδō.tī-*.
 - tu-*, e.g. *jiiōtu-*.
 - c. In front of endings:
 - loc.pl. -*hu*, -*huua*: *uruθβō.huua*, *dāmōhu*, *uzīrō.huua*, *rauuōhu*.
 - b*-cases: OAv. *drəguuō.dəbiš*, *drəguuō.dəbiiō*.
 - verb forms: OAv. *gūšō.dūm*, *mazdārhō.dūm*, *vaēdō.dūm*; *didrayžō.duiiē*; *vātōiiōtū*, *vəraziiōtūcā*, OAv. *ābaxšōhuuā*.
 - d. Sporadic replacement of non-stemfinal *-a:
 - h*-forms: OAv. *uzəmōhī*, *ᵛrafəno.xiiāi*, *aojōrhuuənt-*, *cazdōrhuuənt-*, *raocōrhuuənt-*; YAv. *vīmanō.hīm*.
 - sT/zD*-forms: OAv. *rāniiō.skəraiti-*, YAv. *ᵛvouru.rafnō.stəma*, *ašəθβōzgatəma-*.
 - Isolated cases: OAv. *ᵛayžō.nuuamnəm*, *siiōzdūm*; YAv. *uziiōrəntəm*, *uziiōraiti*, *aδβōžən*, *vīδβōžən*, *fraδβōžən*, *druuōiθiiānt*, *jasōiθiiā*, *hispōsa-*.

Chronologically, the development *-ah > *-əh, which precedes the stage -ā, is presumably of Early YAv. date; it runs parallel to the change of *a > *ə in front of *i* and *u* (as seen above in §§ 14 and 16) and to *a > ə in front of nasals (see § 23 below). It remains uncertain whether *-h was already lost in final position in Early YAv. The change *-ahm- > *-əhm- is probably part of the general change of *ah to *əh; YAv. *vīspəmāi* shows its YAv. character. The sequence *-əh- found its way into the OAv. texts at the canonization of OAv. One OAv. form in -ah- has been preserved, viz. *miθahuuacah-*.

In the endings $-\bar{a}bīš$ and $-\bar{a}biiō$ in YAv., the preservation of $-\bar{a}$ < $*-ah$ suggests that these endings were created before the YAv. change of final $-\bar{a}$ > $-\bar{o}_2$ took place, cf. Hoffmann 1967: 33. Apparently, the word-internal position safeguarded $-\bar{a}$ from becoming $-\bar{o}$.

The Late YAv. change $-\bar{a}$ > $-\bar{o}_2$ receives a relatively recent date in our chronology. Nevertheless, I prefer to regard it as genuine YAv. because it must be dated earlier than the denasalization of $*-ā$ (see § 23.6). After the rise of YAv. $-\bar{o}_2$, $-\bar{o}$ corresponded to an ending $-\bar{a}$ in the OAv. texts. This led to a replacement of OAv. $-\bar{a}$ by $-\bar{o}$ in most instances, but not all, because by now the text had become more solemn and/or less understandable to the YAv. composers. Thus, the vacillation between OAv. $-\bar{o}$ and $-\bar{a}$ < $*-ah$ has similar causes as the vacillation between OAv. $-\bar{e}$ and $-\bar{o}i$ < $*-ai$.

The preservation of YAv. loc.pl. forms such as $*yauuahuua$ until the analogical introduction of \bar{o} (whence $\rightarrow yauu\bar{o}.huua$), suggests that this sequence was not subject to the change $*-ahya-$ > $-aṛḥa-$. In other words, the loc.pl. was still $*yauahu \bar{a}$ at the time of the sound change $*-ahya-$ > $-aṛḥa-$.

§ 23 Iir. **aN*

Except in front of a fricative, where nasalization of the vowel yields *-qC-*, the consonants *m* and *n* have been preserved. The evidence will be discussed according to the different environments. The first two subsections discuss the sequence **-aN* in auslaut, and the third subsection addresses **aN* in inlaut in front of a vowel. The fourth subsection deals with the sequence **-amna-*, whereas the fifth subsection turns to **aN* in inlaut in front of a stop. The sixth subsection will be devoted to **-aN* in front of **h*, both in inlaut and in final syllable.

§ 23.1 The ending **-am*

The YAv. reflex of **-am* is *-əm*, except for the endings **-iam* and **-uam*, which have been discussed in §§ 8.2 and 12.2, respectively.

The OAv. texts present a vacillation between the spellings *-ām* and *-əm*. Kuryłowicz 1925 tried to explain the distribution with the aid of the Iir. stress placement, claiming that stressed **-ám* would have yielded *-ām* but unstressed **-am* > *-əm*. Later he renounced this theory, partly because it was built on the now abandoned theory of Andreas about the history of the written Avesta (Kuryłowicz 1975: 500).

It seems to me that the explanation which Humbach 1959 has put forward for the OAv. endings *-ōi* (reflecting the original OAv. ending) and *-ē* (which shows the replacement by the YAv. ending), see § 14.1 above, can also account for the distribution of OAv. *-əm* versus *-ām*. Beekes 1988: 48 has already observed that *-əm* occurs at the end of a verse, but he did not undertake to explain the occurrence of *-ām* and the cause of the alternation. Most of the forms in *-əm* and *-ām* are distributed according to their position in a half-line of the verse, i.e. forms in *-ām* occur mostly pāda-internally whereas *-əm* is found in all positions.

An easy explanation can now be provided for alternations such as *drujəm* versus *drujām*, *aniiəm* versus *ainīm*, *haiθiiəm* versus *haiθīm*, and for *tanuuəm* versus *tanūm*. As the table below shows, the forms in *-ām* are only attested pāda-internally. We may add in support of this finding that the nom.sg. *tuuəm* 'you' is also only attested in the inner part of a pāda. The forms *ainīm*, *haiθīm* and *tanūm* supply additional information for the relative chronology, viz. that the development **-uəm*, **-iəm* > *-ūm*, *-īm* must have been posterior to the replacement of the OAv. ending *-ām* by YAv. *-əm*; **-uəm* and **-iəm* escaped this development.

internally	finally
44.14 <i>drujəm</i> diiqm zastaiiō	30.8 yōi ašāi dadən zastaiiō <i>drujəm</i> 31.4 yehiiā vərədā vanaēmā <i>drujəm</i> 32.12 karapā xšaθrəmca išānqm <i>drujəm</i>
34.7 naēcīm tēm <i>aniiəm</i> yūšmāt 46.7 <i>aniiəm</i> θβahmāt	53.5 ašā vē aniiō <i>ainīm</i>
46.8 <i>tanuuəm ā</i>	33.10 xšaθrā ašācā uštā <i>tanūm</i>
34.15 fərasəm vasnā <i>haiθiiəm</i> <i>dā ahūm</i>	31.6 yē mōi vīduuā vaocāt <i>haiθīm</i> 34.6 yezī aθā stā <i>haiθīm</i> 51.13 daēnā ərəzaoš <i>haiθīm</i>

Most of the forms which have been edited with *-əm* in pāda-final position can be explained away. Y 53.7 *iuuīzaiiāθā magəm tēm* may be explained as a case of perseveration of the ending of *magəm*. Y 51.14 *arəm* in *karapanō vāstrāt arəm* must be corrected to *arəm* on the basis of the v.ll.⁵⁶⁷. For Y 53.6 *duš.x'arəθəm*, also at the end of a half-line, *-əm* and *-əm* are equally well attested⁵⁶⁸.

This leaves only three instances of *-əm* in pāda-final position, viz. Y 32.13 *θβahiiā maθvrānō dūtəm* (cf. § 10.5.1), Y 43.9 *ahiiā fərasəm* and Y 51.17 *huuō.guuō daēdōist kəhrpəm*, as against more than 80 attestations of *-əm* pāda-internally. It is conceivable that *dūtəm*, *fərasəm* and *kəhrpəm* have received the ending *-əm* because this was perceived as a characteristically Gāthic ending, in contrast with *-əm*.

In pāda-final position, we always find the ending *-əm* (except for *dūtəm*, *fərasəm* and *kəhrpəm*). Nevertheless, the number of forms with *-əm* in pāda-internal position is well over 100, i.e. more than that of the forms with *-əm* pāda-internally. Parallel to the occurrence of *-ē* instead of *-ōi* even in pāda-internal position in the Gāthās, we must accept that *-əm* has replaced *-əm* in more than half of the pāda-internal attestations.

⁵⁶⁷ V.ll. *arəm* Pt4.Mf1 · J2.K5 · J3 · K4.Jp1.Mf2 · L1.2.Dh1, *arəm* H1.J6.7.Lb2.K11.L13 · L3.B2.O2.S2.

⁵⁶⁸ V.ll. *əm* Mf4.Mf1.Pt4 · *əm* J2, *əm* K5 · *əm* Mf2.K4, *xratūm* Jp1 · *əm* O2.L1.2, *əm* L3 · *əm* L13.J7, *əm* J6.H1.

IIr. **ham* ‘together’ is reflected as *hām* or *hān/hān̄*^o in OAv. It always occurs pāda-internally, but the preservation of *ā* may also partly be due to the fact that the YAv. reflex of **ham* is not †*hām*, but *ham* or, more often, *hqm* (cf. § 23.5.2 below), so that there was no model to replace *hām* by †*hām*.

We find three OAv. forms in *-ām* instead of **-qm*, viz. *xiiām* ‘I might be’ (Y 43.8, Y 50.9) < **siām*; Y 44.3 *strāmcā*, the gen.pl. of *star-* ‘star’ (YAv. *strqm*); and Humbach 1959 II: 94 has added the acc.sg. †*xšnām* (Y 48.12, 53.2) ‘recognition’ to *xšnā-* ‘to know’⁵⁶⁹. The reason for *-ām* in these forms is unknown. Possibly, the nasalized vowel in **xiiqm*, **xšnqm* and **strqmcā* was reinterpreted by YAv. speakers as their own phoneme /ā/ (similarly Humbach 1959 I: 30).

§ 23.2 The ending *-an

The IIr. ending **-ant* lost its *-t* to yield PAv. **-an*, which is reflected as *-an* in YAv.: *aṇhān* < **ahant* ‘they may be’, *varādān* < **vardant* ‘they grew’, etc. After a palatal stop or *š*, **-ant* yields *-in* in or after the archetype: Yt 13.78 *fratacin* ‘they flowed forward’ (to *taca-*) and N 68 *frahiñcin* ‘they sprinkle’ (*hiñca-*), cf. Kellens 1984: 233.

After **u*, we find the usual development to **-uun*: *baon* < **bauant* ‘they became’ (prs.inj.), *būn* < **buuant* ‘they may become’ (aor.subj.).

After **i*, the regular reflex is *-iiān*: 3p. inj. forms *jaiḍiiān* ‘they asked’, *vīḍāraiiān* ‘they supported’, *rāḡhaiiān*, 3p.opt. *mānaiiān*, etc. Yt 13.93 *uxšīn*⁵⁷⁰ ‘they grew’ (to *uxšīia-*) may be restored to †*uxšīiān* in the archetype, the reading of J10. It is very probable that **-iā-* was restored in this position, since undisturbed phonetic development would normally yield **-aiān* > *-aēn* and **-Cīān* > *-Cīn*, compare *-aēm* < **-aiām* and *-īm* < **-iām*. The two exceptions without *-aiiān*, viz. *auuaēn* and *cikaēn*, can easily be explained away. V 19.13 *auuaēn* must be restored to *auuāin*, as we have argued in § 15.2. V 15.12ff. *cikaēn*⁵⁷¹, 3p. prs.subj.act. of *ci*⁻² ‘to repay’, may simply be restored to the InVS reading *cikaiiān* with Kellens 1984: 258.

⁵⁶⁹ Although in Humbach 1991 II: 204, he admits that this is «just as puzzling» as a root noun *xšnū-* ‘satisfaction’.

⁵⁷⁰ V.II. F1 *uxšīn* · Mf3 *uxšīn* · J10 *uxšīiān*.

⁵⁷¹ V.II. 15.12 *cikaēn* L4, *cikain* K1a · *cikaēn* Jp1.Mf2 · *cikaiiān* L2.K10.Br1.L1.M2; 15.22 *cikaēn* L4.K1a; the rest as 15.12; 15.40 *deest* L4.K1; the rest as 15.12.

In a few cases, original *-iiən* has been misspelled as *-iiq̃n* in the mss., e.g. in Yt 13.78 *uzuxšiiq̃nca uruuarā* ‘the plants grew up’ and Yt 19.2 *garaiiō fraoxšiiq̃n* ‘the mountains arose’. In the light of the overwhelming majority of the spelling *-iiən*, it is not advisable to assume with Kellens 1999a: 117 that *-iiq̃n* is “le traitement phonétique / graphique régulier de *-iānt final après consonne.”

The most disputed form is *x^vairiiq̃n*, which occurs in Y 9.4, and with small deviations in Yt 15.16 and Yt 19.32:

yaṭ kərənaoṭ aḡhe xšaθrāda amaršəṇta pasu vīra, aḡhaošəṃne āpa uruuaire, x^vairiiq̃n x^varəθəm ajiiamnəm ‘who by his reign made both sheep and men indestructible, water and plants undrying, the food to be eaten undiminishing’.

The form *x^vairiiq̃n* has been plausibly explained by Tremblay 1996: 117f. and defended by Kellens 1999a: 117 as the acc.sg.n. **x^variānt* of a participle **x^variānt-* ‘being eaten’ (to *x^vairiia-* ‘to be eaten’). The spelling *x^vairiiq̃n* instead of †*x^vairiiən* might be due to sandhi with the following *x^v*- of *x^varəθəm*. In view of Yt 13.78 *uzuxšiiq̃nca*, we may state that *-iiən* is sometimes spelled as *-iiq̃n* in close combination with a following obstruent. This must have phonetic reasons: the nasal consonant shifts towards *ŋ*, and in front of it, the difference between *-ə-* and *-q̃-* is difficult to hear.

In OAv., **-an* yields *-ən* and *-əṇ*. The following table lists the OAv. occurrences of both endings, according to the position within or at the end of the verse:

OAv.	pāda-internally	pāda-finally
<i>-əṇ</i>	<i>aspənciṭ</i> 34.7 <i>usəṇ</i> 44.10 <i>spəncā aspəncā</i> 45.9 <i>yūjəṇ</i> 49.9 <i>yasō.xiiəṇ</i> 51.4 <i>rapəṇ</i> 51.18	<i>mīzəṇ</i> 44.20 <i>usəṇ</i> 45.9 <i>yūjəṇ</i> 46.11 <i>[uz]jəṇ</i> 46.12 <i>ajəṇ</i> 48.10
<i>-ən</i>	<i>xšnaošən</i> 30.5 <i>bəṇaiiən</i> 30.6 <i>dadən</i> 30.8 <i>aḡhən</i> 31.1,4,14 <i>rōiθβən</i> 31.7 <i>mōrəṇdən</i> 32.11,12	<i>rāḡhaiiən</i> 32.12 <i>aḡhən</i> 49.11 <i>varədən</i> 49.4 <i>dabən</i> 53.1 <i>sašəncā</i> 53.1
		<i>upā.jimən</i> 45.5 <i>aibi.gəṃən</i> 46.11 <i>aḡhən</i> 48.12

As we can see, $-\bar{d}n$ is more numerous pāda-internally than pāda-finally. It is therefore quite likely that $-\bar{d}n$ was the original OAv. reflex of $*-an$, which was on its way of being replaced by $-\partial n$; thus, the situation is comparable to OAv. $-\bar{d}m$ vs. $-\partial m$.

The table shows a remarkable distribution across the Gāthās: all the forms attested in the first part of the Gāthās show $-\partial n$, while all forms in $-\bar{d}n$ occur from Y 44 onward; the only exception is Y 34.7 *asp̄dncī̄t̄*. Assuming that $-\bar{d}n$ preserves an older stage, we must conclude that it has already been completely replaced by $-\partial n$ in the first part of the Gāthās, whereas the second half of the text preserves $-\bar{d}n$ quite well. In fact, in Y 44-53 the ending $-\bar{d}n$ is even in the majority vis-à-vis $-\partial n$: 6 out of 10 pāda-internal forms and 5 out of 8 pāda-final forms have $-\bar{d}n$. Thus, the relative frequency of $-\bar{d}n$ in this text part is higher than that of $-\bar{d}m$ vis-à-vis $-\partial m$. The reason why $-\bar{d}n$ was only preserved in the second half of the Gāthās is unknown.

§ 23.3 Prevocalic $*-aN-$

In front of a vowel, the texts show three different reflexes, viz. $-aN-$, $-\partial N-$ and $-\bar{d}N-$. The following discussion will look at the OAv. and the YAv. evidence separately.

§ 23.3.1 $*-aN-$ in OAv.

The original OAv. reflex of $*-aN-$ was $-\bar{d}N-$, which has survived somewhat better in the case of $-\bar{d}n-$ than in the case of $-\bar{d}m-$. First we will discuss the reflexes of $*-amV-$, and subsequently the reflexes of $*-anV-$.

§ 23.3.1.1 $*-amV-$ in OAv.

The reflex $-\bar{d}m-$ has been preserved in the following OAv. forms:

- *ap̄d̄ma-* (8x) ‘last’ (YAv. *ap̄d̄ma-*).
- *̄mauuant-* (6x) ‘powerful’ (YAv. *amauuant-*).
- *vīsp̄d̄.mazišt̄m* (Y 33.5) ‘greatest of all’, which probably continues a compound $*vīspa-mazišta-$. Before the RCS, which in any case it escaped, regular sound change would have yielded OAv. $*vīsp̄d̄mazišta-$; a more recent split would explain the result *vīsp̄d̄.mazišt̄a-*.
- Of uncertain etymology, but with syllabic \bar{d} as evidenced by the metre, we find *ah̄d̄mustō* (Y 46.4).

The superlative suffix *-tama- has been preserved once in *spəntōtāmā*⁵⁷² (Y 5.3=37.3), but was replaced by the YAv. form in *spəntōtāmō* (45.5), *hudāstāmā* (41.2-4), and *frašōtāməm* (46.19, 50.11).

After a palatal consonant (*c, j, y, ii*), original OAv. *ām* occurs side by side with forms in *-am-* (after **j*, cf. below) or *-im-* (cf. Narten 1986b: 261), which show the introduction of the YAv. form. Thus *yāmā* ‘twins’ but *yimascīt* ‘even Yima’, *hacāmā* but *hacimnō* ‘following’, *jāmiiāt* but *jamiā*, *jamiāmā* and *jamiāt* ‘may come’, and finally *airiiāmā* but *airiiamnā*, *airiiamanascā* and *airiiāmā*⁵⁷³ ‘companionship’.

The alternation between e.g. *yāmā* and *yimascīt* shows the replacement of OAv. *-ā-* by the YAv. stem *yima-*. Such an alternation between *-ām-* and *-im-* need not always point to a linguistic replacement, but can also reflect a very recent merger of different vowels after a preceding palatal. For instance, the v.ll. of Y 44.11 *vījāmiiāt*⁵⁷⁴ show that the similar pronunciation of *ā*, *ə* and *a* after a palatal consonant made the replacement of these vowels by *i* an ongoing process up to our mss.⁵⁷⁵. Especially in the case of the aor. *jam-* ‘to come’, where *jam-* is the YAv. form, OAv. *jim-* (*jimā*, *jimat*, etc.) may be based directly on earlier **jām-* (as preserved in *jāmiiāt*), not on a replacement **jām-* which would differ from *jam-* (Narten 1986b: 262).

The reflex *-əm-* is hardly more frequent than *-ām-*, at least if we count lexical items rather than the number of occurrences:

- Forms with attested YAv. counterparts in *-əm-*: *nəmah-* ‘reverence’ and derivatives, *təmah-* ‘darkness’, the superlative suffix *-tama-* and the ptc.prs.med. *-amna-*.
- Forms without attested YAv. counterpart: *dasəma-* ‘offering’ and *rəma-* ‘violence’.

It is unproblematic to assume that OAv. *-əm-* is based on the conscious replacement of earlier **-ām-* by later redactors.

⁵⁷² V.ll. °*tāmā* Pt4.Mf4 · °*tāmā* J2.K5 · °*tāmā* S1 · °*tāmā* Mf2.Jp1.K4 · °*tāmā* InVS and YS in Y 5.3.

⁵⁷³ Traces of earlier **airiiāmā* may be seen in Y 49.7 Mf2 (but *secunda manu*) *airiiāmā* and Dh1 *airiiāmā*, B2.L1 *airiiaemā*.

⁵⁷⁴ Viz. *jāmiiāt* Pt4.Mf1.4 · °*jāmiiāt* J2, *jamiāt* K5 · °*jāmiiāt* S1, °*jmiāt* J3 · °*jāmiiāt* Mf2, *jimiāt* Jp1, *jamiāt* K4 · °*jamiāt* Dh1.L2 · °*žāmiiāt* H1.J6.7.Jm1.L13.

⁵⁷⁵ Probably also in Y 40.4 *hišcamaidē*, where the ms. branches are in fact divided between **hišcamaidē* (InPY, J3) and **hišcmaidē* (IrPY, IrVS, S1).

The reflex *-am-* represents the replacement of the OAv. form in **-əm-* by the corresponding YAv. one in *-am-*. Thus we find *aməša-*, *aməratatāt-*, *kamnašuuu-*, *kamnānar-* (YAv. *kamna-*), *hama-*, *hamaēstar-*, and the augment in *aməhmaidī*. Also the endings **-amā* and **-amahī* and the ptc. in *-amna-* belong here: they occur with verbs in *-iia-* and *-uuu-*, in which YAv. restored pre-desinential *-a-* by analogy with those forms of the paradigm where another consonant than *m* or *n* followed the suffix⁵⁷⁶.

Finally, the forms in *-am-* of the stem *spitāma-* (*spitamāḡhō*, *spitamāi*, *spitamā*) are due to a more recent shortening of **-ām-*, and do not contain a reflex of Ir. **-am-* (see § 4.6 for the paradigm of *spitāma-*).

§ 23.3.1.2 **-anV-* in OAv.

The regular reflex is *-ən-*, but in a number of well-defined cases we find *-an-*.

The reflex *-ən-* is found in *asənō* (*asan-* ‘stone’), *qnmənē*, *qnmənī* (*qnmān-* ‘spirit, soul’), *ənəitī* 30.11 (**aniti-*), *ənāxštā* 32.6 (unknown etymology), *x^vənūuātā*, *x^vənūuat* (**x^vanuuant-* ‘sunny’), *xšqnmənē* (*xšqnmān-* ‘the listening’), *jənaiiō* (*jani-* ‘woman’), *jənəraqm* (**jan-nara-* ‘man-killing’), *nāmənī*, *nāmənīš* (*nāman-* ‘name’), *nənāsā* (*nas-* ‘to disappear’), *mazənācā* (*mazan-* ‘greatness’), *mənāicā* (*man-* ‘to think’), *vərazəna-* (6x; Yt 9.26 is an OAv. quotation), *vərazənīia-* (**urjana-* ‘community’, cf. Skt. *vṛjāna-*, OP *vardana-*), *sāx^vənī* (*sāx^van-* ‘teaching’), *spəništa-* (10x) ‘holiest’, *spənūuat* (**spanuant-* ‘bringing good fortune’), *hacənā* (**hacana-* ‘companionship’), and *hušənəm* (**hušana-* ‘giving profit’).

Only *frāxšnəna-* < **frāxšnana-* ‘careful’ is spelled with *-ən-* in most of the mss. Nevertheless, the spellings *°nənəm* and *°nəne*, *°nene* in the mss. of the YS and in Mf2 might preserve older *frāxšnəna-*.

Most or all of the forms in *-an-* will be due to restoration of *-an-* on the basis of the YAv. form: *ana-* ‘that’, the negating prefix in *anaocah-* ‘inimical’, *anašman-* ‘non-verse’ and *anaeša-* ‘powerless’, *airiīaman-*, *ašauuan-* ‘righteous’, *karapan-* ‘hostile teacher’, *tanū-* ‘body’, *barana-* ‘bringing’, *manah-*, *manā-* ‘thought’, *manahiia-* ‘spiritual’, *manaθrī-*

⁵⁷⁶ I have no solution for 31.13 *aiiamaitē*, but note that YAv. has mostly restored *a* between **i* and a nasal in verbal forms.

‘admonisher’, *vana-* ‘to overcome’, *vananā-* ‘victory’, *vīduuanōi* ‘to know’, *sarədana-* ‘contempt’, *sēnghana-* ‘teaching’, *hana-* (aor.) ‘to conquer’, and *hanarə* ‘without’.

In some forms, the reflex *-an-* is found for older **-ań-* < **-ańi-* (Narten 1986b: 267), viz. in *mainiiu-* ‘spirit’, in the verb *maniia-* ‘to think’, in *aniia-* ‘the other’, *aniiadacā*, and in *spariiā* (45.2). In view of the twofold attestation of OAv. *vərəzēniia-*, it seems that the forms in *-a(i)ńi-* are also due to restoration of *-a-* on the basis of the YAv. forms.

A few forms are probably due to shortening of the sequence **-āna-* in (ante)penultimate syllable (cf. Narten 1986b: 268), viz. *āpanāiš* ‘profit’, *uštānəm* (acc.sg. of *uštāna-*), *nanā* (**nānā*), *mąθranascā* (cf. *mąθrānō*) and *vāuuərəzananąmcā*; cf. § 4.5. These forms point to a chronology of 1. **an* > *ān* in OAv., 2. shortening of **ān* to *an* in some positions.

§ 23.3.2 **-aN-* in YAv.

YAv. shows the two reflexes *-aN-* and *-əN-*. We find not a single form in *-ām-*, whereas the few forms in *-ān-* either continue **-ąn-* or have been borrowed from OAv. It seems best to assume that the PAv. forms still were **-am-* and **-an-*, which developed to *-əm-* and *-ən-* at a more recent date. The sequence *-aN-* was retained in anlaut and quite often in initial syllable; it could furthermore be restored in several morphological categories.

§ 23.3.2.1 **-amV-* in YAv.

Ир. **-am-* is reflected as *am-* phonetically in anlaut, and after initial *k-*, *j-* and *h-*:

- *aməša-* ‘immortal’, *amərətātāt-* ‘immortality’, *ama-* ‘force’, *amauuąnt-* ‘powerful’.
- The prefix *ka°* ‘bad, ugly’ in *kamərəda-*, *kamarā-*.
- The aor. paradigm of *gam-* ‘to come’: opt. *jamiīāt*, *jamiīāma*, *jamiīārəš*, *jamiīąn*.
- *hama-*, *ham-* ‘the same’, *ham-* ‘summer’.

In fact, there are no forms with a sequence of a velar or palatal stop or fricative (*k*, *g*, *x*, *γ*, *c*, *j*, *h*) plus *-əm-* attested in anlaut. A few forms with *-am-* in initial syllable after a different consonant occur:

- *handramanā-* (Yt 11.6), maybe *stamanəm* (cf. § 4.5).

Furthermore, *-am-* appears in positions where *-a-* may have been restored for morphological reasons:

- *airiāman-* might have restored **a* due to the stem *airiā-*.
- The thematic suffix *-iia-* in front of the verbal endings *-mahī* and *-maide*.
- Prefixes in *-a* + a word in *m-*: *fra* + *m-*, *a* + *m-*, *upa* + *m-*.

In all other cases we find the allophone *-əm-*: in *təmah-* ‘darkness’, *nəmah-* ‘homage’ and their derivatives, in *nəma-* ‘to go’, in *nəmata-* and *nəmaδka* ‘osiers’, and in *raoxšnəmañt-* ‘shining’. The superlative suffix is attested as *-təma-* without exception⁵⁷⁷, and so is the adjectival suffix **-ama-*, viz. in *apəma-* ‘last’⁵⁷⁸, *aštəma-* ‘eighth’, *upəma-* ‘upper’, *dasəma-* ‘tenth’ and *maδəma-* ‘middle’.

Other forms in *-əmV-* are *maidiiōišəma-* ‘connected with the summer in the middle’ (Kellens 1974a: 399) from **madīai-š(a)mHa-* (cf. Lubotsky 1999: 315), *ʸyuuō.səmi-* (see Skjærvø 1997) ‘(having) yoke and yoke-pin’ < Ir. **juga-śam-ī* (Duchesne-Guillemin 1936: 45f., cf. Skt. *yuga-śamyá-*) and the adj. *raṛəma-* ‘appeasing’ < **ram-ram-a-* (to *ram-* ‘to live in peace’), cf. § 19.1 above.

The forms Yt 8.48 *adairi.zəma-* ‘under the earth’ and *upairi.zəma-* ‘above the earth’ look as if they continue **-zam-a-* with the full grade of *zam-* ‘earth’, since the zero-grade of *zam-* usually comes out in compounds as *-sm-* (e.g. *upasma-* ‘on the earth’, *nisma-* ‘depth’). On the other hand, the zero-grade of the simplex is also *zəm-* (gen.sg. *zəmō* etc.), so that *adairi.zəma-* and *upairi.zəma-* may still have been formed as **-zm-a-*, but within Avestan, or at least at a later date than the compounds *upasma-* and *nisma-* which show the older reflex *-sm-* < **-jm-*. In that case, *ə* in *◦zəma-* would merely be an anaptyctic vowel.

Ašəmaoγa- ‘false teacher’ can be reconstructed as **aša-maōγa-* ‘who deceives Truth’ (cf. Bartholomae 1904: 257, Duchesne-Guillemin 1936: 52), compare Skt. *móha-* ‘bewilderment, folly’. The preservation of *-əm-* may have been supported by the acc.sg. *ašəm* of *aša-*.

⁵⁷⁷ Yt 21.1 *apaiiantamaheca* ‘who must be chased away the most’ has the v.ll. *apaiianta.maheca* J10 · *apaiianta.maheca* F1.E1.P13, *apaiiantamaheca* L18 · *apaiiantamaheca* O3, *apaiiantī.maheca* L11. Most mss. point to a split into two part **apaiianta.maheca*, which may have caused the replacement of **apaiiantə* by a more usual verbal ending *-nta* and *-nti*.

⁵⁷⁸ In F 330 *apəmō*. Yt 1.26 *apəməm* occurs in a quotation from Y 30.6.

The interpretation of Yt 17.6 *āgrāmaiti-* is uncertain. Bartholomae 1904: 310 reconstructs **ā-gra-mati-* ‘with approving mind’ to *gar-* ‘to praise’. The spelling *-grə-* is also found for **gr* however, e.g. Yt 10.68 *hangrəβnāiti* for **-gəṛəβnāiti*; *ṛgrəβnāiti* is found only in F1 and its descendants. In Yt 17.6, F1 spells *āgrāmaitiš*, but J10 has *āgəṛəməitiš* and K12 *āgair̄-*. This points to **āgəṛə°* as the original spelling, cf. § 24.1.5.2. A further problem is posed by the etymology **grH-* of *gar-* ‘to praise’ (Skt. *gṛṇāti*, *gīr-* ‘song of praise’), which would have us expect **ā-grH-mati* > **āgarmati*, unless the laryngeal was dropped in composition. This would provide an argument in favour of Gershevitch’ translation (1959: 226) as ‘watching over’, deriving *āgəṛəməiti-* from *gar-* ‘to wake’ < **Hgar-*.

§ 23.3.2.2 *-anV- in YAv.

Ир. **-an-* is reflected as *an-* in anlaut, in front of **-i-*, and frequently also in initial syllable after a consonant and in the suffix *-ana-*. None of these forms can be explained from analogical retention, since a satisfactory model is absent. We must surmise that the YAv. change of **-an-* > *-ən-* was much less frequent than **-am-* > *-əm-*.

- *ana-* ‘that’, *anu* ‘along’, the negating prefix *an-*, *ana-* ‘not’, *ainika-* ‘face’.
- Forms in **-an̄i-*: *a(i)n̄iia-* ‘other’, *kain̄iian-/kain̄in-* ‘girl’, *jan̄iānti* ‘they are slain’, *pāṇmain̄iō.təma-* ‘most providing for the flight’, *ma(i)n̄iia-* ‘to think’, *ma(i)n̄iiu-* ‘spirit’, *ma(i)n̄iiauu-* ‘spiritual’, *spain̄iiah-* ‘more bountiful’.
- The suffix *-ana-*; since most of the nouns and adj. seem synchronically linked to a verb or a noun, it cannot be excluded that *-a-* is due to analogical retention. Some of the adj. in *-ana-* represent a shortened participial suffix **-āna-* (see § 4.9.4).
- Several other individual words show retention of *-an-* in initial syllable: *kana-* ‘to dig’, *x̄ana-*, *x̄anu-* ‘to resound’, *jan(a)-* ‘to slay’, *tanu-* ‘body’, *tanu-* ‘to stretch’, *manah-* ‘spirit’, *manā-* ‘to pierce’, *vana-* ‘to win’, *hana(ii)-* ‘to conquer’.

The YAv. forms in *-in-* after *c* and *j* might theoretically have passed through a stage **-ən-*, but it is more probable that *-cin-* and *-jin-* are corruptions of immediate preforms *-can-* and *-jan-*. This is especially clear for *vārənjina-* (Yt 14.35), where only F1.E1 read *ṛjina-*, whereas Pt1.O3.Jm4 and K36.37.38 read *ṛjana-* and J10 *ṛzana-*. Therefore, we may probably trace *raēṇβiš.bajina-* (V 14.8) back to **raēṇβiš.bajana-*. Similarly, the particle *cin ā* ‘even’, the indef. *cina-*, and adjectives such as *pacina-* ‘cooking’ (*aš.pacina-*

‘cooking a lot’), and *tacina-* ‘flowing’ (*aiβi.tacina*-⁵⁷⁹, *afštacina*-⁵⁸⁰, ^x*v̄ā.tacina*, *haṅtacina-*) will also continue an archetype spelling **-cana-*.

The sequence *-ən-* is only attested in three forms, where it does not stand in initial syllable:

- **aspana-* ‘useful’ (< **āspana-* ?). The acc.pl. was edited as *aspənācā* by Geldner in Y 42.2, as *aspināca* in S 2.7, and as *aspanāca* in Yt 2.8⁵⁸¹. The variant *aspənāca* is shown by the majority of older mss. in Y 42.2, by the reliable IrKA mss. Kh2.K36 in S 2.7, and by K36 in Yt 2.8; we can assume this to be the spelling of the archetype. The variant *aspanācā*, which is also attested in some of the more recent mss. of Y 42.2, can be explained from assimilation of *ə* to the surrounding *a*-vowels, while *aspināca* shows the interchange between *i* and *ə* which is caused by the fronted contemporary pronunciation of *ə* and *ē*.

- The dat.du., edited as *aspinibiia* in S 2.7 but as *aspanibiia* in Yt 2.3, can likewise be reduced to one original form ^x*aspənibiia*. This spelling is not attested as such in the mss., but Mf3 does preserve the sequence *-ən-*. The connecting vowel *i* of the ending *-ibiia* is due to analogy with the nearby forms *fšəonibiia* and *yaonibiia*⁵⁸².

- *āsənaoiti* ‘ascends’ (Yt 10.13, V 19.28f.) < **ā-sanauti* to *san-* ‘to ascend’, as suggested by Klingenschmitt 1970: 72. We may contrast this form with the

⁵⁷⁹ Yt 14.11; v.ll. ^o*tacinahe* F1.E1.K16, Jm4 and K38; ^o*tacanahe* Pt1+, O3.

⁵⁸⁰ Y 42.2; v.ll. ^o*tacin*^o Pt4.Mf1 · ^o*tancin*^o J2, ^o*tacan*^o K5 · ^o*tacin*^o S1, ^o*tacan*^o J3 · ^o*tacin*^o Mf2, ^o*tacən*^o Jp1.

⁵⁸¹ V.ll. Y 42.2 *aspənācā* Mf1.Pt4 · ^o*ən*^o K5, ^o*ə/in*^o J2 · ^o*in*^o S1, ^o*ən*^o J3 · ^o*ən*^o Mf2.Jp1, ^o*an*^o K4 · ^o*in*^o L1.2.K10.B2.O2, ^o*an*^o L3 · ^o*ən*^o H1, ^o*ən*^o C1, ^o*in*^o L13.K11.Bb1, ^o*an*^o J7; S 2.7 *aspanāca* J10 · ^o*ən*^o E1 · ^o*an*^o L12.M4 · ^o*in*^o Mf3.K17, ^o*ən*^o Kh2.K36, ^o*an*^o K18 · ^o*in*^o H1.L11; Yt 2.8 ^o*an*^o F1, ^o*ən*^o K12 · ^o*an*^o Pt1.E1 etc. · ^o*anqca* J10 · ^o*anāca* O3.M4.L11, ^o*in*^o Jm4 · ^o*ən*^o K36.

⁵⁸² In theory, the expected form **aspənaēibiia* could have been preserved in J10 *aspanaeibiia* and K12 *spinaebiia*, but it seems improbable that the very frequent ending *-aēibii*^o would have been replaced by *-ibiia* in all the other mss. The v.ll. are S 1.7 *aspanaeibiia* J10 · *aspinibiia* E1 · *aspainibiia* M4, *aspinabiia* L12 · *aspinibiia* F2.Kh2.K18.36, *aspənəibiia* Mf3 · *aspinibiia* L11, *aspanibiia* H1.J8; Yt 2.3 *aspanibiia* F1, *spinaebiia* K12 · *aspanibiia* Pt1+ · *aspanibiia* Jm4.Mb1.O3, *aspaneibiia* L11 · *aspinibiia* K36.38.

3s. present or aorist *sanat* (G 5.5, Yt 14.7,9), the v.ll.⁵⁸³ of which leave doubts as to whether the form of the archetype was **sanat* or **sənat*.

The form A 4.6 *rapiθβənatārāt* ‘more to the south’ is attested with *-ən-* in all mss., but it probably represents **rapiθβinatarāt*, since it is obviously derived from *rapiθβina-* ‘in the afternoon’. Compare the frequent spellings *rapiθβəna-* and *rapiθβana-* for *rapiθβina-* even in the better Yasna mss.

YAv. *-ən-* is never a genuine YAv. reflex of **-anV-*. The following three forms have been borrowed from OAv.:

- The nom.acc.pl. *nāməni* ‘by name’ and the ins.pl. *nāmənīš* of *nāman-* ‘name’; compare Y 37.3 *təm at āhūiriā nāmənī ... yazamaidē* ‘him we worship by the godly names’, Y 51.22 *tq yazāi x’āiš nāmənīš* ‘those I will worship by their names’ (see also § 9.4).
- The superl. *spəništa-* ‘holiest’. In OAv. it always occurs in connection with *mainiiu-*, except in Y 53.3 with *xratu-*; in YAv. it occurs with *ātar-*, *mainiiu-*, *Rašnu-*, *Sraoša-*, *frauuāši-*, and *daduuāh-*.

The remaining YAv. stems *frəna-* and *rəna-* show *-ən-* as a special development of *-qna-* < **-āna-*. We have already discussed the vacillation between the spellings *-ən-* and *-qn-* in YAv. in § 19.3.2, and also the OAv. forms *xiiəm*, *xšnəm* and *strəm* which presuppose **-qm-*; in the forms below, the reflex **-qna-* has undergone incidental loss of nasalization, yielding *-ən-*:

- YAv. *frəna-* only occurs in the ins.sg. The preceding analyses of Bartholomae’s 1904: 1022, Gershevitch 1959: 177f., 323 and Thieme 1960: 270f. have been surpassed by Hauschild 1965: 50ff., who has convincingly argued that all instances of *frəna* can be regarded as the ins.sg. ‘in Fülle’ of a noun **frāna-* ‘fullness, abundance’.

The only disputable detail is the etymology of *frəna-*. Hauschild derives *frəna-* from the preverb *frā* plus the nominal suffix *-na-*, but this is formally impossible (we would expect **frana-* > †*frəna-*) and semantically very implausible, since *frā* means ‘forward’ or ‘away’, but not ‘full’. Furthermore, the derivation of an abstract from a preverb by means of *-na-* would be unexpected.

⁵⁸³ Yt 14.7 *sanat* J10 · *sinat* F1 · *sinat* Pt1 (→ *sanat* L18.P13) · *sinat* M4 · *sinat* L11, *snat* O3 · *sinat* K38, *sanat* K36; Yt 14.9 *sənat* J10 · *sinat* F1 · *sanat* Pt1 · *sinat* M4 · *sainat* L11, *sanat* O3.Jm4 · *sinat* K38.36; G 5.5 *yāsnat* J10 · *yā.snat* E1, *sanat* K12.Mb1 · *yā.snat* Pt1 · *sanat* L11, *yāsana* O3 · *sanat* Mf3, *yāsana* K36.

The noun **frāna-* ‘fullness’ has been preserved with *-ān-* in the compounds *axmō.frānō.masah-* ‘with a size of an armful’ and *zastō.frānō.masah-* ‘with a size of a handful’. The word **zastō.frāna-* ‘handful’ (Bartholomae 1904: 1016) literally means ‘the fullness of a hand’, so that we can be sure that °*frāna-* and *frāna-* represent the same noun.

- The sequence *frān-* also appears in the names (in Yt 13) *frānah-* and *frānī-*, which may or may not be derived from the aforementioned *frāna-* (Mayrhofer 1979: I/44). They can be compared with another name, viz. *frāniia-*.
- The acc.pl. *rāna* (V 7.52) of *rāna-* n. ‘battle’ must be connected with OAv. *rāna-*, *rāna-* ‘fighter; warring party’ and with Middle Iranian forms such as Parthian *l’n* ‘to fight’. Werba 1986: 352 explains Av. **rāna-* as a vṛddhi adjective to a stem **rán(a)-* ‘Kampf(esfreude)’, cognate with Skt. *rāna-* ‘Freude, Kampf’. However, in view of OAv. *rāniīō.skərəiti-* ‘bringing joy’, which may be compared with Skt. *rāna-kṛt-* ‘id.’ (cf. EWAia II: 428), it is conceivable that the **-ā-* of OAv. *rāna-* and YAv. *rāna-* is not due to vṛddhi, but was present in more derivatives of the root of Skt. *raṇ-* ‘to be glad, enjoy’. Lubotsky (p.c.) suggests to me that OAv. *rāna-* ‘fighter’ and YAv. *rāna-* ‘fight’ may be derived from the same PIE *o*-stem **Hrono-* with different accentuation, viz. a barytone action noun **Hróno-* ‘fight’ (> IIr. **rāna-*), and an oxytone agent noun **Hronó-* ‘fighter’ (> IIr. **rāná-*).
- *rāna-* (Yt 14.25) occurs in the phrase *būzāhe kəhrpa rānahe* ‘in the shape of a *rāna* goat’. Bartholomae 1904: 1528 suspects a ‘wild’, ‘not domesticated’ goat and compares Skt. *árāna-*. In view of the irregular loss of **a-* which this would entail, it seems more appropriate to compare OAv. *rāna-* ‘fighter’ (see above) and to translate Yt 14.25 *rāna-* as ‘fighter, fighting’, thus *būzāhe kəhrpa rānahe* ‘in the shape of a fighting goat’.

§ 23.4 PAv. *-amna-

The suffix of the prs.ptc.med. of thematic verbs usually surfaces as *-amna-*; this matches the reflex of **-aN-* in front of vowels, where we have seen that *-ə-* occurs mainly outside the initial syllable. After the palatal consonant *-c-*, the result is *-imna-* in *hacimna-*; this is probably a post-archetype development.

One OAv. form preserves the sequence *-āmn-*, viz. Y 44.10 *hacāmnā*; the same stem appears elsewhere (Y 43.10,12) as *hacimnō*.

When the suffix **-amna-* is preceded by **i̇* (or by *īh*), the sound change **-i̇əm-* > *-im-* may yield *-imna-*, viz. in *aṛḥimna-*, *dražimna-*, *paīdīmna-/paīdīmna-*, *ma(i)nimna-*, *yezimna-*, *vərəziāmna-/vərəzimna-*, *uruuisimna-*, *zaranimna-* and *haomanāḥimna-*. Yet in the majority of *iia*-stem

verbs, we find *-iiamna-*, e.g. in *xšaiiamna-*, *ajiiamna-*, *jaiḍiiamna-* etc. With Narten 1986b: 264ff., we can explain *-iiamna-* as the result of restoration of *a* by analogy with other forms of the verbal paradigm, where no nasal followed.

Narten assumed a similar restoration in the sequence *-uuamna-* in order to explain *a* in OAv. *diuuamnəm* and *ayžōnuuamnəm*. In YAv. however, the sequence *-uuamna-* is unattested, while the forms *aomna-* (*auua-* ‘to help’), *nimraomnō* (*mrauuā-* ‘to speak’) and *daomnō* (*dauua-* ‘to speak’) show no sign of a restoration of **-ua-*. Cf. Kellens 1984: 324f., who adds (p. 106) V 13.8 †*draomne* ‘running’ for attested *dramne*⁵⁸⁴.

A few forms in *-amna-* are found after other consonants than *ii* and *uu*. In OAv., Y 43.14 *vaēdamnō*⁵⁸⁵ is found with *-amnō* in the best mss., while the younger mss. apparently replace this by the more common grapheme *-əmna*. If Humbach’s explanation (1959 II: 21) of Y 30.6 *pərəsmanəṅg* as being due to metathesis of **pərəsamnəṅg* is accepted, this would be another example.

In YAv., the prs.ptc.med. suffix is spelled *-amna-* only once, viz. Yt 17.13 *pərətamna* ‘battling’, which Kellens 1984: 324 gives as *pərətəmna*; and indeed, F1 spells *pərətəmna* as can be seen in the facsimile.

The sequence **-amna-* also occurs outside the prs.ptc.med. In initial syllable, we find the reflex *-amn-* in V 4.49 *kamnəm* ‘little’ (**kambna-* ?), in the adj. *ḍamnaṅhaṅt-* ‘caring’ and in the perfect stem *mamn-* of *man-* ‘to think’. In Yt 10.39 *ašəmnō.vīdō* ‘not piercing wounds’, Yt 10.40 *ašəmnō.janō* ‘not striking wounds’ (to **šamna-* ‘wound’, Gershevitch 1959: 192), and Yt 13.40 *srauuāšəmnā* ‘à la lame rapide’ (Kellens 1975a: 43), *-əm-* appears in non-initial syllable.

Y 46.20 *kamnāmaēzqm*, which represents the first three words of OAv. Y 46.1 *kām nəmōi zqm* quoted in YAv. language, shows a shortened sequence **-āmn-*.

⁵⁸⁴ Whether *aomna* Yt 13.146 represents the ins.sg. of a prs.part.med. **auuamnā* to *auua-* ‘to help’, as Kellens suggests, is questionable, since no middle forms of *auua-* occur elsewhere in Avestan or Vedic. Bartholomae suggests an ins.sg. of **aoman-* ‘helpful’, to Skt. *óman-* which is attested late. The v.ll. in Yt 13.146 can be used to argue in favour of *aomana*, viz. F1 etc. *aomna* · *aōmana* J10 · *aōmana* Mf3.K13.14, H5.L18.

⁵⁸⁵ V.ll. *°amnō* Pt4.Mf1.4 · *°amnō* J2, *°əmnō* K5 · *°əmnō* S1, *°amnō* J3 · *°amnō* Mf2.Jp1, *°əmnō* K4 · *°əmnō* L1, *°amnō* L3.S2.Dh1 · *°əmnō* C1, *°amnō* J6.H1., *°amanō* J7.L13.

§ 23.5 Iir. *aNT

In front of dental, palatal and velar stops, the nasals **m* and **n* have merged in *ṇ*. In front of labial stops and all other consonants, **m* remains as *m*. When *ṇ* + *b* came into direct contact at a later stage, the sequence -*ṇb*- is retained. This points to the fact that the division between *ṇ* + dental/palatal/velar on the one hand and *m* + labial on the other hand is not the result of a recent redactional change, but may well stem from PAv.

As for the vowel, the sequence **aNT* is mainly reflected as -*ḅNT*- (in a few OAv. forms), as -*əNT*- and as -*aNT*-. The following discussion will start with the sequences *-*aNT*- in the first subsection. The next subsections will address the reflexes of the preverb **ham*, the sequence **amb* and finally the sequence **antb*.

§ 23.5.1 *ank, *ang, *anc, *anj, *ant, *and

The vowel **a* is attested with four different reflexes in this position, viz. *a*, *i*, *ə* and *ḅ*. As *i* is usually a recent development from *a* or *ə* in the archetype, we will discuss the reflexes *a* and *ə* in the first two subsections. The third subsection will deal with the occasional OAv. reflex -*ḅNT*-.

§ 23.5.1.1 YAv. aṇT

The reflex -*aṇT*- always appears in anlaut, and usually also in initial syllable after non-palatal consonants.

In absolute anlaut, words in *aṇT*- are unattested:

- *ankasa*- (Yt 13.124), *aṅku.paēsəmna*- (Yt 17.10) ‘adorning themselves with hooks’ (to Skt. *anikuśá*- m. ‘hook’, *aṅkūyánt*- ‘searching for side roads’), *hamaṅkuna* (Yt 19.3) ‘hooked together’ (**ham-anku-na*-, Hintze 1994: 78), *aṅgušta*- ‘finger’ and *aṇda*- (Yt 5.93) (to Skt. *andhá*-), *aṅtarə* ‘between, within’, *aṅtəma*- ‘inner’. Compare the YAv. adj. *pārəṅtara*- ‘aloof, set aside’ (for the etymology see § 3.4.2.2), where *-*antara*- yielded -*aṅt*-.

The following list contains the words with -*aṅT*- in initial syllable; again, Avestan forms with -*əṅT*- in initial syllable are unattested except for *həṅti* etc., where the sequence is part of a synchronic ending:

- °*kaṅti* ‘digs’, °*kaṅti*- ‘digging’, °*kaṅta*- ‘dug’ (*kan*- ‘to dig’).

- *gaiṅti-* ‘smell, stench’, *dužgaiṅti-*, *dužgaiṅtitara-*.
- *gaṅtuma-* ‘wheat’.
- *gaṅdarəβa-*⁵⁸⁶ ‘Gandarva’.
- *graṅta-* ‘irritated’.
- *jaṅtar-* ‘slayer’.
- *taṅcišta-* ‘most courageous’.
- *ṭaṅjaiia-* ‘to bend a bow’.
- *daṅtan-* ‘tooth’.
- *paṅca* ‘five’.
- *paṅtā-* ‘road’.
- Yt 5.113 *pəšō.ciṅgha-*⁵⁸⁷ ‘who has a pinching claw’ probably contains PIr. **canga-* ‘claw’ as attested in Oss. *cong* ‘arm; branch’, MoP *čang* ‘paw, claw’, etc. (Bartholomae 1904: 897). Geldner’s form may be corrected to ⁺*pəšō.caṅga-* with J10.
- *baṅta-* ‘ill’.
- *baṅda-* ‘fetters’, *baṅda-* ‘to bind’ and *baṅdaiia-* ‘to bind’, *niuuaṅdāt* ‘from the fetters’ (Skt. *nibāndha-*), *biuuāṅdaṅha-* PN.
- *maṅtu-* ‘advice; adviser’, *maṅtā* ‘he thought’⁵⁸⁸.
- *yaṅtu* ‘let them go’, ptc. *həṃ.yaṅt-*.
- *vaṅta-* ‘beloved; praise’, *vaiṅtiia-*.
- *vaṅda-* ‘to praise’, *vaṅdra-* ‘praise’, *aš.vaṅdra-* ‘much praised’, *dužuuāṅdrauuō* ‘slandorous’, *vaṅdarəmainiš* ‘praise-minded’, *x’āṅdrakara-* ‘graceful; pleasing’⁵⁸⁹.

⁵⁸⁶ The v.ll. alone do not allow to decide whether *gaṅdarəβa-* or *gaṅdərəβa-* is the original reading: Yt 19.41 *gaṅdərəβəm* F1+ · *gaṅdaβəm* J10; Yt 5.38 *gaṅdərəβəm* F1+ · *gaṅdarəβəm* J10 · *gaṅdərəβəm* K12; Yt 13.123 *gaṅdərəβahe* F1+ · *gaṅdərəβahe* Mf3.K13.H5, *gaṅdərəβahe* K38; Yt 15.28 *gaṅdarəβo* F1, no other v.ll. However, the fact that β has not been further lenited to **u* suggests that it stood after consonantal *r* rather than after vocalic *-ərə-*. We find the retention of β e.g. in *garəβa-* ‘womb’ (Skt. *gārbha-*), but lenition to **u* in *gəruuuaiia-* ‘to grab’ < **gr̥baia-* and in *nəruuiō* < **nəruuiō* < **nṛ̥biah* ‘to men’.

⁵⁸⁷ V.ll. F1 °*ciṅghəm*, J10 *caṅhəm*.

⁵⁸⁸ Narten 1986b: 267 has suggested that these OAv. forms may have restored the root form *man-* ‘to think’ ‘from’ the present *maniiia-*, where the change to *-ən-* is excluded for phonetic reasons.

⁵⁸⁹ With *x’āṅdra-* possibly from **x’anra-*, according to Cantera 2000: 43f.

- *scandaiia*⁵⁹⁰ ‘cleave, split’ (Yt 10-14 passim).
- *zanttu-* ‘clan’, *zantuma-* ‘of the clan’, *°zainti-* ‘offspring’.
- *zanda*⁵⁹¹ ‘name of an heretic’
- *zanga*⁵⁹² ‘ankle’ (of ahuric beings), only when it occurs as an independent word. In the compounds *arəδβō.zənga-* and *nizənga-*, i.e. with **-ang-* in non-initial syllable, we seem to find *°zənga*⁵⁹³, but especially the Yašt attestations are not very trustworthy.
- *bizangra-* ‘biped’ and *caθbarə.zangra-* ‘quadruped’ contain **zangra*⁵⁹⁴ ‘ankle’, or maybe ‘paw’ (of daevic beings).

A second large group concerns the preforms **-iaŋT-* and **-uaŋT-* in non-initial syllable. Regular sound change would have led to **iənt > -iŋt-* and to **uənt > -unt-*; after *-a-*, we would expect *-aēnt-* and *-aont-*. Such reflexes are indeed attested in some verb forms:

⁵⁹⁰ V.ll. Yt 10.18 *scand*^o (sic) F1 etc., H4 · *scind*^o H3, *scən.d*^o K40 · *stand*^o J10; Yt 10.36 *scand*^o F1 etc., H3.4 · *scind*^o J10; 13.31 *scind*^o F1, *scand*^o Pt1.L18.P13 · *sacind*^o Mf3.K13.38.H5; 13.33 *frasasc^ond*^o F1+ · *frascand*^o Mf3.K13.H5.

⁵⁹¹ V.ll. Y 61.3 *zand*^o Pt4, *zind*^o Mf4, *zənd*^o Mf1 · *zand*^o J2, *zind*^o K5 · Jp1.K4 *zand*^o · L1.3.B2 *zand*^o, *zind*^o L13.2, *zənd-* K10 · J6.Jm1 *zand*^o, *zind*^o J7; V 18.55, 59 *zanda* L4.K1 · *zinda* L1.2.Br1 · *zanda* Jp1, *zənda* Mf2.

⁵⁹² V.ll. V 6.27 *zangaēibiiasciŋ* has *zang*^o K1.Pt2 · *zəŋ*^o Jp1 · *zəng*^o L1.2.Br1.B2, *zang*^o K10. V 8.65-7 *zangəm* is spelled *zəngəm* K1, *zangəm* Pt2 · *zəngəm* Mf2, *zangəm* Jp1 · *zəngəm* L1.2.K10; V 9.23 *zangəm* K1a, *zəngəm* L4 · *zangəm* Jp1.Mf2 · *zəngəm* L2.

⁵⁹³ V.ll. Y 62.5 *arəδβō.zəngəm*: *zəng*^o Pt4.Mf1.4 · *zang*^o J2.K5 · *zəng*^o Jp1, *zang*^o K4 · *zəng*^o Mf3.Pd · *zəng*^o H1.P6 · *zəng*^o Jm4, *zang*^o Pt1; Yt 5.64 *nizənga*, 10.61 and 19.39 *arəδβō.zənga-*: F1 *zəng*^o.

⁵⁹⁴ V.ll. Y 9.18 *bizangranəm* (2x) and *caθbarə.zangranəm*: *zigr*^o Mf4, twice *zangr*^o Mf1, once *bizangr*^o, twice *bizəngr*^o Pt4 · twice *zangr*^o, once *zəngr*^o J2, *zəngr*^o K5 · *zəŋ*^o J3 · *zəng*^o and *zŋ*^o Mf2, once *zəng*^o, twice *zangr*^o K4 · *zŋ*^o L1, *zəng*^o B2.O2 · *zəŋ*^o H1.J7.J6, *zəŋ*^o L13, *zəŋ*^o K11.C1); Yt 1.10 *bizangranəm* (2x), *caθbarə.zangranəm*: *zagr*^o F1 · *zangr*^o Pt1 · *zagr*^o and *zangr*^o L12 · *zagr*^o H2.J9.L11 · *zəgr*^o Jm4 · *zəngr*^o F2; for Yt 3 *bizəngrō.ciθra-* (with the exception of K36 *zagr*^o) and Yt 5.89 *bizəngra* we lack relevant v.ll.; Yt 13.129 *bizəgrō.ciθraiiā* shows F1+ *bizəgrō* but Mf3.K13 *bizəgrō*; V 5.35ff.: *bizangrō* M13.B1.P2.K1, but also *bəzəngrō* · *bizəgrō* Mf2 · *bizəgrō* L2.Br1; V 18.38 *caθbarə.zəngrō*: *zang*^o K1, *zəŋ*^o L4 · *zəgrō* Mf2 · *zang*^o L1.2.

- *nəmaŋhīnti*, *yazīnti*, *vəṛəzīnti*, *vəṛəziiant-/vəṛəzīnt-*, *°iriṭīnti*, *iriṭīnt-*, *uruuisīnti*, *°zīnte*, *°zīnta* (*ziia-*). It is unclear whether the forms *yaēšīiant-/yaešīnt-* and *irišīnt-* have restored *-iia-* or show unrestored **-iənt-*.
- *dāuṇta*, *adāuṇta* (*dauua-*) and *fīaŋhūnt-*. Note also *abaom* and *baon* (*bauua-*).

Yet these are rare: after *ii* or *uu*, most relevant verb forms display *-iiant-/iieīnt-* and *-uuant-/uuaiīnt-*. Narten 1986b: 266 plausibly argues that the latter reflexes are due to analogical restoration of **-ia-* and **-ua-* from other forms of the verbal paradigm where a different consonant followed (e.g. **-iati*, **-iatai*).

The same restoration of **ia* and **ua*⁵⁹⁵ explains *-ant-* in the adjectives *afnaŋhant-*, *auuant-*, *auruuant-*, *astuuant-*, *x'arənaŋhant*⁵⁹⁶, *cuuant-*, *tafnaŋhant-*, *druuant-*, *ṭamnaŋhant-*, *fšuiiant-*, *varəcaŋhant-* and *raēuuant-*, which alternate with zero-grade suffix forms in *-at-* within their nominal paradigm. Similarly in Y 10.11 *vīžuuāṇca*, nom.pl.m. of *vīžuuāṇc-* (Skt. *vīṣvañc-*, Ир. **višu-anč-*) 'turning in different directions', *-a-* may have been restored from the zero-grade forms **vīžuuak-/vīžuuac-*. The ordinal *aēuuāṇdasa-* 'eleventh' may have restored *a* from the cardinal *aēuuā-* 'one'.

Finally, restoration of *-ant-* has also been invoked by Hoffmann-Forsman 1996: 62 in order to explain the participial and adjectival stems in **-ant-* after a different consonant than **i* or **u*, where the reflex *-ant-* also seems to be more numerous than *-ənt-*⁵⁹⁷. This would account for *daŋt*⁵⁹⁸ 'giving, placing', *baodant-* 'aware', *bəṛəzant-* 'high', *yaozaiṇtī-* 'surging', *vanant-*, *vanaiṇtī-* 'overcoming', *rapant-* 'helping' and *rāsaiṇtī-* 'offering'.

⁵⁹⁵ Martínez 2000: 341 also draws the attention to this phenomenon.

⁵⁹⁶ Panaino 1990 restores *x'arənaŋhūnt-* for the readings of Yt 8, but it is uncertain whether the v.ll. allow this. For Yt 5.120 *fīaŋhūntaēca* < **fīaŋhūntaēca*, this is undisputed, cf. Kellens 1984: 218.

⁵⁹⁷ Especially the Indian mss. (InPY J2.K5, InVS, PV) often spell *ənt* instead of *ant* in these forms.

⁵⁹⁸ If *daiṇtī* 32.15 is really the 3p. subj.aor.act. of *dā-* (but why with a short vowel?), and not the prs.part.act.fem., its *-a-* inexplicable.

§ 23.5.1.2 YAv. *ənt*

The reflex *-ənt-* is regular in YAv. non-initial syllable. The bulk of the evidence is provided by the finite verb endings *-ənti*, *-ənta*, *-əntu* etc.⁵⁹⁹, and by many forms of the prs.ptc.act. in *-ənt-*; we furthermore find a derivative of a stem in *-ənt-*: *saokəntaūuənt-* ‘sulphurous’.

YAv. **-ənt-* is attested indirectly as *-iṅT-* after *-c*, *-j* or *-ž* in verb forms: *taciṅti*, *taciṅt-*, *družīṅti*, ptc. *družīṅt-* (YAv. *družā-*), **bunjiṅti*, *mərənciṅti*, *yunjiṅti*, *vərəciṅta*, *varōžīṅt-*, *raociṅt-*, *°saciṅte*, *saociṅt-*, *frašīṅciṅti*⁶⁰⁰, *snaēžīṅtaē°*, *snaēžīṅt-*, *srasciṅtaē°*, *srasciṅt-*, *hac(a)ṅtē*. It is unclear at which moment the change **-ənt-* > *-iṅt-* took place, but it may have been very late. Note that *-ənt-* is never restored after these palatal consonants, unlike after *ii* and *y*.

The reflex *-ənt-* is probably also preserved in the adjectives in **-mant-* ‘provided with’, a number of which was edited with *-mant-* by Geldner. All of them are attested with v.ll. in *-mənt-* side by side with *-mant-*, and we can posit *-mənt-* without hesitation, e.g. for *vīxrūmantəm*⁶⁰¹ (Y 57.10) and for *haētuməntəm*⁶⁰² (V 1.13). Admittedly, *-mant-* has the best papers in *afrašūmantō*⁶⁰³ (Yt 13.57) and *zaranumənt-* (Ny 1.8⁶⁰⁴, FrW 5.1.2), but these are insufficient to posit a reflex *-mant-* beside *-mənt-* in the archetype. Similarly, Y 9.14 *vībərəθβəntəm*, which was edited thus by Geldner and Bartholomae 1904: 1448, must be corrected to *vībərəθβəntəm*, as is clearly shown by the mss.⁶⁰⁵.

Yt 10.86 *vaēsmanda* (sic) ‘toward the abode’ is analyzed as **vaesməm + da* by Bartholomae 1904: 1328 and Gershevitch 1959: 233, i.e. as the acc.sg.

⁵⁹⁹ The v.ll. allow to posit *-ənt-* for a few forms edited with *-ənt-* by Geldner: *nəmantē* 57.18 (Kellens 1984: 217 **nəməntē*), *patənti* Yt 8.8 (F1+ *patənti* · J10 *patīnti*), *jasəntu* Yt 13.146 (F1+ *jasəntu* · Mf3.K13 *jasəntu*) and *amarəšənta* Yt 15.16 (F1+ *ənta* · J10 *ənti*), Yt 19.32 (F1 *ənta* · J10 *ənti*).

⁶⁰⁰ Yt 14.54. The v.ll. have *°ənti* in the majority, but the absence of *i*-epenthesis shows that we must read *frasīṅciṅti*, since **frasīṅcānti* would have yielded †*°aiṅti*.

⁶⁰¹ V.ll. *°məntəm* in Pt4.Mf1.4, Pt1.F1, K36 and L1.2.

⁶⁰² *°məntəm* is spelled in all important mss. except Jp1 *°mantəm*.

⁶⁰³ V.ll. *°mant* in the IrKA and J10, but *°mənt* in F1.

⁶⁰⁴ V.ll. *°mant* in all mss. except F1 *°mənt*

⁶⁰⁵ V.ll. *°əntəm* Pt4.Mf4, *°əntəm* Mf1 · *°əntəm* J2, *°əntəm* K5 · *°əntəm* J3 · *°əntəm* Mf2, *°əntəm* K4 · *°əntəm* O2.L1.3 · *°əntəm* J6.7.L13.H1.Lb2.K11.C1.

of a stem *vaēsma-* ‘abode’ with the postposition *da*. This analysis is crippled by the fact that the corresponding Skt. noun is *vésman-*, which is a *man*-stem (which would yield an Avestan acc.sg. †*vaesma*), and by the ad hoc assumption of a postposition *da*, unknown elsewhere in Avestan. As I have argued in more detail in De Vaan 2001, the forms and meaning of Yt 10.86 are better explained if we assume that *vaēsmanda* contains the postposition **ā*, combined with the ablative. Since the abl.sg. of a *man*-stem is attested in *barəsmən* < **-man-t*, the abl. of **vaisman-* would be **vaismant*. With the postposition **ā*, this would have given **vaismant ā*, which may well have yielded *vaēsmanda*, compare *xšaθrāda* < **xšaθrāt ā*. We thus need to assume the preservation of **-nt* in close connection with a following vowel, while it was lost (at a late date) otherwise, cf. the form *barəsmən* mentioned and the 3p. verbal endings in *-ən* < **-ant*.

YAv. *-əng-* appears in *asəngō.gauua*⁶⁰⁶ (Yt 19.43) ‘with hands of stone’, cf. OP *aθaⁿga-*.

The stem **parandi-* ‘Segensfülle’ is usually attested with *-ənd-* in YAv. *pārəndi*⁶⁰⁷ except for the pseudo-Gāthic text Y 13.1, which has *parəndīm*, and Y 38.2, where Geldner edited *parəndīm* but Narten 1986a: 207⁵⁰ proposed to read *parəndīm*. We can support this proposal with a reference to the ms. readings⁶⁰⁸, which show that both in Y 13.1 and in 38.2, it is the Iranian mss. of the IrPY and the IrVS which spell *ənd* while the others have *ənd*. Since we find the same distribution in Vr 7.2 *parəndīm*, where all mss. spell *ənd* except the Iranian mss. Jp1 and Kh1 which have *ənd*, we can assume that the Iranian Yasna mss. Jp1.K4 and Mf1.4.Pt4 have analogically introduced *ə* in order to give the text a more OAv. appearance.

Several forms show the reflex *-ənt-* in the initial syllable:

- After *r-*⁶⁰⁹: *rəñjiih-* (Y 10.19) ‘briskier’, *rəñjišta-* ‘briskest’ (Yt 13.26,75, 14.19), *rəñja-* (Y 10.8) ‘to make brisk’ and *rəñjiiia-* (Vr 7.2) ‘id.’. Merely G 5.5 *ranjat.aspəm*, acc.sg. of **ranjat.aspa-* ‘making horses brisk’ has the spelling *ranj^o*; maybe the form has been influenced by *rauua^t.aspəm*, which

⁶⁰⁶ V.ll. *asəngō* F1 (sic) · *asəhō* J10.

⁶⁰⁷ For *ā*, cf. § 3.4.2.2.

⁶⁰⁸ Y 13.1 °*ənd*° Mf1.Pt4, Mf2.K4; °*ənd*° J2.K5, S1.J3, J6.7.H1.K11, L13.1.2.B2; for Y 38.2 *parəndīm*, we find the same division in the v.ll. between *ənd* in the IrPY and IrVS and *ənd* in all the Indian ms. classes, with the exception of Mf2 *parəndīm*.

⁶⁰⁹ The present stem *drəñjiiia-* ‘to confirm, say out loud’ is irrelevant to the present discussion, since it continues **dərəñjiiia-* < **dr^hN^haiā-*.

precedes it in the text. Since no other forms in *raṇT-* occur in Avestan, and since YAv. *ṭaṇjaiia-* shows *-aṇj-* after *ṭ-*, it seems that the preceding *r-* is the conditioning factor for *rəṇj-*.

- After *s-*: *vahmō.səṇdah-* ‘gratifier of prayers’ (Yt 10.25), *səṇdaiia-* (med.) ‘to be pleased’ (Vr 8.1). No forms in *saṇd-* occur in Avestan, but after other consonants than *s-*, *-aṇd-* is the usual reflex: *baṇda-*, *vaṇda-*, *saṇdaiia-*, *zaṇda-*. For *vahmō.səṇdah-* one might assume that it contains the reflex *-əṇ-* of non-initial syllable because it is the second member of a compound.
- After *sk-*: *skəṇda-* ‘destruction’ (Y 9.28, 30.10, V 5.59), *askəṇda-* ‘undamaged’ (V 14.15). The threefold attestation of *skəṇda-* seems to warrant its spelling with *-ə-*, although v.ll. for V 5.59 are lacking. The hapax *askəṇda-* is also not provided with v.ll. by Geldner. Its *-əṇd-* does not occur in the initial syllable, but it is possible that it was formed at a relatively late stage on the basis of *skəṇda-*, and hence contains *-ə-*.
- After *sp-*: *spəṇta-* ‘holy’ (YAv. passim). Both *spəṇta-* and *skəṇda-* have an initial cluster *sT-*; the only other form of this type is *saṇdaiia-* (see above), which has many v.ll. *sciṇd-*. It seems possible that *sT-* was a conditioning factor for the reflex *-əṇd-* instead of *-and-* in initial syllable.
- After *h-*: *həṇti* 3p. prs.ind.act., *həṇt-* prs.ptc.act. to *ah-* ‘to be’. Since *həṇt-* occurs as the reflex of **ham* ‘together’ + *t-* (*hantacaiti*, *hantacina-*), we cannot explain *-əṇt-* as a phonetic reflex after *h-*. It seems probable that *-əṇt-* is analogical, on the model of the other 3p. prs.ind. and prs.ptc. forms in which *-əṇt-* occurs in non-initial syllable.

§ 23.5.1.3 OAv. *əṇT* and exceptions

OAv. shows reflexes of PAv. **ank* (1x), **ang* (1x), **ant* and **and* (5x). It seems that the original reflex was *-əṇT-*.

In front of velars, only *-əṇ-* is attested: *həṇkəṛətā* (31.14) and *həṇgrabəm* (31.8).

Of the seven forms with **and*, five display *-əṇd-* (*bəṇduuō*, *bəṇduuahiiā*, *paīti.səṇdā*, *āsəṇdā* and *həṇduuārəṇtā*), while only *skəṇdō* and *parəṇdīm* have *-əṇd-*. The forms **bandya-* and *sandā-* have no YAv. counterparts, and **ham* is realized as *həm* or *ham*, but not *həm*, in YAv. We can therefore assume that the model for a possible replacement of **əṇd* in these forms was lacking.

In front of *t*, the majority of OAv. forms has *-əṇt-*, but these could have been taken from YAv., since most of the forms are verbal endings and frequent nouns.

The forms *xšəntqm*, *xšəntā* (3p. aor.ipv. and 3p. inj.med. of *xšā-* ‘to have power’) and *huzəntu*⁶¹⁰ (3x) ‘well-acquainted with’ or ‘of good lineage’ have *-ənt-*. The spelling of *vīsəntā* (32.14) and *həntū* (33.7, 53.8) is ambiguous⁶¹¹. Either *-ənt-* is the original form, or original **-ənt-* has become *-ənt-* in some mss. as a Gāthic characteristic.

OAv. *-ant-* appears in *jaṅtū* (2x), *yaojaṅtē* (30.10; no epenthesis!), *vanaiṅtī* (39.2) and *scaṅtū*⁶¹² (53.2). The forms *jaṅtū* and *scaṅtū* can be explained from YAv. forms with the regular reflex in initial syllable; *yaojaṅtē* and *vanaiṅtī* (in which the *i*-epenthesis may show that the vowel is really *a* rather than *ə*, cf. Kellens 1984: 213) apparently have restored the endings *-ant°* independently.

§ 23.5.2 The preverb *ham

In contact with a following word in a consonant, the final nasal of the preverb **ham* ‘together’ (Skt. *sám*) was assimilated to that consonant. The consequence was a twofold reflex: *-n-* in front of velar, palatal and dental stops (*k/g/c/j/t/d*), and *-m-* in front of labial stops (*p/b*) and in front of continuants (*n/y/v/r/s*)⁶¹³. These are the immediate precursors of OAv. *həṅ* versus *həm*: *həṅkəratā*, *həṅgrabəm* and *həṅduuārəntā* on the one hand, and ^s*həm.yāsaite*, *həm.parštōišcā*, *həm.tašaṭ*, *həmə.fraštā*, *həmiiaṅtū*, *həmiṅiūt* on the other.

In YAv., the vowels of the two variants **haṅ* and **ham* are differentiated. The preform **haṅ* is reflected as YAv. *haṅ-* by the majority of mss. in nearly all of the forms, e.g. *haṅkāraia-*, *haṅgrəfša-*, *haṅdāiti-*, etc. The spelling *həṅ-* occurs as a v.l. in several places, but nowhere as a majority spelling except

⁶¹⁰ J2 spells *huzant°* in three of the four forms, and the InVS and YS have *huzənt°* on various occasions. This can be explained by analogy with the frequent YAv. *zəntu-*.

⁶¹¹ Y 32.14 Pt4.Mf4 *vīsəntā*, Mf1 *°əntā* · J2.K5 *°əntā* · *°əntā* S1.J3 · *°əntā* Jp1.K4.Mf2 · *°əntā* L1.Dh1.S2.O2, *°əntā* L2 · *°əntā* H1.J6.7, *°əntā* L13.Bb1. Y 33.7 all mss. *hənt°* except Mf1, J3 and S2.L1.2.3 *hənt°*. Y 53.8 *hənt°* in J2, Mf2.K4 (Jp1 *haṅtū*) and O2.L3, *haṅtū* K11.

⁶¹² All mss. spell *°ant°* except *sacəntū* Jp1, *saciṅtū* Mf2.

⁶¹³ This distribution is contradicted by some forms in *həm.t-* and one in *həm.c-*: *həm.tāšti* (Y 57.10), *həm.tāšaṭ* (Yt 5.120), *həm.taštəm* (Yt 10.143), *həm.taptibiiō* (V 4.46) and *həm.caraṅha* (Yt 17.60); they must be due to a more independent pronunciation of **ham*. On the other side, we find the exception Ny 1.11 *haṅbāraieinti*, with *-n-* in front of a labial.

in Yt 15.54, where F1 has *həṅkərəitiš*. This alternation between *haṅ*^o and *həṅ*^o which some mss. display (especially J10 frequently writes *həṅ*^o where other mss. have *haṅ*^o), is due to the reduced acoustic distinction between [a] and [ə] in front of the following nasal *n*, and is parallel to that in e.g. *zaṅg(r)a-/zəṅg(r)a-*.

The form in *-m-*, however, is mostly attested as *hqm* in Geldner's edition. In reality, we find not only the spelling *hqm* but also *hqm̄* and *hnm̄* in the oldest mss., and Hoffmann-Narten 1989: 74 have shown that this points to **hqm̄* being the oldest recoverable spelling, possibly that of the archetype. Part of the evidence has already been discussed by Hoffmann-Narten loc.cit. The older Iranian mss. preserve a spelling *hnm̄*, which probably goes back to **hqm̄*, *n̄* being closer in appearance to *q̄* than to *q*. The investigation is hampered by the fact that Geldner does not distinguish between *q* and *q̄* in his v.ll., and by the fact that different mss. have generalized different variants. For instance, the Iranian mss. Pt4 and Mf4 consistently spell *q̄* for canonical *q*. These differences between the mss. are of course inspired by the close phonetic and graphic resemblance of the letters.

The following attestations may serve to show that the IrVS (the one adduced by Hoffmann-Narten) is not the only Iranian ms. branch which contains evidence for *hnm̄*:

- *ahqm̄.baoδəmnō* (V 13.35): *ahūm* L4.1.2.K1.10.Br1, *ažūm* Jp1, *ahnm̄* Mf2.
- *haṅbāraieinti* (Ny 1.11): *haṅ*^o J9.H2.L9 · Pt1.P13.L11.Mb2 · K18c.K19; *hnm̄*^o F2.Mf3.K36.
- *hqm̄.tāšti* (57.10): *hnm̄* Mf4.1 · *hnm̄* Jp1.K4 · *hnm̄* K36.
- *hqm̄.pacāite* (Y 62.7): *hqm̄*^o Pt4, *hnm̄*. Mf1.4 · *hqm̄*. J2, *hqm̄*^o K5 · *hnm̄*. Jp1.K4 · *hqm̄*^o Pt1.Mf3.Pd, *hnm̄*. K36 · *həm*. J9.H2.
- *hqm̄.barəθrō* (Yt 13.111): *hnm̄*^o K38, *ham*^o Mf3.H5.K14, *həm* K13 · *hqm̄* F1.
- *hqm̄.varəitiuuatō* (57.33): *hnm̄* Mf4 · *hqm̄* J2.K5 · *hnm̄* Jp1.K4 · *hnm̄* K36.
- *hqm̄.bərəθβqm̄* (V 3.27): *hnm̄*. Jp1.Mf2 · *hqm̄*^o L4.

The explanation for the different reflexes *haṅ* and *hqm̄* will be that PAv. **ham* had regularly yielded **ham* in front of labials and **haṅ* elsewhere (compare the retention of the earlier stage **[həm]* as *həm* and *həṅ*^o in OAv.). The prestage *haṅ-* kept its oral vowel (because nasalization is present in *n*,

which may have been vocalic rather than consonantal⁶¹⁴), whereas *ham became [hām], spelled *hām-* in the archetype. Apparently, the scribes felt a need to differentiate nasal [ā] from [a] in front of *-m*.

§ 23.5.3 *amb

In front of *b*, *-m-* is retained⁶¹⁵; the vowel is *-a-* in initial syllable in *kambišta*⁶¹⁶ ‘least’, but *-ə-* in *zəmbaiia-*⁶¹⁷ ‘to crush’, cf. Skt. *jambháyati*. In the verb *frasciṅbaiiōit̃*⁶¹⁸ (3s. prs.opt.act. of **fra-scambaiia-* ‘to prop’) and the noun *frascimbana-*⁶¹⁹ ‘beam’ (Skt. *skámbhana-*), as well as in *hazaṅrō.frascimbana-*⁶²⁰ ‘with a thousand prop-beams’, it is impossible to say whether *-cim-* goes directly back to **-cam-*, or to an intermediate stage **-cəm-*. In the compounds *upa.skəm̄ba-*⁶²¹ ‘support’ (Skt. *skambhá-* ‘pillar’), *fraskəm̄ba-* ‘supporting beam; porch, hall’, and *baēuuarə.fraskəm̄ba-* ‘with a thousand pillars’, it is possible that **skəm̄ba-* received the treatment in non-initial syllable, but this seems hardly likely for the mountain name

⁶¹⁴ This is suggested by the form of the letters. The basic form for nasal sounds seems to be { 𐌶 }; this is provided with *u* to the left to spell *q* { 𐌶𐌵 }, with a single hook or a single vertical line to spell *q̄* { 𐌶𐌵𐌿 }, while *ṅ* is derived from the sign *q̄* by adding an extra curve to the top right { 𐌶𐌵𐌿𐌶𐌶𐌿 }.

⁶¹⁵ Compare also the spelling *-mb-* after different vowels: *uzgərəmbiiō* H 2.8f., *xumba-‘jar’* (V 8.31ff.), and *xuṅbiia-* (Yt 13.138), spelled as *humbiiehe* in F1 and J10.

⁶¹⁶ In V 3.15 and 5.46. V.ll. V 3.15 *kamb°* L4, *kim.b°* Pt2.B1.M13.P2.M3 · *kamb°* Jp1.Mf2 · *kamb°* L2, *kqm.b°* K10.B2.L1.M2.

⁶¹⁷ V.ll. Yt 1.27 *zəmbaiiaδβəṃ*: °*zəm.daiiaδβəṃ* F1 · °*zəm.daiiaδβəṃ* E1.Pt1 · *zəmbaiiaδβəṃ* Mf3, *zəm.baiiaδβəṃ* K36 · *zəṅtaiiatβəṃ* Jm4, °*zəm.daiiaδβəṃ* O3 · °*zandaiiatβəṃ* J9, °*zəm.daiiaδβəṃ* L11.

⁶¹⁸ V 18.74; v.ll. *frasciṅbaiiōit̃* K1, *frascibaiiōit̃* L4 · *frasciṅbaiiōit̃* Jp1.Mf2 · *frasciṅbaiiōit̃* L1.2.

⁶¹⁹ In Yt 13.26 and V 18.74 *frascimbanaṅm*. V.ll. of the latter: *frascib°* L4, *fracib°* K1 · *frascimb°* Jp1.Mf2 · *frasciṅb°* L1.2.Br1.

⁶²⁰ V 18.28. V.ll. *frasciṅbanəṃ* L4, *frascanbanəṃ* K1a · *fracəm.banəṃ* Jp1.Mf2 · *frasciṅbanəṃ* L1.2.Br1.

⁶²¹ Bartholomae 1904: 396 edits *skəmbəṃ* on the evidence of the v.ll., but they clearly point to *upa.skəmbəṃ*: *skəṅbəṃ* K1, *skəm.bəṃ* Pt2 · *skəm.bəṃ* Mf2, *skəm.bim* Jp1 · *skəm.bəṃ* L1.2.Br1.M2.O2.

aša.stəmbana- (Yt 19.5) ‘the support of aša’ (Bartholomae 1904: 255) or ‘with the support of aša’ (Hintze 1994: 84). Thus, these forms might be argued to confirm the view offered in 23.5.1.2 above, viz. that *ə* in *skənda-* and *spənta-* is due to the preceding cluster *sT-*. The cluster *sT-* may be defined more specifically as *sk-/st-/sp-*, excluding *sc-*.

§ 23.5.4 *antb

When the plural ending *-*bīah* was affixed to a full grade stem form of an adjective or participle in *-*ant-*, the resulting ending *-*ant-bīah* yielded -*ənbīiō* or, with restored *a*, -*aṇbīiō*. The absence of assimilation of the nasal to the *b* (†-*ambīiō*) points to a recent date for the loss of *-*t-*. We find three such forms:

- *əuuərazənbīiō* (sic)⁶²² (V 3.40, 8.28), dat.abl.pl. of **əuuəraziiant-* ‘not working’ (nom.sg. *əuuəraziiō* in V 18.5), which should have yielded **əuuəraziṇbīiō* (with *-*ziian-* > *-*zin-*) by regular sound change. This form is best preserved in the InVS.
- *bərazənbīia* (Y 1.11f.), dat.du. of *bərazant-* ‘high’, is often spelled *bərazənbīia* in the mss. Pt4.Mf4 and J2.K5, and *bərazant(i)bīia* in Mf2. Kellens 1996: 85 suggests that the latter form of Mf2 may be the original form. It seems to me rather that Mf2 must not be explained “par un lointain modèle **bərazatbīia*”, but by a nearby model *bərazant*^o: a grapheme -*nb-* was unusual, and -*nt-* usual. The same introduction — this time in all mss. — has happened in Y 20.3 *saosšiantibīiō*. The form of the archetype in Y 1.11f. will have been **bərazənbīia*.
- *ṭbišīianbīiō*⁶²³, dat.abl.pl., with restored -*iia-*.

In theory, these three forms may also be explained differently. In view of the endings -*əbīš* and -*əbīiō* in the *ah-*stems, which show the replacement of the bare stem by the nom.sg. form (see § 22.3), the forms **əuuəraziianbīiō*,

⁶²² V.II. *əuuərazanibīiō* L4 (but *a* seems to have been corrected to *i*).Pt2, *əuuərazənbīiō* B1.MI3 · *əuuirizəbīiō* Mf2, *əuuərazəbīiō* Jp1 (by analogy with *āstauanaēbīiō*) (V 8.28 *əuuərazəbīiō* Jp1.Mf2) · *əuuərazinibīiō* L1.2.Br1.M2.O2.

⁶²³ V.II. Y 68.13 *ṭbaēšaiṇbīiō* Pt4.Mf1.4 · *ṭbišīiṇbīiō* J2, *ṭbišīianbīiō* K5 · *ṭbaēšaiṇbīiō* Jp1.K4 · *ṭbišaiṇnbīiō* J6.H1, *ṭbaēšaiṇnbīiō* J7; Yt 10.75 *ṭbišīiṇbīiō* F1, *ṭbaēšanibīiō* K40.H4; J10 defect; Yt 13.31 *ṭbišaiṇbīiō* F1 · *ṭbišīianbīiō* J10 · *ṭbišaiṇbīiō* Mf3.K13.38, *ṭbae.šīenbīiō* K14, *ṭbišīṇbīiō* H5; Yt 13.69 *ṭbišaiṇbīiō* F1 · *ṭbišīianbīiō* J10 · *ṭbaēšaiṇbīiō* Mf3.K13.38.H5, *ṭbišīienbīiō* K14.

[†]*bərəzənbīia* and *ḡbišūianbīiō* might also consist of the nom.sg. forms **aurzianh*, **brzanh* and **duišianh*, enlarged with the respective case endings. These could have escaped the development of *-*anh* > -*ā/q*, just like *-*ah* escaped the development to -*ō* in *vacēbīš* and other forms. The resulting forms would probably be indistinguishable from **aurziant-bīah* etc. The reason why I have preferred not to apply this analysis is the fact that there are only three such forms in the *nt*-stems, whereas a majority of the forms has the suffix *-*at*-, such as *haḡbiš*, *cuuḡbīia*, *druuḡbīiō*, etc. Thus, whereas in the *ah*-stems all forms of the *b*-cases show the introduction of the nom.sg. form, they would form a minority in the *nt*-stems. But the possibility cannot be completely excluded.

§ 23.6 PIr. *anh

In front of a vowel and in auslaut, IIr. **ans* yielded PIr. **anh*. From this preform, all the attested forms can be explained. The development in auslaut (acc.pl. of m. *a*-stem nouns and pronouns, gen.sg. of proterodynamic *n*-stems, nom.sg.m. of the YAv. prs.ptc.act.) is different from that in inlaut; therefore, both will be discussed in two separate subsections.

§ 23.6.1 *-anh- in inlaut

In inlaut, there are not many forms which fulfill the requirement of an IIr. etymology *-*ans*- or *-*ams*-. In the forms that do, there is a clear difference between the OAv. and the YAv. reflex.

§ 23.6.1.1 OAv. -*āngh*-

In inlaut, the sequence is attested in *jānghaticā* (3s. aor.subj.act. of *gam*-), *fšānghīia* ‘cultivator’, *māngh-* (*s*-aorist of *man*- ‘to think’)⁶²⁴, *vāngh-* (*s*-aorist of *van*- ‘to overcome’), *vīuuāngha-* (prs.desid. of *van*-), *sāngha-*

⁶²⁴ Kellens-Pirart 1988-91 I: 86 claim that the OAv. reflex of **ans* in front of a front vowel or *ii* would be *ājh*; they write *mājhī* (29.10, etc.), *fšājhīm* (31.10), *fšājhīiō* (49.9). This is impossible since *jh* < **hi* is a YAv. development. The grapheme *jh* does occur in the v.ll. of the OAv. forms mentioned, but it has been introduced by the scribes of our mss. because they knew *jh* to be a variant of *jh* in front of front vowels. Compare also frequent spellings like *sājha-* for the OAv. forms *sāngha-*.

‘teaching, doctrine’ (Skt. *śāmsa-* m.), *sānghana-* id., *sānghu-* id., and the present stem *sāngha-* ‘to make known’⁶²⁵.

The form Y 44.12 *ciiṇhaṭ* given in Geldner’s edition has been variously explained by different scholars. The original spelling of the Yasna text can be established as *ciiṇ(u)haṭ* for the PSY mss., and *ciiṇghuuṭ* for the InVS and the YS, using the v.ll. which are conveniently listed per ms. branch in Kellens-Pirart 1988-91 II: 188f. The metre requires an original disyllable, which disproves solutions such as **cī aṇhaṭ* (put forward by Bartholomae 1904: 279) and **cī ṇghaṭ* (by Humbach 1959 II: 57, Insler 1975: 248). The proposed origin **cī suid* in Kellens-Pirart loc.cit. is impossible because **s* would yield *š* after *ī*.

The best solution so far has been proposed by Hoffmann-Forsman 1996: 66, who reconstruct **čīnhat*; they analyze this as a 3s. prs.inj.act. of the desiderative of *kan-* ‘to be pleased’, but this seems a rather moot possibility. Adopting the proposal to assume a verbal form of *kan-*, we could reconstruct **canhat*, 3s.inj.act. of a sigmatic aorist of *kan-*, from IIr. **can-s-a-*; even if the RV *s*-aor.inj. *caniṣṭám* ‘be glad!’ is a nonce form, as Narten 1964: 111 has argued, the existence of an IIr. *s*-aor. to **kanH-* is made probable by the Skt. 1s.ind. *akāniṣam* ‘I enjoyed’.

PIr. **canhat* would develop into OAv. **cāṇghaṭ*. In order to arrive at the attested spelling, we must assume that *-ii-* was inserted (for unknown reasons; probably because careful pronunciation of *c-* made it sound like *cii-*), at the earliest after IIr. **cī-* had become *šīi°*, as in OAv. *šīiaodna-* ‘deed’ < **cīautna-*. Furthermore, we must assume the secondary introduction of the labial element in *ṇhuu/ṇuh*. Judging by the distribution of v.ll., this labialization of *ṇh* may have been a very recent feature of only part of the ms. classes. Unfortunately, this whole account must remain theoretical, because the meaning ‘enjoyed’ does not help to clarify the passage in which we find *ciiṇghaṭ*.

§ 23.6.1.2 YAv. *-aṇh-*

In inlaut, the regular reflex of **-anh-* in front of the vowels **a* and **ā* is attested in a small number of forms: the *s*-aorist *jaṇha-* to *gam-* ‘to come’

⁶²⁵ These forms are not to be confused with the reflex of intervocalic **-h-*, where we find the same reflex *-aṇh-* as in YAv.: in the paradigm of *aṇhu-*, *nəmah-*, *manah-*, *vaṇhu-*, *sauuah-*, in the verb forms *aṇhaṭ*, *vaocāṇhē*, *rāṇhaṇhōi*, and others.

(^o*jaṇhōiṭ* N 81, *jaṇhəntu* V 2.22), the *s*-aor. ptc. *maṇhāna*- ‘thinking’ to *man*-, the noun *saṇha*- ‘teaching’, also in *nairiia*- *saṇha*/*nairiio*.*saṇha*- ‘manly teaching’, the PN *saṇhauuācī*- and the present stem *saṇha*- ‘to declare’. All these forms have *-aṇh-* in initial syllable.

§ 23.6.2 *-anh in auslaut

In auslaut, apart from the acc.pl. of m. *a*-stem nouns and pronouns and the gen.sg. of *n*-stems, a third category of preforms in *-ans is relevant, viz. the nom.sg.m. of the prs.ptc.act. in IIr. *-ant-s. Schindler 1982 has shown that this form must have developed into *-ans early enough to undergo the Plr. change of *-ans > *-anh.

This sequence yields two reflexes in OAv., viz. *-āng* when it remains in auslaut but *-qscā* in front of *-cā* ‘and’; these will be discussed in the first subsection.

The second up to the fifth subsection will address the four different reflexes found in YAv., viz. *-ā* and *-q* in auslaut⁶²⁶ and *-āsca* and *-qsca* in front of *-ca*. Their distribution has been discussed by Hoffmann 1970: 189ff. and by Schindler 1982: 203ff. As for *-ā* vs. *-q*, Hoffmann argued that *-ā* was the regular YAv. reflex in neutral phonetic environment, whereas *-q* was phonetic after a preceding nasal consonant. Schindler showed in more detail that *-q* is the reflex found after nasal consonants and yod, while *-ā* is regular after all other consonants. This conclusion is confirmed by the results presented in the subsections below. It implies that final *-q of the earlier YAv. period was later denasalized, but the presence of a nasal consonant or **ṅ* prevented this denasalization.

In front of *-ca*, we may assume that *-qsca* was the regular YAv. reflex in neutral phonetic environment (see § 19.1), and *-āsca* the product of the replacement of **q* by *ā* in *-qsca, on the model of *-ā*; thus Hoffmann-Forssman 1996: 120. We can subscribe to the idea of a replacement, because *-āsca* could never have arisen phonetically from a preform *-ansca: in view of OAv. *-qsca*, and of YAv. *-qs-* < *-ans- in isolated lexemes (e.g. *rasqstāt-*, *vəṛəṭrajqstara-*, *cuuqs*), we expect no phonetic denasalization in a preform *-qsca. The evidence suggests that the

⁶²⁶ For an explanation of the concurring reflex *-qs* < *-ants in OAv. and YAv. prs. participles and in a few other YAv. formations such as *ṭrisqs* ‘30’, see § 19.1.

variants *-q̄sca* and *-ḍsca* had the same complementary distribution as *-q* and *-ḍ*, i.e. the variant *-q̄sca* originally occurred only after nasal consonants and yod, and *-ḍsca* elsewhere. This supports Hoffmann's view that *-ḍsca* replaced **-q̄sca* under the influence of *-ḍ*: where YAv. had *-q*, the corresponding form in **-q̄sca* was left unchanged.

§ 23.6.2.1 OAv. *-ḍṅg* and *-q̄scā*

In auslaut, **-anh* preserves the nasal and is spelled as OAv. *-ḍṅg*, e.g. in *cašmḍṅg* (gen.sg. of *cašman-*), *x'ḍṅg* (gen.sg. of *huuar-* 'sun'), *mḍṅg* (acc.sg. of *manah-* 'mind'), *yḍṅg* (acc.pl. of *ya-*), and *spənta- aməšḍṅg* (acc.pl. of *spənta- aməša-*).

There is evidence for a particular (implosive?) pronunciation of the stop in final position in the spelling *-ḍṅḡ*, with a special sign *ḡ* which the SPY mss. S1 and J3 frequently display (Hoffmann-Narten 1989: 71-72). As it occurs only in this position and only in these mss., we cannot trace back *ḡ* beyond the archetype.

In front of enclitic *-cā*, only one single reflex *-q̄scā* is found, e.g. in *q̄stq̄scā*, *māḍr̄q̄scā*, *mašiiq̄scā*, *yašnq̄scā*, *yq̄scā* and *sḍṅghq̄scā*. Y 51.22 *tq* < acc.pl.m. **tanh* is unexplained unless it is a YAv. form; the sentence *tq yazāi x'āiš nāmḍnīš* in which it occurs shows other peculiarities which make it suspect in an OAv. context, see § 9.4.

The acc.sg. **mans* 'mind', which is attested with the expected spelling *mḍṅg* in Y 48.2, is also reflected as *mḍṅ* (5x) (cf. Schindler 1975: 266), and as *mḍm* in Y 53.4. In each case, *mḍṅ* and *mḍm* occur in front of the initial consonant of the following word with which they seem to stand in a close syntactic relation, and they have therefore often been regarded as the first member of a compound: *mḍṅcā* < **mans-cā*, *mḍṅdaiiāi* < **mans-daiiāi*. Kellens-Pirart 1988-91 I: 45ff. and 86 assume that final **-s* of **mans* was lost as a result of close sandhi contact, via a development **mans-ca* > **man-ca* > *mḍṅ-cā*.

Yet this would entail a twofold development of sandhi forms in OAv., without apparent rules for their distribution. The usual development of final **-ans*, when in close sandhi with a following word in a stop, is the retention of *-s-*. This results in a nasalized vowel *q̄* in front of the fricative *s* or *z*, e.g. in OAv. Y 46.10 *yq̄scā* < **yans cā*, Y 46.5 *adq̄s drūtā* < **ā dams drūtā*. The suggestion that forms like *mḍṅcā* would show the loss of **s* in close sandhi would imply that the same sequence had two different phonetic results in OAv., and this is what Kellens-Pirart 1988-91 I: 86 explicitly assume. They

are thus forced to claim large-scale erasure of the sandhi, e.g. in *x^vəṅg darəsōi* for which they expect **x^vən darəsōi*, or in *mašiiəṅg cixšnušō* for **mašiiqs cixšnušō*.

A simpler and more preferable solution is to assume that words like *x^vəṅg* and *mašiiəṅg* show the regular reflex of *-ans in word-final position, while -qs/-qz is the regular reflex in close sandhi with a following stop. The forms *məṅ* and *məm* are simply peculiar spellings of our mss. for original **məṅg*, which was distorted in the course of the transmission.

In 28.4 *məṅ gairē* < **mans garai*, the spelling as two words already points in this direction. Note that the spelling -ṅ in auslaut is against the rule that ṅ is a preconsonantal variant of *n*⁶²⁷; this points to an earlier spelling **məṅgairē*. We can assume that the velar stops of **məṅg gairē* had merged into a form **məṅgairē*, after which a wrong split has yielded *məṅ gairē*.

The later pronunciation is also responsible for changing original **məṅg* into *məṅ-* in the form *məndaiddiāi* (Y 44.8 and 11.9⁶²⁸) ‘to heed’ < **mans dā-*. The two separate words **mans dadiāi* were not subject to close sandhi (which would have resulted in **maqzdaiidiāi*), but yielded **məṅg daiidiāi*, and subsequently [*məṅd-*] became **[məṅnd-*].

Similarly, Y 53.4 *məm bəəduš* is the result of assimilation of recited **[məṅ b-]* to [*məm b-*]. The form *məm* is attested by all mss. except Jp1 *məqṅ*, which may still preserve a trace of [*məṅ*]. The exact etymology and analysis of *məm bəəduš* is unclear, but the Pahlavī translation is probably based on **məṅg bəəduš*, viz. PTr. *mehēnīdār ošīh* ‘increaser of wisdom’.

Finally, the absence of sandhi in *məṅcā* < **mans-cā* in Y 31.5 and 53.5 is striking, since -cā is usually connected with the preceding word in close sandhi; from **mans-cā*, we would expect the result †*maqscā*. Apparently, the fixed expression **manh dā-* ‘to bear in mind’ caused a replacement of **mans* by **manh*, the resulting **məṅg-cā* yielding *məṅcā*.

The possibility of such analogical replacements also appears from Y 46.14 *yəṅgstū* < **yans tū*, which is explained by Humbach 1959 I: 17 as a blend of expected **yqs tū* (in the case of close sandhi) and **yəṅg tū* (in the case of two independent words).

⁶²⁷ In fact, the ms. evidence points to *məqṅ* as the oldest form reconstructible: *məqṅ* Pt4, *mə.qṅ* Mf1, *məqṅ* Mf4 · *məq* J2, *məṅ* K5 · *meq* S1, *meṅ* J3 · *məqṅ* Mf2, *mə.qṅ* K4 · *mə.qṅ* K37.Pd · *məṅgair*^o Bb1.B2.L1.2.O2.P1, *miqgair*^o L3 · *məṅ* J7.K11.L13.O1, *məqṅ* C1, *miq* J6, *məq* H1.

⁶²⁸ Where Geldner edits *man*^o, but *mən*^o is better attested: *mən*^o Pt4.Mf1, K5, S1, Mf2, O2.L1, J7, against *man*^o J2, J3, K4, L3.Bb1, K11.C1. The form is taken from Y 44.8.

§ 23.6.2.2 YAv. -ē

In nearly all instances, the ending -ē is attested without significant v.l.⁶²⁹. It can occur after *k* (Yt 8.46 *nimraokē*, V 5.60f. *harəkē*, V 22.2ff. *yaskē*), *g* (Yt 8.12, 13.60 *haptō.iringē*), *γ* (Y 10.5 *frasparəγē*), *t* (Y 57.29 *tē*⁶³⁰, Y 15.1ff. *spəntē*, Yt 13.11ff. *paiti.vəratē*, Yt 13.147, Vr 15.1 *zastē*, Yt 19.46 *+aštē*, Yt 19.46 *+asištē*, Vr 3.5 *dəhištē*, *mazištē*⁶³¹, Vr 16.1 *yazatē*, G 2.6 *^xyazatē*⁶³², N 33 *+aētē*, Yt 10.68 *^xx'itē* or *^xx'aētē*⁶³³, Y 62.10, V 18.27 *^xraocas.pairištē*), *θ* (*haməratθē*), *p* (passim *vīspē*, Yt 5.81 *duuaēpē*⁶³⁴), *r* (Y 70.1 *huxšaθrē*, Yt 8.46 *srīrē*, *^xapayžārē*⁶³⁵, Y 23.1⁶³⁶, Yt 13.11 etc. *puθrē*), *š* (Y 10.5 *frauuāxšē*, Y 15.1ff. *aməšē*, Yt 13.150f. *tkaēšē*, V 13.10f. *afšē*, V 15.12ff. *raēšē*).

Indirect evidence for *-ē after **μ* comes from the gen.sg. forms *zrū*, *hū*, and from the nom.sg.m. of the prs.ptc. *framrū* (see § 11.1.1).

The two exceptions with -ē after a nasal can easily be explained. The acc.pl. *daēuuaiiasnē* in A 1.11 will have analogical -ē after the preceding form *vīspē*⁶³⁷, or because of the later origin of the text; compare the

⁶²⁹ Often the ending -ē appears, due to similarity of ē̄ and ē̃ in the contemporary pronunciation.

⁶³⁰ Geldner edits *tē*, but *tē* is attested in Jp1.K4, K36, L1.2.Dh1 and K11.Lb2.

⁶³¹ This occurs among acc.pl. forms in -*g*, so that also some of the good mss. spell *mazištq(n)*: Jp1.K4, Kh1, J8, B2.O2.L1.2.Br1.M2.

⁶³² V.l. *yazatəm* Mf3.K36.12.W1, whereas Geldner edited *yazata*.

⁶³³ In the analysis of Schindler 1979: 58. The mss. have *x'ite*. A stem *x'aēta-* would be identical with OAv. *x'aēta-* 'easy to go', but a corruption of *aē* to *ī* in both F1 and J10 seems quite drastic.

⁶³⁴ Oettinger 1983: 90. V.ll. F1 *paitipē.duuaēpē*, J10 *pe.duuaipi*, K12 *piduuaipe*.

⁶³⁵ Bartholomae (1904: 73) remarks that attested *apayžāire* (in both F1 and J10) would represent an acc.pl. form of *apayžāra-* in pronominal inflection; this would have to be a nom. pro acc., with the nom.pl. ending -*e*. Yet the use of a pronominal ending in nouns is only attested in pronominal adjectives such as *aniia-* 'the other'. Rather, we must assume with Schindler 1982: 204 that original *-ē in **apagžārē* was corrupted to -*e* in the transmission, even though the preceding form *srīrē* has kept -ē. K12, a ms. with an unclear position in the stemma but at least partially independent from F1 and J10, spells *apayžāra*.

⁶³⁶ Only Mf3 spells *puθrē*; Geldner has *puθre*.

⁶³⁷ Which is spelled *vīspe* in Geldner's edition, but the good mss. F2.Mf3 have *vīspē*.

irregular acc.pl. *dušmainiū* in the same passage (cf. § 11.1.2). Vr 10.1 *karšūuanē* in *ahe karšūuanē yaṭ x'aniraṭahe* is evidently a wrong adaptation of the frequent phrase occurring in the nom.acc.sg. *imaṭ karšūuarə yaṭ x'aniraṭəm*. The ms. branches show different forms⁶³⁸, and possibly the expected genitive **karšūuq(n)* was still present in the archetype. The ending *-ahe* of the surrounding genitives probably influenced the ending *-ne*, while the InVrS form *karšūuarə* shows complete replacement by the better-known nom.acc.sg. form *karšūuarə*.

§ 23.6.2.3 YAv. -q

In order to evaluate the ending *-q*, we must take into consideration the frequent spelling variants *-qn* and *-qm*. In several instances, one of the latter has made it into Geldner's edition, e.g. V 3.18 *pairi.daēzqn* for **pairi.daēzq*.

The ending **-q* appears regularly after the nasal consonant *m* in the acc.pl. forms *aēsmq*, *aīḃiīāmatəmq*, *amq*, *aršuuacastəmq*, *ašxṛāx'anutəmq*, *ašṭṭβōzgatəmq*, *imq*, *gauuāstriiāuuarštəmq*, *fratəmq*, *naēmq* (F 162), *šāmq*, *haomq*, *hastəmq*⁶³⁹, and in the gen.sg. forms *dāmṇ* < **dāmans* (Y 9.15, Y 57.2, Yt 13.76, V 19.42), *maēsmq* (P 8) and *barəsmṇ* (N 70,79). After *n* we find⁶⁴⁰ the acc.pl. *azəmnq* (Yt 10.86), *ašaonq* (Y 71.2, Yt 10.120; Geldner: *ašaonqm*), *dašinq* (V 8.71), *mazdaiiasnq* (Yt 10.120), *vəṛəṇq* (V 18.38ff.),

⁶³⁸ V.ll. °nē K7a.P14 · °na K7b · *karšūuarə* J15.8.Pt3.Jm5.L27 · °na L1.2, °re S2 · °ne Mf2.Jp1.K4 · °ne F11, °nahe Kh1.

⁶³⁹ In two acc.pl. forms, the ending *-mq* is absent, viz. Y 7.2 *aēsmā* and Y 7.3 *haomi*: Y 7.2 *ašaiia daḍqmi aēsmā baoidi* 'I put firewood and fragrance according to Aša' and Y 7.3 *ašaiia daḍqmi haomi* 'I put haomas according to Aša'. The two unexpected acc.pl. forms have been discussed by Kellens 1997, who draws the attention to the fact that many of the good Yasna mss. have the v.ll. *aēsmi* and *haomi*. Kellens traces these back to **aēsmā* and **haomā*, and assumes that these two forms are remnants of a stage when the acc.pl. ending was not yet distributed according to the preceding consonant: «Mais cela signifierait alors que la désinence *-q* qui est régulière derrière nasale ou *i* (Hoffmann, Aufs. 276 sq.) s'est constituée à l'époque écrite de la transmission et que les deux mots que nous avons ici sont des fossiles oubliés lors de généralisation de la nouvelle graphie.» It seems to me that the two forms in Y 7.2-3 cannot bear the weight of the consequences of this assumption. An easier solution is available: the ending *-mi* of the preceding form *daḍqmi* has influenced the following **aēsmq* and **haomq*.

⁶⁴⁰ All forms restored by Schindler 1982: 204 except for *azəmnq*, which was explained by Bartholomae 1904: 223 and defended by De Vaan 2001.

raoxšnaq (V 16.2), and the nom.sg.m. of the ptc. *γənaq* (Yt 10.71) and *auua.dərənq* (V 18.19ff.).

The ending *-q* also appears regularly after *y/ii*: acc.pl. *amašiiq* (Yt 5.30, 15.20), *gāθβiiq* (H 2.20), *paoiriiq* (Yt 13.150f.), *mazāniiq* (V 17.9f.), *γq* (passim; also in Yt 1.24 *ahma γq*, as transmitted by Mf3, for Geldner's *vahmiiq*), *vairiiq* (N 50), ⁺*aiβi.viiq* (Yt 19.82), *haoiiq* (V 8.71), the gen.sg. *aiiq(n)* (passim), and the nom.sg.m. of the ptc. *jaiδiiq* (V 3.1), *apuiiq* (F 220), and *amaršq* < **amaršiiq* (F 220).

The nom.sg. of the prs.ptc. *hq* 'being' (Yt 13.129) can be contrasted with the oblique cases in *hənt-*, e.g. acc.sg. *həntəm*. If we compare the preverb *həm* < **ham*, we might conclude that **a* tends to get nasalized after initial *h-*.

What remains are the forms in *-q* after a consonant other than nasal, *yod* or *h*; in those, we expect to find *-ə̄*. Most of these instances were explained by Schindler as the result of a dialect difference within Avestan; one dialect would have had a split reflex *-q* vs. *-ə̄* (cf. above), while the other one would have had *-q* regardless of the preceding consonant.

Even if this suggestion cannot beforehand be excluded, it has nothing to recommend itself. Assuming a dialect difference to be the cause of the split reflex of **-anh* would imply that there are sporadic reflexes of a different dialect throughout all the different texts and text layers; this would amount to explaining *obscurum per obscurius*. It will prove more satisfactory to try and find individual explanations for the exceptions, taking into consideration all the factors which we have seen to be of influence in the Avesta transmission so far. It appears that existing exceptions mainly occur in pseudo-Gāthic texts, are due to perseveration of the ending *-q(n)* of nearby forms, or to the analogical retention of [*a*].

Perseveration of a preceding form in *-q* can explain why we find *-q* instead of *-ə̄* in the acc.pl. forms *spəntq*, *dqhištq*, *mazištq* (Y 13.3, after pseudo-OAv. *aməšqscā* and near forms in *-təmq*), *aməšq spəntq* (Y 42.6, after pseudo-OAv. *vīspqscā*), *aṅguštq* (V 8.71 = 9.26; following *dašinq* and *haoiiq*) and *yaoždātq* (Y 62.10, V 18.27). A couple of other exceptions can be explained when we take into account their context:

The text of Y 62.10 and its quotation V 18.27 was edited by Geldner in the following way:

Y 62.10 *yō ahmāi aēsməm baraiti, hikūš raocas.pairištq* (Y 62.10)/
raocas.pairištəm (V 18.27), *ašahe bərəja yaoždātq*, 'who brings him firewood, dry, elected for lighting, prepared according to the rite of Aša'.

The form *raocas.pairištq* is Geldner's conjecture. Most of the mss. in Y 62.10 spell *pairištīm* or *°əm*, while only K4 has *pairištqm*⁶⁴¹. Against the majority of spellings, K4 alone cannot prove a form **pairištq*. The v.ll. of V 18.27⁶⁴² conclusively show that *pairištəm* is the original spelling, and since we expect an acc.pl. form **pairištē*, *pairištəm* must be due to influence of the preceding *aēsməm*.

The most peculiar feature of this passage is the (lack of) agreement between the sg. object and the three adjectives in the pl. This can only be resolved if we assume with Schindler 1982: 206 that *aēsməm* represents an original acc.pl. form **aēsmq*, which is coordinated with three adj. in the acc.pl.: **aēsmq ... hikūš ... *raocas.pairištē ... *yaoždātē*. As in the case of *pairištq*, I assume attested *yaoždātq* to be based on imitation of the ending of **aēsmq*.

Schindler suggests that **aēsmq baraiti* gave *aēsməm baraiti* because of close sandhi between **-q* and *b-*, which prompted the dissolution of the nasal vowel [ã] into vowel + nasal consonant [əm]. Yet such special sandhi cases are usually restricted to word-final **-s*, and should not be assumed unless they are unavoidable. I would rather suggest that **aēsmq* came to be spelled **aēsmqm* (a trivial development, cf. V 5.2 *aēsmq* with v.ll. *aēsmqm* and *aēsmqn*), and that subsequently *q* was denasalized to *ə* between the two nasal consonants.

The reverse, viz. anticipatory assimilation to a following form explains N 106 *aētq aēsməm paiti.barāt* 'let him bring those logs of firewood', for original **aētē aēsmq paiti.barāt*. The ending *-q* was adopted by **aētē*, and *aēsmq* itself changed to *aēsməm*.

The acc.pl. forms *garəβq* (Y 65.2, 62.5 = V 7.16), **pairi.daēzq* (V 3.18) and **upa.θβərəsq* (V 8.10) do not occur side by side with regular acc.pl. forms in *-q*, but we do find them bordered by other grammatical forms in *-qn* or *-qm*. Schindler 1982: 207f. already considered for *upa.θβərəsq* and *paiti.daēzq*: "Hat man in diesen beiden Fällen *-q* wegen der Assonanz an *-qn* gewählt?" Compare the passages

Y 65.2 *yā vīspanqm hāirišinqm zqθāi garəβq yaoždadāiti* 'who purifies the wombs of all women for childbirth'.

⁶⁴¹ V.ll. *pairištīm* Pt4.Mf1.4 (corrected to *°əm* in Pt4.Mf4) · *°ištīm* J2.K5 · *°ištəm* Jp1, *°ištqm* K4 · *°ištəm* Mf3.Pd.W1.K36 · *°ištəm* H1.2.P6.J9.Jm4, *°ištəm* F1, *°ištīm* J15.

⁶⁴² Viz. *pairištəm* L4.K1 · *pairištəm* Mf2, *pairištīm* Jp1.

Y 65.5 *hā mē āpō yaoždadāiti hā aršnaṃ xšudrā hā xšaθrinṃ garəβq*
 ‘she purifies for me the waters, she [purifies] the seed of the men, she [purifies] the wombs of the wives’.

V 3.18 = 5.49 *aēte mazdaiiasna aiṣhā zəmō +pairi.daēzq pairi.daēzaiiṃ*
 ‘these Mazdayasneans must build an enclosure on this earth’.

V 8.10 *aēte mazdaiiasna ahe nmānahe +upa.θβərəsq upa.θβərəsaiiṃ*
 ‘these Mazdayasneans must break a breach in the house’.

It is significant, although not conclusive⁶⁴³, that *garəβq* is spelled with *-qn* in the majority of the mss. (only J2 and Pt4.Mf4 once *-q*); for **upa.θβərəsq* and **pairi.daēzq*, the variant *-q* is even unattested: all mss. spell *-qn* or *-qm*. Another indication that these forms are secondary is Geldner’s remark in his apparatus s.v. V 3.18, where he states that "Jp1 and M12 further append after this word [sc. *pairi.daēzq*] *pairi.daēzī*." As no words in *-ī* or *-ē* appear in the immediate context, and since *-ī* is often a corruption of **-ē* (especially in the Iranian mss.), this *pairi.daēzī* may well preserve the original **pairi.daēzē* which we would expect as the regular acc.pl. form of *pairi.daēza-*.

In Yt 19.84, we find the following lines:

<i>yaṭ imṃ daēnṃ āstaota</i>	‘so daß er sich zu dieser Religion bekannte
<i>*dušmañiiūm siždiiō</i>	den Feind verjagend,
<i>*daēuuq *apa.šauuq</i>	die Dämonen forttreibend.’

Text and translation are taken from Hintze 1994: 353; Humbach-Ichaporria 1998: 160 deviate only slightly. I have restored the acc.sg. ending *-ūm*. This interpretation leaves a few unclear points, for which alternative solutions have been proposed. All of them assume one or more text corruptions, and especially the last two words of this passage pose many problems.

There seems to be general agreement on the transitive meaning of *siždiiō*. This has prompted Pirart 1992b: 109f. and Lubotsky (fthc.) to restore a form of the causative **siazdaiia-* ‘to chase away’, which according to Lubotsky may also be attested in A 3.13 *fracā siiazjaiiōit* and F 695 *frasiiazjaiti*, with a corruption of *d* to *j*. Pirart restores Yt 19.84 **siazdaiiqs* with "graphie spéciale sporadique °ō de °qs", but this is impossible. For the linguistically real endings *-ō < *-nt-s*, *-q < *-ant-s* and with restoration of **-s -qs < *-ant-s*, cf. § 19.1. The form **apa(.)šauuq* assumed by Hintze and Humbach-Ichaporria

⁶⁴³ Hoffmann 1975: 274ff. and Schindler 1982: 190ff. have investigated the details concerning the spelling variants *-q*, *-qn* and *-qm*. Whereas *-qm* (**-ām*) and *-qn* (**-ān*) are usually preserved in the spelling of the archetype in a majority of the mss., the ending *-q* shows a highly unpredictable interchange between the spellings *-q*, *-qn* and *-qm* in the mss.

is a conjecture for attested *apa.ašauuqn* in F1 and its descendants; regrettably, no v.l. from J10 is known. They interpret **apa.šauuq* as nom.sg.m. of the prs.ptc.act. **apa-ciauant-* ‘chasing away’, to *š(ii)u-* ‘to move’; for the form which most mss. spell as *daēuuqn*, they assume an acc.pl. **daēuuq*.

However, the assumption of a twofold ending **-uuq* < **-uanh* is problematic because **-anh* regularly yields YAv. *-ā* after **u*, cf. the acc.pl. **daēuuā*, § 11.1.2. In addition, the translation of **apa.šauuq* as ‘chasing away’ is uncertain, since the IIr. verb **ciaua-* usually has the intransitive meaning ‘to move’ (Skt. *cyávate*); YAv. normally uses the causative *šāuuaiia-* for the meaning ‘to impel’. We may therefore envisage an original form **apa.šāuuaiiq* ‘chasing away’ with a regular ending *-q* after *-ii-*. Subsequently, the syllable *-aii-* was lost due to the influence of the preceding form **daēuuq*, and eventually **-ā-* was shortened, yielding **apa.šauuq*. The spelling F1+ *apa.ašauuqn* shows that the shortening of **ā* may be due to graphic analogy with the word *ašauuan-*. The nom.sg. of *šāuuaiia-* is attested in N 103 *fra.šāuuaiiō*, where the ending is *-ō* < **-ah*. The attestation of *-q* in Yašt 19 and *-ō* in the more recent Nērangestān seems to confirm Schindler’s hypothesis (1982: 199) that the participial nom.sg. ending *-q/-ā* of thematic verbs was replaced in the course of Avestan by the ending *-ō* (which originated in athematic verbs).

The spelling *-qn* instead of *-q* is not surprising, since our text relies entirely on the ms. F1; it may additionally have been influenced by *pauruuqncā* in the first line of Yt 19.85 (*yō druca pauruuqncā*), which follows immediately after *daēuuqn apa.ašauuqn*. The form *daēuuqn*⁶⁴⁴ can then represent an original acc.pl. **daēuuā*. If we reconstruct the participle as **šāuuaiiq*, we may simply assume that the ending of **daēuuā* was changed to **daēuuq* (or that **-q* was not denasalized to *-ā*) under the influence of the following form in *-q*, just like e.g. in N 106 *aētq aēsmām* for **aētā aēsmā* (see above). Restoring **daēuuā* and **apa.šāuuaiiq*, the text of Yt 19.84 reads as follows:

⁶⁴⁴ Pirart (loc.cit.) assumes that *daēuuqn* is a corruption of the acc.sg. **daēuuəm*. He explains *ašauuqn* as the acc.sg. **ašāuuəm* of the demon’s name *aš āuuā-* ‘Ašāua’, which occurs in the nom.sg. *ašāuuō* in Yt 8.59f. and 14.51f. The preverb *apa* would then be in tmesis with the participle **siiazdaiiō*, compare Skt. *āpa sedhati* ‘chase away’. Pirart translates ‘si bien qu’en louant cette Dayanā, il écartait le Daiva Ashāva qui est soumis à la mauvaise opinion.’ This solution is less likely because a corruption of **-əm* to *-qn* which must here be assumed twice is very rare, and because the syntactic place of *apa* after the participle and after its object seems very strange.

yat imqm daēnqm āstaota ‘so that he vowed himself to this religion,
**dušmañiiūm *sīiazdaiiō* expelling the evil-minded,
**daēuuō *apa.šāuuaiiq* chasing away the demons.’

For the acc.pl. forms *zaošq* (Yt 10.118) and *hubərətq* (Yt +13.18, 15.40), we can only blame the manuscripts; they must be attributed to the generally less reliable state of transmission of the Yašts. This is less certain for the nom.sg.m. of prs. participle *viuusq* ‘radiating’ (H 2.7, 2.25, Vyt 55), which is attested three times, although the transmission of H and Vyt relies on few mss. Yet I see no alternative solution for the *-q* in *viuusq*.

§ 23.6.2.4 YAv. *-q̄sca*

The forms with the reflex *-q̄sca* are *aēsmq̄sca* (Y 4.1ff.), *aθaurunq̄scā* (Y 13.3, Vr 3.5), *ahunq̄sca* (N 50), *uruuarō.straiiq̄sca* (H 2.13), *uštānq̄sca* (Y 55.1), *cašānq̄scā* (Y 13.3), *paiti.van̄h̄q̄sca* (N 91), *maidiiōi.paitištānq̄sca* (Y 57.6), *mašiiq̄sca* (Yt 1.6), *yasnq̄sca* (Y 23.3ff.), *vahmq̄sca* (Y 23.3ff.), *vāstriiq̄scā* (Y 3.3), *viiq̄sca* (Yt 13.35) and *haomq̄sca* (Y 4.1ff.). Thus, the reflex *-q̄sca* only appears after *m*, *n*, *ŋ* and **j*, cf. Schindler 1982: 205. An ending *-āscā* is never attested after those consonants.

The exceptional forms with *-q̄sca* after another consonant than nasal or yod can be explained without problems. Y 4.1 etc. *mīiazdq̄sca* was probably influenced by the preceding *haomq̄sca*. The forms Y 13.3 *aməšq̄scā*, Y 4.26 (the *yej̄hē hātqm* prayer) *tq̄scā* and Y 42.6 *vīspq̄scā* occur in pseudo-Gāthic texts, and they show the conscious use of the Gāthic regular ending *-q̄scā* by the redactors of these texts, cf. Schindler 1982: 205. The only form left unexplained is N 53 *kərəsq̄sca*. Since the Nērangestān contains several other certain or possible OAv. borrowings and adaptations, we cannot exclude the possibility that *kərəsq̄sca* reflects OAv. usage.

§ 23.6.2.5 YAv. *-āscā*

The reflex *-āscā* is regular after consonants other than *ŋ*, *n*, *m* and *y/ii*, i.e. after the same consonants as the ending *-ā*.

This is proven by the forms in *-āscā* which are attested without any forms in *-ā* in their vicinity: Y 9.26 **grauuāscā* (cf. § 11.1.2), Yt 10.72 *astāscā*, *varəsāscā*, V 7.44 *karətō.baēšazāscā*, *uruuarō.baēšazāscā* and

mąθrō.baēšazēasca (acc. pro nom.pl.), V 9.38 *vaēsēasca*, N 40 *θβarəsēs.ca* and Vr 3.5 *radāēštārēasca*⁶⁴⁵.

Of course, where we do find *-ēasca* in the vicinity of other acc.pl. forms ending in regular *-ē*, a more recent replacement of earlier **-asca* by *-ēasca* cannot be excluded, viz. in Y 10.5 *vīspēasca paiti frasparəγē*, *vīspēasca paiti frauuāxšē* (2x), Y 71.4 *vīspēasca aməšē spəntē yazamaide*, Yt 8.46 *vīspē vairiš ācaraiti* / *vīspēasca srīrē nimraokē* / *vīspēasca srīrē apəγžārē*, Vr 3.5, G 2.6 *aməšēasca spəntē* and *mainiiuuēasca yazatē* (cf. § 11.1.2), Vr 16.1 *ātarš.ciθrēasca yazatē*.

Yt 13.59ff. *nauuasēasca* ‘nine times’ is compared with the Skt. distributive suffix *-śás*, and quoted as the adverb *nauuasō* by e.g. Bartholomae 1904: 1046 and Emmerick 1992: 333. Bartholomae suggests an etymology **naua-sat-s-ca*, but such a form should have given *-asca* and not *-ēasca*. Since the function as an acc.pl. is clear at least in V 22, we must reconstruct **nauasans-ca*. Possibly, the adverb **nauacás* came to be regarded as a nominal stem **nauacant-*, which could then be inflected, by analogy with *vīsaitiuuant-* ‘twenty times’, *θrisaθβant-* ‘thirty times’.

§ 23.7 Summary

The results of the investigation of Iir. **aN* in Avestan are presented below. The discussion of the implications for the phonetics and the chronology will follow after every subsection.

1. **-aN#*

- *-am* > YAv. *-əm*.
- > OAv. *-ēm*, replaced by *-əm*.
- *-an* > YAv. *-ən*.
- > OAv. *-ēn*, replaced by *-ən*.
- *-a_uan* > YAv. *-aon*.
- *-i_aan* → YAv. *-iiən*, by restoration of **-i_a-*.

The OAv. endings *-ēm* and *-əm* are distributed according to the position in the verse: *-ēm* is nearly only found in pāda-internal position, whereas *-əm*

⁶⁴⁵ The thematic stem *radāēštara-* is a (later) YAv. replacement of the original *ā*-stem *radāēštā-*. The composer of Vr 3.5 *aθaurunqasca radāēštārēasca vāstriiqasca fšuiiantō* has copied this expression from Y 13.3 *aθaurunqasca radāēštāasca vāstriiqasca fšuiiantō*, merely replacing *radāēštāasca* by the inflexion more familiar to him.

always appears pāda-finally and also occurs in many pāda-internal words. Thus, the relation between OAv. $-\bar{d}m$ and $-\partial m$ is similar to that between $-\bar{o}i$ and $-\bar{e}$ and between $-\bar{d}$ and $-\bar{o}$. As a result, the origin of the endings $-\bar{d}m$ and $-\bar{d}n$ may be viewed in the same way as $-\bar{o}i$ and $-\bar{e}$: they continue the older YAv. ending, which was introduced into the OAv. texts when they were canonized by speakers of YAv. Whereas $-\bar{o}i$ goes back to Early YAv. $*-\partial i$ and $-\bar{e}$ to Early YAv. $-\partial h$, $-\bar{d}m$ and $-\bar{d}n$ will reflect earlier $*-\partial N$. In fact, we can see that $-\partial N$ has been preserved unchanged in YAv. all along. The OAv. form $-\bar{d}N$ must be due to a later reinterpretation of Early YAv. $[\partial]$ as $-\bar{d}$ -, just like in OAv. $-\bar{o}i < *-\bar{d}i < *-\partial i$.

2. $*-amV-$

YAv. $-am-$, viz. in the following positions:

- a. $\#am-$.
- b. $*ham-$, $*kam-$, $*jam-$.
- c. on morpheme boundary: restoration of $-a-$.

YAv. $-\partial m-$: in inlaut.

OAv. $-\bar{d}m-$. Exceptions: replacement by $-\partial m-$ and $-am-$.

3. $*-anV-$

YAv. $-an-$, viz. in the following positions:

- a. $\#an-$.
- b. $-an\acute{i}-$.
- c. in inlaut.

YAv. $-\partial n-$: uncertain.

OAv. $-\bar{d}n-$. Exceptions: replacement by $-an-$.

YAv. $-aN-$ looks as if it directly continues the IIr. vowel, but this would leave the OAv. reflex $-\bar{d}N-$ unexplained: we would have to assume that $*aN$ changed to $\bar{d}N$ arbitrarily in some OAv. words but not in others. It seems more likely that the same explanation which accounts for the co-occurrence of the endings $-\partial m$ and $-\bar{d}m$ may also explain the reflexes in anlaut and inlaut: the Early YAv. pronunciation was $[\partial n]$ and $[\partial m]$ in all positions, and this was imposed on the OAv. texts when they were canonized. In Late YAv., the pronunciation of the allophone $[\partial]$ returned to $[a]$ in nearly each case of the sequence $*-an-$, and also in many instances of $*-am-$. In inlaut in stem syllables, $-\partial m-$ has been preserved quite often, except after velar and palatal obstruents. In OAv., on the other hand, the allophone $[\partial]$ was not restored to $[a]$, but became $[\bar{d}]$, even after palatals (cf. *jēmiiāt*).

The forms in which OAv. does not have $-\bar{d}m-$ and $-\bar{d}n-$ can now easily be explained: they are due to later, maybe even post-YAv. replacements of

earlier OAv. [ə̄]. Since YAv. has both *-əm-* and *-am-* as reflexes of **-am-*, we find that OAv. *-ə̄m-* concurs with *-əm-* and *-am-*. Similarly, since YAv. hardly ever has *-ən-* beside *-an-*, we find that OAv. *-ə̄n-* only concurs with *-an-*, whereas the reflex *-ən-* is absent in OAv.

4. **-amn-*

YAv. *-amn-*: a. in initial syllable: *kamnəm*, *ḍamnaḡhuan̄t-*, *mamn-*.
b. in the prs.ptc. suffix *-iiamna-* (restoration of *-a-*).

YAv. *-əmn-*: in non-initial syllable: prs.ptc. *-əmnā-*, **-uamn-* > **-umn-* and **-iamn-* > *-imn-*; *ašəmnō.vīdō̄*, *ašəmnō.janō̄*, *srauuāšəmnā-*.

OAv. *-ə̄mn-*: *hacə̄mnā-*.

OAv. *-amn-*: a. verbs in *-(a)īia-*.

b. isolated forms: *diuuamnəm*, *aγžōnuuamnəm*, *vaēdamnō̄*, *?*pərəsamnā-*.

OAv. *-əmn-*: majority of forms. Distribution as in YAv.

This distribution can be explained in exactly the same way as the sequence **-aNV-*. The Early YAv. pronunciation will have been [əmn]; this was imposed on OAv., where we find it preserved as [ə̄mn] in *hacə̄mnā-*. Subsequently, YAv. restored *-amn-* in verbs with a recognizable suffix **-ia-* or **-ua-* (but not in all of them), and in the initial syllable. The restoration of the verbal suffix came early enough to enable the OAv. tradition to adopt these modified sequences, except in *hacə̄mnā-*.

5a. **-aNT-*

YAv. *-aṅT-*: a. *#aNT-*.
b. *#CaNT-* except /r_ -.
c. analogically restored *-a-*.

YAv. *-əṅT-*: a. **-aNT-* in non-initial syllable.
b. *#ranT-*, *#spanT-*, *#skanT-*; also *#sanT-?*
c. analogically in *həṅti*, *həṅt-*.

OAv. *-ə̄ṅT-*. Exceptions: frequent replacement by *-əṅT-* and *-aṅT-*.

5b. **-iaNT-*

YAv. *-iṅT-*. Exceptions: *-iiṅt-* (analogical).

5c. **-uaNT-*

YAv. *-uṅT-*. Exceptions: *-uuṅt-* (analogical).

5d. **-amb-*

- YAv. *-amb-*: #*kamb-*
 YAv. *-əmb-*: #*skamb-*, #*stamb-*, #*zamb-*
 YAv. *-əmb-/amb-*: *-scamb-*

5e. **hamT-*

- YAv. *haṇT-*, *haṇK-*, *həmP-*.
 OAv. *həṇT-*, *həṇK-*, *həmP-*.

Once more, the explanation given for **-aVV-* seems to be applicable. We may assume that the Early YAv. reflex was **[ə]*, which was preserved in the shape of OAv. *-ə-* in various forms. At a later date, YAv. restored *-a-* in the initial syllable, and in inlaut in the case of **-ia-*, **-ua-* or other suffixes. The preverb **ham* may have simply followed the development in initial syllables until the stage **ham-*, after which it developed nasalization; this nasalization is preserved in the case of *həm*^o.

The reflex *-əṇT-* after word-initial *r-* may be compared with the reflex of **ai* in closed syllable after *r*. As we have seen in § 14.4, the sequence **-raiCC-* usually retains the allophone **[ai]* whereas other sequences of **-CaiCC-* yield **[əi]*. Thus, we may have to date the reflex *[ə]* in *rəṇj-* to a much later date, and assume that it represents a sound change **ranj- > rəṇj-* which was due to the phonetic characteristics of *r-* at that moment.

The reflex *-əṇT-* in initial syllable also occurs in several forms with an initial cluster *sT-*: *skənda-*, *spənta-*, *upa.skəmba-*, (*fraskəmba-*) and *aša.stəmbana-*. After *sc-* we find the reflexes *and/iṇd* and *imb* (*scandaiia-*, *frascimb-*), which might go back to archetype **scənd-* and **scəmb-*, although this is uncertain. Since **a* in front of a nasal is usually reflected as *-ə-* in non-initial syllable, it is tempting to think that the vowel *-ə-* in *spənta-* etc. was preceded by another vowel, which would have to be an anaptyctic vowel in the cluster *sT*, e.g. [*səpənta*] or [*əspənta*]. Such an anaptyctic vowel in clusters **sT* is of course well attested in MoP, and it might have been present in the Avesta pronunciation at a certain stage. However, it seems extraordinary that an anaptyctic vowel which was actually pronounced, would not be indicated in the script (see § 25 on the anaptyctic vowels).

- 6a. **-anhā-* > YAv. *-aṇhā-*.
 > OAv. *-əṇghā-*.

- 6b. **-anh#* > YAv. 1. *-ā*.
 > 2. *-q* after *m,n,ṇh, ii* and *h-*.
 > OAv. *-əṇg*.

- 6c. *-ansca > YAv. 1. -q̄sca.
 > 2. -ḡsca.
 > OAv. -q̄sca.

In the sequence *-anh- in inlaut, we find the correspondence between OAv. -ḡ- and YAv. -a- once again. This time, OAv. has preserved -ḡ- in all forms, no doubt because in Late YAv. the nasal consonant started to develop away from the sound [ng] preserved in OAv. This development blocked a possible influence of the later YAv. reflexes on OAv.

We may assume that *-anh(-) became *[əŋh] in Early YAv., and that this is what we find reflected in OAv. -ḡ-. In YAv., all the forms with -aŋh- have this sequence in initial syllable, the position where we have seen that *[ə] has most often 'returned' to [a] in front of -NT-.

In auslaut, the OAv. ending has been replaced completely by the YAv. one, as in the case of nom.sg. *-əh and dat.sg. *-əi. OAv. *-anh was replaced by Early YAv. *-ənh, and finally yielded OAv. -ḡng.

In YAv., the ending *-ənh probably first developed into *-əŋ(h) (compare YAv. -aŋha- in inlaut), and then yielded a nasal vowel *-ā̄. Because of its different appearance from OAv. -ḡng, it did not replace the OAv. ending in pāda-final position, as in the case of -ḡ vs. -ō and -ōi vs. -ē. Subsequently, YAv. *-ā̄ yielded the endings -q̄ and -ḡ, which are in complementary distribution.

The cause of this split was a denasalization of *-ā̄ in the position after all consonants except nasals, *ī and h-, where -q̄ is preserved; compare the ending -rā̄š which arose from a similar denasalization of the ending *-rā̄š, § 24.5. In theory, the endings -mq̄, -nq̄ and -ŋhq̄ might be due to secondary nasalization of *-ḡ, but this is impossible for the ending -iiq̄ and for hq̄. The phonetic retention of a nasal vowel after yod seems strange, but I see no way around this assumption.

Chronologically, we must date the loss of nasalization after the Late YAv. change of -ḡ > -ō₂ (see § 22 above). Subsequently, the ending *-q̄sca was analogically replaced by -ḡsca after the consonants where the ca-less acc.pl. was -ḡ.

§ 24 Iir. *r̥

The first subsection deals with the different reflexes of *r̥ in the position where the least changes occur, viz. in front of stops, fricatives and nasals. The discussion is arranged per grapheme, covering the phonetic reflexes *arə*, *arəi*, *ōrə*, *ārə*, *rə* and the analogical replacements *-(i)ri-* and *-(u)ru-*. The following subsections address the sequences resulting from *r̥ in front of *i̇, *u̇, and *nš; here, the phonetic changes are more numerous. Finally, a subsection is devoted to *r̥ in front of *š and *ž, because of the confusion between *r̥ and *ar in YAv. in this position.

There is one position in which the opposition between *r and *ar disappeared at an early stage, viz. in word-final position after a consonant. We may assume that final *-r̥ was vocalized as *-ar*, thus merging with *-ar: both yield OAv. *-arə*, YAv. *-arə*. For final *-r̥* in *-arə*, cf. § 25.1.

§ 24.1 *r̥ except in front of i̇, u̇ and (n)š

Avestan *-arə-* (§ 24.1.1) < *r̥ may appear as *-arəi-* in the case of *i*-epenthesis (§ 24.1.2). Slightly different developments have led to the sequences *-ōrə-* and *-ārə-*, which are discussed in §§ 24.1.3 and 24.1.4. We will conclude with a subsection on the reflex *-rə-*, which appears especially after *-t-* (§ 24.1.5), and one on the analogical sequences *s(u)ru-* and *s(i)ri-* (§ 24.1.6).

§ 24.1.1 Avestan *arə*

The regular reflex of Iir. *r̥ in Avestan is *arə*. We find it initially and word-internally in front of all stops, affricates, fricatives (including *s* and *z*) and nasals. It seems superfluous to discuss all the evidence for this reflex; the following paragraphs will merely discuss some of the problematic forms.

In part of the Avestan mss., the spellings *arə* and *arə* are often used indiscriminately for the same form, so that it becomes difficult to determine which of the two variants is original. In many cases, we can decide only if the etymology of a given form is known.

We can illustrate this with the two adjectives meaning ‘feathered’ which Bartholomae 1904 lists as Yt 10.119 *parənin-* and Yt 14.38 *pəranin-*. In fact, the spelling *pəran-* is only attested in F1, and we must read Yt 14.38 *ᵛpəranine*. An Avestan dictionary should only contain the stem *parənin-*

‘feathered’, identical in etymology with Skt. *parṇín-*. Another example is Yt 5.130 *stārəmaēšu* ‘in the storage rooms’, which was rightly corrected to the J10 spelling *starəmaēšu* by Oettinger 1983: 125.

In the case of *vītārətō.tanuš* ‘whose body has been brought away’, the evidence for *-tārə-* or *-tarə-* is nearly equally strong: Yt 5.92 *vītārətō* F1+ · *vītārətō* J10, V 2.29f. *vītārətō* PV and InVS · *vītārətō* Jp1.Mf2. Since the root was IIr. **trH-* ‘to cross, conquer’, the reconstruction **ui-trHtá-* would require a phonetic outcome ⁺*vītārəta-*, a spelling attested in both occurrences.

The form *stārəta-* is the past participle to the aniṭ-root *star-* ‘to throw down’ (prs. *stārənaoiti*, Skt. *stṛṇóti*), whereas *starəta-* would be the correct past ptc. to the seṭ-root *star-* ‘to spread, strew’ (*stārənāiti*, Skt. *stṛṇāti*)⁶⁴⁶. Therefore, in Yt 19.34 *stārətō* ‘thrown down’, F1 *stārətō* probably retains the correct variant against J10 *starətō*, as do (in V 19.2) K1.L4 and Jp1.Mf2 *stārətō* against *starətō* of the InVS. Similarly, V 8.22 *anāstārətəm* ‘without reconciling’ obviously belongs to *striia-* ‘to commit a sin’ and thus to *star-* ‘to throw down’. The v.ll. Jp1.Mf2 *starətəm* do not outweigh *stārətəm* of the PV and the InVS in this case.

Since we find the noun *barəsman-* usually combined with verb forms of *stārənāiti*, we may assume that the corresponding verbal adjective *stārəta-* is the one we should find in coordination with *barəsman-*. This is indeed often the case, especially in the word *frastārəta-* ‘spread out’. This is sometimes spelled as *frastārəta-*, which has entered Geldner’s edition at some points; however, we may reconstruct **frastārəta-* for the archetype. In the Yasna, we find Y 57.2 *frastārətāt* with ^o*tarə*^o only in minor mss. V 9.56 *frastārətāt* is only attested in K1, all other mss. have *frastārətāt*. In V 13.55, Jp1.Mf2 have preserved *frastārətāt* against ^o*stārə*^o in the other two ms. branches; in V 18.72, only Jp1 has *frastārətanəm*. In Yt 13.94, *stārətō.barəsma* is spelled with *stārə*^o in F1+, but with *starə*^o in the IrKA mss. Mf3.K13.14.38.H5. In Yt 10.91 and 10.137, both F1 and J10 spell *frastārə*^o.

The full grade in Yt 14.34 *aiβi.šmarəta-* is unanimously attested by all the mss., but it conflicts with the zero grade usually found in cpds. in ^o(*š*)*mārəta-* ‘recited’. Bartholomae 1904: 930 translates ‘in Gedanken verwünscht’. Compare the text:

⁶⁴⁶ The difference between the two IIr. *star-* roots was first pointed out by Narten 1964: 278.

pərəsaṭ zaraduštrō ahurəm mazdqm: ahura mazdā (...) yaṭ bauuāni aiβi.sastō aiβi.šmarətō pouru narqm tbišiiantqm, ciš afhe asti baēšazō
 ‘Zarathustra asks Ahura Mazda: "O Ahura Mazda (...), when I am cursed (and) *aiβi.šmarətō* much by hating men, what is the remedy for that?"’

It seems strange that Zarathustra would ask Ahura Mazda, what to do when he would be despised by many foes only ‘in thought’. The related *fra-mar-* ‘to recite’ and *upa-mar-* ‘to recite; promise’ rather suggest that *aiβi-šmar-* means ‘to scorn’, i.e. it refers to a spoken insult. As *aiβi-šmarəta-* occurs only in this passage, we cannot be sure that its full grade is not a lapsus of the tradition for **aiβi.šmarəta-*.

Another problematic form is Yt 13.31 *hamarənāda*⁶⁴⁷. Because of Skt. *samāraṇa-* n. and OP *hamarana-* ‘battle’, Bartholomae 1904 and Kellens 1975a: 46 assume a stem *ham-arəna-* ‘battle’ from **sam-arana-*, but the mss. seem more in favour of the form *ham-ərəna-* < **sam-r̥na-*. Consider also the fact that the suffix **-ana-* usually surfaces as *-ana-* in YAv., and that a reflex *-əna-* < **-ana-* is very rare (§ 23.3.2.2 above). We may compare *ham-ərəna-* with the simplex *arənu-* ‘wave (of battle)’, which recalls the relation between Av. *arəva-* ‘effort’ and *ham-ərəva-* ‘opponent’.

On the other hand, if a word is only attested with one of the variants *ərə* or *arə* in all of its attestations in all the mss., and its etymology is uncertain or ambiguous, we must accept the evidence of the spelling. This concerns the stem *pərənā-* ‘handful’ (cf. § 22.3 above), which occurs in Yt 5.132, 12.3, 15.2, 15.39 and V 19.40, and is always spelled *pərən*^o. Avestan *pərən*^o must be reconstructed as **p̥r̥nā-*, which differs from its Skt. cognate *pūrṇā-* ‘filled’ < **p̥r̥H-ná-* by the absence of the Ilr. laryngeal⁶⁴⁸. In fact, this absence is

⁶⁴⁷ V.II. *hamarənāṭ* F1.E1, *arənāṭ* Pt1 · *ərənāṭ* J10 · *ərənāda* Mf3.K13.38.H5, *ərənāṭ* K14.

⁶⁴⁸ As for the reflex of Ilr. **rH*, I follow the generally accepted view that **rH* yields Plr. *-ar-* (e.g. Hoffmann-Forssman 1996: 90); I also accept the amendment to this rule which was added by Lubotsky 1997b, viz. that Ilr. **rH* did not yield Plr. **-ar-* but rather **r̥* in front of the glides **j* and **u*, if **rH* was in pretonic position: *uruuīāpa-*, *uruuanē*, *uruuarā-* and *zruuan-*, all with **-r̥Hu̯*. Cantera 2001 has proposed a different sound law in order to account for four Av. stems in *-ərə-* which seem to have a Skt. cognate in Ilr. **-H-*: *ərəδβa-* (Skt. *ūrdhvá-*), *kamərəda-* (Skt. *mūrdhán-*), *pərənā-* (Skt. *pūrṇá-*), *vərəzi*^o (Skt. *úrj-*, *ūrjáyant-*). According to Cantera, Ilr. **C₁RHC₂* regularly became Av. *(C)ərəC-* instead of *CarəC-* when **rH* stood in pretonic position and when **C₁* was a labial consonant, or when the following syllable contained **μ*. However, Cantera’s analysis of the four Avestan forms mentioned is not compelling. The adj.

also suggested by other Iranian words, e.g. Av. *pərənāiiuka-* ‘mature’ and Phl. *purr* ‘full’. This implies that IIr. **pr̥Hná-* has been reshaped to **pr̥ná-* in PIr.; as Meillet 1927: 48 has suggested, this may have happened on the model of the present stem **pr̥nā-* ‘to fill’, Av. *pərənā-*.

§ 24.1.2 Avestan *ərəi*

The grapheme *ərəi* is the result of *i*-epenthesis on **r̥*. We find it in front of the consonants *t*, *d*, *θ* and *δ*. The vowels *i*, *ii* and *ī* always cause *i*-epenthesis⁶⁴⁹:

- **ərəiθiiā*⁶⁵⁰ ‘(of) energy’ (Vr 9.4).

ərəδβa- ‘upright’ does not certainly derive from a PIE form in initial **u-*; Lubotsky 1988: 94 reconstructs PIE **h₃rdʰuó-*. The noun *kamərəδa-* ‘head’ contains the pejorative prefix *ka-* and a word for ‘head’ which might go back to PIE **mlh₃dʰ-* (EWAia II: 368); Skt. shows a different stem-type, so that the accentuation of *mūrdhán-* does not necessarily mean that the Proto-Iranian form was also oxytone; furthermore, it is uncertain how words with a prefix *ka-* would have been accented in Proto-Iranian. The forms *vərəzi*^o ‘active, energetic’ and *vərəzaiiant-* ‘working’ must first of all be connected with Avestan *varz-* ‘to work’, for which we may assume initial **H-* (cf. § 3.7.1.1) and for which no internal laryngeal needs to be reconstructed: IIr. **Huar̥j-*. Thus, the only form with initial labial and apparent loss of a laryngeal is the noun *pərənā-* ‘handful’.

⁶⁴⁹ The list of forms is meant to be exhaustive, especially with a view to the ambiguous treatment of this problem by Geldner and Bartholomae.

⁶⁵⁰ Geldner edits *ərəθiiā*, but cf. the v.ll. *rəiθiiā* M6.4 · *raēθiiā* K7b, *rəiθaiiā* H1.Pt3, *rəuuiθiiā* L27, *raiθiiā* J8, *raiθaiiā* P12.K11.Jm5 · *raēθiiā* L1.2.Dh1.O2.M2 · *ərəθiiā* F11.Kh1 · *ərəθiiā* K4, *ərəθaiiā* Jp1, *ərəiθiiā* Mf2.

- *kərəiti-* ‘the making’ in ⁺*ākərəitiš*⁶⁵¹ (Y 48.2), ⁺*frašō.kərəitīm* (Y 62.3 and V 18.51⁶⁵²), *frākərəitīm* (72.11), ⁺*rāniiō.skərəitīm*⁶⁵³ (44.6, 47.3, 50.2), ⁺*haṅkərəitiš*⁶⁵⁴ (71.1), *həṅkərəitiš* (Yt 15.54), *yasno.kərəitiṅm* (V 3.31).
- *auua.kərəθiiāi*⁶⁵⁵ (V 4.50).
- ⁺*arətō.kərəθinahe* (Vr 1.2), ⁺*arətō.kərəθinəm* (Vr 2.2), *aratō.kərəθinō* (F 361); postulating the stem as *arətō.kərəθina-* rather than Bartholomae’s *arətō.karəθna-* is defended by Klingenschmitt 1968: 120.
- ⁺*haṇdərəiti* ‘the holding on’ (F 692) for attested *haṅkərəiti*, cf. Klingenschmitt 1968: 210.
- ⁺*dərəidiiāi* (Y 43.1) ‘to hold’.
- ⁺*āpərəitiš*⁶⁵⁶ ‘penance’ (V 3.38ff.).
- *pərəididaiiehe* (Yt 13.97; cf. Mayrhofer 1979: I/69).
- *bərəiti-* ‘the bringing’ in ⁺*hubərəitīmca* ⁺*ušta.bərəitīmca* ⁺*van̄ta.bərəitīmca*⁶⁵⁷ (60.6ff.), ⁺*hubərəiti ušta.bərəiti van̄ta.bərəiti*⁶⁵⁸ (68.14), *hubərəitīm* (Yt 10.78), *huṅrabərətica* (68.9), ⁺*aš.frabərətica* and ⁺*huṅrabərətica* (Yt 10.77; cf. § 26.3.1), ⁺*gāmō.bərəitīm*⁶⁵⁹ (V 18.55).
- ⁺*nižbərəθi*⁶⁶⁰ (V 6.32ff.) ‘carrying’.
- ⁺*framərəitiš*⁶⁶¹ (71.1), *framərəiti* (Vr 20.2f.) ‘reciting’.

⁶⁵¹ Geldner and Bartholomae 1904 edited *ākərəitiš*, but *i*-epenthesis is attested in enough mss. to warrant the correction. This time, the more recent Indian mss. have preserved the better reading (the oral one), while many older mss. have replaced *ərəi* by the more frequent grapheme *ərə*: v.ll. *ākərəit/š* Mf4, [°]*ərəi*[°] Mf1 (first *i* above the line), [°]*ərə*[°] Pt4 · [°]*ərə*[°] K5 · [°]*ərəi*[°] K4, [°]*ərə*[°] Mf2 · [°]*ərə*[°] S2, [°]*ərəi*[°] L2.3.Dh1.O2 · [°]*ərə*[°] L13, [°]*ərə*[°] J6, [°]*ərəi*[°] J7, [°]*ərəi*[°] H1.Jm1.

⁶⁵² Geldner edits *kərəitīm* and gives no v.ll.

⁶⁵³ Geldner’s *skərəitīm* was corrected to *skərəitīm* by Bartholomae 1904: 1524.

⁶⁵⁴ Only J2.K5 *haṅkərəitiš*.

⁶⁵⁵ No v.ll. available.

⁶⁵⁶ With Mf2 in 18.68.

⁶⁵⁷ Of the important mss., only J2.K5 spell [°]*bərəitīm* in these three forms.

⁶⁵⁸ No v.ll. in Geldner, but we find in Mf4 thrice [°]*bərəiti*.

⁶⁵⁹ With Mf2.

⁶⁶⁰ Thus for Geldner’s *nižbərəθi*. V.ll. [°]*bərəθe* and [°]*barəθe* K1, *bərəθi* and *bərəθi* Pt2 · *bərəθi* and *bərəθa* InVS · *bərəite* and *bərəiθe* Mf2.Jp1. The IrVS often replaces final [°]*i* by [°]*e*.

⁶⁶¹ Only J2.K5 *framərəitiš*.

- *uuu.mərāitīm* (H 2.36) ‘death’.
- *mərāiθiiu-* ‘death’ in ⁺*mərāiθiiuš* (Y 9.5⁶⁶²), *mərāiθiiuš* (Yt 19.33), ^x*mərāiθiiuš* (Yt 15.16⁶⁶³), ⁺*mərāiθiiaoš* (53.8⁶⁶⁴), ^x*mərāiθiūmca* (Yt 9.10).
- *vərāidiūē*, *vərāidinqm* (Y 9.24 bis).

Because of its uncertain etymology, the form ^x*gərāidi-* (?) in Yt 15.47 *gərāidiiaoxdō*, *gərādiiauuō* must be left out of the statistics. It shows no v.ll. *-ərāi-*, but note that the transmission of Yt 15 is feeble.

In front of *-nt-*, where we also expect to find *i*-epenthesis, the only relevant form V 19.19 *pairi.kərāntiš* does not have *i*-epenthesis in any of the three V ms. classes.

As we will see in § 26.1, *i*-epenthesis may also take place in front of labial stops and fricatives, although rarely. For *-ərə-*, the only relevant form Yt 13.46 *uzgərəβiiāt* ignores *i*-epenthesis, but Geldner does not provide any v.ll. for this form. In front of nominal endings in *b-*, epenthesis is regularly absent: *ātərābiūō*, *nərābiiascā*, *stərābiūō*, etc.

Similarly, the vowels *-e* and *-ē* have a less palatalizing effect on *-ərə-*, which confirms the observations which can be made about the effect of *-ě* on *ā* and *ū* (cf. § 26.2). We never find *i*-epenthesis, as is shown by the evidence in front of the consonants *t* (Y 23.1 *paiti.vərəte*, V 5.57,58 *ābərəte*, OAv. *paiti.ərətē*), *δ* (YAv. *kamərəde*), *nt* (OAv. *vərāntē*, Y, Vt *gərānte*, V 7.38 *kərānte*) and *n* (Y 12.2, 46.3 *vərənē*, Yt *upastərəne*, V *pərəne*).

This absence of *i*-epenthesis on *-ərə-* in front of *-te*, *-de*, *-nte* and *-ne* leads to the conclusion that the three unclear forms V 3.27 *bərəθi*, V 2.7 *bərəθe* and Yt 17.14 *nibərəθi* (they may have entered the text as later glosses, cf. Benveniste 1935: 31) can represent either ^{*}*bərāiθi* or ^{*}*bərəθe* in the archetype, but not *bərəθi* as Geldner edits them. For V 3.27, ^x*bərāiθi*⁶⁶⁵ may be restored (cf. V 6.32ff. ^x*nižbərāiθi* above), especially since the only ms. class with *-e*, the IrVS, often spells *-e* for ^{*}*-i*. In V 2.7 too, ⁺*bərāiθi*⁶⁶⁶ seems to have the best papers, but the form is preceded in the text by *asti*, which may have influenced the form. For Yt 17.14 *nibərəθi*, Bartholomae

⁶⁶² Only L2 spells this, all other mss. have *mərəθ°* or *marəθ°*.

⁶⁶³ No v.ll. available.

⁶⁶⁴ With Pt4.Mf4 and O2.L2.

⁶⁶⁵ V.ll. *bərəθi* L4.M13.B1 · *bərəθi* Br1.B2.Dh1.O2.L1.2 · *bərāiθe* Jp1.Mf2.

⁶⁶⁶ V.ll. *bərəθe* L4a.B1.M13 · *bərāiθi* B2.K10.O2.L1.2, *bərāiti* Br1 · *bərəθi* Mf2, *bərəθe* Jp1.

1904: 1083 wants to read a thematic form ${}^x nibərəθe$. In view of the historically impossible spelling $nibərəθi$ in F1 (with i added later in front of $θ$) against J10 and K12 $ne.bərəθe$ (where $ne < ni$ must be based on influence of $bərəθe$), he may well be right.

§ 24.1.3 Avestan $ōrə$

A few OAv. forms and one YAv. form have a labial consonant in front of $*ər > őr$, which may have determined the phonetic change. Yet labial colouring of $*ər$ to $őr$ is not a sound law, cf. OAv. $vāuuərəzōi$, $vərəziōi$, $vərənātā$, $pərənā$, etc.

- $θβōrəštār$ - ‘creator’ (Y 29.6, 42.2, 57.2). Lubotsky 1994 has convincingly argued that this form and its Skt. cognate *Tvaṣtar* go back to IIr. $*tur̥c-tar-$, which yielded $*θβərəštār-$ as the preform of the attested Avestan word.
- $niuuōiriiete$ (V 8.69), 3s. prs.ind.med. of $ni-uuōiriia-$, passive to $var-$ ‘to cover’. IIr. $*Huṛia-$ developed into PIr. $*uəria-$; in (Late) YAv. $*ə$ was coloured to $ō$, and i -epenthesis finally yielded the attested form.
- $mōrəndaṭ$ and $mōrəndan$ (Y 32 4x), 3s. and 3p. prs.inj.act. of $mərəd-$ ‘to destroy’, i.e. IIr. $*mr̥ndat$ and $*mr̥ndan(t)$.

In two OAv. forms, we find $-ō-$ in front of $-rt-$, without a preceding labial. We must ascribe the rise of $ō$ to the combination of the lento recitation of the Gāthās with the influence of the sequence $-r̥t̥/-r̥št̥$:

- $cōrəṭ$ (Y 44.7, 45.9) $< *cart$, 3s. aor.inj.act. of $kar-$ ‘to make’. Kellens-Pirart 1988-91 II: 229 consider the possibility of reading a 3s. opt. $cōir̥ṭ$ in Y 45.9. Philologically, there is hardly support for this assumption, since in both attestations only a small number of the Indian mss. read $cōir̥ṭ$ or $cōir̥ṭ̄$: in Y 44.7 K5 and J3, in Y 45.9 J2.K5 and J3; in Y 49.2 $dōrəšt$, where $-ōr-$ is absolutely certain, it is exactly the same Indian mss. which have v.ll. $dōir̥ṣt$ or $dōir̥ṣt̄$. Kellens-Pirart 1988-91 I: 56 ascribe the $ō$ in $cōrəṭ$ to a distortion of $*a$ in front of $rə$; this seems more likely than to ascribe the rise of $ō$ in $cōrəṭ$ to the preceding palatal (Hoffmann-Narten 1989: 40, fn. 9).
- $dōrəšt$ (Y 49.2), 3s. aor.inj.act. of $dar-$ ‘to hold’ ($*daršt$) or a form of $darz-$ ‘to attach’ ($*darəšt$ Kellens-Pirart 1988-91 I: 77; Hoffmann-Forssman 1996: 64, 224f. with a question mark). Humbach 1959 II: 80 states “ $dōrəšt$ ist gleich $dārəšt$ 43.13”. Indeed, the contextual parallels adduced by Humbach 1991 II: 207 plead for a connection of $dōrəšt$ with $dar-$ ‘to hold’, but it is hard to believe that $dārəšt$ and $dōrəšt$ would go back to the same preform. For $dōrəšt$, we may suggest a similar development as assumed for $cōrəṭ$, viz. $*darəšt > dōrəšt$.

§ 24.1.4 Avestan *ḁrə*

The sequence *ḁrə* results from the univerbation of the preverb *fra* and initial *r̥ in front of *n* or *t*. All attested forms are derived from the root *ar-* ‘to put in motion’.

Nominal derivatives include Yt 13.25ff. *fr̥rətā-* f.⁶⁶⁷ ‘offering’ from **fra* + **r̥ta-* ‘brought forward’, and Y 8.2 *fr̥rəti*, ins.sg. of *fr̥rəti-* ‘zeal’, formed from **fra* + the abstract **r̥ti-* ‘impulse’. The abl.sg. of this noun is attested in FrW 10.41 *fr̥rətōi* with the meaning ‘arrival’. It is uncertain whether Vyt 30 *afr̥rəti*, which Bartholomae 1904: 102 derives from **fra* + *r̥ti-*, really belongs here; it probably does not. The Pahlavī translation *fr̥z r̥āḁih*, which Bartholomae took as a positive indication, is simply a transposition of the Avestan form into Middle Persian. Therefore, the form already contained *-rati* at the time when the translation was made, and it probably does not continue **-fr̥rəti*.

Verbal forms of the present **fra-r̥n(a)u-* ‘to send, assign to’ are attested in the 3s.ind. *fr̥rənao* in Y 11.4 and Yt 13.146, and in the 3p. *fr̥rənuuain̄ti* in Yt 13.46. In H 2.9⁶⁶⁸ and Vyt 56, the form *fr̥rənti* probably represents the nom.sg.f. of the prs.ptc. **fra-r̥nuantī* (> †*fr̥rənuuain̄ti*).

How can we explain the vowel *ḁ* in these forms? An old (IIr. or PIr.) univerbation of *fra* + *Hrnaut* would probably have yielded the result **fr̥rənao*, see § 5.2.1.2. Therefore, we must assume that the forms in *fr̥r̥*° are due to a later univerbation of preverb and noun/verb after *r̥ had become [ər], i.e. **fra ərnaut* > **fr̥r̥naut* > *fr̥r̥nao* by means of contraction of the vowels *-a ə-. This view of the development is supported by OAv. *fr̥r̥tōiš*, which the metre shows to continue trisyllabic **fra.ər̥tōiš*. Contraction must have yielded **fr̥r̥tōiš*, which underwent the same OAv. change of **ḁ* > *ō* which we discussed in the preceding subsection.

⁶⁶⁷ The attested form is *fr̥r̥tā*, functioning as nom.pl. and acc.pl. Bartholomae 1904: 1023 and Kellens 1975a: 36 posit a n. stem *fr̥r̥ta-*, but this would imply the use of the f. ending for a n. noun. Such a combination has parallels in Avestan, but since there is no compelling reason to regard *fr̥r̥tā* as n., we shall regard it as a formally regular feminine *fr̥r̥tā-*.

⁶⁶⁸ Where the mss. have *fr̥r̥anta* (sic); Kuiper (1939: 58) has seen the correct solution.

§ 24.1.5 Avestan $r\ddot{a}$

The usual reflex of the sequence $*-C_r-$ is Av. $-C\ddot{a}r\ddot{a}$ -, but in a few forms we seem to find $-Cr\ddot{a}$ - instead. A closer examination of the evidence leaves no ground for assuming a spelling $-Cr\ddot{a}$ - < $*-C_r-$ in the archetype, except for the forms $\bar{a}tr\ddot{a}m$, $str\ddot{a}\check{s}$ and $pairiia\bar{e}tr\ddot{a}\check{s}$.

§ 24.1.5.1 After t

The regular reflex of $*-trC-$ ($C \neq i$ or u) is $-t\ddot{a}r\ddot{a}C-$. This reflex is amply attested, e.g. in $\bar{a}t\ddot{a}r\ddot{a}bii\ddot{o}$, $cik\ddot{o}it\ddot{a}r\ddot{a}\check{s}$, $t\ddot{a}r\ddot{a}sa-$ ‘to start to tremble’, $pt\ddot{a}r\ddot{a}bii\ddot{o}$ ‘to the fathers’, $st\ddot{a}r\ddot{a}bii\ddot{o}$ ‘from the stars’, etc. The most frequent varia lectio is $-tar\ddot{a}$ -; in the Yašts $-tar\ddot{a}$ - is especially common in the IrKA, but it is found also in J10, while in the V the variant $-tar\ddot{a}$ - occurs at random in all mss. V 8.22 $frastar\ddot{a}t\ddot{a}m$ in Geldner’s edition represents $frast\ddot{a}r\ddot{a}t\ddot{a}m$, which, according to Geldner, is spelled thus in Pt2 only, the other mss. having $-star\ddot{a}t\ddot{a}m$.

A grapheme $-tr\ddot{a}$ - is found in the acc.sg. form $\bar{a}tr\ddot{a}m$ ‘fire’ (Y 34.4 $\bar{a}tr\ddot{a}m$) < $*\bar{a}tr\ddot{a}m$, which is very frequent in our texts. It is spelled as $\bar{a}tr\ddot{a}m$ in the majority of cases, but we also find $\bar{a}\vartheta r\ddot{a}m$, $\bar{a}tar\ddot{a}m$ and $\bar{a}t\ddot{a}r\ddot{a}m$ in different mss. This is understandable since $-r-$ is a much more common grapheme than $-tr-$, and $-t\ddot{a}r\ddot{a}$ - and $-tar\ddot{a}$ - are more common than $-tr\ddot{a}$ -. They may be interpreted as scribal ‘emendations’ of the form $\bar{a}tr\ddot{a}m$, which therefore is likely to be the spelling of the archetype.

The absence of the shift $*tr > \vartheta r$ implies that the preform was $*\bar{a}tr\ddot{a}m$, with syllabic $*r$. We may surmise that $*/r/$ did not develop into $[\vartheta r]$; rather, the anaptyctic vowel which supported the pronunciation of $*/r/$ in $*\bar{a}tr\ddot{a}m$ was pronounced to the right of $-r-$. This explanation is to be preferred above the possibility that $\bar{a}tr\ddot{a}m$ reflects earlier $*\bar{a}t\ddot{a}r\ddot{a}m$, because in that case the loss of the first $-a-$ would be difficult to explain: compare its retention in $st\ddot{a}r\ddot{a}ma-$, $st\ddot{a}r\ddot{a}n-$, etc.

The acc.pl. forms $str\ddot{a}\check{s}$ ‘stars’ and $pairiia\bar{e}tr\ddot{a}\check{s}$ ‘day-labourers’, which are discussed in § 24.5 below, are also adduced by Hoffmann-Forssman l.c. as examples of an unexpected spelling with $-tr\ddot{a}$ - instead of $-a\ddot{r}a-$. It seems likely, however, that $str\ddot{a}\check{s}$ and $pairiia\bar{e}tr\ddot{a}\check{s}$ never had $*-[tr\ddot{a}\check{s}]$ in the first place: the forms in $*-tr\ddot{a}\check{s}$ together with those in $*-tr\ddot{a}i-$ and $*-tr\ddot{a}u-$ can be taken as evidence for the fact that $*r$ simply never became $[\vartheta r]$ in this position (see below).

In other instances, the graphem *-trə-* is a less correct spelling of a limited number of mss. (cf. Reichelt 1909: 61):

- Compounds with *ātərə-* < **ātr-* ‘fire’ as the first member are attested in the Y, Yt and Vr (Y 15.4 *ātərəuuaxšō*⁶⁶⁹, Yt 13.102 *ātərəuuanu-*, *ātərəpāta-* etc.⁶⁷⁰, Vr 19.2 *+ātərəδāta*⁶⁷¹) and in F 362-367 (362 *ātrəvaxšō*, 363 *ātərə.vaznō*, 364 *ātrəkərəta*, 365 *ātərətaraē naēmāt*, 366 *ātarə.marəzanō*, 367 *ātarəfriḍitəmca*). Strikingly, nearly all the Vīdēvdād forms in Geldner’s edition have *ātrə*.⁶⁷² Even if no clear ms. pattern can be discerned according to which we could restore **ātərə-*, it is still clear that the form *ātərə-* must be posited for the archetype by means of comparisons such as Yt 13.120 *ātərə.ciḍra-* vs. V 8.75 and 18.52 *ātrə.ciḍra-* or Vr 19.2 *ātərəδāta-* vs. V 18.52 *ātrə.dāta-*.

- The form Y 11.5 *trəfiūāt* ‘would steal’ or ‘would enjoy’ (cf. Skt. *त्रप्या-*), which has always been one of the key forms in order to prove the alleged development **-tərə-* > *-trə-*, is not at all philologically secure: v.ll. *tarəfiūāt* Pt4.Mf4, *trəfiūāt* Mf1 · *trəfiūāt* J2.K5 · SY unattested · *trəfiūāt* Mf2, *tarə.piiūāt* K4 · *tarəfiūāt* L2.3 · *tarə.friiūāt* L13, *tarəfiūāt* J6.H1, *trəfiūāt* J7.K11. Note that J7 is a copy of H1 and that Mf1 has often adopted features of Mf2, so that the main ms. branch testifying to *trəfiūāt* is the InPY with J2.K5. It seems safer to assume that the spellings *tarəfiūāt*, *tarəfiūāt* and *trəfiūāt* all go back to **tarəfiūāt*⁶⁷³ in the archetype.

⁶⁶⁹ V.ll. *ātrəuuaxšō* Pt4, *ātra*° Mf1, *ātarə*° corrected to *ātrə*° Mf4 · *ātrauuaxšō* J2, *ātərəuuaxšō* K5 · *ātra*° S1.J3 · *ātra*° Mf2.K4 · *ātra*° L2, *ātrə*° L1 · *ātarə*° J6.7.H1.L13.C1.

⁶⁷⁰ The IrKA mss. spell *ātarə*°.

⁶⁷¹ Geldner edits *ātarəδāta* but compare the v.ll. *ātərəδāta* K7a.M6 · *ātarə*° K7b.11.J8.Pt3 · *ātarə*° Jp1, *ātərə*° Mf2 · *ātarə*° H1.

⁶⁷² These are V 8.75 *ātrə.ciḍranəm*, 18.52 *ātrə.ciḍrəm*, V 8.81 etc. *ātrə.saokanəm*, V 14.7 *ātrə.carana*, *ātrə.vazanəm*, V 18.52 *ātrə.dātəm*, *ātrə.dātahe*, *ātrə.ciḍrəm*, *ātrə.zaḥtūm*, *ātrə.daxiiūm*. The only exception is V 8.75 *ātarəcarəš*.

⁶⁷³ Hoffmann-Narten 1989: 73¹²⁶ adduce the syllabic structure of Phl. *trift-/truft-* ‘stolen’ as support for the linguistic reality of the Avestan form *trəf-*. Not much can be deduced from *trift-/truft-*, however, beyond the fact that it continues Plr. **r*, compare Av. *gəuruuāiia-*, *gərapta-* ‘to grab’ with Phl. *gīr-*, *griftan*.

§ 24.1.5.2 After *g*

There are a few Yašt forms in which the sequence **gərə-* is spelled *grə-*. This is only due to the neglectful spellings of F1. For the stem *g(ə)rəβnā-*, Kellens 1984: 178 remarked that the form *gərəβ-* occurs in simplexes, whereas we find *grəβ-* in verb forms connected in scriptio continua with a preverb. Yet the forms with *grəβ-* occur in Yt 10.68 and 143 ⁶⁷⁴*hangərəβnāiti* and Yt 10.104 ⁶⁷⁵*fragərəβnənti*, where only v.ll. from F1 and its descendants are given, so that the original spelling remains uncertain. Kellens' correction (loc.cit.) of the Vyt, N and H forms *gərəβiia-*, *gərəf-* and *gərəmbaiia-* to **grəβnā-* thus lacks a motivation.

Similarly, the inchoative verb **grf-sa-* which is given by Geldner as ptc.med. *hangrəfšəmnō* in Yt 10.105 and 1s.subj.med. *hangrəfšāne* in Yt 19.49,51 is attested with ^o*gərə* outside the line of F1: Yt 10.105 H3 *hangərəfšəmnō*, Yt 19.49 J10 *hangərəfšāne* (19.51 no v.ll. available).

The form Yt 17.6 ⁺*āgərəmaitiš* 'with approval' is edited as *āgrəmaitiš* by Geldner according to F1 etc., but *āgərəmaitiš* in J10 displays the expected form, and also K12 *āgairīmaitiša* preserves a trace of syllabic **-ər-* in the sequence *-gair-*. The etymology of **āgrmati-* remains uncertain, cf. Kellens 1974a: 26 and § 23.3.2.1 above.

§ 24.1.6 Analogy **sərə- → sri-, sru-*

The present *surunao-/surunu-* to *sru-* 'to listen' is irregular in the sense that we expect a form *sərənao-/sərənu-*, cf. Skt. *śṛṇóti, śṛṇu-*. Most scholars agree that this form has arisen through the influence of the non-indicative and non-present forms in *sru-*, and of the past ptc. *sruta-*. Hoffmann-Forssman 1996: 52 suggest a development **sərə- → *səru- > *səuru- > suru-*, but Beekes 1999: 64 rightly objects that the second *ə* of a preform **sərən^o < *sərn^o* can only be a very late anaptyctic vowel, and it is questionable whether such an anaptyctic vowel can be analogically replaced at all (let alone leave enough time for **səru^o* to become *suru^o*). Therefore, it seems more likely that **sərə-* was replaced directly by *sru-*. This replacement of **sərənao-* by **srunao-* may well have been caused by the close phonetic resemblance to the verb **srinao-* 'to lean'.

⁶⁷⁴ Geldner *hangrəβnāiti*.

⁶⁷⁵ The mss. have *fragrəβənti* (F1 ^o*nti*), cf. Kellens 1984: 178⁴.

This still leaves the first *u* of *suru*^o unexplained, because the sequence *sru-* does not usually get an anaptyctic vowel (cf. *srauuah-*, *srūta-*, etc.) except in front of a sibilant (cf. § 25.4). In the Yasna, especially the mss. J2.K5 spell *srun*^o more often than the other mss. Although they are in the minority, it is conceivable that they retain the spelling of the archetype. If the archetype already had *surun*^o, we are hard pressed to find a satisfactory solution.

The present forms of *srinao-/srinu-* ‘to lean’ have no Indic cognates, but Gr. *klínō*, *áklitos* ‘unmoved’ and OHG *hlinēn* ‘to lean’ suggest a PIE nasal present **k̑li-n-* > IIr. **ćri-n(a)u-*. The Avestan attestations show some v.ll. with *siri*^o. For this reason they are often mentioned together with *surunao-*, but for most forms, the spelling *sri*^o is still attested; sometimes we find a reading *səri*^o, and twice *sərə*^o or even *sarə*^o. I assume that the first *ə* is due to a recent anaptyxis, and that all these verb forms represent **srin-* in the archetype. In the V, we find *nisrinuīāt* and *nisrinaomi*, while the forms which Geldner edits as V 5.62 and 14.2 *nisirinuīāt* oppose the spelling *siri-* of K1 to the correct form *sri-* of L4 and Pt2. In the Yašts, Yt 13.34 *nisrinaota* confirms this evidence; Yt 5.87 *nisirinauuāhi* (thus F1) and Yt 10.27 *nisrinaoiti* (F1 *nisrinaōiti*, corr. for *nisiranaōiti*), occur in texts for which our knowledge is more limited because their preservation largely relies on F1. They cannot be used to dismiss the PAv. reconstruction **srin(a)u-*.

§ 24.2 PAv. *r̥i

Lubotsky 1997b: 148 has argued that IIr. **Cria-* has two different reflexes in Avestan, viz. firstly **Cria-* in the perfect optative, e.g. *auui.baβriiān* < **-babriān*, and secondly **Cria-* in passives and *iia*-presents derived from roots in *-r̥*. Since the first reflex is probably the original one, the second reflex **Cria-* must be due to restoration of vocalic *-r̥-* at a prestage of Avestan. It is this second reflex we are interested in.

After all consonants except *t*, **Cria-* has developed into **Cəria-*. The prop vowel **ə* was retained until the stage of *i*-epenthesis, i.e. **-əiriā-*; epenthetic *i* then ‘swallowed’ **ə*, and the result is a sequence *-iriia-*, cf. Hoffmann-Forssman 1996: 53 and Fischer 1998: 82. After *-t-*, *-ria-* just yields *-riia-*.

The intermediate stage **-əirii-* is indirectly attested by YAv. *niuuōiriiete* (cf. § 24.1.3) with its labial colouring of **-uər̥-* > **-uōr̥-*. The final stage *-irii-* is shown by a few present stems in *-iia-* to roots of the type *Cr̥-*. We find

kiriia- ‘to be made’ (cf. Skt. *kriyáte*) in Yt *kiriieiti* and V *kiriieinti*, *piriia-* ‘to be confiscated’ in V 4.17 *piriieite* and Vyt 40 *piriiañte*, and *miriia-* ‘to die’ (Skt. *mriyáte*) in V (*fra*)*miriieite*, *miriiaite*, H *miriiañuha*.

There are no certain examples of **-ri-* yielding Avestan *-airii-*. The two opt. forms V 3.33 *mairiiañt* (to *mar-* ‘recite’) and V 18.38f. *niždarə.dairiiañt* (to *dar-* ‘to tear’), which derive from aniṭ-roots and should therefore continue **mriiañt* and **dardriiañt* respectively, probably show the real introduction of the full grade of the root into the paradigm of the optative (pace Praust 2000a: 439); the model will have been the present *mara-* ‘to recite’ and the (unattested) ind.sg. of the intensive present **dardar-*.

After *t*, we find two stems without *i*-epenthesis:

- The word *ātriiia-* ‘ashes’ (V 8.8 *ātriiiehe*, 5.51 *ātriiō.paiti.iritəm*) shows, by means of the absence of fricativization of **tr* to *†θr* (cf. *xšaθriia-*, *aēθriia-*), that **r* must have passed through a vocalic stage **-r̥-*; there was no **ar* to which *i*-epenthesis could be applied. We can reconstruct **ātr̥ia-* > **ātr̥iia-*, whence the attested form *ātriiia-*.
- The verbal stem **striia-*⁶⁷⁶ ‘to be thrown down’ has the form *striia-* in all its occurrences. As with *ātriiia-*, this means that the preform **striia-* developed into **striia-* without *i*-epenthesis taking place.

It has been suggested (cf. Hoffmann-Forssman 1996: 53, 91 and Lubotsky 1997b: 148³⁰) that these forms also once possessed the prop vowel **ə*, but that this was lost before *i*-epenthesis could take place: **-təri-* > **-tr(i)̥-*. However, *ātriiia-* and *striia-* may equally well be taken as evidence for the fact that **-tri-* simply never developed into **[təri]* in the first place. This would perfectly match the acc.pl. forms *strəš* and *pairiiaētrəš*, see § 24.5 below.

§ 24.3 PAV. **r̥u*

Parallel to the development **Cṛi-* > **Cəri-*, we find that the (secondary) sequence **Cṛu-* gave **Cəru-*, whence via *u*-epenthesis *Cəruuu*. The evidence is provided by YAv. *gəuruuāiia-* ‘to grab’ < **gr̥bāiia-*, cf. Skt. *gr̥bhāya-*, to the IIr. root *g^(h)rab^h-* ‘to grab’. The vowel *ə* in the frequent v.l. *gəuruu-* may be due to the graphic influence of the gen.sg. *gəuš*.

⁶⁷⁶ The connection with Skt. *striyáte*, proposed by Kellens, is illusory. Gotō 1997: 1044 reports that the ŚBr. form which was read as *saṃ-striyáte* by Weber in his edition is a mistake for *saṃ-skriyáte*.

§ 24.4 PAV. *rui

The sequence *rui is subject to special developments because of the clash of *u* and *i*, cf. Bartholomae 1894-5: 157, Hoffmann-Narten 1989: 73, Hoffmann-Forsman 1996: 52, Fischer 1998, Beekes 1999: 64, Cantera 1999. In fact, the original development seems to have been identical to the one which we assume for *paoiria-*, viz. a metathesis of *-rui- > *-uri- (cf. § 21.2.2 above).

The reflex of this sequence is YAv. -ūirii-, which is certainly attested in *tūirīa-*, and maybe also in *siyūirīa-* and *aγūirīa-*:

- *tūirīa-* (V 12.15) ‘father’s brother’ (Skt. *pitṛvya-*), *tūirīā-* ‘father’s sister’ must have passed through the stages **ptṛuīa-* > **tṛuīa-* > **turīa-* > *tūirīa-*⁶⁷⁷.
- *siyūirīa-* (Yt 14.59) occurs in the cpd. *siyūire.ciθra-* ‘of Sigurian origin’. Cantera 1999: 45 has proposed to revive Bartholomae’s connection of this word with Skt. *śīgru-*, the name of a people. The derived adj. would have been **śīgruīa-*, whence Avestan **sigurīa-* and eventually *siyūirīa-* (compare the development of *tūirīa-*). This seems a plausible option.
- *aγūirīa-* (V 20.9ff.) is some kind of disease or a harmful circumstance; it has no certain etymology. Cantera 1999: 46ff. proposes to explain it from **agru-ia-* ‘which makes infertile’, to the adj. **a-gru-* ‘not pregnant’, compare Avestan *ayrū-* f. ‘unmarried’. This explanation is semantically plausible; of course, it remains only a possibility.

In the forms *brātruiia-* and *nəruīiō*, the stems **brātər-* and **nər-* were restored before **u* had been lost from *-uīa-:

- V 12.13 **brātūirīa-* ‘brother’s son’ (Skt. *bhrātṛvya-*), **brātūirīā-* ‘brother’s daughter’. As far as the spelling is concerned, it is to be regretted that the twelfth chapter of the *Vīdēvdād* is not attested in the PV mss. What we do find are the spellings Mf2 *brātruiiō*, *brātruiie*, Jp1 *brāθruiiō*, *brātruiie* in the IrVS, but L1.2.Br1.K10 *brāturiiō*, *brāturiie* in the InVS. The ms. M2 has *brātūirīa-*, which Hoffmann-Narten 1989: 73 and especially Hoffmann-Forsman 1996: 52 regard as the original form.

⁶⁷⁷ Incidentally, this form proves that *p-* in *ptā*, *ptərəbiiō* etc. has not been retained in Ir. **pHt-* but was restored analogically after *pitar-*; in *tūirīa-*, the paradigmatic connection with *p(i)tar-* was lost, and **p-* was not restored (pace Fischer 1998: 84, who assumes retention of Ir. **ft-*).

In view of *tūriia-*, M2 *brātūriia-* would indeed seem the most likely form to continue **b^hrātrūiā-*, but it would be very strange for the ms. M2 to have preserved, as the only ms., an old form. It would be even more strange if all the other mss. had given up a spelling in *-ūrii-* when *-ūi-* is such a normal grapheme in Avestan (cf. § 10.5.1), and when the form *tūriia-* is found only a few sections away.

The absence of PV spelling variants calls for more caution in this matter. When we compare the three spellings *brātruiia-* (IrVS), *brāturiia-* (InVS) and *brātūriia-* (M2, which belongs to the InVS), it is clear that M2 *brātūriia-* is merely an adaptation of the InVS spelling *brāturiia-*⁶⁷⁸.

The form *brāturiia-* cannot have been the form of the archetype, since it lacks *i*-epenthesis on *u*. Indeed, it is impossible to derive *brāturiia-* from any preform **brātəruia-*, since the dissimilarity with *tūriia-* would be phonetically inexplicable. This points to the IrVS spelling *b̄ratruia-* as being the oldest one.

The form *brātruiia-* of the Persian mss. Jp1.Mf2 was explained by Fischer 1998: 83 as a "Persismus", which he defines as a form in which an Old Persian characteristic has entered. Besides real Avestan **brāt(ə)uriia-*, he assumes a Persianized **brātəruuiia-* to have existed as a phonetic variant in or before the archetype. Yet although this cannot be excluded, we have not many parallels for such a co-occurrence of different spellings of the same single form in the text. The form *vīnāθaiia-* 'to remove' which Fischer adduces as a parallel is different, since it represents the *only* spelling at its two occurrences.

We must rather choose an option suggested but rejected by Fischer 1998: 83, viz. that *brātruiia-* goes back to a preform **brātəruuiia-* in which the stem *brātər-* 'brother' was restored; this restoration must be dated after the metathesis of **ruj* to **urj*. This would explain the difference with *tūriia-*, in which the loss of initial *p-* points to the loss of the connection with the basic word *p(i)tar-* 'father'. The fact that **ə* in *brātruiia-* was lost in front of *r* can be attributed to the preceding *t*, just like in *āriia-* and *striia-*, see above.

In summary, PAv. **brātrūiā-* was restored as **brātərujā-* after the YAv. metathesis of **ruj* to **urj*, and loss of **ə* in **təruj-* led to **brātruiia-* in the archetype. This form is preserved as *brātruiia-* in the IrVS, whereas the InVS metathesized *r* and *u* yielding *brāturiia-*.

• The dat.abl.pl. **nrbjāh* of *nar-* 'man' is reflected with a restored ending in *-b-* as *nərbiiō* in Yt 8.1, but we also find the form *nəruiiō* vel.sim., which

⁶⁷⁸ Cf. Geldner 1886-96 xxia «M2, however, has several peculiar readings also, e.g. 14.12 *tacat.*»

presupposes the phonetic development $*b > *β > *uu$. Original $*nr̥βiah$ developed into $*nr̥uiō$, which was probably not susceptible to the metathesis of $*r̥ui$ to $*ur̥i$, because this affected only Iir. $*u$. The v.ll. point to a spelling $*nr̥uuuiō$ in the archetype (for the retention of $-uuui-$ in the archetype see Hoffmann-Narten 1989: 46ff.), which is striking because it lacks u -epenthesis on r (which would have yielded $†nr̥uruuiō$). This renders it likely that the stem $*nr̥-$ was restored at a very recent stage (cf. Fischer 1998: 86). The relevant forms are:

Yt 3.4 $*nr̥uiō$: Geldner edits $nr̥aiiō$, the form of Jm4. Other ms. classes have $ur̥uiō$ M12, $nair̥iiō$ J10 · $nair̥iiō$ F1+ · $nair̥iiō$ Pt1+ · $ur̥uiō$ K36. Since $ur̥uiō$ is attested in two good mss., and $nr̥aiiō$ in another reliable ms., we can posit earlier $*nr̥uiō$, maybe $*nur̥uiō$.

Yt 8.11 $nr̥uiō$ (Geldner) is attested as $nr̥uiiō$ J10 · $nr̥ōiiō$ K12 · $nr̥uiiō$ F1. Combination of these spellings yields $*nr̥uiō$, which will derive from $*nr̥uiō$ ⁶⁷⁹.

Yt 10.55 $nur̥uiō$ is the reading of F1; Yt 10.74 $nur̥uiō$ is in fact unattested, the mss. spell $nar̥uuuiō$ J10 · $nōiiō$ F1+ · $nuruuiō$ H4.K40. Together these forms point to $*nar̥u(u)iiō$, which brings us closer to the postulated form $*nr̥uuuiō$.

§ 24.5 Iir. *rnš

This sequence yields OAv. $-ər̥qš-$ and $-ər̥qž-$, but YAv. $-(ə)r̥ēš$. It occurs in the acc.pl. of r -stems, where we must reconstruct $*-r̥nš$, and in a few OAv. verb forms of nasal presents to roots in medial $*-r-$.

The OAv. reflex $-ər̥qš-$, $-ər̥qž-$ is attested in:

- $nər̥qš$, acc.pl. of $nar-$ ‘man’ (Skt. $nṛ̥ñ$, Iir. $*nr̥nš$).
- $mātər̥qš$ (see below on this spelling), acc.pl. of $mātar-$ ‘mother’ (Iir. $*mātr̥nš$).
- $mər̥qšiiāt$, 3s. prs.opt.act. of $mər̥ənc-$ ‘to destroy’ (Iir. $*mr̥nciāt$).
- $mər̥qždiiāi$, prs.inf.med. of $mər̥ənz-$, present to $marz-$ ‘to rub’ (Iir. $*mr̥njđiāi$).

In YAv., we have no evidence for the development of $*-r̥nš-$ or $*-r̥nž-$ in inlaut; only the reflex $-ər̥ēš$ in auslaut is found. The attested forms in YAv. are

⁶⁷⁹ As attested in K15, but this is a copy of E1 and therefore of F1.

- *pairiiaētrēšca* (V 9.38), acc.pl. of *pairi-aētar-* ‘day-labourer’, ‘one who goes around’ (IIr. **aitrNš*).
- *nərēš*, acc.pl. of *nar-* ‘man’.
- *strēš*, acc.pl. of *star-* ‘star’ (IIr. **strNš*).

Whereas anaptyxis of *ə* in *nərēš* is unusual for the cluster *nr-* and therefore indicates original **r* = **nərNš*, the absence of anaptyxis between *t* and *r* in *pairiiaētrēšca* and in *strēš* can be accounted for as with *ātriia-* and other forms discussed above.

The absence of anaptyxis after *-t-* in *pairiiaētrēšca* and *strēš* renders the OAv. form *mātərqš* suspicious. Since all the forms showing *-tr-* < **-tr-* are YAv., one might surmise that the absence of anaptyxis in this position was a YAv. characteristic, whereas OAv. did have **[mātərnš]*. However, it seems less likely that OAv. would have had anaptyxis in a sequence in which Early YAv. apparently retained the pronunciation [*trēš*]. Another solution is then preferable, viz. that the archetype had Y 38.5 **mātrqšcā*.

The v.l. *mātərqšcā*, which was preferred by Geldner in his edition, is in Y 38.5 only found in the mss. of the IrVS. The complete v.l. are:

- Y 38.5: *mātərqšcā* Pt4.Mf4, °*arqšcā* corr. to °*irqšcā* Mf1, °*irqšcā* Br2 · *mātərqšcā* J2.K5 · *mātərqšcā* S1, °*sca* J3 · *mātərqšcā* Jp1.K4.Mf2 · *mātərqšcā* L2, *məḍrqšcā* S2.L1, *mātərqšcā* L3.Bb1 · *mātərqšcā* H1.J6.L13, *məḍrqšcā* C1.J7.
- Y 67.8 (quotation of Y 38.5): *mātərqšcā* Pt4.Mf4.1 · °*arqšcā* J2.K5 · °*ərqšcā* F11 · °*arqšcā* H1.

It is possible that °*ərqšcā* is the oldest reading, but it is in the minority. The variant °*arqšcā* is found in three of the four PSY branches, and it could be explained as a form with the full grade of the suffix **-tar-*, i.e. **mātərnšca*, although the YAv. form *pairiiaētrēš* shows that we must principally expect the inherited zero grade **-tr-* in the acc.pl. However, in the InVS and the YS we also find the v.l. *məḍrqšcā*. This must clearly be based on analogy with the frequent word *məḍra-*, but it is not self-evident that an existing form **mātə/ərqšcā* would be changed into *məḍrqšcā*. This opens the possibility that the original form was **mātrqšcā*: the contact between *t* and *r* caused the association with *məḍra-* in some of the InVS and YS mss., whereas the PSY relieved the cluster *-tr-* by means of inserting either *ə* or *a*.

We receive confirmation of this suspicion in the Pahlavī translation of Y 38.5. As indicated by Bartholomae 1904: 1167, the PTr. (correctly) interprets the first five words of Y 38.5 as PN, and explains them. In this explanation, the Avestan words are quoted, but with this difference that *mātərqš* appears in the mss. Pt4.Mf4 as *mātrēš*, which would be the expected YAv. acc.pl. of *mātar-*; the mss. J2.K5 have *matrēš*, with a corrupt short *a* in the first

syllable. In the parallel text of Y 67.8, Pt4.Mf4 and K5⁶⁸⁰ have *mātarāš*, with the same YAv. acc.pl. ending and now with an anaptyctic vowel, just like the Avestan text has in *māta/əraqšcā*. It appears that the PTr. is based on an earlier translation of the OAv. text in Late YAv., or that the translators have replaced the OAv. word with the YAv. equivalent known to them. In any case, we may conclude that there is evidence that the YAv. acc.pl. of *mātar-* was *mātrāš*, whereas the OAv. form in Y 38.5 was probably ^x*mātrāšcā*.

Instead of YAv. *-(ə)rāš*, many mss. spell *-(ə)rāuš*, which was regarded as the more original form by some Avesta scholars, including Bartholomae 1894-5: 158. Geldner (Prol. p. 1), however, regarded the ending *-āš* as the better form after he had seen more mss., and this is confirmed by the etymology. The variant *-āuš* was caused by the influence of the frequent and characteristic Gāthic gen.sg. ending *-āuš* of the *u*-stems. Hoffmann-Narten 1989: 74 have shown that a scribe has visibly corrected older *strāš* and *strāšca* to *strāuš* and *strāušca* in J2 and K5. The v.ll. of *nārāš* and *strāš* are also discussed in Kellens 1974a: 387, 389.

How can we explain the difference between the OAv. reflex *-qš(-)* and YAv. *-āš*? First of all, the occurrence of anaptyctic *ə* in OAv. *māraqšiiāt* and *māraqšdiiāi* is conspicuous, because OAv. does not usually relieve an initial cluster *mr-* by means of *ə*, cf. *mraotā*, *mruiiē*, *mraocqs*, etc. The spelling *mār-* can only be explained if we assume that IIr. **m̥r̥nciāt* and **m̥r̥nzdīāi* show the usual prop vowel to the left of syllabic **r̥*: **m̥r̥nciāt* > **m̥r̥nšīāt* and **m̥r̥nzdīāi* > **m̥r̥nzdīāi*.

Moreover, the OAv. metre shows that the sequence **-r̥n-* still counted as one syllable in all the relevant forms: Y 45.7 *nārāš* counts as monosyllabic */n̥r̥nš/*, Y 44.14 *māraqšdiiāi* as disyllabic */m̥r̥nzdīāi/*, and Y 45.1 *māraqšiiāt* as disyllabic */m̥r̥nšīāt/*.

The combination of the syllabic value of *mār-* (and *nār-*) and the fact that the metre does not allow another syllabic vowel, strongly suggests that the vowel *-q-* in these OAv. forms is secondary, having arisen after the composition of the Gāthās. The most likely scenario would be that the original sequence **-/r̥nš/* was still intact at the time of the canonization of OAv. By means of a subsequent YAv. development, this developed into **-ərāš* (after *n, m*) or **-rāš* (after *t*), but did not share the later YAv. denasalization to *-rāš* anymore. This denasalization may well have been contemporaneous with the

⁶⁸⁰ J2 has *mātarā.īš* which must be a corruption of **mātarāš*, with *ā* → *ī*.

YAv. denasalization of (*-anh >) *-q to -ā in the acc.pl. of *a*-stems (see § 23.6.2.2).

In view of the retention of -qš- where it continues *-anš- (e.g. *tāšīiah-*, *bāšnu-*, *fraštā*) or *-ānš (e.g. *apaš*, *paiti.yaš*, *fraš*), it looks as if the ending -rāš = OAv. -raqš must contain a different vowel. Hoffmann-Narten 1989: 73 assume that *-rnš developed into *-rāš, with a nasal vowel which was different from *ā: **marnšīāt* > **mārāšīāt* and **narnš* > **nārāš* (one may also envisage nasal *r*, i.e. [r̥nš]). However, it is impossible to guarantee that the vowel of -rāš/-raqš was *not* the same as a possible *-āš < *-anš, because the sequence -qš- with retained nasalization from *-anš- is attested only in *inlaut*. All words with -qš in *auslaut* continue a long vowel *-ānš. Hence, it is also possible to assume the following, simpler chronology:

1. PIr. *-rnš > Late YAv. *-(ə)rāš → OAv. *-rāš.
2. Denasalization of YAv. *-āš > -āš; not applied in OAv.
3. *-ānš > -qš.

§ 24.6 IIr. *rš and *rž

The regular reflexes of *rš and *rž are -ərāš- and -ərāž- in OAv. but -arš- and -arž- in YAv. This means that in YAv., the reflex of *rš and *rž has merged with that of *arš and *arž. We find *rš spelled as -arš- in all positions except partly in final *-arš and *-aršt, where anaptyxis yields -arāš. Not a single instance of -ərāš- is found in YAv.⁶⁸¹

The sequence -ar(ə)ž- < *rž is attested in Yt 8.44 *upa.daržnuuain̄ti* ‘they venture to’ (cf. Skt. *dhṛṣṇóti*) and in the noun *mar(ə)ždika-* ‘mercy’ (OAv. *mārāždika-*) and its derivatives. One form in -ərāž- is found in YAv., viz. *ərāžuxda-* ‘containing correct speech’, but beside it we find the doublet with the expected YAv. shape *aršuxda-*, which led Bartholomae 1898: 264 to the probably correct conclusion that *ərāžuxda-* was introduced into YAv. on the example of the Gāthic texts.

The fact that the regular reflex of *-rš- is YAv. -arš-, renders it necessary to reconsider the loc.pl. *upa.naxturušū*⁶⁸² *tqθraēšu* ‘in darkness(es) which

⁶⁸¹ The only form thus edited by Geldner, viz. Yt 13.146 *aiβi.dərāštāiš*, was rightly corrected to *aiβi.darāštāiš* by Bartholomae 1898: 262f. The spelling °*ərāš*° is found in the (good) mss. Mf3.K13.H5, but F1+, J10 and K14 have *darāštāiš*. Note that K14, which usually goes together with the other IrKA mss., sides with the Yašt Proper.

⁶⁸² At V 7.79, the IrVS (Jp1.Mf2) and the InVS spell °*naxtrušu*, but since IIr. *-ktr- yields Avestan -xəδr-, we must assume that °*naxturušu* is the original form.

border(s) on the night', i.e. 'at dusk or at dawn', which occurs in two different passages at V 7.79 and N 68. Bartholomae 1904: 391 assumes that *upa.naxturušu* is the loc.pl. of an adj. *upa.naxtar-* 'bordering on the night' (cf. Latin *nocturnus*, Greek *núktōr*), but a loc.pl. of such a stem is expected to yield †*upa.naxtaršu* whether we assume with a zero grade of the suffix **nakt-r̥-šu* (which seems the most likely) or with a full grade **nakt-ar-šu*. We cannot be absolutely sure about the expected ablaut because no (other) *r*-stem loc.pl. forms are attested in Avestan. It seems very unlikely that a form †*upa.naxtaršu* would have corrupted to *upa.naxturušu* in all three V ms. classes; compare other words with the sequence *-aršu-*, which is retained without many v.ll.: *maršuiiā*, *karšuiiā*, *paršuiiā*, *karšuuar-*. Hence, we must look for a different solution for *upa.naxturušu*. Since an IIr. suffix *-uru- is unknown, we must still depart from a stem **nakt-r̥-*. The only solution I see is a very theoretical one: *upa.naxturušu* might represent an original OAv. form **upa.naxtərəšu*, because in OAv., **r̥š-* did not change to *-arš-*. This OAv. form would then have been adopted in YAv. as **upa.naxtərəšu* *tq̄vraēšu*, and subsequently *-ərə-* would have been changed (irregularly) to *-uru-* by the influence of *-šu*. It is evident that this explanation is hardly satisfactory.

In OAv., examples of the development of **r̥š* in OAv. include *aodərəščā*, *ərəš*, *ərəšiš*, *ərəšiiā*, *ərəšuuā*-, *kərəšuuā*-, *cikōitərəš*, *dərəščā*, *dərəštā* and *nərəš*. The sequence *-arš-* < **r̥š* is not original in the OAv. language, but can sometimes be found in OAv., e.g. in *aršnauuañt-* 'with a stallion', *darəšač* 'boldly', *daršti-* 'sight' and *paršta-* 'question'. The restricted number of OAv. forms in *-arš-* led Beekes 1988: 94 to explain them from YAv. influence on the OAv. text, because *-arš-* is the phonetic reflex of **r̥š* in YAv.; this explanation was adopted by Hoffmann-Forssman 1996: 91. The replacement can be added to other replacements of OAv. forms by their YAv. counterparts, which we witnessed e.g. in the case of *aē/ōi* (§ 14.3) or *āN/əN/aN* (§ 23.7).

All OAv. words showing this *-arš-* can be matched with attested YAv. models: *aršnauuañt-* 'with a stallion' to YAv. *aršan-* 'man', *ātarš* 'fire', *daršti-* 'sight' to YAv. *aiβi.daršta-*, *dužuuaršta-* to YAv. *dužuuaršta-* 'evil deed', *paršta-* 'question' to YAv. *paršta-* 'asked', *həm.paršti-* 'talk' to YAv. *paršti-* 'dispute', *huuaršta-* to YAv. *huuaršta-* 'good deed'.

Beekes loc.cit. adds Y 33.7 *darəšač* 'boldly' (cf. Skt. *dhṛṣāt*), but it is disputed whether this goes back to PIr. **dr̥šat* or **daršat*. If it does go back to a form with zero grade, it is still possible to interpret this form as influenced by YAv. *darši-* 'strong, bold'.

The OAv. reflex *-arəž-* < **rž* is attested in *arəžəjī-*, *arəžuxda-*, *arəžūcam*, *garəždā*, *dīdarəžō*, *mərəždātā* and *mərəždika-*.

§ 24.7 Summary

The preceding section has yielded the following results:

- | | |
|--|--|
| 1. * <i>r</i> # | YAv. <i>-arə</i> .
OAv. <i>-arē</i> . |
| 2. * <i>#rC-</i> | YAv., OAv. <i>arəC-</i> (if <i>C</i> ≠ * <i>H</i> , * <i>š</i> or * <i>ž</i>). |
| 3. * <i>-C₁rC₂₋</i> | YAv., OAv. <i>-CərəC-</i> (if <i>C₂</i> ≠ * <i>H</i> , * <i>š</i> or * <i>ž</i>). |
| Exceptions: | |
| 3a. * <i>-C₁rC₂₋</i> | Sporadically <i>-CōrəC-</i> if <i>C₁</i> is a labial: OAv. <i>θβōrəštar-</i> , <i>mōrēndaŋ</i> , <i>mōrəndən</i> ; YAv. <i>niuuōirīia-</i> . |
| 3b. * <i>-C₁rC₂ī-</i> | YAv., OAv. <i>-CərəiC-</i> (if <i>C₂</i> = <i>t/θ/d/δ</i>). |
| 3c. * <i>C₁riā-</i> | 1. <i>-Criia-</i> (<i>auui.baβriiān</i>).
2. * <i>Cərīā-</i> (<i>ni-uuōirīia-</i> , <i>kiriia-</i> , <i>pirīia-</i> , <i>mirīia-</i>). |
| 3d. * <i>C₁ruīā-</i> | 1. Early YAv. * <i>Curīā-</i> > YAv. <i>Cūriia-</i> .
2. YAv. * <i>C₁ruīā-</i> (in <i>brātruiia-</i>) with restoration of <i>-ruīā-</i> after the metathesis of * <i>-ruī-</i> > <i>-urī-</i> . |
| 3e. * <i>C₁ɣba-</i> | YAv. <i>Cəuruua-</i> . |
| 3f. * <i>rš</i> , * <i>rž</i> | YAv. <i>-arš-</i> , <i>-arž-</i> , OAv. <i>-arəš-</i> , <i>-arəž-</i> . |
| 3g. * <i>-tr-</i> | YAv., OAv. <i>-tr-</i> / <i>ī</i> and / <i>ŋ</i> . |
| 4. * <i>rñš</i> , * <i>rñž</i> | YAv. <i>-arəš</i> , OAv. <i>-arəš(-)</i> , <i>-arəž</i> |
| 5. * <i>fra-rn-</i> , * <i>fra-rt</i> | YAv. <i>frəran°</i> , <i>frərat°</i> ; once <i>frōrat°</i> in OAv. |
| 6. * <i>#Car₁</i> , * <i>#Carš₁#</i> | OAv. <i>Cōr°</i> : <i>cōrəŋ</i> , <i>dōrəšt</i> . |

As for the phonetics, Bartholomae 1894-5: 167 explicitly states that the grapheme *-arə-* reflects an original pronunciation [ə^hr], to which a second [ə] was later added. The main support for this assumption is offered by the cognate Iranian languages, which generally show a reflex [ar] or [ə^hr]; and it is strengthened by those Avestan forms that have a reflex of **r* with a vowel only in front, such as *-arš-* and *-arž-*, but also *-ōrə-* and *-ērə-*. They show that the second ə in *-arə-* can be equated with anaptyctic *-ə-* in the cluster **arC* (see § 25.2 below). We have also seen a few cases in which we must assume the analogical restoration of /*r*/ = [ə^hr] in a prestage of YAv.: the development of e.g. **frarnaut* → **fra ərnaut* → **frərnaut*, the forms *niuuōirīia-*, *mirīia-*, *pirīia-*, etc., *brātruiia-* and *nəruīō*. This is another argument for the linguistic reality of the pronunciation [ə^hr].

There is, however, evidence that *r was not always realized as Early YAv. *[ər] after -t-. In front of resonants, there are three environments in which there is no trace of an anaptyctic vowel [ə] to the left of *r:

- *tr̥i: YAv. *ātr̥iia-*, *striia-* (§ 24.2).
- *tr̥u: YAv. *tūir̥iia-* (§ 24.4).
- *tr̥nš: OAv. *˘mātr̥qšcā*, YAv. *pair̥iiaētr̥āš*, *mātr̥āš*, *str̥āš* (§ 24.5).

In the five words in which *t was not preceded by *s, the retention of -t- proves the syllabic value of *r̥/. It is quite conceivable that *r̥/ never became Early YAv. *[ər] in these sequences in the first place. If the reconstruction of an archetype spelling *˘mātr̥qšcā* for what is usually read as OAv. *māt̥arqš* is accepted (cf. § 24.5), then the behaviour of *r̥/ in front of semivowels is without exceptions.

Phonetically, the fact that *r only lacks an anaptyctic vowel after t may be explained by the fact that t and r were homorganic consonants (thus Lubotsky 1997b: 148³⁰).

§ 25 Anaptyxis

Anaptyctic vowels were not phonemic at any time. In the relative chronology, they play a very small role, since their rise is one of the last developments before the texts were written down. We shall only discuss those anaptyctic vowels which were probably present in the archetype. Anaptyxis can also sporadically be observed in other consonant clusters than those following below (especially in front of sibilants), but not in a significant number or distribution to suggest an older origin than in the respective mss. or ms. classes themselves.

§ 25.1 Word-final *-r*

After vowel plus word-final *r*, an anaptyctic vowel *-ə* has developed: YAv. *baēuuarə*, *narə*, *huuarə*, *dasuuarə*, *caḍβarə*, *zāuuarə*, *vadarə*, *yārə*, *hiiārə*, *caturə.zīzanatqm*. The agreement between the texts suggests that it was already present in the archetype.

In the Gāthās (but not in the YH!), the anaptyctic vowel is usually spelled *-ā*, e.g. *vaocātarā*, *sax^vārā*, *vadarā*. There are two exceptions to this rule, viz. *hanarə* ‘without’ and *aṅtarə*⁶⁸³ ‘between’. These may be due to local analogy with the frequent YAv. sequence *-arə*, but maybe these forms simply escaped the introduction of the final long vowel deemed characteristic of OAv. texts. The artificial character of Gathic *-ā* is confirmed by the YH, which does not share this phenomenon: *ātarə*, *huuarə*, *vaonarə*.

§ 25.2 Cluster *rC* except *rš*, *rž*

The following postvocalic sequences of *r* plus consonant are usually relieved by means of *ə*⁶⁸⁴-insertion: *-rk-*, *-rx-*, *-rg-*, *-rγ-*, *-rc-*, *-rj-*, *-rt-*, *-rḍ-*, *-rd-*, *-rḍ-*, *-rt-*, *-rn-*, *-rp-*, *-rf-*, *-rb-*, *-rβ-*, *-rm-*, *-rs-* and *-rz-*. Those forms that seem exceptional because Geldner edits them without anaptyxis usually have *-rəC-* in at least some of the more trustworthy mss. Two examples are V 15.14 *mimarxšāite* (K1a *-rixš-* · Jp1.Mf2 *-rəxš-*) and Y 62.8 *armaēšāide* (Jm4.Mf3, Mf1, Jp1.Pd.K4 and J9.H2 *arəm^o*).

⁶⁸³ In all three attestations. Y 49.3 is given as *aṅtarā* by Geldner, but only the mss. J2 and Pt4 have *aṅtarā*, the others *aṅtarə*.

⁶⁸⁴ OAv. often uses *a*, sometimes *ō*, *i* or *u* for anaptyxis. These differences are insignificant for the following discussion, and will not be commented on.

In OAv., we find one case of the prop vowel *-ō-*, viz. in *garōbīš* (Y 34.2), ins.pl. of *gar-* ‘song, hymn’. The preform **garbiš* developed an epenthetic vowel between *r* and *b*, which became *ō* (Humbach 1959 I: 18).

The sequence *-rən-* < **-rn-* can also be found as *-ran-*, which causes confusion with respect to words with etymological **-ran-*. Compare the following examples:

- *hāta.marāniš* Yt 1.8, an adaptation of Y 32.6 *hātā.marānē*, voc.sg. of *hātā.marāni-*. There is a problem with the metre of Y 32.6, which has one syllable too many. As Yt 1.8 could represent */marniš/*, we may interpret Y 32.6 as **hātamarnai*, as in fact proposed by Humbach apud Beekes 1988: 3. For *-ā-* in *°marāni-*, cf. § 3.6.
- For *hizuuārəna* (Yt 5.6, Ny 4.7), Oettinger 1983: 187f. reconstructs **hizuuā-arnā* ‘by a tongue movement’, with *hizuuā-* ‘tongue’ and *arna-* ‘movement’ to Skt. *ārṇa-* ‘flood, wave’.
- *vīcarənā* (Yt 11.4) acc.pl. of *vī-carana-* n. ‘crossroads’, cf. Skt. *vicarāṇa-* ‘movement’. The v.ll.⁶⁸⁵ prove that *vīcaranā* is a viable alternative, and since *-ana-* is the expected suffix form in YAv., we may opt for *vīcaranā*. In Y 42.1, Geldner edited the acc.pl. as *vīcaranā*, which Bartholomae 1904: 1437 corrected to *vīcarənā*. In fact, both variants find support in the mss., none being conclusively better represented. We are therefore free to posit with Geldner *vīcaranā* as the original form.

§ 25.3 Clusters *rš* and *rž*

In contradistinction to other sequences of the form *-rC-*, the clusters *-rš-* and *-rž-* do not or not regularly insert *ə*. The reason for this deviant behaviour with regard to other *rC-*clusters must be the articulatory proximity of both consonants.

§ 25.3.1 In inlaut

In front of *-n-*, words like *aršan-*, *aršnauuaṇt-*, *taršna-*, *daržnuuain̄ti*, *varšna-* and *varšniharšta-* show the absence of anaptyxis, and they suggest that *ə*-insertion, when it does occur, can be ascribed to individual scribes and

⁶⁸⁵ Viz. *vīcarənā* F1, J10 and L11.Jm4.O3, but *°caranā* K36.18 and J9.15, *°ciranā* L12.

text classes, rather than to the archetype. The only word which has anaptyctic *ə* relatively often is *baršnu-* ‘elevation’, attested as *barəšnu-* by a majority of mss. in Y 9.26, 10.3 and 10.17.

In front of *-t-*, we find significantly more spellings *-arəš-* than in front of other consonants. In fact, it is impossible to say whether the archetype wrote *-aršt-* or *-arəšt-* in all words, because the ms. evidence is ambiguous⁶⁸⁶. In the Yasna, we find that many mss., especially the Iranian ones Mf1.Pt4 and K4, but also the YS and S1, have a preference for *-arəšt-*, while especially J2.K5 spell *-aršt-* nearly everywhere. Even so, some forms occur where this distribution is reversed. It is furthermore possible that some words already had *ə*-insertion at an earlier stage, while others did not. The number of mss. with *ə* in the adj. *huuaršta-*⁶⁸⁷ is strikingly higher than e.g. the number of mss. which spell *varəšta-* or *θbarəšta-*.

For the Vīspereḍ, we do not have many v.ll. at our disposal, and for most forms Geldner edits *-aršt-* without any comment. From the few forms with v.ll. we can see why, since only the mss. of the IrVS and the IrVrS regularly spell *-arəšt-*, e.g. in Vr 2.2 *varšniharštəm*, 7.4 *frəθbarəšta-* (bis) and 12.3 *varštūuanəmca*. Nevertheless, those mss. usually have the better spellings of the Vr., so that it is impossible to say on the basis of these data alone that *-aršt-* would be the oldest form. The only two forms which Geldner edits with *-arəšt-* in the Vr are 10.1 *vouru.barəštibiō* and *vouru.jarəštibiō*, but he does not provide any v.ll.

In the Yašts, most forms are edited by Geldner with *-aršt-* without any v.ll. Checking the evidence in the facsimile of F1 (91 forms), by far the majority of forms indeed spells *-aršt-*. In a few longer words, F1 spells *-arəšt-* (or *-arəst-*, with F1’s frequent corruption of *št* to *st*) contrary to what Geldner would have us believe: Yt 1.12 *pouru.darəstəma*, *dūraēdarasta*, Yt 3.3 and 11.7 *huuarəstāiš*, Yt 5.8 and 124 *pairiiaḡharəštābiiō*, Yt 11.20

⁶⁸⁶ Lubotsky 1994: 94f. argues that *-aršt-* is the original spelling because it is found in Geldner’s text 216 times, while the spelling *-arəšt-* occurs but in three words. This is insufficient proof because we know that Geldner based his Yasna text especially on J2.K5, which have a decided preference for forms without *ə*-epenthesis, his Yašt text on F1 and his Vīdēvdād text on the PV. We must first unravel the relations between the different ms. spellings.

⁶⁸⁷ Compare the v.ll. of *huuaršta-* in Y 3.4, 4.1 (bis), 7.4, 10.16, 11.17, 12.8, 36.5, 49.4, 55.4, 57.4, 70.4.

frāiiō.huuarəštō, Yt 13.26 *anuuarəšθbastəmā*⁶⁸⁸, Yt 19.17 *huuarəštaēšu*. These cases may be viewed as idiosyncracies of F1, but in view of the spelling *huuarəšta-* (especially frequent in the Yasna), they may be older. The forms Yt 10.15, 133, 12.13f. *vouru.barəšti* and *vouru.jarəšti* have no etymology.

In the Vīdēvdād, the sequence *-aršt-* occurs many times, but mostly Geldner does not give any v.ll. Where he does, we can see general agreement between the mss. about *-aršt-*, but in line with what we have seen above, the IrVS mss. Jp1.Mf2 have somewhat more cases of *-arəšt-* than the other mss. The form V 19.39 *vouru.barəšti*, which may be relevant for judging the same word in the Yt and Vr, is reported as being spelled *°barəšti* in L4 but *°baršti* in K1.

In conclusion, we can support the opinion that the usual reflex of **-ršt-* and **-aršt-* in YAv. is *-aršt-*. There is a tendency especially in the mss. of Iranian origin to insert a *-ə-* between *r* and *š*. In addition, there may have existed an older tendency to insert *ə* especially in longer Avestan forms (*huuarəšta-?*, *varšniharəšta-?*), but it remains unclear whether such anaptyxis was already a feature of the archetype.

The few forms with the sequence **-āršt-* in inlaut always spell *-ārəšt-*. The form Y 49.5 *sārəštā* was spelled *sārštā* in Geldner's edition, but only K5 has this reading, the other mss. all write *sārəštā* or *sārəstā*. Geldner's Y 9.11 *ārštiiō.barəza* must certainly be corrected to *+ārəštiiō.barəza* on the basis of the v.ll.⁶⁸⁹ From the Yašts, we can add Yt 11.2 *paiti.dārəšta*, *dārəšta* (both with a good attestation in F1, J10 and the IrKA) and Yt 17.12 *darəya.ārəštaēm*. The only exception, viz. Yt 19.40 *ārštiiō.barəza*, without *ə*-insertion, can be ascribed to the poor transmission of Yt 19, which relies on the mss. F1 and J10; the identical form from Y 9.11 is much better attested.

The cluster *-ržd-* only occurs in *marždika-* 'mercy' and its derivatives, and probably in OAv. *θbarōždūm*. The noun *marždika-* is only attested in the Yašts and the Khorda Avesta texts. The majority of the forms is edited with *-arž-* by Geldner, but we also find Yt 2.7 *marəždikəm* and S 1.4 *marəždikāi*, without v.ll. It appears that it depended mainly on the individual scribe

⁶⁸⁸ In Yt 13.26, F1 spells Geldner's *anuuarəštāuastəmā* with *°arəšt°*, just like J10 and the IrKA Mf3.K13.38.H5. This is a clear case where Geldner has not followed the mss., but his own idealized spelling.

⁶⁸⁹ Viz. *ārəšt°* Mf1.4, *ārīšt°* Pt4 · *ārəst°* J2, *ārist°* K5 · *āršt°* J3 · *ārəšt°* Mf2.K4 · *ārəšt°* H1.K11.J7.Lb2.

whether *ə* was inserted or not, as with *-ar(ə)št-* as seen above. If we regard only the forms for which v.ll. are available, both spellings strike even⁶⁹⁰:

Geldner	-arž-	-arəž-
Yt 13.136 <i>anamarždikahe</i>	F1	Mf3.K13
Yt 17.15 <i>marždikəm</i>	F1	J10
Vr 9.5 <i>marždikauuatō</i>	K7a; J8; L1.2.O2	Mf2.Jp1.K4; Kh1.F11; Pt3.Jm5.L27 <i>mərəž°</i>
Vr 21.3 <i>marždikəm</i>	K7a; Mf2.Jp1.K4; Kh1	F11; L27
A 3.4 <i>marždikauuastəma</i>	Jm4; F2.L25	Lb5, K18 <i>mərəž°</i>
Yt 2.2 <i>marəždikāi</i>		K36; F1; K38 and O3 <i>mərəž°</i>

OAv. *θβarōždūm* (Y 29.1) is the 2p. aor.inj.med. of *θβərəs-* ‘to shape’. This form was reconstructed as **θβərəždūm* by Lubotsky 1994: 96, who argued that Avestan **arž* is usually spelled *arž*, not *arəž*, and who furthermore regards the PIE root **turk-* as having a consistent zero grade, which explains in his view why the agent noun **turk-tor-* does not have the usual full grade of the root in this formation.

In Lubotsky’s view, the *a* of *θβarōždūm* represents the spelling of schwa as in *išasa-* /*išsa-*/, *zarazdā-* /*zrazdā-*/ etc. However, the situation is not completely parallel since the *a* in *išasa-* etc. is an anaptyctic vowel which is of a later date than the first *ə* in *ərə* < **r*. We would expect that a PAv. preform **turžduam* would yield OAv. **θβərəždūm* in first instance. Since a preform **θβərəždūm* could either remain as such (cf. YAv. *θβərəsa-*) or develop into †*θβōrəždūm* (*θβōrəštār-*), we must find a different solution for *θβarōždūm*.

We can save the assumption of a preform **θβərəždūm* by assuming the replacement of OAv. **ərəž* by YAv. *arž* (the phonetic outcome of **rž* in YAv.) before **θβərəždūm* underwent other changes. This would merely be another case of YAv. language entering the OAv. texts. The form **θβarždūm* could then develop a schwa in **θβarəždūm*, which was coloured to *ō* as e.g.

⁶⁹⁰ For Vr 9.5 we would rather edit †*marəždikauuatō*.

in OAv. *garōbīš*. In view of the structural advantage of a PAv. preform **turžduam*, this seems the best solution for *ϑβarōždūm*.

§ 25.3.2 In auslaut

The sequences *rš* and *ršt* are more liable to receive anaptyctic *ə* in auslaut. In fact, we see that **-arš* and **-ārš* always yield *-ārəš* unless the word is a monosyllable. The sequence **-ršt* is found as *-rəšt* in each case, even in monosyllables. In view of the fact that it occurs in all Avestan books, this anaptyxis must have been a feature of the archetype, but it need not be much older. The tendency to relieve the consonant cluster when it is further removed from the beginning of the word recalls the specific developments in initial syllable we saw before, e.g. the lengthening of **i*, or of **a*, after a labial. These may point to initial stress.

The YAv. reflex *-arəš* in polysyllables is attested in the nom.sg. *ayāuuarəš* (Yt 10.52) < **aga-uarj-š* ‘who does evil’, nom.sg. *ātarəcarəš* (V 8.75) < *ātar-car-š*, cf. Kellens 1974a: 175f., nom.sg. *huuarəš* (Y 9.16) < **hu-uarj-š* ‘who does good’, and 2s. aor.inj. *varəščā* (Y 13.5 = 39.4) to *varz-*. *Fraspāuuarəš* (Yt 2.13) is of unclear analysis and etymology, but confirms the spelling rule. In this category I include Geldner’s Yt 19.96 *dužuuarštāuuarš* (spelled thus in J10; but F1.M12 have *-ariš*) and Y 9.31 *sāstarš* (in which the IrPY, the SY and the YS agree on **-arəš*⁶⁹¹).

Parallel to final *-arəš*, we find *-ārəš* written for **-ārš*, attested only in the polysyllabic 3p. optative forms *aīβisaciiārəš* (Yt 8.56), *jamiīārəš* (Y 60.2 = A 1.2), *daiϑiiārəš* (V 8.22), *buiīārəš* (Ny 3.11) and *huiīārəš* (V 7.55; for **hunuiīārəš*, cf. Kellens 1984: 172).

Final *-arš* is attested in the monosyllables *parō.darš* (nom.sg. of *dərəs-*), *narš* (gen.sg. of *nar-*) and *barš* (nom.sg. of *bərəz-*).

A real exception is the frequent disyllabic form *ātarš*, nom.sg. of *ātar-* ‘fire’. Whether the Nērangestān gen.sg. forms *āsnātarš*, *frabəratarš* and *zaotarš* were thus spelled in the archetype is uncertain, since the N text presents several orthographic irregularities, so that these forms are less reliable evidence.

⁶⁹¹ V.II. Mf1 *sāstarəš*, Mf4 *°ariš*, Pt4 *°riš* · J2.K5b *°arš* · J3 *°arəš* · Mf2 *°arš*, K4 *°arəš* · B2 *°arəš* · J6.7.H1.L13 *°riš*.

Lubotsky 1994: 95 claims that "the Avestan manuscript tradition points to the distribution: *-aršt-* but *-ārəšt#*." We only find three forms with the reflex in auslaut: Y 43.13 *dārəšt*, Y 49.2 *dōrəšt* and F 47 *baodō.varəšt*. As there are no counterexamples, and in view of the parallel opposition *-arš-* vs. *-arəš*, we may accept the view that **aršt* yields *-aršt-* word-internally but *-ārəšt* in auslaut.

§ 25.4 Cluster *Cr*

Clusters of a consonant plus *r* are usually found without anaptyxis in YAv. In OAv., anaptyxis is quite frequent, but can be assumed for the archetype only in a few cases, which we shall discuss separately. A distinctive trait of anaptyxis in front of *r* is that the anaptyctic vowel often assumes the quality of the following vowel, so that it takes not only the form *ə* but also *a*, *u*, *i*, *ō*.

The noun *sraoša-* 'obedience' is very frequent in Avestan. The spelling with *sr-* is regular in YAv, but the usual OAv. form is *səraoša-*⁶⁹², to which we may add the 1s. subj.med. *səraošanē* of *sru-*. These are all the more striking because initial *sr-* is frequent in other OAv. forms (*srauuah-*, *sraotū*, *srūidiīāi* etc.) and never becomes *sər-* there. It thus seems that the consonant *š*, which starts the syllable following on **srao-*, is the cause for the anaptyxis.

The treatment of *sr-* finds a close parallel in the reflex of initial *fr-*, which (pseudo-)OAv. usually realizes without anaptyxis except when the next syllable starts with *š* or *s*, in which case we often find *fər-*, e.g. *fərasrūidiīāi*, *fərašaotra-*. This distribution was observed by Kellens-Pirart 1988-91 I: 58f; to the evidence adduced there, we need only add Y 38.2 *fərašti-* and the pseudo-Gāthic forms *fərā* (Y 12.3, 28.0), *fərašnaēšū* (Y 12.5,6), *fərafraodra-* (Y 42.6), and *fərastuiē* (Yt 1.0). Even the best mss. show considerable disagreement as to the spelling of these forms; in general, the mss. of the IrPY and S1 show a majority of forms in *fəra-*, while the InPY and the IrVS more often have *fra-*. The disagreement between IrPY and IrVS in matters of orthography is striking, because they often go together against the Indian branches, as in the case of *ao* vs. *aō*, the replacement of *x^v* by *ǰ*, etc.; this points to *fəra-* being the more original form. It was replaced by the much more frequent YAv. *fra-*, which already came to be (or remained ?) the

⁶⁹² Often gathicized to *səraoša-* in the IrVS; J2.K5 spell *sraoša-* in most occurrences.

spelling in the archetype for many OAv. words in *fr_s/fr_š*, such as *frasasti*- and others.

A similar hesitation between forms with and without anaptyxis marks the compound *zraz-dā*- ‘to trust’, with its derivatives *zrazdā*- ‘faithful’, *zrazdišta*-, *zrazdātama*- ‘most believing’ and the noun *zrazdāiti*- ‘trust’. In OAv., *zaraz*- represents a majority spelling in all three attestations (31.1, 43.11, 53.7), but each time some of the good mss. spell *zraz*-⁶⁹³. In YAv., both variants are in balance. In the seven Yašt attestations, it is usually F1 which spells *zraz*- against *zaraz*- in the equally good J10 and the often better mss. Mf3.K13.38.H5. The evidence of the four Vīspere and two Sīrōza attestations⁶⁹⁴ is inconclusive. This, and the fact that the anaptyctic vowel in this word is not *ə* but *a*, suggests that anaptyxis in this form arose after the archetype. In view of the usual absence of anaptyxis in other words with an anlaut *zr*- (*zraiiāh*-⁶⁹⁵, *zrāda*-; P 24 *zarahe.hīm* ‘inferior’ < **zraiiāh*- can be ascribed to the poor ms. transmission of this text), *zaraz*- may be due to the following *-z*-. Similarly, the sequence of sibilant + *r* + sibilant accounts for the anaptyxis in **sras*-. V 1.8 *sraskəmca*, acc.sg. of *sraska*- ‘drop’, is spelled *saras*- in the PV and Dh1, while Jp1.Mf2 have *sarəs*-; only the InVS preserves *sraskəmca*. Also in the verbs *srasca*- and *srascāiia*-, the PV has a preference for *saras*-, like in Yt 16.10 *srascintiīā* the Indian mss. Pt1.O3 and K16.Jm4 oppose *šaras*- and *saras*- to F1 *sras*-. Vyt 35 *sarascañtīš* shows the same development.

In all these cases (*fras*, *fraš*, *sras*, *sraoš*, *zraz*), the anaptyxis is due to the similarity of the fricatives preceding and following *r*, which makes it more difficult for the listener to distinguish on which side of *r* the vowel *a* is heard.

The noun *fsəratū*- ‘fullness, enjoyment’ only occurs in (pseudo-)OAv. and is always written *fsər*- or *fsār*-. Its disyllabic value in the Gāthās suggests

⁶⁹³ Y 31.1 Pt4, Jp1.Mf2, S1; Y 43.11 Mf1.2; Y 53.7 Mf1.2.

⁶⁹⁴ Clear predominance of *zaraz*^o in Vr 15.2 (only K7a *zraz*^o) and S 1.29 (F2.Kh2.K18.L12 against *zraz*^o in Mf3), and an inconclusive distribution in Vr 14.2 (*zaraz*^o in InVrS, InVS and Kh1, *zraz*^o in PVr and IrVS), Vr 20.0 (*zaraz*^o Jp1.Kh1, *zraz*^o Mf2), Vr 21.0 (*zaraz*^o Kh1.L2, *zraz*^o Mf2), S 2.29 (*zaraz*^o E1 and J8.L11, *zraz*^o Mf3.K36).

⁶⁹⁵ Exceptions are Y 42.4 *zraiiō* (K5 and Pt4.Mf4 *zr*^o) and *zraiiāhō* (written *zar*^o in S1.J3, Pt4.Mf4 and the YS); also other attestations are occasionally spelled *zar*^o in some mss., e.g. Y 65.3, 65.4 (J2, Mf1, F1, Jp1.K4.Pd, K36.Mf3), 68.6, Yt 8.8 (J10), 8.20 (F1), Vr 7.4 (all except K7a).

original /*fsratū-*/. The etymology of this noun is unknown (cf. Narten 1986a: 186ff.)⁶⁹⁶.

There is no certain evidence for anaptyxis in a cluster *-nr-*. The interpretation of Y 53.8 *jñnarqm xrñnarqmcā* is uncertain: *jñnarqm* might represent /*jñnrqm*/ or /*jñnarqm*/ (cf. Monna 1978: 95f.), and we have already argued that *xrñnarqmcā* represents **xrñarqmcā* (§ 10.3). Y 48.10 *mānarōiš* for /*mānrōiš*/ is of uncertain etymology; if *-nar-* indeed contains an anaptyctic vowel, its consistent *a*-colouring in all mss. may be due to analogy with *nar-* ‘man’, like in Yt 11.4 *aipi.duuqnaraiiā* < **aipi.duuqnrā-* ‘cloudy, misty’⁶⁹⁷.

§ 25.5 Cluster *mC*

We find three OAv. forms with *ə* inserted between a word ending in *-m* and a following one starting with a consonant: 53.6 *yəmə. spašuvā*, 47.3 *həmə.fraštā* and 33.1 *həməmiiāsaitē* (where the original form is still more or less preserved in J2 *hīm.yāsaiti*, J3 *hīm.yā.saitē*, *həmiiāsaiti* L1.S2, cf. Klingenschmitt 1972).

Y 30.9 *ā.mōiistrā* is disputed; since the metre shows that it is trisyllabic, the basic possibilities are **ā.miastrā* (with **mja-* > **mja-* > *mōja-*) or **ā.maistra* (> **mōistrā*). As a syllable **mōis-* would hardly have developed into *mōiias-*, the first etymology seems more likely.

§ 25.6 Cluster *Cm*

A cluster of obstruent plus *m* is relieved by means of *ə* only in OAv. and pseudo-OAv.: **gm* (*aogəmadaēcā*, *āgəmaṭ*, *cagəmə*), **xm* (*vaoxəmə*, *haxəmə*, *haxəmqm*), **dm* (*dadəmaidē*, *dadəmahī*, *dəmana-*, *varədəmqn*, *hadəməi*, *hudəməm*), **θm* (*yōiθəmə*, *rāθəmə*, *hušōiθəmə*), **sm* (*usəmahī*, *dasəmə*,

⁶⁹⁶ Narten’s suggestion that *fsra-* could be the result of a metathesis from **sfra-* < Ir. **spra-* is improbable. We have no examples of the sequence **spr-* in Avestan, but the retention of the voiceless stop in e.g. *aspiia-*, *āskəitīm* (**āsktīm*) or *xāstra-* renders a sound change **spr-* > **sfr-* unlikely.

⁶⁹⁷ The form without anaptyxis has not been preserved anywhere. The form *duuqnaraiiā* is offered by the Indian mss. which are based more heavily on the contemporary pronunciation (L12.J15, Jm4) and by K18; J10 *duuq.nairiā*, K36.W1 *duuan.nairiā*, F1+ *duuana.nairiā* show the graphic analogy with *nairiā-* ‘manly’.

vasəmī), **zm* (*uruuāzəmā*, *uzəmēm*, *uzəmōhī*) and **šm* (*aēšəma-*). Anaptyctic *ə* in these words is much less liable to become *ē* (or *ē*, *ī*), and does not disappear as often as in the clusters discussed above.

Beside these forms with anaptyxis, there are also OAv. forms without it, e.g. *ašsman-*, *usmahicā*, *xšmā(ka)-*, *cašman-*, *cīšmahī*, *taxma-*, *paθmāng*, *pərəsmanāng*, *yūšma(ka)-*, *haxmāng*.

The absence of anaptyxis in clusters **Cm* in YAv. clearly shows that its presence in OAv. is due to the extra careful pronunciation of the Gāthās. In YAv., Yt 17.12 *rauuō.fraoθəmanō* is a lapsus of the transmission against *rauuō.fraoθman-* elsewhere in the Yašt. The normal YAv. form is shown by e.g. *aēsma-*, *asman-*, *uruuāsman-*, *cašman-*, *jaγmūšī-*, *jaγmaγ*, *taxma-*, *dāδmainiia-*, *frāšmi-*, *barəsman-*, *vārəθman-*, *viiāxman-* and *hamaspaθmaēdaiia-*.

Word-initial **γm-* may be an exception to this rule, but there is only one form from which we may determine its development, viz. G 2.8 *γəmatəm*. The v.ll.⁶⁹⁸ mostly show an anaptyctic vowel, but not the same one everywhere; besides, the usually good ms. K36 lacks anaptyxis.

A certain exception is the stem *zam-* ‘earth’, showing oblique cases and derivatives in *zəm-*: *zəmō*, *zəmā*, *zəmaēna-*, etc. It is unclear whether these forms continue **zam-* or **zm-*, since **-am-* becomes *-əm-* in front of a following vowel (§ 23.3.2.1). If *ə* in *zəm-* is an anaptyctic vowel from **jm-* (Skt. oblique cases *jmāh*), we must assume that the absence of the reflex †*sm-* < **jm-* is due to restoration of *z-* from the nom.acc.sg., and we must also assume that the exceptional anaptyxis in **zm-* (in view of YAv. *-sm-*, *-šm-*) is due to the position in anlaut. Both assumptions are unproblematic.

In the loc.sg., we find the variants *zəmi*, *zəme* and *zəme* in our texts; they have been discussed by Kellens 1974a: 396f. He arrives at the plausible conclusion that only the forms *zəmi* (Y 10.17) and *zəme* (V 7.45-48, 8.76-78, VPtr. 3.40) are reliable. This would point to IIr. preforms **d^hj^hami* and *(*d^h*)*j^hmái* respectively (cf. Schindler 1967: 204f. and EWAia I: 425), in line with short *-i* of *zəmi* (disyllabic word) and long *-ē* of *zəme* (monosyllable). It must be pointed out however that the interpretation of the passage in Y 10.17 where *zəmi* occurs is rather uncertain, and furthermore that *-i* is the productive loc.sg. ending in YAv. athematic stems (cf. e.g. loc.sg. *dqmi* to *dam-* ‘house’). Only the form *zəme* can directly be matched with other IE languages (most

⁶⁹⁸ *gəm.təm* J10.K12 · *γimatəm* E1.Mb1 · *γimatəm* Pt1 · *γmatəm* K36 · *γumantəm* O3 · *γamatəm* E2.

closely Skt. *kṣmay-ā* ‘on earth’), and it seems an archaism within Avestan. Therefore, we shall regard *zəmē* as the oldest form of the loc.sg. of *zam-*.

This implies that the loc.sg. of *zam-* was a monosyllable **zme* < Ir. **j^hmai* at the time of lengthening of monosyllables. This in turn suggests that the whole oblique paradigm of *zam-* started from PAv. **zm-*, and that anaptyctic *ə* in *zəmō* etc. was inserted because the sequence is word-initial; in inlaut, where a vowel precedes, clusters of *-Cm-* do not get anaptyxis in YAv.

§ 25.7 Cluster *Cn*

A cluster of obstruent plus *n* often inserts *ə* in OAv. and pseudo-OAv., but there are quite some exceptions. Anaptyxis appears in *agəniā* (Skt. *ághnyā-*), *x^vafənā* (Y 30.3), *gənā-* ‘woman’, *ciθənā*, *yaθənā*, *raēxənah-*, *rafənah-*, and *šiiəoθəna-/šiiəoθana-*. For *-xn-* and *-fn-*, there are also forms in which most mss. do not have anaptyxis: *x^vafnəmcā* (44.5), *cāxnarə* (44.13), *rafnahī* (41.4). As for **-šn-*, the clusters *-xšn-* and *-ršn-* do not yield anaptyxis between *š* and *n* in OAv. In the simple cluster *-šn-*, anaptyxis in 51.12 *zōišənū* is contradicted by its absence in 34.12 *rāšnəm*, 46.5 *rašnā*, 43.15 *tušnā* and 38.3 *hūšnəθrāscā*.

In YAv., we can generally state that anaptyxis does not occur between an obstruent and *n* (attested are the clusters *xn*, *θn*, *fn*, *βn*, *mn*, *sn*, *šn*, *zn* and *žn*), except for some attestations of *šiiəoθna-* (*-θəna-*, *-θana-*), which can be ascribed to the influence of the frequent OAv. spelling with anaptyxis.

The cluster *-γn-* also lacks anaptyxis, except for the gen.pl. *γənaqəm* of the stem *γ(ə)nā-* ‘woman’, and Yt 10.27 *γənaqna-* n. ‘blow’. The other YAv. form of this paradigm, viz. the acc.pl. *γnā* (passim) does not show anaptyxis, at least not in the best mss⁶⁹⁹. In view of the forms with initial *γn-* in the paradigm of *gan-/γn-* ‘to strike’ (*γnīta-* etc.) and in V 15.14 *γnāna-* ‘a plant name’, the form *γnā* must be original. This leaves *γənaqəm* and *γənaqna-* ‘blow’ as the only forms with anaptyxis. In these forms, anaptyxis is securely attested, and the gen.pl. form is even spelled *γənaqəm* in the mss., giving it the appearance of a Gāthic form.

⁶⁹⁹ Geldner edits Y 2.6, 6.5 *γnāscā*, Vr 2.7, 3.4 *γnā*. In both Y attestations this is the best attested v.l. (only Pt4 has *γənāscā* once, Mf4 *γənāscā* and *γənāscā*), but in Vr 2.7 we find Jp1.Kh1 *γnā* against K7a, H1.J8.Jm5.Pt3 and L1.2.S2 *γnā*, in Vr 3.4 J15.Pt3, L1.2.Br1 go with the IrVS and IrVrS *γnā*, and only K7a and H1.J8 have *γənā*.

§ 25.8 Cluster *ST*, *SS*

A cluster of *s*, *š* or *ž*⁷⁰⁰ plus obstruent or sibilant is alleviated by means of *ə* (and in OAv. *a*), but only at the compound boundary, or (in the case of *s*) between two separate words which are joined by sentence sandhi, cf. Bartholomae 1894-95: 176. The phenomenon is much more common in OAv. than in YAv. Examples with *s* are e.g. YAv. *aijḥāsə. tanuuō, yasə. tē, kasə. θβqm, isə.xšadra, isə.xšadriiōtama-, usəfritinqm, usə.hišta-*, with *š* e.g. OAv. *yāiš. asrūdūm, yāiš. azāθā* (Beekes 1979: 5), *dušə.xšadra-* and YAv. *ašəθβō.zgatəmā* (**aš.θβazgatama-*), with *ž* OAv. *ərəžəjī-, dužazōbā* (**duž.zbā*), *vīžibiiō* and YAv. *vayžibiiō/vayžəbiiō, -biiāca, -biš*.

Many mss. have *-se* or *-si* instead of *-sə*, due to the similar pronunciation of *ə* and *e* by the Persian and Indian scribes. The fact that word-final *-ə* in Avestan is rare (except after *r*), whereas *-e* or *-i* are very common, will also have played a role. In Gāthic, this inserted vowel is sometimes lengthened when it occurs in front of the word-divider, as in the v.ll. *vasasə/-ə/-e/-ī* for *vasasə.xšadrahiā*. This occurs much less consistently than with final *-arə*, however, and it would seem that *ə*-insertion in these clusters is of a later date than with *r*.

As for the individual mss., K5 and the InVS, and to a lesser extent also the YS, often leave out this *ə* in the Gāthic forms: 48.5 *dušə.xšadrā* is K5 and L2.3 *duš.xš-*; 48.10 majority spelling *duš.xšadrā* (due to analogy with the simplex *duš*), 49.11 *dušə.xšadrəng* is *duš.xš-* only in K5, K4 and S2.M11.L3; 44.9 *paitišə. saxiiāt* is spelled *paitiš.°* in K5, the InVS and Bb1.J6; *huzəntušə. spəntō* is found in 43.4 with *-uš.sp-* in K4, the InVS and YS; 50.2 *ərəžəjīš* has *žj* in K5.

A form with two anaptyctic vowels is Y 46.4 *dužazōbā*, nom.sg.m. of **duž-zbāh-* ‘speaking evil’. In earlier **dužzbāh*, a schwa developed between *z* and *b*, which was eventually coloured to *ō*. A later anaptyxis between the two sibilants gives the attested *dužazōbā*.

⁷⁰⁰ The two examples with *z* in Geldner’s text, viz. Y 32.11 *mazibiš* and Yt 1.11 *uzəgərapto*, can be disputed. For **mazbiš*, the good mss. Pt4.Mf1, S1.J3, Jp1.K4 and Mf3 spell *mazbiš*, which will go back to the Archetype. In Yt 1.11, original *-zg-* is confirmed by the mss. F2.L12.K18a.Mb1.Mf3.K36.Jm4.

§ 25.9 Cluster *TT*

A cluster of two stops is nearly always provided with an anaptyctic vowel in OAv. Attested are the sequences **gd*, **dj*, **db*, **pt* and **skt*. The first is found in *aogədā*, *cagədō*, *dugədā*, *dugədrəm* and *mərəṅgəduiē*. Most mss. spell *-gəd-*. The sequence **dj-* occurs only initially, and is always spelled with anaptyctic *ē*: *dējāmāspa-* (3x), *dējīr.arəta-* (2x). As usual, the vowel *ē* is sometimes replaced by *ī* or *ē* in the mss., but the agreement between all ms. classes shows that *dēj-* was the spelling of the archetype. It would thus seem that this anaptyxis is older than in other clusters. Y 44.17 *āskəitīm* ‘union’ presents a cluster **skt*.

The cluster **db* receives different anaptyctic vowels. Word-initially, we find *ē* in *dēbāuuaiiat*. Short *ə* appears in *dəbaomā*, *dəbənaotā*, and *dəbqza-* (2x). Initial *daib-* in *daibišuuatō*, *daibiš(ii)a-* (2x), *daibitānā* (2x) and *daibitīm* is due to the following vowel *i*, which has caused *i*-epenthesis on the anaptyctic vowel *-a-*: **dbi-* > **dabi-* > *daibi-* (see § 26.1.3). The etymology of 53.1 *dabən* is uncertain, but the metre shows that it represents a monosyllabic word, which suggests original **dbən*.

In inlaut, **db* first of all occurs in OAv. forms of the ins.pl. and dat.abl.pl. of stems in *-nt*: *drəguuō.dəbiš* (2x), *drəguuōdəbiiō* (3x), *cazdōṅghuuadəbiiō*. The forms of *drəguuant-* have been split in the RCS and **-dbiš* and **-dbiiō* have been treated as separate words, cf. § 22.5.3. The mss. usually offer *-dəb-*, sometimes *-dib-*. In the second place, we find **db* with three other dental stems: *azdəbišcā* (*ast-* ‘bone’), *padəbiš* (*paṅ-* ‘path’) and *vaiiū.bərədubiiō* (*vaiiū.bərət-* ‘woeful’).

The OAv. initial sequence *pt-* in *ptar-* ‘father’ must still have been *pt-* in the archetype. Whereas Geldner edited all occurrences of the nom.sg. as *patā*, 45.11 and 47.2 were corrected to *ptā* by Bartholomae 1904: 905 on the basis of the ms. attestations⁷⁰¹. It can reasonably be assumed that also Y 44.3 *patā* and the acc.sg. *patarəm* in 31.8 and 45.4 represent *pt-*, which is spelled in this way in some of the good mss⁷⁰².

⁷⁰¹ V.11. 45.11 *ptā* Pt4.Mf1.4, J2.K5, Mf2.Jp1 against *patā* S1.J3, 47.2 *ptā* Pt4.Mf1.4, J2.K5, Mf2.Jp1, but *patā* only K4 and the InVS.

⁷⁰² V.11. Y 44.3 *ptā* Mf1, Mf2.Jp1.K4 against *patā* Pt4.Mf4, J2.K5, S1, YS and InVS; Y 31.8 *ptarəm* Mf1 and Mf2.Jp1.K4 against the rest; Y 45.4 *ptarəm* Mf1, K5 and Mf2, *ptarəm* Jp1, the rest *patarəm* vel sim.

In YAv., we find the stop clusters **tk-*, **tb-*, **pt* and **bd*, where anaptyxis is absent: *ptərəbiiō*, *āiiapta-*, *hapta-*, *paitiscapti-*, etc.; *frabda-*, *anauuāṇhabdāmnō*, *upabdi*, *abdōtāma-* etc. The only exceptions seem to be V 7.72 PTr. *patarō* and Yt 13.83 *pataca* (for **ptāca*, as attested in Yt 19.16).

The only stop cluster in which both OAv. and YAv. insert an anaptyctic vowel is word-final **-gət̪* (< **-k(t)*), e.g. *paitīiaogət̪* and *ašiš.hāgət̪*, *ārmaitiš.hāgət̪*. The absence of any deviation in form of the anaptyctic vowel across the different mss. suggests that the anaptyxis was already present in the archetype.

Clusters of two fricatives (excluding sibilants; attested are *xδ*, *γδ*, *θβ*, *δβ*, *fδ*) remain as such in both OAv. and YAv. (*uxda-*, *puxda-*, *vaydana-*, *duγdar-*, *θraqf(ə)da-*⁷⁰³ etc.), but when a third consonant follows, anaptyxis appears: *vaxəδβa-*, *vaxəδra-*, *rafəδra-*, *nafəδra-*, *fəδriia-*.

§ 25.10 Clusters **ui* and **iu*

The development of these two clusters has been addressed by Hoffmann-Narten 1989: 46ff. and by Skjærvø 1997: 117f. The clusters principally behave in the same way as any other cluster *Ci* and *Cu*, i.e. we expect no anaptyxis except in individual mss. Nevertheless, the two glide clusters show a greater tendency towards simplification than other clusters, and also the graphic merger with clusters containing older **ii* and **uu* justifies a closer look at the evidence. Whenever anaptyxis appears in these clusters, it is by means of *a* or even *ō*, but not *ə*. We must distinguish between **ui* and **iu* in anlaut, in intervocalic inlaut and in postconsonantal inlaut.

§ 25.10.1 In anlaut

Initial **iuu-* yields *yuu-*. The evidence comprises the gen.du. of the 2nd person **yuuākəm*, the acc.sg. *yuuānəm*, the gen.sg. Yt 15.40 *yuuānō* of *yuuān-* ‘youth’, and the compound V 19.19 *yuuō.fraθah-*. The latter was discussed and recognized as containing **yuga-* ‘yoke’ by Skjærvø 1997. He has shown that the v.ll. of this last form prove the late rise of anaptyxis in *yuu-*: the best

⁷⁰³ This is the only form with intervocalic *-fδ-*. Whether the original form *θraqfda-* had anaptyxis in the archetype is hardly possible to say because of the divided v.ll. of the different attestations, cf. Bartholomae 1904: 806. The parallelism with *xδ* and *γδ* suggests it had not.

mss. L4 and Jp1.Mf2 spell *yuuō*.^o, while K1 and L1.2.Br1 have inserted *a*: *yauuō*.^o. A similar fragmented distribution appears in the attestations of *yuuānəm*⁷⁰⁴, while *yuuānō* is spelled thus in both F1 and J10. The pronoun *yuuākəm* is spelled *yauuākəm* in all attestations (FrW 6.1, N 67, F 53), but note that these are texts with a poor ms. transmission.

Initial **ui-* and **uii-* both yield *vii-*, and are therefore indistinguishable. The evidence includes forms where the preverb *vī* has merged with a following vowel, e.g. in *viiādarəsəm*. The forms of *vīia-* ‘to pursue’ (*vīemi*, *vīeiti*, *vīeiṅti*), with the mss. showing both *vii-* and *vaii-*, have already been mentioned by Skjærvø. Other examples are *vīiarəṭa-*, *vīiāxana-* and *vīiānā-*. In most of them, the spelling *vii-* is maintained, sometimes replaced by *vī-*.

The forms *voiiō.taraca*, *voiiaca* (V 13.8,9) were interpreted as ‘woe!’ by Bartholomae 1904: 1429, but Klingenschmitt 1969: 995f. has conclusively shown that they belong to the root *vī-* ‘to pursue’. The context suggests an interpretation as a gerund *voīia-* ‘who is to be pursued’ which might be reconstructed as **vaiia-* < **vaiH-ija-*, with a comparative **voiiatara-* ‘who is to be pursued more’.

However, it seems preferable to reconstruct the gerund as **vīia-*. Firstly, this would accord better with zero-grade *vīia-* < **uiH-a-* in which the root *vī-* is usually attested in Avestan (cf. Kellens 1984: 86 and 89). Secondly, the attested v.ll. in V 13.8 and 13.9⁷⁰⁵ are best explained from original **vīiō.taraca* and **vīiaca*. The vowel *o* cannot be original, since the conditions for *u*-mutation are not fulfilled. Moreover, *voii-* only appears in part of the mss., while others have *vaii-* or *vii-*; the easiest explanation is that the original cluster *vii-* was relieved by means of [ə] in the contemporary pronunciation, and this [ə] was realized as *o* or *a*.

§ 25.10.2 Intervocalically

Intervocalic sequences **-iu-* do not occur. The primary reflex of intervocalic **-ui-* is *-uui-*, as e.g. in *jīuuiia-* or *gaēṭāuuiiō*. Many mss. insert *a* so as to spell *-uuai-*, especially mss. of the more ‘learned’ type. Thus, Y

⁷⁰⁴ Vr 3.3 2x: *yuu*^o K7a.M4, *yauu*^o M6 · H1.Pt3.K11.Jm5 *yuu*^o, J8.Jm5 *yauu*^o · *yuu*^o O2, *yauu*^o B2.L1.2 · *yauu*^o Mf2.Jp1.K4.F11, *yīuu*^o Kh1; G 4.8 2x: *yauu*^o J10 · *yuu*^o E1 · *yauu*^o Pt1 · *yauu*^o Mf3.K36 · *yauu*^o L11.

⁷⁰⁵ V.ll. V 13.8 *voiiō*.^o L4.K1 · *vaiiō*.^o L2.Br1.M2, *vīiō*.^o Dh1.L1.K10 · *vaiiō*.^o Jp1.Mf2; V 13.9 *voiiaca* L4.K1 · *voiiaca* Br1, *vaouiāca* L2 · *voiiaca* Mf2, *vaōiāca* Jp1.

9.8 *gaēðāuuiiō* is spelled with *-āuuiiō* in Pt4.Mf4.1, J2.K5 and K4, while the YS and the InVS have *-uuiiō*. Such a form with anaptyctic *a* has entered Geldner's edition in Y 57.15 *daēuuaiiā* for **daēuuiiā* (attested only in J15); Yt 10.128 *snāuuiiā* and Yt 13.139 *huuōuuiiā* have been edited with the F1 spelling *-uii-* for original *-uui-* as preserved in better mss. (Hoffmann-Narten 1989: 46ff.). As observed by Hintze 1994: 113, a vacillation in the mss. between *-uui-* and *-uui-* is typical for words containing **-ui-*, whereas original **-uai* is usually spelled *-uui-* throughout the majority of the mss.

With a preceding **a*, the **u* combines into a diphthong *-ao-*, and only **j* remains as a consonant: **-auia- > *-auia- > -aoia-*: *gaoiiaoiti-*, *kaoiiaqm*, etc. This development into a diphthong *ao* was apparently blocked if the following vowel was short *a*: from **hauia-* 'left', we find *haoiiaṭ* and *haoiiaqm* on the one hand but *hāuu(ō)iiā* and *hāuu(a)iiāca* on the other⁷⁰⁶.

Those forms in **-auia-* which did not yield *-aoi-*, lengthened the first **a* yielding **-āuia(ca/ciṭ)*, viz. **xšmauia*, **mauia*, **hauia-* and **huauia*. The actual reflex of the **-āuia-* forms seems to depend on whether they were followed by enclitic *-ca* or *-ciṭ*, or not.

Forms in **-auia-* which were enlarged by *-ca* or *-ciṭ* are mostly attested with an anaptyctic vowel *-a-*, but also with *-ō-* and without anaptyxis. This vacillation is best interpreted in the sense that the archetype still had *-auuiiāca* and *-auuiiaciṭ*. The evidence consists of *māuuaiiāca*, *māuuaiiaciṭ* < **mabja* 'to me' and *hāuuaiiāca*⁷⁰⁷ < **hauia* 'with the left one'. Some examples of vacillating v.ll. are: Yt 14.38 *māuuaiiaciṭ*, spelled F1 *°uuii°*, Pt.M41 *°uuii°*, but K36 *mōi.ii°* and K38 *maōii°*; V 18.31 *māuuaiiaciṭ*, spelled *-uuii-* in L4.K1 and Jp1.Mf2, but *-uuōii-* in the InVS; Yt 17.22 *hāuuaiiāca* spelled *-uuii-* in F1.J10 but *-uuōii-* in H3.

However, originally disyllabic forms of the structure *#C(C)auia#* insert *ō* on a regular basis in most of the mss., viz. *xšmāuuōiiā*, *māuuōiiā*, *hāuuōiiā*⁷⁰⁸ and *huuāuuōiiā* (their etymology has been discussed in § 3.4.1). We might interpret this in the following way: *-ō-* only arose — probably before or in the archetype — under subsidiary stress (*[māuōia]*) but not if the subsidiary stress was attracted by another syllable (*[māuāiāca]*). A nice

⁷⁰⁶ With the exception of Y 29.12 *xšmāuuiiā*, not *†xšmaoiiā*; see § 3.4.1.

⁷⁰⁷ Geldner edited *haoiiaca* for the V forms, but Bartholomae 1904: 1736 rightly corrects them to *hāuuaiiāca* with regard to the ms. readings.

⁷⁰⁸ But note V 19.19 PV and IrVS *hāuuōiiā* · L2 *hāuuiiā*, K10.Br1 *hāuuaiiā*; V 19.25 L4 *hāuuiiā*.

example with both kinds of forms occurs in Yt 17.22, V 3.25ff. *hāuuōīia bāzūuō dašīnaca, dašīna bāzūuō hāuuaiīaca* ‘with the left hand and the right, with the right hand and the left’.

The fact that anaptyctic *-ō-* arose mainly in disyllables is shown by the gen.pl. *gāuu(a)īianqmca* of **gauīa-* ‘of a cow’, and by *gāuuaiīana-* ‘cowshed’ < **gauīana-* (cf. § 3.4.1). No anaptyctic *ō* appears in the nom.sg. *nāuu(a)īia* (Yt 14.39, 16.3) of *nāuuīia-* ‘running in channels; to be crossed only by ship’ < **nāuīa-*, compare OP *nāviyā* and Skt. *nāvyā*. Compare with anaptyctic *-a-* the nom.pl. *nāuuaiīā* and the gen.pl. *nāuu(a)īianqm*.

Finally, we must explain the cries of woe *āuuōīia* and *bāuuōīia* (Yt). The cognate forms OAv. *auuōi* and *vaiiōi* ‘woe!’ show that ‘woe!’ contains original **-uaj-* (see § 3.4.1), so that *ō* in *(b)āuuōīia* must be more original than in the type *māuuōīia* < **-auīa*. As we have seen in § 14.2, PAv. **-aj-* yielded Early YAv. **-əi-* whence *-ōīi-* (as in the acc.sg. *vīdōīium* etc.) unless the vowel *-a-* was restored. In the case of **(b)auajā*, there was no model from which to restore *-aj-*, so that the phonetic development was undisturbed: **auajā* > **auōjā* > **auōīā* (> *āuuōīia*; for *ā*, see § 3.4.1).

§ 25.10.3 Postconsonantly

In postconsonantal position, the sequences **iu* and **ui* first yielded **-iiuu-* and **-uiii-*, and according to Hoffmann-Narten 1989: 46 ff., they were still spelled this way in the archetype. Further transmission led to a simplification as *-iiuu-* and *-uiii-* in most cases, and this process is described for **parūīa-* in great detail by Hoffmann and Narten. They have also shown that *mainīuuā* rests on **mañīuuā*, and that *mainīuuasah-* preserves the original spelling *mainīuuasah-* in several of the older mss. Other examples are **nəruuiiō* (§ 24.4, and especially Yt 10.55 J10 *narauuaiiō*), and Yt 10.125 *hqm.iuuqmca* (**hqmīuuqmca*, Gershevitch 1959: 274).

The scribes have generally resolved the sequences *-iiuu-* and *-uiii-* in two ways, either through *a*-anaptyxis, or by reducing the first of two double glides, yielding postconsonantal *-iiuu-* and *-uiii-*. These forms then look exactly the same as forms in *-iiuu-* and *-uiii-* continuing **-iū-* and **-ūi-*, and as the reflexes of earlier **(i)īuu-* and **(u)uīi-*. Examples are *afsmanīuuqn* ‘in verses’, *rāmanīuuā* ‘granting peace’, dat.sg. forms such as *tanūīe* < **-uūīe* < **-uūe* and the stems *paourūīa-* < **parūīa-* (cf. § 21.2.3) and *ur(u)uīiāpa-* < **uruī-āpa-* (Lubotsky 1997b: 146).

§ 25.11 Summary

We can give the following survey of anaptyxis in Avestan:

	YAv.	OAv.
*-r#	-rə	-rē (GAv.), -rə (YH).
*-rC-	-rəC-	-rəC-. Exception: *-rn- > -ran- occasionally.
*-aršt-	-aršt-	-aršt- (sometimes -arəšt-).
*-āršt-	-ārašt-	-ārašt-.
*-aržd-	-ar(ə)žd-	-ar(ə)žd-.
*-ārs̥	-ārs̥	-ārs̥ (in monosyllables).
*-ārs̥	-āraš̥	-āraš̥ (in polysyllables). Exception: ātarš̥.
*-ārš̥t	-āraš̥t	-āraš̥t.
*-Cr-	-Cr-	-Cr-.
Exceptions: *-Cr- > OAv. -Cər-, -Car- in the sequences *srVš- (səraoša-, səraošanē), *frVs-, *frVš-, *frVf-, *frā# (fərastuiē, fərasrūidiī, fərašaotra-, fərašti-, fərašnaēšū, fərafraoθra-, fəṛā).		
Post-archetype in OAv. + YAv. *zraz- (z(a)razdā- and derivatives) and *sras- (s(a)raska-, s(a)rascāia-).		
*fsr-	-	fsər-.
*Cm	-Cm-	-Cəm-.
*zm-	zəm-	zəm-.
*Cn	-Cn-	-gən-, -f(ə)n-, -θən-/θan-, -x(ə)n-, -xšn-, -ršn-, -š(ə)n-.
Exceptions: YAv. γənq̄nq̄m, γənq̄nā.		
*-s#C-, *-š#C-, *-ž#C-:		
	-s/š/žəC-	-s/š/žəC-, -s/š/žəC-.
	YAv.	OAv.
*gd	-	-gəd-.
*-gṭ	-gəṭ	-gəṭ.
*dj-	-	dēj-.
*db	-	dēb-, dab-, -dəb-.
*tk-	tk-	-
*tb-	tb-	-
*pt	-pt-	(-)pt-.
*bd	-bd-	-

**skt* - -*skət*-
 **xδC* -*xəδC*- -*xəδC*-
 **fδr* -*fəδr*- -*fəδr*-

**iū*- *yuu*- *yuu*-
 **ūi*- *vii*- *vii*-
 **ūi*- -*uuii*- -*uuii*-

Exceptions: a. post-archetype -*uuaii*-, -*uui*-.
 b. **C(C)aiiā#* > -*uuōiia*.

**iū*- -*iiuu*- -*iiuu*-

Exceptions: post-archetype -*iiuuu*-, -*iiuu*-.

Only the last subsection yields a few data which can be used for the relative chronology of sound changes. The split of the paradigm of e.g. *haiiā*- into *haoiia*- and *hauuiia*- can hardly have been a linguistic reality, since the condition for it is quite strange. This yields a terminus post quem. This accords well with the superlative N 70 *haoiiō.təma*-, which suggests that the RCS of **-a.təma*- → -*ō.təma*- took place before **haiiV*- (but not **haiiā*!) changed into **haiiā*-.

VII. CONSONANTAL PHENOMENA

§ 26 *I*-epenthesis

I-epenthesis⁷⁰⁹ can be defined as the appearance of *i* in front of a consonant which is followed by one of vowels *i*, *ī*, *e* or *ē*, or by the glide *ii*. *I*-epenthesis is the direct result of the palatalization of that following consonant, and it may represent a way to indicate palatalization of a consonant in writing (Morgenstierne 1942: 57). This definition implies that *i*-epenthesis phonetically was a consonantal phenomenon, but since it is expressed by vowel graphemes in the script, and since the different front vowels *ī* and *ē* have an unequal palatalizing effect, there is enough reason to discuss *i*-epenthesis here.

I-epenthesis can sometimes change the shape of the preceding vowel. Original **u* and **ū* always yield a grapheme *ūi*, and all forms in *-ui-* are due to very recent corruptions of regular *-ūi-*; the evidence has been discussed in detail in § 10.5.2. For the reflexes of *i*-epenthesis on vocalic **r* (*kirīia-*, *niuuōirīia-*, etc.), I refer to § 24.2. The OAv. forms in *-ai-* such as *hušaitīm* < **hu-šitīm* are not due to *i*-epenthesis; they have been discussed in § 6.3.

The following three subsections will address three questions: 1. Which consonants are liable to be palatalized, and which are not? 2. What is the difference between the palatalizing effect of *i* and *ī* on the one hand, and *e* and *ē* on the other? 3. What is the reason for the absence of *i*-epenthesis in front of the ending *-īca*?

§ 26.1 The palatalized consonant

In anlaut, only *ϑ* and *r* receive *i*-epenthesis, when followed by *ī* or *ii*: *iḍīiejah-*, *irista-*, *irixta-*, *irīriḍuš-*. Initial **re-* and **ḍe-* simply do not occur. In inlaut, *i*-epenthesis occurs in front of *t*, *ϑ*, *d*, *ḍ*, *p*, *b*, *β*, *n*, *r* and the clusters *nt*, *rm* and OAv. *db*. The three subsections below will separately discuss epenthesis on dental consonants, on labial obstruents, and on consonant clusters.

Velar consonants never take *i*-epenthesis; the only apparent exception can be dismissed. In V 13.37, 15.6 we find an enumeration of loc.sg. forms *maēye vā cāiti vā ^svaēme vā urūḍi vā apō nāuuaiiā* ‘in a hole or a well (*cāt-*) or a crevice (*vaēma-*) or a course of navigable water’. As the usual word for ‘hole’

⁷⁰⁹ For previous observations on the distribution, see Bartholomae 1894-5: 176f., Hoffmann-Forssman 1996: 52-54, Hoffmann-Narten 1989: 56-62, Kellens 1984: 207, 211, 218, Morgenstierne 1942: 56-59, Swennen 1995: 210-212.

is Av. *maγa-*, Kellens 1974a: 81 (followed by Hoffmann-Forssman 1996: 53) proposes that V 13.37 *maēye* ‘in the hole’ originally read **maiye*. He plausibly ascribes the spelling *-aē-* to the influence of the form *vaēme*, and he shows that the spelling *māiγi*, which the InVS mss. have instead of *maēye* or *maēyi* found in the IrVS and the PV, may be due to the influence of the loc.sg. *cāiti*. I quite agree that we must restore a loc.sg. of *maγa-* ‘hole’, but I would rather suppose that the archetype had **maγe*, not **maiye*. Original **maγe* was changed to *maēye* by the PV and the IrVS on the model of *vaēme*, but to *māiγi* in the InVS on the model of *cāiti*.

§ 26.1.1 Dental consonants

I-epenthesis is attested in front of the consonants *t*, *θ*, *d*, *δ*, *n* and *r*; it is regular when the following vowel is *i*, *ī* or *ii*, but not in front of *-e*: the sequences *-ēte*, *-ēθe* and *-arəde*, *-arəde* resist *i*-epenthesis. The ending *-ne* palatalizes yields *i*-epenthesis on a preceding *-a-*, but not on any other vowel.

The sequences *-ī(-)* and *-tī-* regularly cause *i*-epenthesis on all preceding vowels, even on anaptyctic *-ə-* in *-arət-* < **-art-* and *-ərət-* < **-rt-*. Deviations may be corrected without hesitation, such as V 10.14 *vātīm* (no v.l.) to **vāitīm*, and Yt 10.125 *spaētita* to **spaēitita* (cf. Yt 14.13, 15.31 *spaēititam*).

In front of *-te*, epenthesis is sometimes absent, but the evidence suggests that its absence is mostly due to corruptions in the text transmission. For instance, the voc.sg. *mazdaδāite* is attested in four places as *mazdaδāte*, and in three other places as *°δāite*. The verbal endings *-iiete* (14x Yt, 9x V) and *-iieite* (4x Yt, many times V) seem to occur without any ratio for their distribution in the Yašts, which probably means that original **-iieite* was replaced by *-iiete* in the last centuries of ms. copying. In the Yasna and the Vīdēvdād, *-iieite* is the more frequent spelling. The only form which may really be an exception is the 3s.med. *mrūtē* ‘speaks’ which invariably occurs in this form in the prayer *yaθā ahū vairiīō zaotā frā mē mrūtē*, *yaθā ahū vairiīō yō zaotā frā mē mrūtē*. In the light of the preceding remarks, *mrūtē* might be regarded as a careless spelling of expected *mrūitē*, the form attested in Y 8.4, 49.6 and Yt 8.23 in other contexts than the *yaθā ahū vairiīō* prayer; yet it is conceivable that the special status of this prayer, which was recited many times during every ritual, prevented *mrūtē* from undergoing *i*-epenthesis in the first place.

The diphthong *-aē-* seems to resist *i*-epenthesis by final *-e*. The nom.pl.m. and nom.acc.du.n. *aēte* of the demonstrative pronoun *aēta-* ‘this’ is attested many times in YAv. (4x Y, over 100x V), but there is never a v.l. †*aēite*.

Since *aēte* is the only form in Avestan which has this sequence **-aē-t-e*, it seems ad hoc to declare the absence of epenthesis in this sequence as regular, but in any case there are no counterexamples. Note that *aē* does take epenthetic *-i-* in the form *aēiti* ‘goes’.

The distribution in front of *-θ-* is nearly the same as with *-t-*. The *ī*-vowels always palatalize, and where *i*-epenthesis is not attested it may be restored, as in V 4.50 *auua.kərəθiiāt* → **auua.kərəiθiiāt*. The adj. **gaiθia-* ‘material’ usually appears as *gaēθiia-* in Geldner’s edition, but Bartholomae 1904 always restores *gaēiθ°*; despite the fact that *i*-epenthesis only sporadically occurs in the mss. (e.g. Y 0.12, 7.4 Mf1, Y 1.19 Pt4 and K5, 35.2 Pt4.Mf2.Jp1 *gaēiθ°*), we may adopt Bartholomae’s correction on structural grounds.

Just like with *-aēte*, there is evidence that the sequence *-aēθe* resists *i*-epenthesis, viz. in Y 34.2 loc.sg. *pairigaēθē* and in Yt 5.73ff. loc.sg. *gaēθe*.

The consonant *-d-* always undergoes *i*-epenthesis except when there is a clear word boundary between preverb and verb or noun, viz. in OAv. *ādīuuiieinī*, *ādistiš* and YAv. *ādidaiia*, *ādidāiti*. The absence of epenthesis in OAv. *vaēdištō* (2x) and *vaēdiiāi* is probably a recent omission of the mss.

The noun *hadiš(a)-* ‘seat’ or ‘the sitting’ (compare OP *hadiš* ‘seat’) only occurs in the Vr, where it refers to an unknown Avestan text or text genre (cf. Kellens 1996: 100) and to a deity (Vr 9.5); the cases which occur are the nom.sg. *hadiš* and the gen.sg. *hadišaheca* and *hadišasca*. The consistent unlenited intervocalic *-d-* may be a conscious device to give the word an OAv. appearance (thus Kellens loc.cit.); it is possible, then, that an epenthetic *i* was also removed by later redactors.

In front of *-δ-*, epenthesis is always noted when the following vowel is *i(i)* or *ī*. For V 2.29 *harədiš*, the v.ll. *hərəidiš* and *haraiθiš* show that the original spelling was *harəidiš*, which is preserved as such in the ms. Dh1. The exceptions Yt 10.126 *upa.raodištō* and Yt 19.2 *raoditō* are probably recent errors, since V 1.2 *raoiditəm* does show epenthesis. I similarly assume the names in Yt 15.47 *gərədiiaoxdō* and *gərədixauuō* to be recent errors for **gərəidi°*. The diphthong *-aē-* sometimes loses its *-i-* in many of the mss., which is why we find *vaēdiia-*, *vaēdiiā.paite* and *vaēdišta-* in Geldner’s edition, and *vaēidi-* only twice; but in many cases, some of the mss. spell *vaēid°/vaēid°*, and I assume this to be the situation in the archetype.

The loc.sg. *kamərəde* ‘on the head’ (Y 57.31, Yt 6.5, 10.128-132, V 19.15, Ny 1.15), which occurs without v.ll., and the Yt 10.126 form *arəde* ‘on the side’, suggest that *-e* does not palatalize a preceding *rə* in the same way that

the vowels *-i* and *-ī* do. Unfortunately, there is no evidence to see if *-de* also does not yield *i*-epenthesis on a preceding *-aē-*.

The consonant *n* was also palatalized by a following front vowel. Moreover, a special sign *ñ* was apparently developed in the archetype in order to write a palatal *n*. The attested spellings for palatal *n* differ from manuscript to manuscript, however; these facts have been described in detail by Hoffmann-Narten 1989: 59-62. They argue that the word *añīia-* ‘other’ was spelled without *i*-epenthesis on *a-* in the archetype, and the special sign for palatal *ñ* would in fact logically exclude the necessity of writing *i*-epenthesis. Unfortunately, many words in *-ñi-* do show *i*-epenthesis, e.g. *mainīiu-*, and according to Hoffmann-Narten the original distribution has become blurred too much to yield a reliable reconstruction of the situation in the archetype. This is due not only to the Avesta scribes, but also to the unreliability of Geldner’s distinction between *n* and *ñ* in the critical apparatus of his Avesta edition. Therefore, I have not investigated palatalization of *n* in all details. The only question which I will address is the effect of a following *-ē* as opposed to *-ī(-)* and *-ii-*.

It seems from Geldner’s edition that the only vowel to receive *i*-epenthesis in front of *-ne* is *-a-*. All dat.sg. forms of *n*-stems (e.g. *xšnūmaine*, *cašmaine*, *barəsmaine*, *staomaine*, *haxmainē*), the loc.sg. of *ana*-stems (*paitiš.x^vaine*, *maēθaine*, *haṅkaine*, *haṅjamaine*), the nom.sg. of *f*. stems in *-ñā-* or *-nī-* (*kaine*, *kax^varəðaine*), and the nom.pl. of *m*. stems in *-ñja-* (*viiāxaine*) are spelled *°aine*. The only exception is the voc.sg. Yt 1.20 *hāuuane* of *hāuuani-* ‘deity of the haoma-preparation’. If this is not due to an error of the tradition, the absence of *i*-epenthesis might be explained from the special accentuation of the vocative, viz. on the first syllable.

In V 19.9 we read *daθat Spəntō Mainiiuš, daθat zrūne akarane* ‘the Evil Spirit created (it), (the Evil Spirit) created (it) for/in boundless time’. The expression *zrūne akarane* was interpreted by Bartholomae 1904: 1704 as a loc.sg. ‘in the unlimited time’, with the regular loc.sg. ending *-e* of *akarana-* ‘unlimited’, and a thematic dat.sg. *zrūne* of *zruuan-* ‘time’. Yet *zrūne* is the form of the original dat.sg. (attested in Yt 5.129), whereas thematization of *zruuan-* has yielded a stem *zruuāna-* in Y 72.10 and V 19.13 (where it occurs in combination with *akarana-*!). It seems more probable that V 19.9 *zrūne akarane* is an original dative *zrūne *akaranāi*, in which the ending *-e* was adopted by *akarane* from the preceding *zrūne*. This explains why *i*-epenthesis is absent from *akarane*. The solution that *zrūne* is original and *akarane* a text corruption has already been suggested for semantic reasons by Lubotsky 1998: 79.

The forms Yt 1.14 *haθrauuane* and *vīspauuane* are irrelevant: they are nom.sg. forms, which probably had the ending *-ə* in the archetype (cf. § 22.7).

None of the other vowels (*ā, e, ē, o, u, ū, ə, ǝ*) gets *i*-epenthesis in front of word-final *-nē*, as is shown by the evidence of e.g. loc.sg. *dəmānē, nmāne*, 1s.subj.med. *frauuarānē, fracarāne, səraošanē*, dat.sg. *uruuānē, hāuuānāne*, voc.sg. *ahurāne*; loc.sg. *airiēne, zaiēne*, 1s. subj. *hācaiēne*; voc.sg. *daēne*, loc.sg. *zaranaēne*; dat.sg. *ašaone*; dat.sg. *urune, aθaurune, ašāunē*, loc.sg. *bune*; dat.sg. *zrūne, sūne*, loc.sg. *būne*; loc.sg. *xšqmānē*; loc.sg. *frāxšnānē*; acc.du. *haj^hharāne*, loc.sg. *upa.stārāne*, 1s.ind. *pārāne, vārānē*.

In front of *-r-*, *i*-epenthesis is always written. The only exception is the voc.sg.f. *sūre* ‘o strong one’, which is attested 29 times in Yašt 5, but in no other text. Other forms in **-ūre* such as YAv. *āhūire, dūire, razūire* and *siyūire* show that there is no reason not to expect a form **sūire* in the archetype; therefore we may ascribe the absence of epenthesis in *sūre* to the less correct spelling of F1. Note that Geldner gives no v.ll. of J10.

The fact that final *-re* usually yields *i*-epenthesis also provides the decisive argument in favour of an original perfect form **cāxrarə* ‘they have made’ in V 4.46, where the IrVS and InVS spell *cāxrare*, and the PV *cāxrərən*: the absence of *i*-epenthesis would be unexpected in a form **cāxrare*.

§ 26.1.2 Labial obstruents

In front of *-p-*, *i*-epenthesis is only attested in the preposition *aiṗi* ‘over, across, during; after’, and in compounds with *aiṗi*^o or *an-aiṗi*^o as a first member. Yet in the compounds *anapiiūxḍa-* (**an-api-uxḍa-*) and *anapišūta-* (**an-api-šūta-*) there is no *i*-epenthesis, nor in the verb *api-vat-* ‘to understand about’, attested in 2s.prs.ind. *apiuuatahe* and the 3s.prs.subj. *apiuuatāite*. Intervocalic *-uu-* shows that these forms were treated as a single form and not as a compound by the text transmission, and this may be the explanation for the absence of *i*-epenthesis: only if **api* was treated as a separate word or as the first part of a compound, could *i*-epenthesis arise.

All other forms in *-api-* lack epenthesis: with *a*^o ‘not’, we find *apiṗiūšī-* ‘not suckling’ and *apišman-* ‘not seeing’; with *fra*^o, the adj. *frapixšta-* ‘decorated’, *frapiṗβō* ‘well nourished’ and the verb forms *frapinuata* and *frapinaoiti*; on the compound boundary, *kasu-pitu-* and *gao-piuaṗhu-*. In these cases, it might be argued that they were pronounced as a compound at the time of the epenthesis (*fra.pixšta-* etc.), so that the sequence **-api-* was not part of one word. However, this explanation is impossible for *rapiṗβā-*

‘afternoon’ and the derived adj. *rapit̥βina-* ‘in the afternoon’. Other vowels than *a* also lack *i*-epenthesis: *dužāpīm* (V 13.3) ‘difficulty’, YAv. *pāpiθβā-* ‘sacrificial food’, *huuāpīm* (V 5.19) tree name, *vaēpiiō* (Y 51.12), YAv. *urupi-* ‘marten’ and *raopiš* (V 13.16) ‘fox’. Although we must allow for the possibility that some of these forms lack epenthesis because of the feeble text transmission, the general picture which emerges is that the sequence *-Vp-* resists *i*-epenthesis by *-ī-*.

The only forms in *-pe* are the dat.sg. *ape* and the acc.du. G 4.5 *āpe*, both to *āp-* ‘water’. They show that *-e* does not palatalize *-p-*.

Avestan *-f-* impedes *i*-epenthesis. The number of relevant forms is small, but unambiguous: *āfiēiθiiāi* (Y 71.13), *ufiia-* (OAv., YAv.), *gafiiō* (Yt 15.28), *grāfe* (Yt 15.52), *nāfiū* (Y 65.7, Yt 13.120) and *nāfīm* (Vyt 37).

The consonant *-b-* can occur in intervocalic position in OAv., and in the OAv. and YAv. endings of the dat.ins.abl.pl. and dat.abl.du. *I*-epenthesis occurs in inlaut in all relevant OAv. forms (except for the *b*-cases), and in YAv. loan words from OAv.: the OAv. preverb *aibī*, YAv. *aibigāiia-*, V 3.24 *aibiš-* < **aibi-iš-*, OAv. *ahmaibiiā(cā)*, *xšmaibiiā(cā)*, *taibiiācā*, *taibiiō*, *maibiiā(cā)*, *maibiiō*, *yūšmaibiiā*, and Yt 2.13 *vītarə.maibiiā-*. The only OAv. exception is Y 33.13 *abiḥrā*.

I-epenthesis also regularly occurs in the *b*-cases of *a*-stems, in both OAv. and YAv.: *-aēibiia*, *-aēibiiasca*, *-aēibiiō* and *-aēibiš*, all of which derive from IIr. **-aibjā*, **-aibjas*, **-aibiš*. Contrary to the *a*-stems, all other stems ending in a vowel in front of the *b*-cases do not get *i*-epenthesis: *-ab°* (in *n*-stems; with one exception: OAv. *duuq̄nmaibiiascā*), *-āb°* (in *ā*-stems: *vaḥhuḍābiiō*; also shortened in *auuabiiō*), *-āb°* (in *-āh*-stems: *hudābiiō*), *-əb°* (in *r*-stems: *nərəbiia*, *nərəbiiascā*, *ātərəbiiō*, etc.), *-ēb°* (in *ah*-stems: YAv. *raocēbiiō*, *vacēbiš*, etc.; ?Vr 8.1 *frāiiebīšcaṭca*), *-ub°* (in *u*- and *ū*-stems: *-ubiia*, *-ubiiō*, *-ubiš*), and *-aob°* in the ins.pl. *gaobīš*.

The OAv. *a*-stem endings *-ōibiiā*, and *-ōibiiascā*, which may look as if they go back to **-ō.biiā* and **-ō.biiascā*, contain a real diphthong **-ai-* in front of *-b-*, i.e. they are the OAv. counterparts of YAv. *-aēibiia* etc., with the OAv. development of IIr. **-ai-* > *-ōi-*; cf. § 14.3.4. Probably these endings were also pronounced with a palatalized *-b-*, just like in *-aēibiia* etc., but there was no way to indicate *i*-epenthesis in the grapheme *-ōi-*. The forms that occur are OAv. *rānōibiiā*, *zastōibiiā*, *ubōibiiā*⁷¹⁰, and the OAv. adaptations in YAv. *humatōibiiasca* *hūxtōibiiasca* *huuarštōibiiasca* etc.

⁷¹⁰ The form OAv. *uruuōibiiō* represents **uruuō.biiō* and has a very recent *i*-epenthesis, cf. § 14.3.4.

It is not certain how the YAv. dat.abl.pl. form of the adj. *mainiauuu-* ‘spiritual’ must be interpreted. The expected form would be **mainiauuuāibiiō*, *°asca*, but in reality it is attested as Y 1.19ff. *mainiaoibiiāscā* and V 2.20f. *mainiaoibiiō*. These forms occur in the texts along with *yazataēibiiō* and *gaēiθiaēibiiāscā*, which means that it is unlikely that *mainiaoibiiō*, *°asca* is a corruption of earlier *°auuāēibiiō*, *°asca*: the reading *°aoib°* is lectio difficilior⁷¹¹. Bartholomae 1894-5: 157 claims that *ao* is spelled for original *auuō*, i.e. original **mainiauuō(i)biiō*, *°asca*. Such a reduction of *-auuō-* to *-ao-* is unexpected, but it cannot be ruled out. Since the nom.sg. of *mainiauuu-* is *mainiauuō*, it is possible to interpret Bartholomae’s form as a dat.abl.pl. form in which the stem has been replaced by the nom.sg., in this case **maniaūah-bīah*. Yet although such a replacement in the dat.abl.pl. is well attested in consonant stems and root nouns (e.g. *vayzēbiiō*, *huδābiiō*, *raocēbiiō*, cf. § 22.2), it is unknown in thematic nouns; this would be a unique case. Judging by the presence of the ending *-ō* < **-ah*, its formation would have to be dated later than for the other dat.abl.pl. forms: *raocēbiiō* was formed at the stage **raocē(h)* < **-ah*, but *mainiaoibiiō* at the stage **maniaūō* < **-ah*.

It is clear from this survey that **b* was usually palatalized, and accompanied by *i*-epenthesis. The absence of *i*-epenthesis in the *b*-cases of all but the *a*-stems can only mean that these case endings were recognizable morphemes at the moment of *i*-epenthesis, and that the text redactors exempted them from *i*-epenthesis. The implications for the relative chronology are uncertain: *i*-epenthesis may have been contemporary with the canonization of YAv. (which seems rather early), unless the awareness of the special status of the *b*-cases was retained for a while after the text redaction.

The special status of these endings is also indicated by the fact that their *-b-* is not lenited in YAv. The reason why *-aēib-* was not spared *i*-epenthesis is less clear. It is conceivable that the archetype still spelled *-aēb°* etc. without *i*-epenthesis. The practice of writing *-aēib°* would then be due to the last ms. stages of the Avesta tradition. Attractive as this approach may seem, it has the decided disadvantage that the orthographic evidence for *-aēib°* is really overwhelming; I find it hard to believe that it would have been carried through in such a pervasive way, had it originated later than the archetype.

⁷¹¹ The reading *°aoib°* is best represented in the good Yasna mss. in Y 1.19, 3.23, 4.25 and 7.23. The reading *mainiōib°* is sometimes attested in J3 and in the YS, and some of the mss. have *mainiūb°*. In V 2.21, the reading *mainiaoibiiō* of the VS must be the original one; the PV form *mainiaēibiiō* will be due to *yazataēibiiō*.

Maybe, then, it was the vowel \bar{e} in $-a\bar{e}$ - which fomented the rise of i -epenthesis in the sequence $*-a\bar{e}bii$ - and $*-a\bar{e}b\bar{i}\check{s}$, because \bar{e} is also a front vowel. The impression of i -epenthesis would then have been materialized by means of spelling $-a\bar{e}i$ - already in the archetype.

As to the development of final $-b\bar{e}$, only one form is relevant, viz. OAv. $ub\bar{e}$; this has no i -epenthesis.

The YAv. voiced fricative $-\beta$ - regularly admits i -epenthesis in front of $i(i)$, as is shown by the preverbs $ai\beta i$ and $ai\beta it\bar{o}$, the dat.abl.pl. $ai\beta i\bar{i}\bar{o}$ ($*ab\bar{i}ah < *ap\bar{b}iah$ to $\bar{a}p$ - ‘water’), $ai\beta iiasca$ (Yt 10.82 $*\bar{a}b\bar{i}as-ca$) and $hin\bar{u}i\beta i\bar{i}\bar{o}$, the noun $dai\beta i\check{s}$ and the adj. $jai\beta i^\circ$ ‘deep’. The exceptions are Yt 13.46 3s. $uzg\bar{a}r\bar{a}\beta i\bar{i}\bar{a}t$ and F 690 $dud\bar{u}\beta i$, but they may be corrupt ms. spellings.

Four ins.dat.abl.du. forms in $-\beta e < *-bia$ are attested, none of which is preceded by epenthetic i . For the a -stem forms Yt 10.107 $gao\check{s}ai\beta e$ (F1) and Yt 16.7 $gao\check{s}a\bar{e}\beta e$ ‘with both his ears’ $< *gao\check{s}a\bar{e}(i)\beta e$, this may be due to the bad Yašt mss.; but the u -stem form $b\bar{a}zu\beta e$ (Yt 10.105, 13.46, 16.7, V 8.75⁷¹²) ‘with both arms’ is unambiguous. Since $hin\bar{u}i\beta i\bar{i}\bar{o}$ does show the epenthesis, we must assume that $-\beta e$ had a less palatalizing effect than $-\beta iia$.

The glide $-uu$ - does not admit i -epenthesis, which helps us to further pin down the relative date of epenthesis. The YAv. preverb $auui < *a\beta i < *abi$ (in complementary distribution with $ai\beta i$) and the ptc. $a\delta aoi\bar{i}amna-$ ($< *a\delta ab\bar{i}amma-$ ‘not to be deceived’) show that i -epenthesis cannot be dated before the lenition of $*-b- > \text{YAv. } *-u-$. The dat.abl.pl. forms $a\check{s}\bar{a}uu\bar{a}oi\bar{i}\bar{o}$, $g\bar{a}\bar{e}\check{\theta}\bar{a}uu\bar{i}\bar{i}\bar{o}$, $v\bar{o}i\check{y}\bar{n}\bar{a}uu\bar{i}\bar{i}\bar{o}$ and $rasmaoi\bar{i}\bar{o}$ can thus be derived directly from earlier $*-abi\bar{i}\bar{o}$ and $*-\bar{a}bi\bar{i}\bar{o}$ without i -epenthesis.

§ 26.1.3 Consonant clusters

i -epenthesis is attested in front of the clusters $-\eta t$ - and $-r m$ -, and within the OAv. cluster db -.

The vowels a and e regularly take i -epenthesis in front of the ending $-\eta\check{t}\bar{i}$. The vowels \bar{a} and \bar{e} ($*ant$ and $*\bar{a}nt$) do not get epenthesis: e.g. $j\bar{i}j\bar{i}\check{s}\eta\check{t}\bar{i}$, $pa\bar{i}ti.k\bar{a}r\eta\check{t}\bar{i}\check{s}$, $bar\eta\check{t}\bar{i}\check{s}$, $vaz\eta\check{t}\bar{i}$, $r\bar{a}d\eta\check{t}\bar{i}$, $zaz\eta\check{t}\bar{i}$, $h\bar{a}\eta\check{t}\bar{i}$, $h\bar{a}\eta\check{t}\bar{i}$; $x^v ar\eta\check{t}\bar{i}$, $v\bar{a}r\eta\check{t}\bar{i}$; $i\check{s}\bar{a}\eta\check{t}\bar{i}$, $jas\bar{a}\eta\check{t}\bar{i}$, $bairi\bar{i}\bar{a}\eta\check{t}\bar{i}$. This observation provides another clue to the

⁷¹² Where the text has $b\bar{a}nu\beta e$ ‘with beams’, which does not make sense in the context. Pace Bartholomae 1904: 954, I believe that Geldner 1881: 577, 584 is right in restoring $*b\bar{a}zu\beta e$ ‘with his arms’.

relative chronology: the changes $*a\grave{n}t > \grave{a}nt$ and $*\grave{a}n\grave{t} > \grave{a}\grave{n}t$ predate *i*-epenthesis. There are quite some deviations from the norm in the spelling of the sequences *-eiñti*, *-aiñtīm*, etc., and this is probably due to the large numbers of different variants for the verb-final morphemes in *-ñt*:- *-ñti* but *-eiñti*, *-āñte* but *-āñtī*, etc., and also to the general confusion between final *-i* and *-e*, and between *-ī* and *-ē*, in the more recent mss. To mention just one example: Y 19.9 *būšīieñtīmca* has *i*-epenthesis in the good mss., but the scribe of J2 and K5 spells J2 *būšīiañtīmca* as against K5 *būšīiaeñtīmca*. Nevertheless the evidence is such that we are allowed to restore *i*-epenthesis where it should occur according to the rule given here. For instance, Y 9.11 *yaēšīiañtīm* should have *i*-epenthesis, even if this is attested only in the mss. of the YS.

Final *-ñte* probably did not cause *i*-epenthesis, judging by forms such as Y 52.3 *arənanuuante*, Yt 8.42 *vaxšīiente*, 10.14 *rāzaiiente*, Yt 13.24 *zbaiiente*, etc. An ending *-aiñte* is not attested (Y 45.2 *hacaiñtē* must be read as ${}^+haciñtē$). The ending *-eiñte* is a corruption of *-eñte*, the best attested ending in most Yasna and Yašt occurrences: 3p. *buiiente*, *zaiiente*, dat.sg. *fšuiiente*. In the Vīdēvdād, we can observe a frequent replacement of *-eñte* by *-eiñte*, and this is certainly due to the influence of the ending *-eiñti*, where *i*-epenthesis is regular. Examples are V 2 *bairiieñte* for ${}^+bairiiente$, Yt 13.88 *fšuiieñte* for ${}^+fšuiiente$. Of course, the confusion between the endings *-ñti* and *-ñte* is such that we cannot exclude exceptions to this general distribution, and maybe the distribution was not even crystal clear in the archetype; but in general, it seems safe to say that final *-ñte* did not cause *i*-epenthesis on a preceding vowel *a* or *e*.

Two words show *i*-epenthesis in front of the cluster *-rm-*, viz. the adjective *zairimiia* ‘fixed’ and its derivatives (< $*zarmīa-$), and the loc.sg. *airime* ‘in peace, quietly’ < $*armai$. We may assume that the whole cluster *-rm-* was palatalized; since $*rm$ usually gets anaptyxis as *-rəm-*, the palatality of the cluster had to be expressed by two vowels: $-i{}^i{}^r{}^m-$.

A word-initial cluster *db-* in OAv. usually yields the grapheme *daib*^o, which has arisen through a development $*dbi^o >$ anaptyxis $*dabi^o / *dabi^o >$ *i*-epenthesis *daib*^o; the relevant forms are *daibitā* (49.2) (< $*dbitā$), *daibitānā* (32.3, 48.1), *daibitīm* (45.1), *daibišuuant-* (28.6) (< $*dibišuuant-$), *daibišəñtī* (32.1) and *daibišīiañtē* (34.4). *I*-epenthesis is sometimes absent in good mss., e.g. 34.4 Pd *dabišīiañtē*, and it seems certain that it was absent from the archetype.

In inlaut, there probably was no epenthesis; the usual spellings of the endings $*-dbii^o$ and $*-dbiš$ are *-dabii^o* and *-dabiš*, with frequent variant

readings (also in the good mss.) *-dibiiō* and *dibīš*; *-dābiiō* and *-dābīš* are also found. The absence of anaptyctic *-a-* in these forms must be due to the fact that **-dbiiō* and **-dbīš* do not stand in the first syllable of the word. The cluster *-db-* is also attested in **azdbiš* (YH, YAv.), ins.pl. of *ast-* ‘bone’, where we find anaptyxis as *azdabiš* in most mss., but *azdibiš* always in the mss. of the IrVS (the v.ll. are provided by Kellens 1974a: 338).

In YAv., PAv. **du-* is reflected as *tb-*, which does not get an anaptyctic vowel. The only two forms in YAv. where *i*-epenthesis appears in the mss. have the clusters **-ntb-* and **-tb-* in inlaut. Firstly, Y 20.3 *saošiiantaēbiiō* may be corrected to *^hsaošiiantibiiō*, a recent formation according to Bartholomae 1894-5: 221; see also § 23.5.4. Secondly, YAv. intervocalic *-tb-* occurs in Y 60.2 *viiādaibišca*; as I have argued in § 4.1.1, this must represent an ins.pl. **viiādbišca*, which would yield YAv. **viiātbišca*, the form preserved in K11 *viiāt.biiasca*.

§ 26.2 The effect of *e* and *ē*

Morgenstierne 1942: 57 writes that *i*-epenthesis before *-ē* is less regular. The examples he gives for the absence of epenthesis are *daēne*, *sūne*, *ašaone* and *ape*. In the course of the preceding subsection, we have seen that *-ē* indeed does not cause *i*-epenthesis in as many environments as *-ī* and *-ii-* do. It is the aim of the present section to put together the evidence for this phenomenon⁷¹³.

The endings *-te*, *-the* and *-re* have the least restrictions regarding *i*-epenthesis. In fact, this is only absent when the preceding vowel is *-aē-*, viz. in *-aēte* and *-aēthe*; the only form in **-aēre* is *^hsaēre*, attested as *sairi* and *sadre*, but never as *†saēire*. The consonant *-r-* is even palatalized in the final cluster *-rme*, which gives epenthesis on *-a-*. Final *-de* also usually gives epenthesis, except when preceded by *-r-* (in *-arəde* and *-arəde*).

Other consonants seem to be less liable to palatalization. Final *-nē* yields epenthesis on the vowel *-a-*, but never on the other vowels. Final *-nte* never yields *i*-epenthesis, and similarly the labial stops and fricatives never have *i*-epenthesis when followed by *-e*. Of course, the available evidence for the labials is small in number: *ape*, *āpe*, *grāfe*, *ubē*, and the endings *-aēβε* and

⁷¹³ I will not discuss the vacillation between final *-i* and *-e*, which the mss. show. This problem would require a separate monograph; important preparatory work has been done by Kellens 1974a and 1984.

-uβe. The most striking example is maybe provided by the sequence *-uiiē̃*: *ahuiiē̃, uiiē̃, fšuiiē̃ntē̃, buiiē̃nte, stuiiē̃*, etc.

As for the phonetic interpretation, these data hardly allow for more than the obvious conclusion that *-e* had a less palatalizing effect than *-ī*. The only remarkable result is the fact that **-ane* gets *i*-epenthesis whereas *-āne*, *-one*, *-arəne* and others lack palatalization.

§ 26.3 *I*-epenthesis in front of *-ca*

It has been observed by several scholars that the addition of final *-ca* ‘and’ to a word ending in *-i* or *-e* may block the rise of *i*-epenthesis on the vowel of the preceding syllable. One of the first people to mention this phenomenon was Caland 1893: 592f., but Bartholomae 1894-5: 177 objected to the suggestion that there would be no *i*-epenthesis on *r* if *-ca* was added to the word. He adduced the examples of *nairiiasca* and *stairišca*. For Old Avestan, Kellens-Pirart 1988-91 I: 54 formulate a precise rule: "°cā empêche l'épenthèse dans les finales *-ā̃(n)ti-, *-ā̃(n)tai, *-ā̃di- et *-ā̃dai-". They give three pairs of forms, but in my view, only the co-occurrence of *jāṅghaticā* and *sāṅghaitī* is relevant. The two other pairs of examples they give, viz. *drəguuataēcā* beside *drəguuāitē* and *aogəmadaēcā* beside *yazamaidē*, have final *-taēcā* and *-daēcā*, in which *t* and *d* were not in direct contact with *-ē*. Hoffmann-Forssman 1996: 53 present a more cautious formulation: "Der Antritt von *-cā̃* ... hat des öfteren die *i*-Epenthese verhindert". They adduce the examples of OAv. *jāṅghaticā* and *mainimadicā*⁷¹⁴, and YAv. *puiietica*, *frāḍatica*, *friḍiietica*, *baēšaziitica*, *varəḍatica* and *vərəzūuatica*.

Their collection already contains half of the forms for which we must indeed assume the absence of *i*-epenthesis. In the following paragraphs I will discuss the relevant evidence, with the exception of the forms in *-iie(i)tica*. As Kellens 1984: 209 has already indicated, *puiietica*, *friḍiietica* (thus Geldner in his Avesta edition) and *vifiieitica* are best left out of consideration, due to the confusion in the mss. between the predesinential graphemes *-iie-* and *-iiei-*. For reasons adduced above, *i*-epenthesis in front of *n* is also left out of consideration, which in practice means that we are disregarding the forms *kainica* and *paēmainica*.

⁷¹⁴ I leave out of consideration *x^otīicā*, cited by Hoffmann-Forssman as a questionable example. I do not think that *i*-epenthesis could leave traces on *i* or *ī*, cf. § 6.3.

§ 26.3.1 Without *i*-epenthesis

Only the ending *-icā* regularly does not yield *i*-epenthesis; the evidence comprises the preceding consonants *-t-*, *-nt-*, *-d-* and *-p-*, and the forms are found across all major texts. Furthermore, OAv. and YAv. behave alike. The relevant evidence consists of OAv. *jñghaticā*⁷¹⁵ (Y 31.14), *buuanticā* (Y 45.7), *frārāticā*⁷¹⁶ (Y 58.4), *mainimadicā* (Y 35.3), and YAv. *apica* (Yt 9.26, V 2.30,38), *frāḍatica* (Yt 6.1, Ny 1.11, A 4.6, Vyt 15), *frērāticā* (Y 8.2), *baēšaziiatica* (Yt 8.43), *varḍatica* (A 4.6), *vərəzuuatica* (Y 62.10, V 18.27), *vīsatica* (Y 12.9,11) and *zarənumatica* (Yt 19.67).

Two forms are attested once with and once without *i*-epenthesis. It seems that both of them originally did not have *i*-epenthesis. The first one is the preverb *paiti* in V 5.27 *paitica* ‘and towards’, which may be contrasted with V 15.48 *patica*⁷¹⁷, where *i*-epenthesis is absent. V 5.27 *paitica* probably imitates the spelling of simple *paiti*. The second form is the noun **bərāiti-* in Yt 10.77 *aš.frabərāitica* and *hufrabərāitica*, as against Y 68.9 *hufrabərātica*. In view of the fact that Y 68.9 is represented in many of the best Avestan mss., whereas Yt 10 is based on the less trustworthy mss. F1 and J10, it seems preferable to regard *°bərātica* as the more original form.

Most of the forms which do show *i*-epenthesis in front of *-ica* can be explained from contextual analogy. The form *aiβica* (YAv. *passim*) contains the preverb *aiβi* (YAv. *passim*), so that we may suggest that the scribes of the archetype, or even earlier redactors, restored *aiβi°* in an earlier form **aβica*. It is possible to regard *usaitica* (E 6) as an analogical spelling due to the influence of *usaiti* and *ānusaiti*, which occur one sentence before *usaitica* in E 6. No such explanation is possible for *ārmaitica* (Yt 1.27, 13.3), which in Yt 1.27 follows after a gen.sg. *ārmatoiš*. Here we may suggest that the stem form *ārmaiti-* was so familiar from the Gāthās and the liturgical parts of Yasna-Vīdēvdād-Vīspereḍ, that the priests automatically replaced †*ārmatica* with *ārmait°*.

The forms *uštāuuaitica* and *x^varəna^hhaitica* seem to be real exceptions, but they only occur in Yt 19.67; this text also contains a form *with* expected

⁷¹⁵ Of the important mss., only K37.Pd spell *-aiticā*.

⁷¹⁶ The mss. are divided. Pt4.Mf1, Jp1.Mf2 and J6.7.H1.Jm1 read *frārāt°*, but there is epenthesis in J2 *frāriticā*, K5 *frārāiticā* and K4 and InVS *frārāiticā*. This most probably points to original *frārāiticā* without epenthesis.

⁷¹⁷ V.ll. *paiti°* K1, *paiti°* L4 · *paiti°* Jp1.Mf2 · *paiti°* L1.2.Br1.

absence of *i*-epenthesis, viz. *zarənumatica*. Therefore, *uštauuaitica* and *xʷarənaŋʰaitica* may be due to an error of the transmission.

The gen.sg. forms *hadišaheca* and *hadišasca* disqualify as evidence for the absence of *i*-epenthesis in front of *-ca*, because epenthesis is also absent in the nom.sg. *hadiš*; cf. § 26.1.1.

When the preceding consonant is *-r-*, we find *i*-epenthesis in all forms, viz. YAv. *pairicā* (passim) and *vīspa.tauruuairica* (Yt 13.421), and OAv. *būiricā* (Y 40.1). Two of these three forms may be explained away in the same way as we did before: *pairicā* may have adopted the form of *pairī*, and Yt 13.142 *vīspa.tauruuairica* may have been influenced by the form *vīspa.tauruuairi* (without *-ca*) which also occurs in text of Yt 13.142. However, no such contextual influence can be assumed for *būiricā*. Since *-r-* can be shown to be more sensitive to *i*-epenthesis than other consonants (viz. it is easier palatalized in front of *e* than other consonants, and the cluster *-rm-* is one of the few clusters which gets *i*-epenthesis), we might as well take *būiricā* as proof for the fact that *-cā* does *not* impede *i*-epenthesis if the ending of the word was *-rī*.

§ 26.3.2 With *i*-epenthesis

The endings *-imcā*, *-īmca*, *-iścā*, *-īščā*, *-iiaca* and *-iiāasca* never impede *i*-epenthesis. A selection of the evidence for *-t-* will suffice to prove this point: *ajiiāitīmca* (30.4), *ārmaitišca* (V 8.21), *āzūitīšca* (V 9.53ff.), *uruuaitišca* (Yt 11.14), *bauuaitīmca būšīieitīmca* (Y 19.9), *frazaitīmca* (Y 65.11, Yt 15.40), *nauuaitīmca* (Yt 5.82), *nauuaitišca* (V 22.2ff.), *vanaitīiāasca* (passim), *vanaitīmca* (passim), and *hāitīšca* (Vr). The exception Yt 11.2 *druuaitīiāasca*, gen.sg. of f. *druuatī-*, is preceded in the text of Yt 11.2 by *druuatō*, which may have caused the spelling *druuatō* instead of †*druuaitīiāasca*.

§ 26.3.3 Phonetic interpretation

At first sight, the fact that final *-ca* is a condition for the absence of epenthesis seems to point to the accentuation as the cause of the phenomenon, but this cannot be the case. Firstly, the presence of epenthesis in front of *-īmca* and *-iščca* dissuades from this solution, because these endings would have attracted the accent as well. An ending such as *-iščca* has the same structure of the penultimate and ultimate syllable as the ending *-asca* (cf. §

4.1), for which we *did* assume the accent as the decisive factor. Secondly, if the stress (at a later stage) had really fallen on the penultimate, we might expect to find a lengthening of **-ica* to *-īca*, just like we have established such a lengthening in trisyllabic words with the ending **-aca*. Yet no lengthening to *-īca* is attested.

I would like to propose a different explanation for the forms with absence of palatalization in front of *-ticā̃*, *-ñticā̃*, *-dicā̃* and *-pica*. The preceding three objections have shown that the absence of *i*-epenthesis can hardly be due to the vowels or their accentuation. Therefore, we may have to do with a case of dissimilation between two palatal consonants: the originally palatalized [t'], [d'] and [p'] were depalatalized when they were followed by palatal *-c-* [tʃ], and when no other consonant intervened: **-atica* > **-[at'itʃa]* > *-[atitʃa]*, as opposed to **-atīmca* > **-[at'īmʃa]* > **-[a't'īmʃa]* > *-aitīmca*.

§ 27 *U*-epenthesis

The phenomenon of *u*-epenthesis is less problematic than *i*-epenthesis. *U*-epenthesis can only occur in front of the consonant *r*. The conditions for its occurrence are clear: 1. if one of the vowels **a*, **ā* or **ə* (viz. in **ər* < **r*) is followed by a sequence *-rū̃-* or *-rū-*; 2. if word-initial **r-* is followed by *ū̃* or **ū*. Phonetically, we may interpret this epenthesis as the rounding of the consonant *r*, which is expressed by writing *u* in front of *r*; note that *r* is also one of the consonants which let through *u*-mutation of a preceding vowel, § 21.1.1.

The graphemes which may result from *u*-epenthesis are the following; most of them have been discussed in the sections on the relevant graphemes above⁷¹⁸.

<i>u</i> -epenthesis on	resulting grapheme
<i>*a</i>	<i>aur</i> § 21.2.1
<i>*a</i> after a labial consonant	<i>aour</i> § 21.2.1
<i>*a</i> + <i>u</i> -mutation	<i>our</i> § 21.1.1
<i>*ā</i>	<i>āur</i> § 17.4.1
<i>*r</i>	<i>əur</i> § 24.3
<i>*r-</i>	<i>ur-</i>

The last sequence *ur-* can have many different etymological origins, because *u*-epenthesis has blurred the original distinction between PAV. **rū̃-* and **rū-* on the one hand, and **urū̃-* and **urū-* on the other. Moreover, initial **ur-* always yields a grapheme *uruu-* if it appears in anlaut, i.e. without a preceding preverb or compound member. It is unclear whether **ur-* became *uruu-* by means of a metathesis **ur-* > **rū-* and subsequent *u*-epenthesis, or whether **ur-* automatically yielded 'epenthesis to the right'. Here are some examples of every sequence:

⁷¹⁸ The development of **arū̃i* > *aoir* and **ərũi* > *ū̃ir* does not concern *u*-epenthesis, but real **u* which arose through metathesis of **-rū̃i-* > **-urī-*, see § 24.4.

* <i>uru-</i>	<i>uruuarā-</i> ‘plants’ (Skt. <i>urvārā-</i>).
* <i>ru-</i>	<i>uruθman-</i> ‘vegetation’, <i>urūraoδ-</i> pf. (both to <i>rud-</i> ‘to grow’).
* <i>ruu-</i>	<i>uruuan-</i> ‘soul’.
* <i>ur-</i>	<i>uruuāza-</i> ‘to be proud’ (pf. <i>vaorāz-</i> < * <i>ua-urāz-</i>), <i>uruisiia-</i> ‘to turn’ (<i>fraoirisiia-</i> < * <i>fra-urisiia-</i>).

There are several indications that the date of *u*-epenthesis must be quite recent. The contrast between e.g. *uruisiia-* and *fraoirisiia-* suggests that the initial sequence **ur-* was unchanged until the end of the period when Avestan was a living language. The addition of initial *u-* in e.g. *urūraoδ-* would even suggest that the word was still **ruraoδ-* when the lengthening in open syllable occurred, which was well into post-YAv. (see § 10.7). The form *gəuruuāia-* ‘to grab’ from **gṛbāia-* shows that *u*-epenthesis was productive after the change of intervocalic **b* > **u*; this does not ensure that *u*-epenthesis was certainly *not* productive before that date, but we have no compelling evidence that it was.

§ 28 The reflex of *hi and *hu

In front of a vowel, Pr. *hi and *hu can be reflected in three different ways, viz. as *hii/huu*, *ǰ/xʷ* or *ǰh/ǰʰ*. As we shall see below, these reflexes are mainly determined by two factors: firstly, by the distinction between consonantal **i̇/u̇* and syllabic **ii̇/uu̇*; secondly, by the differences in development between YAv. and OAv. The discussion below will first address the sequences *hi and *hu in anlaut (§§ 28.1, 28.2) and subsequently turn to the reflexes in inlaut (§§ 28.3, 28.4).

§ 28.1 *hi̇- > ǰii̇-

Out of the seven relevant OAv. forms, six have the reflex *ǰii̇-*:

- the five prs.opt.act. forms of *ah-* ‘to be’, viz. 1s. *ǰii̇m*, 2s. *ǰii̇ā*, 3s. *ǰii̇āt*, 1p. *ǰii̇āmā*, 2p. *ǰii̇ātā*. The metre shows that *ǰii̇-* is never syllabic.
- the second member of the compound *yasō.ǰii̇ān* (Y 51.4) ‘giving glory’, nom.sg.n. of **ǰiasah-ǰiant-* ‘giving glory’ (cf. Skt. *yásas-*). The compound was secondarily split at the RCS. Since there are indications that the change **h̄u̇ > xʷ* post-dates the RCS, the same might be true for **hi̇ > ǰii̇*; in that case, we may posit the following chronology of developments: **yasahii̇ān > RCS *yasō.hii̇ān > yasō.ǰii̇ān*.

Only one OAv. form has initial *hii̇-*, viz. *hii̇āt* (86x, in the Gāthās, YH and Y 58), nom.acc.sg.n. of the relative pronoun *ya-*. This must be a secondary form replacing original **yat̄*, but the origin of *h-* has not been satisfactorily explained yet. In any case, the form *hii̇āt* may not have undergone all sound changes since Pr.

In YAv., *ǰii̇-* only appears in the name *ǰii̇aona-*, the name of a people which has no etymology.

Initial *hii̇-* appears in three YAv. forms:

- *hii̇āt* (Yt 10.120f., 13.71), 3s. prs.opt. of *ah-* ‘to be’ (OAv. *ǰii̇āt*).
- *hii̇ārə* (V 17.9), 3p. prs.opt. of *ah-* ‘to be’ (Skt. *syúr*). Since the usual endings of this verb form are either *-qn* or *-ārəš* (e.g. *jamiīqn* beside *jamiīārəš*), the absence of *-š* requires an explanation. Kellens 1984: 296 considers a possible error of the mss., whereas Jasanoff 1991: 112 suggests that *hii̇ārə* may be due to analogy with the 3p. pf.ind. ending *-arə*. The problem with Kellens’ assumption is the fact that this would be quite a rare error (no forms in *-arə* occur in the vicinity of *hii̇ārə*) whereas Jasanoff’s assumption would be strange because we would hardly expect a prs.opt.

ending to adopt a pf.ind. ending. In view of the fact that *hiiārə* is the only 3p. opt.act. *present* ending of an athematic verb (beside *daiθiiārəš* and **hunuiiārəš*, formed from reduplicated and nasal stems), we cannot exclude another possibility, viz. that *hiiārə* continues an inherited form PIr. **HsiaHr*, which never had final **-š*.

• *hiiqn* (Yt 8.55), 3p. verb form. The analysis is disputed. Compare the text:

<i>yaθa hazarəm narqm</i>	‘Like a thousand men
<i>ōim narəm ādarəzaiiōiṭ</i>	tie down one man
<i>yōi hiiqn *asti aojaṇha aojišta.</i>	who <i>hiiqn asti</i> with the strongest force.’

Geldner 1877: 13 argued that *asti* was to be erased ‘als sinn- und verstörende Interpolation’; in his 1886-96 edition, he marked *asti* with an asterisk to indicate that he (still) found the form ‘suspicious’. In Geldner 1881: 484, he argued that *asti* may be regarded as a gloss for *hiiqn*, which was then commonly analyzed as a 3p. prs.opt.act. of *ah-* ‘to be’. The metre of the text provides an argument in favour of Geldner’s analysis, because the line *yōi hiiqn aojaṇha aojišta* would have eight syllables, which is a very frequent number of syllables in Yašt verses. Bartholomae sought to remedy the difficulty in the meaning by assuming a compound **asti.aojah-*, lit. ‘bone-power’ = ‘Körperstärke’. The last line is translated by Bartholomae 1904: 214 as ‘die an Körperstärke die stärksten sind.’ Kellens 1974a: 337 rightly rejects this, because *ast-* is a root noun.

Kellens (1984: 100, 259, 1995a: 72) assumes that *hiiqn* is a 3p. prs.subj.act. of *hi-* ‘to bind’, cognate with Skt. *syāti*; of course, this would fit very well in the context. Panaino 1990: 78 adopts Kellens’ interpretation of *hiiqn*, and tries to re-establish the reading of *asti* as a separate word. His translation runs ‘just as one thousand men / that binds the body with the greatest strength / would enchain a single man.’ Panaino rejects Geldner’s assumption that *asti* would be a gloss for *hiiqn* because ‘this seems impossible.’ On the contrary, it seems quite possible to me, because we find other instances of such glosses entering the text. Admittedly, such interferences are more often found in the *Vīdēvdād* and the smaller fragmentary texts than in the Yašts, but the possibility cannot be excluded.

Kümmel 2000: 676 has added two different arguments against Kellens’ interpretation of *hiiqn*: firstly, the use of the opt. *ādarəzaiiōiṭ* would have us expect an opt. form in the relative clause rather than a subjunctive; secondly, it would be unexpected to find the action ‘to bind’ being expressed by two different verbs in the same sentence. I find especially the second argument quite convincing; note also that no other forms of the root *hi-* ‘to bind’ are attested in Avestan except the OAv. perfect *ā hišāiiā*.

Thus, we may return to the interpretation of *hiiqn* as a 3p. prs.opt.act. of *ah-*. Kümmel loc.cit. rightly stresses the fact that the endings *-qn* and *-ārə(š)* occur side by side in the 3p. opt. of athematic verbs, and even in the same verbal stem: *jamiiqn* beside *jamiārəš*, *buiiqn* beside *buiārəš*. The translation of the passage will then be ‘just like a thousand men, who may be with the greatest strength, tie down one man’.

In conclusion, we have found three YAv. verb forms with initial *hii-* which must go back to PIr. non-syllabic **h_i-*, as is shown by the metrical analysis of the cognate OAv. forms in *xii-*. For an explanation, see § 28.5 below.

§ 28.2 **hu* > *x^v-*, *huu-*

The undisturbed development of PIr. **hu* in front of a vowel is **hu* > Avestan *x^v-*. However, a number of forms has the reflex *huu-* < **hu-*; with a few exceptions, all these *huu-* forms are compounds with PIr. **hu* ‘good’ as a first member. It is impossible to find a phonetic reason for this distribution, so that we may assume that the differentiation was caused by analogy: during or after the sound change **hu-* > *x^v-*, part of the compounds in **hu^o* ‘good’ restored syllabic *-u-*, so that they show *huu^o* instead of *x^v^o*. The model for the retention of *hu-* will have been the presence of *hu-* in front of consonants, e.g. *hu-tašta-* ‘well-made’. A restored form, e.g. **hu.aspa-*, could easily become *huu.aspa-* at a much more recent date in the recitation, and partly this will have happened in the period after the archetype.

The restoration of the syllabic character of **hu* in front of vowels seems to be quite random, which suggests that the different treatment of **hu* ‘good’ may well have arisen during the redactional compound split (RCS) in or after YAv. It is important to keep in mind that the redactional changes do not have the scope of a sound law. We can observe and explain why certain forms restored *hu^o* ‘good’ or escaped the shift **hu-* > *a-* for a different reason, but

it can never be shown why certain compounds did *not* restore *hu*⁷¹⁹. Compare the following relative chronology of developments:

PIr.	* <i>hu-āθra-</i>	* <i>hu-aśua-</i>	* <i>hu-tašta-</i>
YAv.	* <i>h_uāθra-</i>	* <i>h_uaspa-</i>	* <i>hutašta-</i>
RCS	* <i>h_uāθra-</i>	* <i>hu.aspa-</i>	* <i>hutašta-</i>
sound change * <i>h_u > x^v</i>	* <i>x^vāθra-</i>	* <i>hu.aspa-</i>	* <i>hutašta-</i>
Av. mss.	<i>x^vāθra-</i>	<i>huuaspa-</i>	<i>hu(.)tašta-</i>

§ 28.2.1 **huā-* > *x^vā-*

Wherever initial **hua-* does not contain **hu* ‘good’, it is reflected as *x^va-*: *x^va-* ‘own’ (OAv.), *x^vatō* ‘by himself’, *x^vadāta-* ‘of its own directions’, *x^vapta-* ‘asleep’, *x^vafna-* ‘sleep’, *x^vafraēta-* ‘interest’ < **hua-fra-ita-* (Klingenschmitt 1968: 236), *x^vafsa-* ‘to go to sleep’, *x^vaṅhar-* ‘sister’, *x^vaṅhaiia-* ‘to push’, *x^vanaṭ.caxra-* ‘with whizzing wheels’, *x^vaini-* ‘nice, beautiful’, *x^vanuuant-* ‘sunny’, *x^vaṅdrakara-* ‘pleasing’, *x^varānah-* ‘sovereignty’, *x^vara-* ‘wound’, *x^var-* ‘to take, eat; eating’, *x^vasura-* ‘brother-in-law’, *x^varəzišta-* ‘sweetest’, *x^vasta-* ‘threshed’, and in the OAv. gen.sg. *x^vaṅg* of *huuar-* ‘sun’. The nom.sg. *huuarə* is the only exception; see below for an explanation.

The certain cases with initial *x^vo* < **hu* ‘good’ are the following: *x^vaēta-* ‘easy to go’, *x^varaiθiia-* ‘serving a good aim’ < **hu-arθia-*, *x^vātacina-* ‘having good tracks’ < **hu-ā-tacana-*, *x^vāθaxta-* ‘well-tightened’ (cf. *huθaxta-*), *x^vāθra-* ‘well-being’ and derivatives < **hu-āθra-*, *x^vāpaθana-* ‘having good

⁷¹⁹ The explanation proposed here for Avestan *x^vo* and *huu^o* < **hu-* may be supported by Cantera’s explanation (2000: 45) of a similar phenomenon in Middle Persian and Parthian. As Cantera observes, the prefix **hu-* ‘good’ also has two reflexes in those languages, especially in Parthian, viz. *xw-* /*xwa-*/ > /*xu-*/ on the one hand, and *hw-* /*hu-*/ on the other. The regular reflex in front of a vowel is *xw-*, e.g. *xwb* ‘good, nice’ < **hu-apa-*, whereas *hw-* is expected in front of consonants, e.g. *hwbwd’g* ‘fragrant’ < **hu-baodāka-*. Nevertheless, *hw-* is also often attested in front of vowels: *hw-’b’d* ‘well cared for’, *hw-’bz’’r* ‘very strong’, etc. Cantera argues that the prefix /*hu-*/ was preserved or restored in the antevocalic position on the model of the anteconsonantal forms in *hw-*, and this seems indeed the best solution. It is a nice, but probably independent parallel of the Avestan compounds in **hu-*.

paths' < **hu-ā-paθana-*, *x^vāpara-* 'beneficent' < **hu-āpara-*, *x^vārizam-* name of a country (possibly from **hu-āria-zam-* 'good Aryan country'), *x^vāstra-* and *x^vīti-*.

Compounds in which **hua-* 'own' was treated as a separate first member spell *x^vā^o*, e.g. *x^vā.aoθra-* 'having his own shoes', *x^vā(.)daēna-* 'of (ouw) own religion', *x^vāpaiθiia-* 'authority'. Even if a separation point after *x^vā^o* is lacking (e.g. *x^vādaēna-*), we may still assume an earlier split on the basis of the long vowel *ā⁷²⁰*; this is corroborated by the counterexample *x^vādāta-* 'of its own directions', in which intervocalic *-δ-* shows that the word was not split into two parts.

Original **huā^o* is attested in the adj. *x^vāsta-* 'cooked' (Skt. *svādú-* 'sweet', *svāttá-* 'seasoned') and its negative *ax^vāsta-* 'uncooked', which derive from Ir. **suād-tá-*.

§ 28.2.2 **huā* > *huuā*-

Most of the compounds in initial *huu^o* contain **hu* 'good' plus a word in **a-* or **ā-*. Examples with *huuā^o* < **hu-a^o* are *huuapa(h)-⁷²¹*, *huuascuuā-* 'having nice shanks', *huuasta-* and *huuaspā-*, examples with *huuā^o* < **hu-va^o* are *huuacah-*, *huuarəzāna-*, *huuarəz-*, *huuarəšta-*, *huuarštāuuuarəz-* and *huuazāna-*. Examples with *huuā^o* < **hu-ā^o* are *huuāiiaona-* 4x Yt (beside *huiaona-* Yt 13.29), *huuāiiaoza-*, *huuāxšta-* (to *āxšti-* 'peace'), *huuāfrita-* (cf. *ā-friti-*), *huuāmarždika-* (cf. *anamarždika-* 'merciless' < **an-ā-marždika-*), *huuāzāta-* 'well-born' and *huuāzāra-* V 13.45 'easily insulted'. An example with **hu-vī^o* is *huuīra-* 'having good men'.

A few words in *huuā^o* must reflect **hūa-* 'own', viz. Y 59.30 *huuāuuōiia* 'for himself' < **hūabja*, Yt 13.146 *huuāuuant-* 'like himself' < **hūa-uant-* and V 13.39 *huuāuuāstra-* 'having his own garment' < **hūa-ūastra-*; for the explanation of *ā* in these forms see § 3.2.2. These forms share the phonetic structure **hūā-ū-*. The change **hū* > *x^v* may have been phonetically impeded by a following **-ū-*, cf. De Vaan 2003. No counterexamples of the type †*x^vāuu^o* are attested in Avestan.

The exact explanation of Yt 13.23 *huuārət-* is uncertain. Kellens (1974a: 128) has rightly posited a translation 'moving by itself', which would point to **hūa-Hrt-* (for the explanation of *-ā-* cf. § 5.2.1.2). The outcome *huu^o* < **hū-* would then be irregular. We might tentatively assume that the text

⁷²⁰ Thus, these compounds do not provide evidence for a lengthening of **a* > *ā*.

⁷²¹ For a discussion of its forms see § 3.2.2.

redactors wrongly analyzed **huārt-* as ‘moving well’, and restored the word **hu* ‘good’ in the first member.

Furthermore, initial *huuā°* is sometimes encountered as a corrupt spelling of *x^vā°*, especially in the Yašts; an example is *huuāraoxšna-*, cf. § 3.2.2.

The only form in which *huuā°* does not contain original **hu* ‘good’ is YAv. (and 2x OAv.) *huuarə* ‘sun’ < **suHar*. The frequency of the YAv. form excludes the possibility that it is a loan word from OAv., and forces us to find a different explanation. It seems to me that Tremblay 1996: 106 is right in assuming that *hu-* in *huuarə* was “conservé en av. récent par analogie de *hū*.” In other words, the retention of [*hu-*] may be due to oblique case-forms such as the gen.sg. *hū* < **hu(u)ō* < **huuanh*, and maybe also to the isolated gen.sg. *hūrō* ‘of the sun’.

The gen.sg. **suHans* ‘of the sun’ is attested as *x^vəng* in OAv., but as *hū* in YAv. (for the ending cf. §§ 11.1.1, 24.6.2.2). Hoffmann 1967: 34 has argued that the difference between OAv. *huuarə* and *x^vəng* may be the result of an original difference of accentuation, viz. of nom. **húuar* versus gen. **huuánh*. However, we do not have evidence for any similar influence of the accent of the syllabification in OAv., so that the argument turns circular⁷²². Note furthermore that there is another relevant OAv. word, viz. the adj. *x^vənuuant-* ‘sunny’ < **suHan-uant-* (Skt. *svàrvant-*), the PIr. accentuation of which is unknown; the cognate YAv. form is *x^vanuuant-*. Therefore, it seems more probable that OAv. *x^vəng* and *x^vənuuant-*, unlike the nom.sg. *huuarə*, did not restore initial **huu-*; they underwent the same development **hu-* > *x^v*- which we find in the other OAv. and YAv. forms in **hūV-*. The IIr. accentuation is not involved.

§ 28.3 **-hi-* > *-hii-*, *-xii-* and *-ǰh-*

In YAv., the standard reflex of **-h_i-* between two *ǎ*-vowels is *-ǰh-*, e.g. *vaǰhō* < **vah_iah*, *yeǰhā* < **jah_iāh*, etc. In front of *ǎ*, **h* was retained and eventually yielded *-xii-*, viz. in the stem *daxiiu-/daǰhu-* ‘country’: acc.sg. *daxiiūm*, nom.acc.du. *daxiiu*, gen.pl. *daxiiunqm*. The change **h_i* > *xii* must be dated after the analogical introduction of the stem shape *daǰhu-* for **dah_iu-*

⁷²² The parallel development of **z_uH* to *z_{uu}* and *z_b*, which was suggested by Lubotsky 1997b: 149, is probably illusory. The comparison is imperfect because with **z_uH*, there is no vacillation between *z_b-* and *z_{uu-}*: we always find *z_{b-}* initially (*zbaraθa-*, *zbaiia-*, *zbātar-*, *°zbāiti-*, *vī-zbāriš*, *duž(.)[a]z[ō]bā*, etc.), but *-z_{uu-}* word-internally (*hizuuā*, *hizuuō*, *zazuuah-*, etc.).

into other forms of the paradigm (e.g. nom.sg. *daŕhuš*); this analogy was fairly recent, as argued in § 21.1.2. Furthermore, *-xii-* appears in the derivative *daxiiuma-* ‘of a country; belonging to *daxiiuma-*’, which also appears spelled as *dāxiiuma-* (see § 3.4.4).

The three YAv. forms with *-xiiā-* can easily be explained away. The form Yt 8.51 *paitiaogət.tbaēšaxiiāica* must be an isolated lapsus of the ms. tradition, since the same dat.sg. of *paitiaogət.tbaēšahiia-* is attested as *°ahiiāica* in Y 16.8 and 68.8, where not a single ms. spells *-x-*. The form *uxdaxiiāca* in Yt 13.88 is quoted from Y 33.14. Finally, a form *auuaxiiāi* occurs at Yt 10.78 instead of the dat.sg. *auuaiŕhe* of *auuah-* ‘help’: *āca θβā zbaiiāi auuaiŕhe, āca nō jamiiāt auuaxiiāi*⁷²³ ‘I invoke you for assistance: “May he join us for assistance”’. In the parallel sentences, we find the regular *auuaiŕhe*: Y 57.3ff., Yt 10.5ff. *āca nō jamiiāt auuaiŕhe* ‘may he join us for assistance’. The form *auuaxiiāi* cannot be a YAv. case form of *auuah-*⁷²⁴. We may assume that it is an isolated error of the transmission, based on the OAv. form *auuaxiiāi* (dat.sg. of *auuahiiia-* ‘who seeks help’, cf. Pirart 1992a: 240) in Y 58.7:

Y 58.7 *mazištāi yāŕhqm paitī.jamiiā; mazē auuaxiiāi mazē +rafənō.xiiāi dāidī hauruuātā amərətātā*

‘may you come near for the greatest of demands; give to the helper [and give] to the supporter great integrity [and] immortality’.

It appears that the presence of *jamiiāt* in Yt 10.78 *jamiiāt *auuaiŕhe* has led the composers to the association with Y 58.7 *paitī.jamiiā ... auuaxiiāi*.

YAv. also displays a sequence *-hiiā-*, which has escaped the change of **h* > *ŕh*. As Hoffmann-Narten 1989: 54 have argued, this implies that it did not contain **h̥* in Plr., but rather a disyllabic suffix **-iā-* < IIr. **-iHa-*. We find *-hiiā-* in:

⁷²³ The mss. F1+ (except L18.P13) insert *auui* between *jamiiāt* and *auuaxiiāi*, whereas J10.M12 do not. Geldner (in his edition) assumed that *auui* had entered the text secondarily, but Hoffmann-Narten 1989:81¹³ assume an original compound **auui.auuaxiiā-*. To my mind, it is much more likely that *auui* is a secondary intrusion in the text of F1, rather than having been lost from J10.M12 and from L18.P13 independently.

⁷²⁴ This fact invalidates the claim of Albino 2001 that Yt 10.78 *auuaxiiāi* (he follows Hoffmann-Narten in restoring **auui.auuaxiiāi*, but see the preceding footnote) represents independent YAv. evidence for an end-stressed dat.sg. **auah̥iā(i)* ‘in order to help’.

- abstract *iiā*-derivatives of *ah*-stem compound adjectives: *uštānō.cinahiia-* ‘lust for life’ to **uštāna-cinah-* ‘valuing life’, *dēuš.manahiia-* ‘enmity’ to *duš.manah-* ‘thinking badly’, *paitiiaogəṭ.tbaēšahiia-* ‘hate which turns backwards’ to **paitiiaogəṭ.tbaēšah-* ‘having hate which turns backwards’, *vītarə.qzahiiā-* ‘the overcoming of hostility’ to *vītarəqzah-* ‘who overcomes hostility’, *vītarə.tbaēšahiia-* ‘the overcoming of the hate’ to *vītarə.tbaēšah-* ‘who overcomes the hate’, and maybe also in N 69 *aēšō.drāj[ah]iia-* ‘the length of an aeša’ and *yauuō.fraθ[ah]iia-* ‘the breadth of a corn’.
- *iiā*-adjectives derived from *ah*-stems: *manahiia-* ‘spiritual’ to *manah-* ‘spirit’, *māhiia-* ‘monthly’, ‘month deity’ to *māh-* ‘moon’, *stāhiia-* ‘steadfast’ to *stā-* ‘to stand’ (no *ah*-stem **(^o)stāh-* attested), and probably also *vacahiia-* (Yt 15.1) to *vacah-* ‘word’. It is possible to include here the adj. *hahiia-* (Vr 1.2) ‘of the corn’, viz. as a derivative of a stem **haha-* ‘corn’, Skt. *sasá-*, *sasyá-* ‘id’. This adj. serves as a basis for *paitiśhahiia-* (Y, Vr, A), name of the deity of the third season, lit. ‘bringing crops’. In these cases, the Skt. cognates also show a disyllabic suffix *-ya-*, e.g. *(dásā)mās.ya-* for *māhiia-*, *apas.yā-* ‘of the work’.
- the future ptc.med. *uzdāhiiamna-* (Vr 9.1) ‘which will be given out’ to *dā-* ‘to give’ and *zqhiiamna-* (Y 4.5, 24.10, Vr 11.13) ‘which will be born’ to *zan-* ‘to give birth’. As there is no indication for disyllabicity of this suffix in Skt., we must assume that the disyllabicity was extended in Avestan from the nominal derivatives to the future suffix **-ja-*.

The only form where *-hii-* does not derive from the suffix **(i)ja-* is the comparative *xraoždiiāh-* ‘more rigid’ (Kellens 1999b: 294), viz. in the ins.sg.f. *xraoždiiēhiia* (Y 9.14, Yt 19.81) < PIr. **xrauždīahiHā* < Ir. **krauśdīasiHaH*; cf. OAv. *vahehiā*.

When the suffix *-iiā-* has contracted to *-ī-* in the acc.sg., it is impossible to prove the disyllabicity of the suffix, since **-ahī-* would retain **h* anyway. Thus, we must put aside the evidence of the following compounds of which the formation and meaning suggest the suffix sequence **-ah-ijā-*: V 5, 8.9 *māzdrājahīm* ‘the length of month’ < **mās-drājahiā-*; V 1.7 *vīmanō.hīm*, acc.sg. of **vī-manahiia-* ‘discord’, derived from **vī-manah-* ‘doubt’ which appears in MoP *gumān* ‘doubt’.

The etymology of V 21.17 *aiiehiā-*, a female *daēva*, is unknown.

For two YAv. forms, the exact formation type is unclear:

- The adj. *pañcō.hiia-* ‘of five species’ must be derived from *pañca* ‘five’, but its exact origin is unclear. Bartholomae 1904: 847 suspects *hiia-* to be the compound form of a noun *haiia-* ‘species’ attested in the Vīdēvdād, but this seems unlikely: we would expect *pañcō.haiia-*. It seems possible to take Av.

**pañtahua-* ‘a fifth’ as a starting point, and to surmise that this noun yielded a stem **pancah-* ‘five-fold’ by metanalysis (compare *biš* ‘twice’, *θriš* ‘thrice’). By means of adding the suffix *-*īia-*, a stem **pancah-īia-* ‘of five species’ could have been formed, whence with wrong split into two compound members (cf. § 22.5.2, e.g. *vīmanō.hīm*) *pancō.hīia-*.

• V 8.83 *saire.hīia-* ‘(pile of) reeds’ < **sarīahīa-* seems to belong to V 8.8 *sairīia-*, but a noun **sairīiah-* is unattested. *Saire.hīia-* is explained as an ‘instrument for dunging’, and related to V 8.8 *sairīia-* ‘dung’ by Bartholomae 1904: 1565 and 1567. Yet these translations are based on the surface resemblance with MP *sargēn* ‘dung, manure’, a meaning which does not make sense in the context. Firstly, compare V 8.8 *auua hē gātūm baraiīan ātrīiehe vā sairīiehe vā* ‘they shall provide it [viz. the corpse] with a pile of ashes or *sairīia-*’; it does not seem obvious that they would lay the corpse on a pile of dung. Secondly, V 8.83 is the first in a number of verses (8.83-96) which describe the origin of the fire with which the funeral pile is lit. The different fireplaces and ovens from which the fire is taken appear in the abl.sg.: 8.84 *xumbat̄ haca zəmaini.pacikāt̄* ‘from a kiln’, 8.85 *xumbat̄ haca yāmō.pacikāt̄* ‘from a glass furnace’, 8.87 *pisrat̄ haca zaraniīō.saēpāt̄* ‘from a goldsmithery’, etc. It seems strange that 8.83 *saire.hīiat̄ haca* would open this series with ‘from a dunging instrument’, because that does not seem an obvious place to get fire from.

In V 8.83, *saire.hīiat̄ haca* is rendered by Phl. *sl’s-c*, which may simply be a mechanical transcription /*sarāh-az*/ of the Avestan words, without any historical value. Yet in V 8.8, the PTr. translates *sairīia-* with *sag* ‘stone’ (Jamasp 1907: 303), which must be either a correct translation of the Avestan word, or reflect the interpretation of the MP priests of the text: ‘they shall provide it with a pile of ashes or stone’; this at least seems more natural than ‘dung’.

We are now free to look for an etymology for *sairīia-*. It seems obvious to connect Skt. *śārya-* ‘arrow’, in the pl. ‘wicker-work (of the Soma-sieve)’, occurring in the RV; compare also *śarā-* ‘kind of reed or grass’. In V 8.8, the corpse would then be laid on a pile of ‘ashes or reeds’, which seems natural; in V 8.83, the *saire.hīia-* may well be the simplest kind of fire-place, a pile of reeds.

In OAv., PTr. *-*hī-* has two reflexes. The reflex *-hīi-* is found in the thematic gen.sg. ending *-ahīiā*, the pronoun gen.sg. *ahīiā*, the nom.acc.sg.n. *vahīiō* ‘better’, the 3s. verb form *srāuuahīieitī* ‘seeks glory’ and in Y 53.6 *manahīm*, acc.sg.m. of **manahīia-* ‘spiritual’; however, this last form may be irrelevant because it may have had *-ī-* at the time of the sound change **hī* > *xi*.

Word-internal *xii* appears in forms in **-ā* to which *-cā* ‘and’ was added, viz. in the gen.sg. ending *-axiiācā* (which can be nicely contrasted with unextended *-ahiiā*) and in the nom.pl.m. *zaxiiācā*. Furthermore, *-xii-* appears in front of non-final *-ā-* in the forms *nəmaxiiāmahī* and *saxiiāt*, and in the ending *-āi* in the dat.sg. forms *xʷaxiiāi*, *axiiāi*, *manaxiiācā*, *auuaxiiāi* and *ʳafənō.xiiāi*. In front of *-ā̄*, we find *xii* in the gen.sg.f. *xʷaxiiā̄*, *maxiiā̄*, *ʃβaxiiā̄* (of *xʷa-* ‘own’, *ʃβa-* ‘your’, *ma-* ‘my’), and in the acc.pl.n. *vaxiiā̄* of *vahiiāh-* (compare *vahiiō*). In fact, the final sequences *†-hiiāi* or *†-hiiā̄* do not exist in OAv. Therefore, it is uncertain whether the contrast between gen.sg. *-ahiiā* and *-axiiācā* is due to the addition of *-cā*, as is commonly assumed, or rather to the kind of vowel following after **hī*.

The sequence *-xii-* also appears in the case forms acc.sg. *daxiiūm*, gen.sg. *daxiiūuš* and gen.pl. *daxiiunəm* of **dahiu-* ‘country’. It is possible to explain these from a phonetic development if we assume that the vowels *-ā-* and *-ū-* have the same effect as non-final *-ā-* and final *-ā̄*; but it is also possible that OAv. **dahiu-* simply shared the development of **hī* > **xi* which took place in YAv.

It has been suggested by some scholars that the OAv. contrast of *-hii-* vs. *-xii-* might be due to the IIr. accent, viz. that **-hī-* became *-xii-* if immediately followed by a stressed syllable. This possibility was positively reviewed by Beekes 1988: 56 and Hoffmann-Forssman 1996: 107, but as we can see, the evidence shows just as many counterexamples as there are forms in favour of the stress rule. For instance, among the forms with *-hii-*, the gen.sg. *-ahiiā* will have been differently accented according to the accentuation of the noun; *vahiiāh-* (Skt. *váśyas-*) points to an accent before **sī*; but **crauašiatī* and probably also **manasía-* would have had final stress.

The contrast between *-ahiiā* and *-axiiācā* does point to some kind of accentual or rhythmical cause, but it will have been a much more recent phenomenon than has hitherto been assumed. For an explanation, see § 28.5.

The form Y 58.4 *ašaṅhācā* (thus in Geldner’s edition) was corrected to *ašaṅhācā*, the spelling of Pt4, by Bartholomae 1904: 241, who regards it as a gen.sg. of *aša-*, i.e. **ašahja-ca*. Yet it is unclear how this would have yielded *ašaṅhācā*: the expected OAv. form would be *†ašaxiiācā*, whereas a YAv. form, if it had intruded in the OAv. text, would be *†ašaheca*. It is unlikely that an original OAv. form **ašaxiiācā* would have been ‘modernized’ by means of replacing *-hii-* by *-ṅh-*. Therefore, it seems possible that *ašaṅhācā* is a form of *aša-ṅhac-* ‘accompanied by Aša’ (attested in Y 41.3 and 56.3) after all. If we assume that final *-ā* of *ašaṅhācā* is due to assimilation to the surrounding words in *-cā*, we may assume a gen.sg. **ašaṅhācō*:

hē ptā gēušcā[̇] aṣarḥācō aṣaonascā aṣāuuairiūāscā stōiš ‘he is the father of the cow which is accompanied by Aṣa, and of the believer (*aṣaualan*) and of the righteous creation’.

§ 28.4 *-hu- > -huu-, -x^v- and -ḡ^h-

In YAv., the regular reflex of *-*hūā*- is -ḡ^h-, e.g. in *x^varənaḡ^hhant-* < **x^varnah^hant-*, *yāsaḡ^hha* < **yasah^hya*, etc. Of the exceptions showing -x^v-, compounds such as *aṣax^vāṭra-* < *aṣa* + *x^vāṭra-*, *ax^varəta-* ‘un-grasped’ and *ax^vafna-* ‘sleepless’ are irrelevant because -x^v- only acquired its intervocalic position very recently: we are really dealing with the reflex of initial **hū*-. The same may be true of *kax^varəda-* ‘certain kind of daevic person’, which probably contains the pejorative prefix *ka-* (Bartholomae 1904: 462).

In view of the absence of nasalization of **h* in the sequence *-*hū*- (*daxiiu-* etc.), we might expect PIr. *-*hū*- to yield †-x^v- for reasons of symmetry. However, we always find a nasalized reflex in the only relevant set of forms, viz. in the paradigm of the feminine **vahu-* ‘good’: nom.sg. *vaḡ^hhi*, acc.sg. *vaḡ^hhīm*, etc. It is thus impossible to decide whether *vaḡ^hhī-* is the result of the analogical introduction of -ḡ^h- in **vahū*- on the model of *vaḡ^hhu-*, or rather shows the phonetic outcome of *-*hū*- in front of *-*ī*-.

Only YAv. *aš.xrāx^vanutəmq* (Y 13.3, Vr 3.5) and *harax^vaitīm* (V 1.12) have not participated in the change of **hū* > ḡ^h. Since *aš.xrāx^vanutəma-* has no etymology, and since the river *harax^vaitī-* is a geographic name, it is quite possible that both words were not part of the (Early) YAv. vocabulary when the sound law **hū* > ḡ^h took place. The name *harax^vaitī-* could be a loan word from another Iranian language in the form **harah^hatī-*, after the YAv. change of **hū* > ḡ^h had been completed. This does not imply that other lexemes with -x^v-, especially such that are found in OAv. texts, must be due to an alleged Arachosian dialectal pronunciation, as was claimed e.g. by Hoffmann-Forssman 1996: 107.

The standard OAv. reflex is -*huu*-. The evidence comprises the forms *ahuuā* ‘we two are’ (uncertain), *ahuuāhū*, loc.pl. of *ahuuā*- ‘life, mind’ (YAv. *aḡ^hhā-*), *ahuuā*, gen.du. of *ahu-* ‘life’, and the 2s. ipv.med. forms *gūšahuuā*, *dāhuuā* and *°baxšō.huuā* (YAv. -*aḡ^hha*). It is uncertain whether the compound *miṭ^hahuuacah-* < **miṭ^hah-uacah-* (cf. § 22) also provides reliable evidence for the development of **hū*-. Although it did not undergo the RCS (which would have yielded †*miṭ^hō.vacā*), it is still possible that the sequence *°uuacā* was retained by the transmitters because of the following compound *ərəš.vacā*: *miṭ^hahuuacā vā ərəš.vacā vā*. I exclude the three adj. *aojōṅghuuant-*,

cazdōnghuuant- and *raocōṛghuuant-* (cf. § 22.5.4), because they may already have had the shape *-ōṛghuuant-* at the time of the (post-RCS) change **-Vh_uV- > -Vx^vV-*.

Intervocalic *-x^v-* is shown by three OAv. forms, viz. *sax^vārē*, *sāx^vēnī* and *nəmax^vaitīš* (all 1x). The reflex *-x^v-* < **-huu-* is comparable to OAv. *-xii-* < **-hii-*.

Since it has sometimes been claimed that OAv. *xii* must be due to an immediately following accent (but see above), it might be suggested that *x^v* instead of *huu* was also due to the accent (cf. Beekes 1988: 69). However, the evidence is too scanty, and also contradictory. For *sāx^vēnī* and *sax^vārē*, a Plr. accentuation **sāhuánī* and **sahuár* is quite possible, but simply unknown; for *nəmax^vaitīš* this seems to be contradicted by Skt. *nāmasvant-*, although this could be a recent accentuation.

§ 28.5 Summary

The different reflexes of **hi* and **hu* in OAv. and YAv. can be summarized as follows:

PAv.	OAv.	YAv.
<i>*h_i-</i>	<i>xii-</i> / <i>-ē-</i> , <i>-ā-</i> , <i>-ā̇</i> <i>hii-</i> : <i>hiiat</i>	<i>xii-</i> : <i>xiiiona-</i> <i>hii-</i> : <i>hiiāt, hiiqn, hiiārē</i>
<i>*h_u-</i>	<i>x^v-</i>	1. <i>x^v-</i> 2. <i>huu-</i> / <i>-*u</i> 3. <i>huu-</i> (<i>u</i> restored)
<i>*-h_i-</i>	1. <i>-hii-</i> / <i>-ā-</i> , <i>-ō-</i> , <i>-e-</i> 2. <i>-xii-</i> / <i>-ācā-</i> , <i>-āi-</i> , <i>-ā̇-</i> , <i>-ē-</i> , <i>-ū-</i>	1. <i>-ŷh-</i> / <i>-ā̇</i> 2. <i>-xii-</i> / <i>-ū̇</i> (3. <i>-hii-</i> < <i>*-hiH-</i>)
<i>*-h_u-</i>	1. <i>-huu-</i> / <i>-ā-</i> , <i>-ā̇-</i> , <i>-āhū-</i> ; <i>-acā̇?</i> 2. <i>-x^v-</i> / <i>-ārē-</i> , <i>-ēnī-</i> , <i>-aitīš</i>	1. <i>-ŷ^h-</i> / <i>-ā̇</i> 2. <i>-x^v-</i> (2x)

In anlaut, the more usual changes are **h_i- > xii-* and **h_u- > x^v-*. We may assume that these represent one single change, viz. a ‘strengthening’ of **h > x* in front of **i* and **u*. The fact that OAv. and YAv. are equally affected suggests that the rise of *x* is due to the pronunciation of the post-YAv. text transmitters. We can date **h > x* to the period after the RCS, because the

YAv. forms which restored syllabic *hu-* during the RCS (especially compounds in **hu-* ‘good’ and the gen.sg. *hū* ‘of the sun’) escaped the change to *x^v*. In OAv., the forms *x^vḡng* and *x^vḡnuuąnt-* suggest that **huu-* (< **huH-*) had also become **hu-* before the change **h* > *x*; but the sequence **huu-* had apparently been restored in the nom.acc.sg. *huuarē*.

YAv. shows only one form with the reflex *xii-*, viz. *xīiaona-*, against three forms of the prs.opt. of *ah-*, which have the reflex *hii-*. I see no way around the assumption that these opt. forms have secondarily changed **i* into syllabic **ii*, although the reason why is unclear. This replacement might have taken place at quite an early stage; in any case, it is unlikely to be dated to the period after YAv. had ceased to be a living language.

In intervocalic position, the first relevant changes were YAv. **hi* > *ḡh* and **hu* > *ḡ^hh* between *ā*-vowels. It seems most economical to suppose that this change was contemporary with single **h* > *-ḡh-* between *ā*-vowels. This nasalization of **h* must post-date the YAv. change of word-final **-hja* > *-he* which we have discussed in § 20.2.

Unlike *-ḡh-* and *-ḡ^hh-*, *-ḡh-* is also regularly present in all relevant OAv. forms. This is due to the fact that the nasalization of **h* took place in Early YAv., and that *-ḡh-* was subsequently introduced into OAv. during the canonization of OAv. In front of *-ā-*, there was no intervocalic **h* left in YAv., so that every OAv. sequence *-āhā-* was automatically replaced by *-āḡhā-*. In front of *ī* and *ū*, however, *h* still occurred in YAv., so that OAv. *-h-* remained unchanged in this position. This is how the correspondences of OAv. **-hi-* to YAv. *-ḡh-* and of OAv. **-hu-* to YAv. *-ḡ^hh-* originated. Some exceptions arose afterwards, when OAv. *-h-* was replaced in some forms by *-ḡh-* if the corresponding YAv. word possessed *-ḡh-*, as in *vaḡhu-* ‘good’ and *aḡhu-* ‘life’ (in which *-ḡh-* had been analogically introduced for **-h-* in YAv.). The same analogical replacement gave rise to the OAv. *uant-*derivatives of *ah-*stems such as OAv. *aojōḡhhuuąnt-* (see § 22.5.4), which do not have *-ḡ^hh-* but *-ḡh-* + *-u-*.

In Early YAv., the sequence **-hi-* was retained in front of **-ū-*, eventually yielding *-xii-* in both OAv. and YAv. The sequence **-hu-* was rare or inexistant in YAv. after the nasalization of **h*, but two forms with **-hu-* did enter the language at a later stage, probably as loan words: *aš.xrāx^vanutəma-* and *harax^vaitt-*.

OAv. contained a number of forms in which **hi* and **hu* had been preserved unchanged. Both sequences have a twofold reflex, viz. *hii* and *xii* in the case of **hi* and *huu* and *x^v* in the case of **hu*. We have already established that the reflexes *xii-* and *x^v* in anlaut have developed in front of non-syllabic [*i*] and [*u*], whereas *hii-* and *huu-* must be due to the syllabic

pronunciation of *ii* and *uu*. If we apply this knowledge to the distribution in inlaut, it might be significant that OAv. *hii* and *huu* are mostly (but not exclusively) found in open final syllable (-*ahiiā*, *ahiiā*, *vahiiō*; *ahuuā*, *ahuuā̃*, -*ahuuā*), whereas *xii* and *x^v* are mainly found in closed final syllable or in non-final syllable (-*axiiācā*, -*xiiāi*, -*xiiāt*; *nəmax^vaitiš*, *sax^vārē*, *sāx^vēnī*); an exception is -*xiiā̃*. Thus, the distribution of -*xii*- vs. -*hii*- and of -*x^v*- vs. -*huu*- is not completely complementary, but we might interpret it along the same lines as the distribution in anlaut: non-syllabic glide yielded *xii* and *x^v*, syllabic *ii* and *uu* yielded *hii* and *huu*. It seems likely that syllabic pronunciation tended to be preserved (or introduced?) especially in shorter forms and in open syllables; however, some of the details of the OAv. distribution in front of different vowels remain unclear (e.g. -*xii*- but -*huu*- in front of -*ā̃*).

Finally, there is a relatively large number of YAv. stems showing the sequence -*hiiā*-. It is likely that these stems contained (or, for a part of them, introduced) linguistically real *-*ija*- (< Ir. *-*iHa*-), which means that the input sequence for **h_i > ĵh* was absent.

We may now provide the following relative chronology of phonetic changes applying to **h_i* and **h_u*:

Early YAv.

1. **-h_ia > -he*.
2. **-ā_hā̃- > *-ā_{ĵh}ā̃-*, **-ā_hiā̃- > *-ā_{ĵh}iā̃-*, **-ā_huā̃- > *-ā_{ĵh}uā̃-*.

Post-YAv., after the RCS

1. **h_u > x^v*, except / *__u*.
- *h_i > xⁱ*.
2. **i > ii*, **u > uu*.

§ 29 The reflex of **rp*, **rt*, **rk*

The IIr. sequences **rp*, **arp*, **rt*, **art*, **rk* and **ark* have a twofold reflex in Avestan: one group displays the forms *arəp*, *arp*, *arət*, *art*, *arək* and *ark* respectively, whereas the other group has *ahrp*, *ahrp*, *aš*, *aš*, *ahrk* and *ahrk*. The complete evidence will be discussed below.

Following Bartholomae's first discussion of this alternation (1886: 35-53), it is commonly supposed that the second group of reflexes must phonetically be interpreted as having (had) a voiceless variant of **r* or **r̥*, which is indicated in the Avestan script by the spelling *hr* in front of *p* and *k*, but which yields a grapheme *š* in the case of **rt* and **rt̥*.

Bartholomae explained this double reflex from the accentuation of the preforms. From a comparison with related Skt. forms, he concluded that original ictus immediately in front of **r̥* yielded the forms with a voiceless vibrant, whereas preforms in which a different syllable was accented yielded the forms *arəp*, *arp*, etc. For the sake of brevity, Bartholomae's theory shall be referred to in the following discussion as VOR (Voicing Opposition on **r*).

VOR has been accepted by all subsequent scholars, but only Beekes 1988: 56ff. has tried to provide a discussion of the complete Avestan evidence for and against it. We learn a few important points from his discussion.

Firstly, he argues that the development of different reflexes due to VOR may well belong to the post-OAv. period. This means that "in the time of the Gāthās (...) the development was probably still entirely automatic, i.e. dependent on the accent." As we shall see below (§ 29.7), it can even be disputed whether VOR existed in OAv. at all.

Furthermore, Beekes warns that compounds are less useful for checking VOR, partly because their forms may have been influenced by simplexes and partly because they date from post-IIr. times, and there is no Sanskrit counterpart to compare them with.

Nevertheless, Beekes concludes that "the place of stress agreed in great lines with that of Sanskrit", although of course some unexplained exceptions remain. While Beekes has investigated the evidence according to word-classes (nouns in *-ta-*, nouns in *-ti-*, determinative compounds, possessive compounds), which enables him to group words with the same expected accentuation together, we shall discuss the relevant forms per Avestan grapheme. This entails a more philological approach to the matter, in line with the framework of this book.

In order not to overburden the discussion with hypotheses, we shall assume that one stem with one meaning generally retained the stress on the same syllable. Contrary to this, Bartholomae 1894-95: 168 expects paradigmatic accent change to be reflected in the Avestan forms. He explains

the acc.sg. *kəhrpəm* beside *kəṛəfəmca* from an (inner-Avestan) accent change in front of *-ca*. Yet *kəṛəfəmca* must be explained differently (§ 29.1), and counterexamples such as *kəhrpəmca* or the pair *vəhrkō - vəhrkəmca* show that either paradigmatic accent change was absent or its influence had been nullified before the operation of VOR. Bartholomae's conclusion that the ins.sg. *kəhrpa* (**kṛpá*) would show that it has received the accentuation from e.g. the acc.sg. *kəhrpəm* (**kṛpam*) is therefore invalid, just like the claim (1904: 1419) that *vəhrkəmca* should "streng lautgesetzlich" have been †*vəṛəkəmca*. Whereas positive evidence (*marəka-* versus *mahrka-*) can be taken as an indication that Avestan had a distinctive accent, the absence of such evidence cannot be used to argue for the absence of the phenomenon altogether.

If we assume Avestan to have retained the Ir. state of acentuation more or less faithfully, we must try to reconstruct this state. In order to do so, our main source of information on the accentuation of the different word classes is the accentuation of Sanskrit. It is important to realize that Sanskrit may have undergone accent shifts in the period between the split of Indo-Aryan and Iranian, just like Avestan may have changed the accentuation of words and word-classes. Apparent disagreement between the accentuation of Sanskrit and the reflex of **r* in Avestan need not imply that VOR should be abandoned.

We shall operate with the following assumptions (cf. Beekes 1988): verbal adjectives in *-ta-* were for the larger part oxytone and had the zero-grade of the root; their accent has sometimes been shifted towards the root in the case of substantivization, often in combination with the introduction of the full-grade of the root. Nouns in *-ti-*, as far as they show the zero grade of the root, are also oxytone as a rule. Agent nouns in *-tar-* < PIE **-ter-/tor-* take the full grade of the root and could be either barytone or oxytone in PIE, depending on their meaning. Tichy 1995: 375 reconstructs an Ir. paradigm nom.sg. **dātā*, acc.sg. **dātāram*, gen.sg. **dātṛš* for the former type, and nom.sg. **dātā́*, acc.sg. **dātā́ram*, gen.sg. **dātṛás* for the latter type. The PIE and Ir. difference of function which accompanied this accentual difference is still preserved fairly faithfully in Vedic, as has been shown by Tichy 1995. She describes the function of the barytone *tar*-nouns in Skt. as 'general', whereas the oxytone nouns have a 'situative' function. The type *dātār-* may indicate the habitual agent of an action, or the agent who has the action of the verb as a lasting and characteristic quality. The type *dātár-* may indicate the potential agent (e.g. 'there is no one who could perform action X'), the current agent of the moment of speech, or the occasional, incidental agent of an action.

In (Y)Av., a number of nouns in *-tar-* occur with the zero grade of the root, e.g. *yūxtar-* and *aiβišastar-*. I follow Tichy 1995: 45, who explains these forms as Avestan innovations based on analogy with other nominal derivatives from the same root, especially with abstract nouns in *-ti-* and verbal adj. in *-ta-*. As for the accent, Tichy 1995: 44f. hints at the possibility that the Avestan nouns in *-tar-* to roots of the structure *Car-* may confirm the Vedic evidence, but a comprehensive survey of the evidence will be given below.

For other simplex formations, the accent rules are less general and we must compare every word separately with the Sanskrit forms. Note that in the case of an original mobile accent paradigm, Avestan may have generalized one or the other type of accentuation.

The accentual evidence of compounds is inferior to that of simplexes (Lubotsky 1988: 26). As Beekes (1988: 67) remarks, "the general rules of Sanskrit are complicated and show many exceptions. Therefore a strict argumentation is often impossible." Nevertheless, so many of the relevant Avestan forms are only attested in compounds that we must try to establish the main features of compound accentuation which might go back to Ilr.

Bahuvrīhis (possessive compounds) as a rule stress the first member, mostly on the same syllable as the simplex (Wackernagel 1905: 291). However, when the first member is *a(n)-*, *su-*, *duš-*, or a disyllable in *-í*, *-ú*, *-ř* or **-ř*, the second member of the compound is accented.

Verbal governing compounds bear the accent on their first member in Skt. (Wackernagel 1905: 315).

In determinative compounds, the first member was originally accented if the second member was a verbal noun or adjective in *-ta-* or *-ti-* (Wackernagel 1905: 214). The second member is accented in the case of most other second members, including root nouns in *-t-*; compounds with as a first member *a(n)-* have the accent on this morpheme (Wackernagel 1905: 215). Compounds in *su-* or *duš-* are paroxytona. When the second member is a noun in *-tar-*, Sanskrit has the accent on this suffix if the simplex was oxytone, but on the preverb if it was barytone. Thus, we expect the root syllable of a noun in *-tar-* to have been unaccented in any determinative compound. When such a cpd. ends in a different noun, the accent will be on the preverbs *a(n)-*, *su-*, *pra-* or *vi-*, but with other first members the second member is accented, usually on the last syllable (Wackernagel 1905: 266ff.).

Finite verb forms of stems in *-ar* will be excluded from the discussion. In the first place, the number of forms with a relevant preform is very small: it concerns OAv. *dərətā*, *bərətqm*, *frauarətā*, *varətā*, *barətū* (?) and maybe F

602 *carətaqm*. More importantly, the possibilities for analogical restoration of the voiced variant are too large to allow any conclusions about VOR.

§ 29.1 *r̥p

a. The unaccented reflex -ərəp-

The PN *ātərəpāta-* ‘protected by Ātar’ agrees with the reconstruction **ātr̥-pāta-*. The reflex -ərə- shows that *r̥ in this word is treated as any *r̥ in inlaut, since word-final *r̥ would give -arə.

The adjective *hukərəpta-* ‘well-shaped’ and its superlative *hukərəptəma-* (Y 1.1, Y 26.2) were regarded as cognates of Skt. [AV+] *kl̥ptá-* ‘put in order’ by Bartholomae 1904: 1818, but the total absence of verbal cognates of Skt. *kalp-* in Iranian casts serious doubts on this etymology. It is now assumed (see especially Kellens 1974a: 349 and EWAia I: 324) that *hukərəpta-* was formed as a denominative to the root noun compound **huk̥r̥p-* ‘well-shaped’, which is attested in the nom.sg. *hukərəfš*. The suffix -*ta-* would thus be the same as the one used for deriving *patarəta-* from *patar-* and *fratacarəta-* from *tacar-*. In Sanskrit, such formations usually retain the accentuation of the derivational basis, but since the suffix seems to be productive in Avestan, it cannot be excluded that it became accented.

The form *gərəpta-* ‘grabbed’ from Ilr. **gr̥b^hHtá-* is attested as a simplex and in compounds⁷²⁵. Even if the cpds. seem to correspond to their expected accentuation (**úz-gr̥pta-*, **p̥ř̥ θu-uzgr̥pta-*), they cannot be used as evidence since they may have adopted the simplex form. The stem *gərəptaiia-* ‘to grab’ is only attested in the very recent Vaēdā Nask; it seems to have been secondarily derived from *gərəpta-*, and to have replaced usual Avestan *gəuruuāiia-*.

The etymology of Yt 19.2 *fraorəpa-* ‘mountain’ (vel sim.) is quite uncertain, cf. Hintze 1994: 73, but a mechanical reconstruction leads to **fra-ur̥pa-*, which could well be a determinative compound in **prá-*.

b. The accented reflex -əhrp-

The root noun *kəhrp-* f. ‘shape, body’ must have had root accent at least in the monosyllabic nom.sg. **k̥r̥fš*. Skt. attests only an ins.sg. *k̥r̥pā*.

⁷²⁵ Viz. *auua.gərəpta-*, **auui.gərəpta-*, *āgərəpta-*, *uzgərəpta-*, *nīgərəpta-*, *vīgərəpta-*, *uzgərəptō.drafša-*, *pərəθu.uzgərəpta-*.

Bartholomae 1894-95: 168 and 1904: 469 assumes that the acc.sg. F 212 *kərafəmca* represents **kərapəmca*, without *-h-* because it has undergone an accent shift of one syllable to the right due to the suffixing of *-ca*. Yet the form *kərafəmca* must probably be interpreted differently. The usual PTr. of *kəhrp-* is *klp /kirb/* ‘body, form’. The PTr. *BSLY’ /gōšt/* ‘meat’ in F 212 indicates that a different word is meant, which is why Kellens 1975b: 468 regards *-f-* as original. He assumes **kərafim* < **kərafīiam*, from a stem **kṛpīia-* ‘meat’. The word would thus be irrelevant for our present purpose, since it has **r* in front of *f*. The expected acc.sg. of *kəhrp-* is attested as *kəhrpəmca* in V 21.6.

The compounds *aspō.kəhrpa-*, *tanu.kəhrp(a)-* and *maxši.kəhrpa-* ‘having the form of a horse, — of a body, — of a fly’, if they were old, would have had the stress on the first member. It seems safest to assume with Beekes 1988: 65 that the form *kəhrpa-* in these words stems from the simplex.

The compound *stəhrpaēsah-* ‘adorned with stars’ can represent an Ir. formation **Hstf-paićas-*, like **uićuá-paićas-* ‘having everything as an ornament’ which is attested in Skt. *viśvá-peśas-* and Av. *vīspō.paēsah-*.

§ 29.2 *arp

a. The unaccented reflex *-arp-*

Y 53.9 *narəpīš* ‘decline’ has no etymology. Beekes 1988: 61 assumes that it reflects the suffixal accent which neuters in *-iš* usually have in Sanskrit. However, we have argued in § 9.4 that *narəpīš* most probably represents the nom.sg. of a stem *narəpī-* ‘lack of light’. If we compare the oxytone accentuation of the Skt. type *vṛkīh*, *narəpī-* may still fit VOR.

The noun *karapan-* is shown by the Gāthīc metre to count as disyllabic */karpan-/*. It was connected with Skt. *kālpa-* ‘ritus’ by Bartholomae 1904: 454-5, from which we can now derive it satisfactorily by means of the individualizing suffix **-h,n-* as **kalpa-Hn-* (cf. Hintze 1994: 164 with references)⁷²⁶. The paradigm nom.sg. *karapā* (2x in OAv.), nom.pl. *karapanō* (3x in OAv.; YAv. only in Yt 4.7, FrW 2.2), gen.pl. *karafnəmca* (YAv.) accords well with that of Av. *marətan-* ‘mortal’ (nom.sg. *marəta*,

⁷²⁶ An alternative etymology would be a connection with Ir. **kṛpaka-* ‘pious’ as in MP, Pth. *kyrbg*, and with Av. *kəhrpa-* ‘form’, i.e. **karpaHn-* ‘he who observes the (right) form’.

gen.sg. *marəθnō*; cf. Hoffmann 1955) and suggests an originally mobile paradigm **kárpān*, **karfnás*, cf. already Beekes 1988: 61.

For some reason, original **karəpan-* was changed to *karapan-* in the history of our texts. If this has occurred before VOR, the noun *karapan-* would be irrelevant for the present discussion. If the change occurred after VOR, we would need to assume that the nom.sg. **kárpā(n)* adopted the accentuation or at least the voiced variant *kar-* of the oblique cases. The OAv. noun *karapōtāt-* /*karpatāt-*/ ‘karpan-hood’ would fit the usual presuffixal accentuation of these nouns in Skt.: **karpātāt-*.

b. The accented reflex *-ahrp-*

V 14.5 *kahrpuna-* is the name of a daevic animal. It may be compared with Khwar. *krbwn* ‘lizard’ and V 14.5 PTr. *krpnk* /*karbunay*/, glossed by Pahl. *krb’š* /*karbāš*/ ‘lizard’. As I have argued in De Vaan 2000c: 284, **karp-una-* may be analyzed as a stem **kárp-* (maybe ‘frog’), and a suffix **-una-* comparable to the Skt. suffix *-una-* (Wackernagel-Debrunner 1954: 485), which is also used in animal names. We cannot say anything about the accentuation.

§ 29.3 **rt*

a. The unaccented reflex *-ərət-*

The athematic formation in the cpd. *ratuš.mərət-* ‘who memorizes the rules’ (cf. Kellens 1974a: 143f.) would originally have accented the second member. It has already been observed by Bartholomae 1886: 50 that determinative compounds with a root noun in **-rt* as their second member never develop the accented reflex *-əš* in Avestan. This is true not only of inflected root nouns, for which one may invoke the accentuation of the oblique cases to explain the unaccented reflex, e.g. gen.sg. **smrtás*, but it can equally be observed in the isolated form *hakərət* ‘once’, which corresponds to Skt. *sakṛt*. In fact, the letter <š> never occurs in auslaut. This obviously has a phonetic motivation: probably, *-t* in auslaut had already developed into the specific sound *-t̥* before **-rt-* developed into (the precursor of) *š*; cf. Bartholomae loc.cit.

This has its consequences for a few other forms. Stem-final *-t* appears in the compound *yāskərət-* ‘request-maker’, a *t*-extension to the root *kar-* ‘to make’, and can be reconstructed for the thematicized root nouns to *kart-* ‘to cut’, viz. *gərəδō.kərətā-* ‘who cuts the gall-bladder’, *zərəδō.kərətā-* ‘who cuts

the heart' and *nasu(m).kərətā*⁷²⁷ 'who cuts corpses'. It also appears in Vr 2.5 **spəntəm.ārmaitīm.dərətəm* (thus for attested *darətəm* acc. to Kellens 1974a: 132) 'who supports Spəntā Ārmaitī' to *dar-* 'to hold', and in the root noun *bərət*⁷²⁸ to *bar-* 'to bring', finally also in *pərət-* 'combat' to *part-*. The reflex *-ərət-* in these forms receives the same explanation as in *hakərət*.

The noun *pərātu-* 'gangway, passage; ford; bridge' occurs in both OAv. and YAv., but YAv. also displays the form *pəšū-*, showing the treatment of **rt* in accented position. The alternation in the simplex can be interpreted in agreement with the difference between OAv. and YAv. language, assuming with Beekes 1988: 60 that *pərātu-* was the OAv. form, which was adopted in some of the YAv. contexts, while *pəšū-* was the genuine YAv. form.

As for the accent, two possibilities present themselves. The first one is to assume that the IE ablaut of this noun (nom.sg. **pértus*, gen.sg. *prtúés*, cf. Hoffmann 1992: 845) is reflected in OAv. oxytone **prtú-* on the one hand, but YAv. barytone **přtu-* on the other. This does not necessarily entail an accent shift from OAv. to YAv., but can be seen as a different simplification of the Plr. system, cf. the OAv. acc.pl. *pərətūš* against YAv. *pərəθβō*. It would seem strange, however, that two dialects so close would both opt for the generalization of the zero-grade of the root, but maintain a different accentuation.

The second possibility, and this is the option Beekes prefers, is to assume that the development of **řt* to *-əš-* was of YAv. date, while OAv. *pərātu-* reflects a preform not influenced by the accent. In view of the elegant explanation it would give for *pərātu-/pəšū-*, this solution is preferable. For other forms pointing in this direction, see the conclusions in § 29.7 below.

The context in which YAv. *pərātu-* occurs, supports the assumption that *pərātu-* is due to Gāthic influence. The expression YAv. *tarō cinuuatō pərətūm* (in Y 71.16, V 19.30, Vr 7.1) has been shaped on the model of Y 46.11 *cinuuatō pərətūš*, cf. the literal mentioning of the *uštāuuaitīm gāθqm*

⁷²⁷ It seems uncertain whether F 364 *ātərəkərətā* 'fire-maker' belongs here too. It is analyzed as the ins.sg. of a root noun *ātərəkərət-* by Klingenschmitt 1968: 121 and Kellens 1974a: 130, but formally a nom.sg. to a noun *ātərəkərətār-* cannot be excluded. Morphologically, this would be a better match among the surrounding nom.sg. priest names F 359 *aēθrapaitiš*, F 361 *arətō.kərəiθinō*, F 362 *ātərəvaxšō*, F 363 *ātərə.vaznō*, F 366 *ātərə.marəzanō*. The zero-grade *-kərət-* may be due to the preceding *ātərə-*, or it may reflect the replacement of the original full grade **kartar-* by the zero grade of e.g. the verbal adj. in *-ta-*, cf. Tichy 1995: 45.

⁷²⁸ Attested in *aš.bərət-*, *ābərət-*, *vaiiū.bərət-*, *vāstrō(-əm).bərət-*, *huš.hqm.bərət-*.

(= Y 43-46) in Y 71.16. Y 19.6 *tarō pərətūmciṭ* is probably linked with this *tarō cinuuatō pərətūm*. Finally, Yt 11.4 *apqm ... nāuuaiianqm paiti pərətūš* looks very much like Y 42.1 *apqmcā pərətūš*, and furthermore shows the proterodynamic acc.pl. ending *-ūš* against YAv. *pərəθβō* in V 2.30.

The compound *cinuuat.pərətu-* seems to be a YAv. remake of *cinuuatō pərətu-*; if old, the accentuation would have been **cinuat.pṛtú-*.

Contrary to *pərətu-*, the form *pəšū-* seems to be the regular YAv. form of the simplex (attested also in *pəšū.pā-*). It occurs together with *cinuuant-* only in Vyt 42 *tarō pəšūm ... yim cinuuatō*.

The form *mərəta-* ‘having died, dead’⁷²⁹ is synchronically the past ptc. to the root *mar-* ‘to die’, and its form suggests that the original oxytonesis (Skt. *mṛtá-*) has been retained. For the deviant form V 5.61 *məša-*, see below. The noun *amərətātāt-*, also *amərətāt-* with haplology, has no exact correspondence in Skt., but the usual accentuation of the *-a-* in that language (e.g. *sarvátāt-*) suggests that *amərətātāt-* can continue the corresponding accentuation **amṛtātāt-*.

Following *mərəta-*, we can group together the other past ptc. in *-ta-* from anit-roots in *-ar-*, which would have been unaccented both as uncompounded forms and as the second member of a determinative cpd. The forms in question are (°)*ərəta-* to *ar-* ‘to set in motion’, (°)*kərəta-* to *kar-* ‘to make’, (°)*dərəta-* to ¹*dar-* ‘to hold’, (°)*dərəta-* ‘harvested’ to ²*dar-* ‘to tear’, (°)*bərət-a-* to *bar-* ‘to bring’, *mərəta-*⁷³⁰ to ²(*s*)*mar-* ‘to notice, remind’, °*vərəta-* from ¹*var-* ‘to cover’, and (°)*stərəta-* to ²*star-* ‘to throw down’.

The possessive cpd. *apərətō.tanū-* can continue **áprta.tanū-* to *par-* ‘to give in exchange’. Hoffmann 1992: 855 regards the form *parətō.tanu-* in N 42 and V 7.52 PTr as a corruption of **pərətō.tanu-*, back-formed to *apərətō°*.

A regular reflex according to VOR is also shown by the *ti*-abstracts (**Cṛtí-*), whether as a simplex or as the second member of determinative compounds, viz. °*ərəiti-*⁷³¹ ‘movement’ to *ar-*, °*kərəiti-*, *āpərəiti-* ‘penance, reconciliation’ to *par-* ‘to give in exchange’, °*bərəiti-*, °*mərəiti-* to ¹*mar-* ‘to

⁷²⁹ In *mərəta-* and *auua.mərəta-*.

⁷³⁰ P 48 *framarəta-* ‘recited’ and N 22 *vacō.marəta-*, *manō.marəta-* seem to have a full grade against Skt. *smṛtá-*, but the texts of P and N present many textual corruptions of Avestan forms. The occurrence of *huframərəta-* in Vr 14.1 and 16.0 indicates that the compounds in question originally had **°mərəta-*.

⁷³¹ Viz. *frōrəiti-*, *frōrəiti-*, *paiti.ərəiti-*.

die', °mārāiti- 'remembrance' to ²mar- 'to notice, remember', fraorā(i)ti- to vart- 'to turn'⁷³² and °stārāiti- 'sinning' to ²star- 'to throw down, to sin'.

We find the original combination of difference of root ablaut, accent and function quite faithfully preserved in the agent nouns to bar- 'to bear'. The oxytone zero-grade form *b̄rtár- 'bearer' is shown by ābāratar- and frabāratar- 'bearer'; compare also MP *bwl't'l /burdār/* 'bearer' < *b̄rtār-. The fact that these oxytone nouns in Skt. do not retract the accent if a preverb is added (Wackernagel 1905: 218) indicates that the unaccented reflex of the root in °bāratar- cannot be due to an accented prefix. The barytone full grade form *bártar- was preserved with the specialized meaning of 'rider' in bāṣar- (Y 11.2), on which see § 29.4.

From the root part- 'to combat', we find the present stem pārata- in the forms pārātante, °pārataēve⁷³³, pārātata and pārātamna-, which can all agree with the accent of the Skt. type tudāti. The pf.ptc. pāpārātāna- will have had the accent on the reduplication syllable.

b. The accented reflex aṣ

The adj. amāṣa- 'immortal' agrees with the accentuation of Skt. amṛta-, although the latter deviates from expected *ámṛta-.

The adjective kāṣa- 'ready, made' could formally be analyzed as *k̄f-ta- to kar- 'to make' or as *k̄f-t-a- to kart- 'to cut'. We find kāṣa- used attributively to vastra- 'garment' in Yt 17.14 (quoted in F 279), and in V 21.3 baēṣaz(ii)a(.)kāṣa. While kāṣa- was, from Bartholomae 1904 onwards, regarded as a derivative to kar- 'to make', Kellens 1974a: 309 tried to explain V 21.3 baēṣaza.kāṣa- as a compound 'cutting the medicines', with °kāṣa- < *k̄f-t-a-, thematicization of a root noun *k̄rt- 'cutter'. The problem with this explanation is the occurrence of zārādō.kārata-, gārādō.kārata, nasu.kārata- and aipi.kārata-, which are clearly derived from kart-. These forms must be regarded as secondary thematicizations, but they show a different reflex of *k̄rta- than baēṣaza.kāṣa.

⁷³² Cf. Kellens 1974a: 64, Insler 1975: 167.

⁷³³ In Yt 19.46; v.ll. F1 *parax'āiḍe* · J10 *pārax'aiḍe*. There exists general agreement that *x'* is a scribal error for *t. If -āi- and -ai- indeed continue *-aē- rather than *-ōi-, °pārataēve would be the only thematic 2d. prs.ind.med. form preserving the expected outcome -aēve of the Ir. ending, rather than -ōiḍe which all the other forms have (cf. § 14.3.2). However, the spelling -ai- might have been influenced by *paiti*: Yt 19.46 *yahmi paiti pa/ārax'āiḍe spāntasca mainiūs aṣrasca* 'for which fought each other the beneficent spirit and the evil one.'

Therefore, the analysis given by Hoffmann 1992: 844f. seems preferable. He regards *kəṣa-* in V 21.3 as a separate word, which could be either a subst. ‘product’ or an adj. ‘ready’. In view of the clearly adjectival *kəṣa-* in Yt 17.14 *vastrāšca kəṣā bāmaniiuā* ‘and ready, splendid clothes’, V 21.3 may also have the adjective: *baešaza kəṣa* ‘ready medicines’. This could then represent the past ptc. of *kar-* **kṛta-*, which is distinct in accentuation from the regular ptc. *kəṛəta-*. According to Hoffmann, this difference points to a dissociation of the adj. **kṛta-* from the verbal paradigm.

The noun *pəṣu-* has already been discussed above: it continues YAv. **pṛtu-*. The simplex has been introduced into *pəṣu.pā-*.

Avestan has a noun *pəṣanā-* f. ‘battle, combat’ (later also n. *pəṣana-* and a m. PN *pəṣana-*) which corresponds to Skt. *pṛtanā-* f. The simplex has been introduced into the originally unaccented second member of the cpd. *vanat.pəṣana-* ‘winning the battle’. The noun *pəṣanā-* has furthermore given rise to a very recent denominative verb *pəṣana-* in V 4.49 (cf. Kellens 1984: 133).

An adjective *pəṣa-* ‘forfeit, fined’ acts as the first member of the poss. cpds. *pəṣō.tanū-* and *pəṣō.sāra-*. It can reflect the regular first member accentuation of a poss.cpd., but we would still expect an oxytone verbal adj. **pṛtā°*. Therefore, Hoffmann 1986: 170 = 1992: 844 assumes that we are dealing with a case of barytonesis due to the loss of a paradigmatic connection between the verb and the adj. For this special, legal meaning of *pəṣa-*, this seems quite acceptable.

c. Uncertain evidence

The form *məṣa-* ‘dead’ in V 5.61 conflicts with the usual form *məṛəta-* and has not received a satisfactory explanation yet. Although V 5.61 is its only attestation in a continuous text, the occurrence of F 482 *mustəməṣō* may support the linguistic reality of *məṣa-*. Klingenschmitt 1968: 147 argues that the PTr. *mwlt* ‘dead’ was originally the translation of *məṣō*, *mustəməṣō* being the result of a contamination by a scribe of **mustəm məṣō*.

Hoffmann 1986: 170 assumes that *məṣa-* reflects barytonesis of the verbal adjective, which was dissociated with its verbal root and came to be used as a normal adjective. His main argument is the use of *məṣa-* in V 5.61 in opposition to the adj. *juua-* ‘alive’, from which he infers that *məṣa-* in this passage means ‘dead’ rather than ‘having died’. But unfortunately, we find *məṛəta-* in V 5.36ff. used in exactly the same opposition to *juua-*. The meaning of *məṣa-* prevents the interpretation of this form as an ad-hoc back-formation to *aməṣa-* ‘immortal’, for such a formation would have to mean ‘mortal’ rather than ‘dead’.

The fact that V 5.61 *māṣa-* has the same meaning as the much more frequent *mārata-*, and occurs even in an identical passage, rules out the possibility that *māṣa-* reflects a linguistic reality different from *mṛtá-*. An accent shift due to the influence of **amf ta-* (such as Beekes 1988: 59 hesitatingly suggests) or a wrong word division of an original sequence **aṣauua amāṣasciṭ* can therefore be excluded. I can think of only one solution: the preform **mārtasciṭ* changed its voiced *r* to voiceless *hr* under the influence of the preceding **ahrtauuā* (> *aṣauua*). It seems hardly possible that this would have occurred in the living language, so that the change must be dated to the later period of transmission (but preferably before **hrt* > **hr*).

The etymology of the cpds. spelled by Geldner as Yt 5.113 *pāṣō.cingha-* and Yt 14.35 *pāṣō.parāna-*, maybe ‘with spread claws’ and ‘with spread feathers’ is uncertain. The v.ll.⁷³⁴ with *-i-*, and the absence of any spelling with *ṣ*, may well mean that these forms are irrelevant for the present section. An original form **piśō*^o, as attested by the best mss. in Yt 14.35, would also be possible. For instance, a connection with Yt 14.19 *mārāyahe ... piśatō* (maybe from **piśūant-* ‘pinching’, De Vaan 2000d: 85), referring to a bird just like *pāṣō.cingha-* and *pāṣō.parāna-*, may be considered.

§ 29.4 *art

a. The unaccented reflex *-arət-*

In the first place, this group comprises the past ptc. in **C_rH-tá-* to IIr. roots in **CarH-*, viz. ^o*tarata-* to IIr. **tarH-* ‘to overcome’, ^o*sarata-* to IIr.

⁷³⁴ Yt 5.113 *pāṣō*^o F1 (not *-ṣ-* as suggested by Geldner’s edition) · *piśō*^o J10; Yt 14.35 *pāṣō*^o F1.Pt1.E1 · *piśō* Jm4.K38.36.40 · *paiśō* J10.

**ćarH-* ‘to break’, *starəta-*⁷³⁵ to **1starH-* ‘to spread’ and *zarəta-*⁷³⁶ to **jarH-* ‘to become upset’.

Next, we find full grade forms in *-*ta-* from the anit̄ root *ar-* ‘to join, put in order’, attested in unaccented position in cpds.: OAv. *dəjīt.arəta-* (YAv. *jīt.aša-*), YAv. *anarəta-* ‘untruthful’ < **ánarta-* (Beekes 1988: 65), and Vr. *arətō.karəθna-* ‘who fulfills his duty’⁷³⁷. As was observed by Hoffmann 1986: 166, the noun **arta-* ‘that which is joined’ → ‘truth; (religious) duty’ has the full grade of the root and preserves traces of the original root accent in the simplex *aša-* < **árta-* (see below), as we would expect for a substantivized *ta-*-participle.

YAv. *varəta-* ‘caught’ seems to belong to the root **Huar-* ‘to cover, to enclose’. Whereas the introduction of the full grade of the root into a *ta-*-verbal adj. often involves root accent, we must assume an accentuation **uártá-* here. Note that this would match the meaning of *varəta-*, which is rather adjectival; compare also the poss. cpds. *varətafšu-* ‘with enclosed cattle’ and *varətō.vīra-* ‘with imprisoned men’, which would be in order if accented as **uártá-fšu-* and **uártá-uīra-*. If one does not wish to assume oxytonesis here, we may point to the possible introduction of voiced *r* from other verb forms into **uárta-*: the semantic connection with *var-* seems unimpaired.

The noun *marəta-* ‘man’ occurs only in OAv. It shows substantivization of the ptc. **mrtá-* ‘dead’, with regard to which form Skt. *márta-* ‘man’ shows the expected combination of initial accent and full grade root characteristic for substantivization. According to VOR, a preform **márta-* would yield †*maša-*, which does not exist. Beekes 1988: 58 suggests that **marta-* adopted the accentuation of **mrtá-*, or that of **martán-* (Av. *marətan-*). Although **mrtá-*

⁷³⁵ Viz. *frastarəta-* and *ništarəta-*.

⁷³⁶ *zarəta-*, and *anāzarəta-* ‘not upset’. F1 spells mostly *zərəta-* in Yt 13, which has entered Geldner’s text at 13.63). Whether P 22 (23), V 3.14 PTr. (*dušcā.*)*zarəta-*, Vn 52 (*dušaca.*) *zarəta-* belong here too is uncertain. Because of the PTr. (*duš-*)*zarmān*, it is considered to be the past part. to *zar-* ‘to become old’ (**jarH-*) by Bartholomae 1904 and all subsequent studies. Note however that *duš^o* as the first member of a cpd. never occurs as *dušca^o*, and furthermore that it is usually prefixed to a noun with a more or less neutral meaning, e.g. *duš-manah-* ‘with bad thinking’ next to *humanah-* ‘with good thinking’, *dužita-* ‘badly accessible’ next to *xīta-* ‘good access’. The idea of ‘old age’ is expressed by *zauruuan-* (PTr. *zarmān*), which is understood as something negative: *nōit̄ zauruua ... nōit̄ mərəθiiuš* ‘neither old age ... nor death’.

⁷³⁷ Although this would rather seem a bahuvrīhi, for which **árta-karəna-* would have to be reconstructed.

is unattested in Av. (except for the negative *aməša-*), analogical introduction of voiced *ar* after *marətan-* would be possible. Another way out would be to assume a YAv. date for VOR, in the way described for the pair *pərətu-* vs. *pəšu-* above.

YAv. *karəta-* ‘knife’⁷³⁸ reflects the expected oxytonesis of the agentive PIE **kort-ó-* ‘the cutter’ from the root *kart-* ‘to cut’. The barytone form **kárta-* ‘the cut one’ is attested in (*vouru*)*kaša-*, see below.

For Y 71.7 *aipi.karəta-*⁷³⁹ ‘who cuts into pieces’ (Kellens 1974a: 311), we can assume a preform **api.kartá-*, containing the same noun **kartá-* ‘cutter’ attested in ‘knife’. Possibly, the original denomination of the person ‘he who cuts’ was preserved in the compound, whereas the meaning of the simplex shifted towards the instrument ‘knife’.

The adj. *sarəta-* ‘cold’ < PIE **kolh₁to-* (Lith. *šáltas*) may derive from a PIE oxytone form as in the cognate Gmc. **kalða-* < **gólh₁tó-*; of course, oxytonesis may also be more recent, and characteristic of the adjectival meaning. Avestan also possesses an adj. *sarəda-* which determines *maidiiāiriia-* ‘the middle of the year’; Kellens 1996: 78 has proposed to translate *sarəda-* as ‘cold’, so that Avestan would have had two concurring adj. *sarəta-* and *sarəda-* ‘cold’. It is tempting to connect the vacillation in consonants with the alternation between the nouns OAv. *aodar-* and YAv. *aota-* ‘cold’.

The meaning ‘racecourse’ is certain for YAv. f. *carətā-*. With Hintze 1994: 333, we can posit a substantivized verbal adj. **cartá-* n. ‘that on which has been run’, to which form a f. **cartá-* retaining the accent of its derivational basis may have been formed, in the way described by Wackernagel-Debrunner 1954: 616.

The compound *frətaṭ.carəta-* < **fra-tacarəta-* ‘flowing forward’ was probably derived from the noun *tacar-* ‘course’ by means of the suffix *-ta-* (cf. Bartholomae 1894-95: 107). Simplexes with secondary *-ta-* are variously accented in Skt., mostly retaining the accentuation of the derivational basis. If the compound was accentuated according to the Skt. rules, we would expect **frá-tacarta-* which would regularly yield *-arəta-*.

⁷³⁸ Also in the determinative cpd. *karətō.baēša-* and *karətō.dqsu-*, which can reflect regular accentuation of the second member, or adoption of the simplex. For the full grade in the root, compare Yaṅnobi *kort* < **karta-*, Pamir languages **kartīā-* (Morgenstierne 1974: 25).

⁷³⁹ Kellens leaves the choice between reading *aipi.kərəta-* or *aipi.karəta-*. To my mind, the occurrence of *aipi.kərəntənti* in the next stanza makes *aipi.karəta-* the lectio difficilior with respect to *aipi.kərəta-*.

The adj. *patarəta-* ‘winged’ (Gershevitch 1959: 270⁷⁴⁰) can be reconstructed as **patar-ta-*, compare Skt. *pātra-* n. ‘wing, feather’ and *pataṅgá-* ‘flying’. Together with Hitt. *pattar/pittar* n., gen.sg. *paddanaš*, they point to an IE heteroclitic n. **pet-r-/pet-n-*, cf. EWAia II: 75. The symmetry in formation between Av. **patar-ta-* and **fra-tacar-ta* suggests an original nom.acc.sg. of such a heteroclitic stem **pátar* ‘wing’ to have been the basis for *patarəta-*, which was then probably accented as **pátarta-*. However, the apparent productivity of this suffix may also have had a bearing on its accentuation, so that these forms cannot be regarded as unshakeable evidence.

A full grade of **uārt-* ‘to roll’ is attested in the poss.cpd. *varətō.raḍa-* ‘with a rolling chariot’, a bahuvrīhi which would have had the first member accented. Therefore, we must assume an accentuation **uārt-á-* ‘roller’, seemingly in conflict with the simplex *vāṣa-* ‘vehicle’ which presupposes **uárta-*. Either *varətō.raḍa-* indeed preserves the older agent noun accentuation of **uārtá-*, or the accent was shifted one syllable to the right in **uárta-raḍa-*, cf. Wackernagel 1905: 292.

The noun *auuarətā-* ‘possession’ was connected with Proto-Germanic **werþa-* ‘worth’ by Bartholomae 1904: 177; Pokorny 1949-59: 1157 derives the Gmc. words from PIE **uert-* ‘to turn’. However, Schrijver 1996: 198ff. has argued that Gmc. **werþa-*, together with Celtic words such as W. *gwerth* ‘worth’ < Proto-Celtic **g^wertā* and OIr. *gor* ‘pious, dutiful’ < PCl. **g^waro-*, may go back to a pre-Gmc. and pre-Celtic root **g^{wh}Vr-* ‘worth, return value’. If this is correct, we must drop the connection of Av. *auuarətā-* with the Gmc. and Celtic words. The noun *auuarətā-* may still be a derivative of the root **uārt-*, but only from Ir. date. We may reconstruct **á-uārt-a-* ‘that which is given in exchange’ → ‘a thing of value’. Yet if we compare Khwar. (‘)wrd- ‘to gather’ (intr.), caus. (‘)wrcy- ‘to gather, pile up’, ipf. ‘mwrd-/mwšt- < **ā-uarta-*, **ā-uartaia-*, ipf. **ham-ā-uarta-*, it seems also possible to reconstruct **á-uārtā-* ‘that which has been assembled’ → ‘possession’. The meaning of the word excludes the possibility that the root form *vart-* exerted influence on the noun in Avestan times.

The noun *marətan-* ‘mortal, man’ must have had a mobile accent paradigm: nom.sg. *marəta* < **mártān*, nom.pl. *marətānō* < **martānas*, gen.sg. *marədnō* < **martás*; thus, the accent could have been leveled at any time.

⁷⁴⁰ His reconstruction **ptar-ta-* would have yielded †*tarəta-*, cf. YAv. *tūriia-* < **pHtrūia-*; on the other hand, *pt-* might have been restored from the preserved cluster *-pt-* in inlaut, viz. in *fraptərəjāt-* ‘who goes forward by its wings’ (cf. Kellens 1974a: 255ff.)

Regardless of the accent, the root form *mar-* from the oblique cases could have replaced voiceless *r* at any stage.

We find abstract nouns in *-*tí-* from set-roots in *jarəiti*⁷⁴¹ ‘praise’ to *g/jarH-, *tarəiti-* to *tarH- ‘to overcome’, ⁺*starəiti*⁷⁴² ‘spreading’ to *starH- and possibly in *x’arəiti-* ‘consumption’ to **suar(H)-* (this root is never found in the zero-grade), from aniṭ-roots in *varəiti-* ‘defense’ to *var-* ‘to cover’, *varəiti*⁷⁴³ ‘the rolling’ to *vart-* ‘to roll’ and *harəiti-* to *har-* ‘to protect’.

P 39 *ārəitīmca* is usually interpreted as *x’arəitīmca* because of the text parallel between P 39 and Y 60.2 (cf. Bartholomae 1904: 192 etc.):

P 39 *naršca ašaonō xšnūtīmca ārəitīmca viiād[ā]sca <paiti> paiti.z[a]nt[a]iiasca* ‘reward and blessing and commendation and recognition of the righteous man’.

Y 60.2 *yā ašaonəm xšnūtasca ašaiiasca viiādaibišca paiti.zantaiiasca* ‘which (are) the rewards (**xšnūtaiiasca* ?), blessings, commendations and recognitions of the righteous’.

The noun **arti-* occurs dozens of times in the Avesta, always in the form *aši-* < **árti-*, so that *x’arəiti-* is quite surprising.

The solution proposed by Beekes 1988: 59, viz. that the accent of **ártim* was moved one syllable to the right when *-ca* was suffixed, has already been refuted by Hoffmann 1986: 169: there are simply too many counterexamples. Furthermore, we can see that Y 60.2 *ašaiiasca* contains the same *-ca*, so that we should then also expect †*arətaiiasca*. Hoffmann suggests that *x’arəiti-* was borrowed from a different dialect than standard Avestan. If this were true, we should wonder why the same formula should first employ one dialect form, then another.

⁷⁴¹ Viz. *aibi.jarəiti-*, probably a transposition based on OAv. *aibi.jarətar-*, cf. Tremblay 1999: 76.

⁷⁴² In P 24 *x’aēsmō.starəiti*, *x’barəsmō.starəiti-*. These may be corrected from attested ^o*starəiti-* because of the appurtenance to the root **starH-* ‘to spread’.

⁷⁴³ This concerns V 6.41 *aibi.varəiti* (thus with Jp1.Mf2). As an old *ti*-abstract to the root *vart-* would have yielded †*varəsti-*, we must assume *aibi.varəiti-* to be a later formation. Maybe it was formed as an "Augenblicksbildung" on the model of the preceding *nižbərəiði*: V 6.41 *pasca nasāuuō nižbərəiði pasca āḍritīm aibi.varəiti aēša āfš yaoždiia bauuaiti vasō aibiš.x’arəθa* ‘When the corpses have been removed, when it has rolled three times over them, this water through purification becomes consumable at wish’.

As an alternative, we might consider regarding $\acute{x}ar\acute{a}iti-$ as the regular OAv. outcome of $*\acute{a}rti-$, i.e. with the same absence of VOR as attested for OAv. $p\acute{a}r\acute{a}tu-$ and $mar\acute{a}ta-$. We can then assume that P 39 contains a remnant of an OAv. text, whereas Y 60.2 has the corresponding YAv. version of the same expression. It is not uncommon for OAv. words to emerge in quotations in the fragments of the Pursišnīhā⁷⁴⁴. The nature of this text, which was intended as a Middle Persian comment on Avestan expressions relevant to the religious and legal practice, favours the preservation of OAv. forms which do not show up in larger YAv. texts like the Yašts and the Vīdēvdād.

As for agent nouns in $-tar-$, we find the compounds $aibī.jar\acute{a}tar-$ (OAv.) ‘who praises’ (Skt. $jarit\acute{a}r-$), $fram\acute{a}r\acute{a}tar-$ ‘recitor’, $frauu\acute{a}r\acute{a}tar-$ ‘convert, someone who chooses for (the religion)’ from $se\check{t}$ -roots, and the forms $har\acute{a}tar-$ ‘protector’ and $nišhar\acute{a}tar-$ ‘guardian’ from $ani\check{t} har-$. In prefixed formations, Skt. accents either the preverb or the suffix of the noun, so that in any case the root syllable in $*-art-$ would have been unaccented in these forms.

The compound $hunar\acute{a}t\acute{a}t-$ ‘skill’ was derived from $nar-$ ‘man’, so that the literal translation is ‘good-manliness’. In this kind of cpd., Skt. accents the first member $sú-$ ‘good’, so that Av. $hunar\acute{a}t\acute{a}t-$ would fit VOR. Of course, analogical introduction of the stem $nar-$ ‘man’ cannot be excluded.

The noun $car\acute{a}tu-$ ‘racecourse’ (Klingenschmitt 1968: 182) probably belongs to the root $car-$ ‘to go’, for which the accentuation $*c\acute{a}rtu-$ would be expected. It is attested in the measure $car\acute{a}tu.dr\acute{a}jah-$ ‘having the length of a racecourse’ and in F 609 $car\acute{a}tut\acute{a}ra-$ ‘victorious on the racecourse’ (thus Klingenschmitt). It is conceivable that they secondarily adopted the form of the present $cara-$.

Yt 10.128 $\acute{d}anuuar\acute{a}itin\acute{a}m$ has been satisfactorily explained by Gershevitch 1959: 279 as the result of haplogy in a form $*\acute{d}anuuar-tan\acute{i}n\acute{a}m$, gen.pl. of a f. adjective $*\acute{d}anuuar-tan\acute{i}-$ ‘stretching the bow’, from $*\acute{d}anuuar-$ ‘bow’ and the root $tan-$ ‘to stretch’. Since such a determinative cpd. would originally have had second member accentuation, the reflex found in Avestan could match VOR.

Uncertain evidence

It remains uncertain whether N 87 $kar\acute{a}ta-$ ‘piece of clothing’ is derived from $*kart-$ ‘to cut’. This formation would have to be reconstructed as PIE

⁷⁴⁴ For example, cf. P 7, which quotes Y 31.18 completely, P 18 quoting from Y 35.6 and 35.7, P 19 quoting Y 35.9 entirely and the first half of Y 35.10.

*kórt-o- ‘something cut’. The Avestan form seems to conflict with such an accent.

The exact basis for the form V 3.20 *aš.x^varətəma-* ‘most gluttonous’ is unclear, cf. Schindler 1987: 343. According to him, it could have been built directly on a compound **aš.x^var-* ‘gluttonous’, but it may also represent the compound form of a simplex **x^varišta-* ‘eating the most’.

The etymology of E 17 *darəta-* ‘pain’ (MMP, Pth. *dld* ‘pain’, Khwar. *δrd* ‘pain’) is unknown. Beekes 1988: 58 connects it with *dar-* ‘to split’, which is possible but not compelling.

A noun *varəta-* ‘lump’ is attested in V 9.11 *zəm.varəta-* ‘lump of earth’. This may be connected with *vart-* ‘to roll’, but this is uncertain.

Unclear is also the etymology of *varəta-* in the poss. cpds. *gūθō.varəta-* ‘dwelling in the shit’ and *druuō.varəta-* ‘with a healthy abode’. One may consider a subst. **varta-* ‘dwelling-place’, derived from the root *var-* ‘to enclose’ and cognate with the noun *vara-* ‘enclosure’ (Skt. *valá-*, cf. Hauschild 1960: 25, Kellens 1974a: 360).

As Bailey 1954a: 17ff. has argued, the adj. *harəta-* in Yt 5.92 and V 22.4 probably denotes a certain colour, which may well be connected with Lit. *sařtas* ‘fox red’, used for horses, Latv. *sārts*. About the accent we can say nothing with certainty.

b. The accented reflex *aš*

The most frequent form showing the reflex *-aš-* from **-art-* is the noun *aša-* n. ‘truth, righteousness’. Following Hoffmann 1986: 166, we can interpret **árta-* as the substantivized form of the verbal adjective **rtá-* ‘joined’, which is attested in Skt. *ṛtá-* ‘right, just’.

The noun *aša-* is also found in a number of derivatives, most importantly in *ašauuan-* ‘truthful, righteous’, which corresponds to Skt. *ṛtāvan-*. It seems probable that Avestan *ašauuan-* goes back to an initially accented form **ártāvan-*, but we cannot exclude the possibility that it simply adopted the form of the simplex at a later stage. The forms *aša-* and *ašauuan-* also occur as the first and second member in a large number of compounds, which we shall not discuss because they cannot yield conclusive evidence. Furthermore, the Sraoša-epithet *ašiiia-* ‘accompanying Aša’ may be derived from **ártiHa-*, or have adopted the form of *aša-*.

A different noun *aša-* ‘ground’ is attested twice in the Vīdēvdād. It represents the verbal adj. **árta-* ‘ground’ to a root *ar-* ‘to grind’, and can be connected with MP *’ld*, MoP *ārd* ‘flour’. The initial accent is somewhat surprising for a word which apparently has not departed much from the verbal meaning of the root. Its negated counterpart *anaša-* ‘unground’ is found only

in V 7.35, a few words after *aša-* ‘ground’, so that we can assume a nonce formation rather than a deviant reflex of expected **án-arta-*.

Another frequent noun within the religious terminology of Avestan is *aši-* ‘reward’, which historically must represent an abstract **ar-ti-* ‘justification’ to the root *ar-* ‘to join’. With respect to the expected zero-grade and oxytone accent of such a formation (**rtí-* > Av. *°arəiti-*), Avestan *aši-* deviates in both points. In order to explain *aši-*, Bartholomae 1886: 43 and Hoffmann 1986: 170 offer the solution of an originally ablauting paradigm nom.sg. **ártiš*, gen.sg. **rtáiš*. Hoffmann argues that we find another example of such an alternation within Avestan itself, viz. OAv. *fərašti-* ‘question’ < **prášti-* against YAv. *paršti-* < **pṛští-*; however, PAv. **pṛšti-* may simply be a later formation on the basis of the present **pṛsa-* ‘to ask’. It seems better to reconstruct Pr. **árti-*, yielding OAv. *arəiti-* (without influence of the accent) and YAv. *aši-*.

From *aši-* are derived *ašiuuant-* ‘with rewards’ and *ašiš.hāc-* ‘accompanying Aši’. The latter may have regularly accented the first member.

The personified *frauuaši-*, which has no Skt. equivalent, originally meant ‘choice’, cf. the discussion in Narten 1985: 35ff. The root being **uarH-*, there would be no problem in assuming a regular abstract formation **pra-uṛH-ti-* > **frauarti-*. In a determinative cpd., the second member is usually accented, and for a *ti*-abstract we expect oxytone accent. Nevertheless, the outcome *frauuaši-* suggests that the root syllable was accented, i.e. **pra-uṛH-ti-*. As Hoffmann 1986: 172 points out, it is conceivable that the actual preform of *frauuaši-* had acquired a full-grade root; this would not be without parallels in Avestan. The noun *frazaiṇti-* ‘offspring’ to the root **janH-* shows full grade of the root against Skt. *prájāti-*, and also *aši-* < *árti-* beside *arəiti-* < **rtí-* shows that it is not too hazardous to assume that *frauuaši-* contains an accented full grade: **pra-uárH-ti-*.

Av. *mašiiā-* ‘mortal, man’ is in agreement with the barytonesis in Skt. *mártiā-*. In YAv., we find a derivative *mašiiāka-* ‘man’, formed with the productive suffix *-ka-* used in Iranian for forming diminutives and adjectives. The accentuation of **mártiā-* may have been retained in **mártiāka-*, or *mašiiāka-* simply shows adoption of the voiceless *r* of its derivational basis.

A noun *kaša-* ‘cutting’ is attested in *vouru-kaša-* ‘with wide bays’, used as a name of an often-mentioned lake. We may assume an action noun **kártā-* ‘cutting’ → ‘which has been cut, bay’. We cannot directly compare the accentuation of Skt. *kartá-* ‘pit, hole’, since this form may be secondary within Skt. according to Wackernagel-Debrunner 1954: 591. A noun *kaša-* also appears in the compounds *iristō.kaša-* ‘cutting dead people’ and *nasukaša-* ‘cutting corpses’. Here, *kaša-* might be interpreted as an original agent noun **karta-* ‘cutter’, but it would be strange to find the root noun

kərət- used with the same meaning ‘cutter’ in *nasu(m).kərət-* ‘who cuts corpses’ and other compounds (see above). Furthermore, **kartá-* already exists in Avestan, meaning ‘knife’. Therefore, we may alternatively suggest that *iristō.kāša-* and *nasukaša-* are possessive compounds with the same noun *kāša-* ‘cutting’ as *vouru.kāša-*, in a slightly different meaning ‘grave, pit’: *iristō.kāša-* ‘who has the graves of dead people’, *nasu.kāša-* ‘who has the graves of corpses’. As Beekes 1988: 62 suggests, the simplex *kāša-* may have been adopted unchanged.

Uncertain evidence

There is no agreement on the interpretation of Y 29.11 *mašā*. It has been regarded as a reflex of **márta-* ‘mortal’ (Bartholomae 1904, Humbach 1991 II: 43), but Lommel 1935: 99 assumed the sequence *mā mašā* in the text to stand for **mām ašā* (with *aša-* ‘truth’). This correction was supported by Insler 1975: 157, but he derived *ašā* from **artā* ‘come!’⁷⁴⁵. Kellens-Pirart 1988-91 I: 44 reconstruct **mašu* ‘soon’, which would have been changed to **mašā* at the canonization of OAv. and thus escaped *u*-mutation to *mošū* as attested in other texts. In view of this lack of agreement, it seems best to leave this form out of the discussion.

The noun *vašan(a)-* in the mountain name Yt 19.3 *ašta.vašanō* has no certain etymology. The fact that this is a hapax makes it uncertain whether the word really contains -š- and not -š-. Its function as a plural to *pauruuata* obliges us to regard *vašanō* not as a thematic formation (which would allow a connection with Skt. *vartana-* ‘turn’, OP **wartana-*, MoP *gardan* ‘neck’ and cognates, as proposed by Eilers 1985: 34f.), but as athematic *vartan-*. Hintze 1994: 78f. analyzes this as an *an*-derivative (for “männliche Sachbezeichnung”) **uárt-an-* ‘mountain pass’ from the root *vart-* ‘to turn’; this is not implausible semantically. The main problem is the vowel *a* in the first syllable: the noun *vāša-* ‘waggon’ from **uárta-* suggests that a noun **uártan(a)-* would rather have yielded †*vāšan(a)-*.

c. The unaccented reflex *ārət*

The compounds *uyrārət-*, *taxmārət-*, *vazārət-*, *zaoiīārət-* and *huuārət-* (discussed in § 5.2.1.2) contain the root noun **Hrt-* ‘moving’. All of them are attested in the nom.pl.f. with the ending -ō, e.g. *uyrārətō*. As we have argued

⁷⁴⁵ But note that *ar-* takes the dat. in Y 33.12 *us mōi ārəšuuā* ‘rise up to me!’, not the acc. as in **mām ašā*.

in § 29.3 above, root nouns in *-t* present inconclusive evidence, since word-final **-rt* never yields *-š*, cf. *hakərət*.

The only remaining form is Yt 19.42 *nairiiqm.hqm.vārəitiuuant*⁷⁴⁶ ‘endowed with defence’, which reflects **hqm.varəitiuuant-*; the lengthening of **-var-* to *-vār-* is probably due to the preceding labial (see § 3.2.1).

d. The accented reflex *āš*

A number of forms show a development of **-art-* > Av. *-āš-* instead of *-aš-*. The long vowel is due to the combination of a preceding labial and the position of **a* in open syllable; the etymology has therefore already been discussed in § 3.3. Here, we will concentrate on the accent.

The nouns *x^vāšar-* ‘drinker’ and *x^vāša-* ‘food’ are derived from the root *x^var-* ‘to consume’. The form *x^vāša-* ‘food’ is in line with the expected barytone action noun **suár-ta-* which the meaning presupposes. For *x^vāšar-*, we cannot be sure about the accentuation, since Skt. shows both barytone and oxytone nouns in *-tar*, but at least a preform **suártar-* would not be surprising.

Y 11.2 *bāšar-* ‘rider’ (for the meaning see § 3.3) must be derived from **bártar-*. We may assume with Tichy 1995: 44⁶² that the barytonesis is regular in combination with the habitual function of the meaning ‘rider’.

YAv. *vāša-* ‘vehicle’ can be derived from an action noun **uárt-a-* ‘rolling’, which has apparently shifted its meaning towards ‘the thing rolling’ (Janda 1993: 45).

The adj. *θβāša-* ‘fast, hurried; firmament’ must be connected with Skt. *tvárate* ‘to rush’, *tvará-* f. ‘hurry’, and with MÍr. verbs in **θβarīa-*, **θβāra-*; cf. the discussion in § 3.3. The original vowel quantity of *θβāša-* is therefore uncertain: **θuárta-*. Hence it is also uncertain whether the root accent, which we must assume in order to explain *-š-*, continues the IIr. accentuation.

Two forms are probably nonce formations, viz. *ax^vāše* (V 3.33) ‘by not eating’ and *vāšaiia-* (Yt 17.12) ‘to draw (a vehicle)’; see again in § 3.3. The verb *kāšaiia/kāšaiia-* ‘to keep, maintain’ is without etymology. It looks like a denominative to a noun **kāša* or *kāša-*, for which Kellens 1995a: 16 tentatively posits a meaning ‘handful’.

⁷⁴⁶ Hintze 1994: 225 dismissed the vowel *-ā-*, transmitted in both F1 and J10, as erroneous because of Yt 19.39 *nairiiqm hqm.varəitīm*, but Humbach-Ichaporía 1998: 121 argue that we must keep *-ā-*.

§ 29.5 *rk

The unaccented reflex *-arək-* is not attested. The accented reflex *-əhrk-* is found in m. *vəhrka-* ‘wolf’, f. *vəhrkā-* ‘she-wolf’, which correspond to Skt. *vṛka-* ‘wolf’. The determinative cpds. *vəhrkō.jata-* ‘killed by wolves’ and *vəhrkō.bərəta-* ‘dragged by wolves’ may owe *-əhrk-* to the original accentuation of their first member. For *vəhrkō.ciṭra-* ‘descending from wolves’ and the derived adjective *vəhrkauuaṇt-* ‘with wolves, surrounded by wolves’, we must assume introduction of (a preform of) the simplex *vəhrka-*.

The name *vəhrkānō.šaiiana-* ‘dwelling-place of the Vəhrkānas’ in V 1.11 contains the name of a people or of a country *vəhrkāna-*, which can (at least formally, the physical identity is disputable) be equated with OP *vrkāna*, Elamite *mi-ir-qa-nu-ya-ip* (‘the Hyrcanians’). If *vəhrkāna-* indeed means ‘wolf-people’, it may have obtained initial accent or voiceless *-əhrk-* from **uṛka-* ‘wolf’.

§ 29.6 *ark

a. The unaccented reflex *-arək-*

OAv. *carəkərəṭra-* ‘hymn of commemoration’ is ambiguous, since instrument nouns in **-tra-* are usually barytone, but we cannot say which syllable would have been accented (Beekes 1988: 61). In view of the OAv. verb form Y 58.4 *carəkərəmahī* ‘we commemorate’, it is possible that *carəkərəṭra-* has analogically restored voiced *-r-*, if it had been unvoiced.

The form *marəkaēcā* occurs once in OAv. as the loc.sg. of *marəka-* ‘death’; in YAv., we only find the reflex *mahrka-* (see below). We have two possible explanations. Beekes 1988: 69 regards *marəkaēcā* as the regular reflex of **markaīca*, which has shifted the accent one syllable to the right because of *-cā*; the original barytone accentuation is shown by YAv. *mahrka-* (but this itself does not seem regular, see below). We have argued s.v. *kəhrp-* (§ 29.1 above) that such an explanation is unlikely. A different solution is provided by the fact that *marəkaēcā* is OAv., whereas *mahrka-* only occurs in YAv. We might assume a preform accented as **mārka-*, the accent being without influence in OAv. but yielding *mahrka-* in YAv.

The noun *varəka-* ‘leaf’ in F 395 can be connected with MP *wlg /warg/*, MoP *barg* ‘leaf’, and an extended form **uarka-ra-* in MPth. *wrkr*, Khot. *bāggara-* ‘leaf’. Skt. has *valkā-* ‘bark’.

YAv. *harəka-* ‘waste, leavings’ is a thematic derivative of the root **sark-* ‘to emit, to throw away’; the reflex *-arək-* agrees with the suffix accentuation of the formation type but not with its zero-grade. The Av. present *harəcaiiia-* ‘to discard’ is probably denominal. These forms together with Iranian cognates such as MP *harzag* ‘loose, free’ < **harčaka-*, MP *hrk* /*harg*/ ‘duty; work’, Khot. *hargā-* ‘emission, abandon; tax’, Arm. *hark* ‘tax’ (Bailey 1979: 469) point to a PIr. root **hark-*, which Bailey connects with Skt. cognate *ṣṛká-* ‘top’. The Iranian forms are not mentioned by EWAia s.v. *ṣṛká-*. It is tempting to regard **hark-* as a rhyming form to PIr. **sarž-* < Ir. **sarj-* ‘to let go’, but its origin may be inner-Iranian or post-PIr. Therefore, we cannot rely on Av. *harəka-* for the reconstruction of the accentuation.

b. The accented reflex *-ahrk-*

The noun *mahrka-* ‘ruin, death’ (to the root Av. *marc-* ‘to destroy’, Skt. *mrc-* ‘to injure, hurt’) does not agree with the accent of Skt. *marká-* ‘annihilation, death’. As argued by Lubotsky 1988: 78, the Skt. word might originally have been an agent noun **‘annihilator’*. Since Lubotsky 1988: 70 has shown that oxytonesis of agent nouns was a productive process in Sanskrit, Skt. *marká-* and Av. **márka-* may have been formed independently on the basis of verbal **mṛk-* in Indic and Iranian: agent noun in Skt., action noun in Avestan. The compounds *pouru.mahrka-* and *vīspō.mahrka-*, as well as the superlative *mahrkōtāma-* ‘most destructive’, may have adopted the simplex, so that they are ambiguous. The same goes for the derived abstract *mahrkaθa-* ‘destruction’ and for the possessive cpd. *amahrka-* ‘without death’, which, if old, would have been accented **amárka-*. The PN *mahrkuša-* ‘destroyer’ occurs only in FrW 8.2 and in a few Pahlavī texts (for references, cf. Boyce 1975: 290⁶⁴). It must clearly be derived from *mahrka-*, but the origin of the suffix is uncertain.

The form *kahrka-* ‘hen, cock’ continues PIr. **karka-* ‘hen, cock’ (e.g. Oss. *kark*, Pšt. *cərg*, MoP *kark*), the full grade of which differs from the zero-grade found in the Sanskrit forms *ṛkaváku-* ‘saying *ṛka*’ = ‘cock’, *ṛkaṇa-* ‘partridge’. The difference of form may be explained by the onomatopoeic character of the word (compare the German imitation of a cock’s call *kikeriki*, Dutch *kukelekuu*), which may also be the cause of irregularities in later Iranian forms, such as the voiceless *-k* in Oss. and MoP *kark*, where an outcome *†karg* would be expected (thus Abaev 1958: 572). For Avestan *kahrka-*, this means that we cannot be certain about the original accentuation, although in general the introduction of a full grade in Iranian seems to point to root accentuation, which would match the Avestan reflex. The derivations *kahrkatāt-* ‘cock’ (mockingly, lit. ‘cock-a-doodle-doo-hood’), *kahrkāsa-*

‘vulture’ and the PN *kahrkana-* are ambiguous, because they may have adopted the form of the simplex.

§ 29.7 Summary

The proposal made by Bartholomae in 1886 can be accepted. The alternation can be explained in a satisfactory way if we assume that it was caused by the accentuation of Avestan, and if we assume in addition that this accentuation was in broad outline the one inherited from IIr.⁷⁴⁷ We have seen that a comparison with the accentuation of Sanskrit offers a trustworthy basis, at the same time keeping in mind the possible changes which may have occurred in Sanskrit after the IIr. separation of PInd. and PÍr. It furthermore appears that the accent had different effects in OAv. and YAv., which can be explained from the chronological difference between the two varieties of Avestan. By means of a survey of the relevant forms, I may now present the evidence reviewed according to its pleading force in favour of VOR.

a. There is one real minimal pair:

karəta- vs. *kaša-* < **kartá-* vs. **kárta-*.

b. The following pairs also oppose a voiced reflex to a voiceless one, but the forms with a voiced reflex are attested in compounds only:

ərəta-, *arəta-* vs. *aša-* < **ṛta-*, **arta-* vs. **árta-*.

ərəiti-, *arəiti-* vs. *aši-* < **ṛti-*, **arti-* vs. **árti-*.

kərəta-, *kərəiti-* vs. *kəša-* < **kṛta-*, **kṛti-* vs. **kṛta-*.

⁷⁴⁷ After the manuscript of this thesis had been finished, Pirart published a long article on the fate of IIr. *rt in Avestan (Pirart 2001). He exhaustively discusses all the relevant Avestan forms, but his conclusion is the opposite of mine: in his view, the reflex of **ṛt* and **art* has nothing to do with the IIr. accentuation. He conjectures that there is a graphic reason for the distinction between *rət* and *š*, but he is unable to find any distributional rules. His discussion of the evidence contains many interesting observations, but the general conclusion which he draws must be rejected. Pirart relies very heavily on the synchronic state of affairs in Sanskrit, and neglects the possibility of independent innovations or retentions by Avestan, both in the field of accentuation and regarding ablaut. He assumes a number of unorthodox phonetic correspondences, e.g. that Av. *ərə* would reflect IIr. **-uHr-* (p. 91), that **-nṛt-* yielded Av. *-narat-* (p. 93), that Av. *ə* would be a "graphie alternative" for *ṛi* (p. 100), that **-ur-* would be spelled as *əra*/*arə* in front of *-tā-*, as *əraṛi*/*arə* in front of *-tō-*, but as *ərə* in front of *-tī-* (p. 127), and that *aši-* would reflect **ārti-* (p. 134). In addition, Pirart is very liberal with text emendations.

<i>pərəta-</i> vs. <i>pəṣa-</i>	<	* <i>pṛta-</i> vs. * <i>pṛ́ta-</i>
<i>fraorəiti-</i> vs. <i>frauuāši-</i>	<	* <i>fráur̥ti-</i> vs. * <i>frauár̥ti-</i>
<i>bərətar-</i> vs. <i>bāšar-</i>	<	* <i>bṛtár-</i> vs. * <i>bártar-</i>
<i>varəta-</i> vs. <i>vāša-</i>	<	* <i>varta-</i> vs. * <i>várta-</i>
<i>xʷarəta-</i> vs. <i>xʷāša-</i>	<	* <i>hūarta-</i> vs. * <i>húárta-</i>

These ‘minimal pairs’ can, but not necessarily must, reflect an accentual opposition: there is a chance that the voiced reflexes contain the simplex form, e.g. that *axʷarəta-* has adopted the reflex of **hūartá-*, etc. As such a simplex would have had a voiced reflex of *-(a)r-, the compounds in *-ta-* and *-ti-* present at least indirect evidence for a voiced reflex. This may then be contrasted with the voiceless reflex, e.g. *xʷāša-* < **húárta-*.

On the other hand, we must not forget that most of the voiced forms represent verbal adj. in **-ta-*, verbal abstracts in **-ti-*, or agent nouns in **-tar-*. The semantic connection of these forms with the meaning of the root can usually be regarded as unbroken. Therefore, we must reckon with the possibility that these derivatives introduced the voiced variant of **-r-* from the finite verbal forms after VOR had originated.

c. The reflex of **rT* in the following nouns and adjectives corresponds with the accentuation of their Skt. counterparts, or to the accentuation of the formation type they belong to:

<i>auuarətā-</i>	<i>kəhrp-</i>	<i>narəpī-</i>	<i>varəka-</i>
<i>amərətātāt-</i>	<i>carətā-</i>	<i>mašīia-</i>	<i>vəhrka-</i>
<i>aməša-</i>	<i>pəšanā-</i>	<i>mašīiāka-</i>	<i>sarəta-</i>
<i>aša-</i> ‘ground’	<i>pəšu-</i>	<i>mahrka-</i>	

d. The evidence of the verbal adj. in **-tá-*, verbal abstracts in **-tí-* and agent nouns in **-tár-* must be regarded as ambiguous (see above), regardless of the fact whether they are attested as a simplex or in a compound. Their forms seem to confirm VOR, but they might just as well be secondary:

<i>gərəpta-</i>	<i>varəta-</i>	<i>xʷarəiti-</i>	¹ <i>mərəiti-</i>	<i>xʷāšar-</i>
<i>tarəta-</i>	¹ <i>vərəta-</i>	<i>jarəiti-</i>	² <i>mərəiti-</i>	<i>jarətar-</i>
<i>θβāša-</i>	<i>sarəta-</i>	<i>tarəiti-</i>	¹ <i>varəiti-</i>	<i>marətar-</i>
¹ <i>dərəta-</i>	¹ <i>starəta-</i>	<i>dərəiti-</i>	<i>aiβi.varəiti-</i>	^o <i>uuarətar-</i>
² <i>dərəta-</i>	² <i>stərəta-</i>	<i>pərəiti-</i>	<i>stərəiti-</i>	<i>harətar-</i>
<i>bərəta-</i>	<i>zarəta-</i>	<i>bərəiti-</i>		
<i>mərəta-</i>				

The same degree of ambiguity characterizes the compounds *aspō.kəhrpa-*, *ātərəpāta-*, *cinuuat.pərətu-*, *vəhrkō.jata*, *vəhrkō.bərəta-*, *stəhrpaēsah-* and

hunarətāt-, which may have adopted the form of the simplexes. Also ambiguous are the forms *karapan-*, *karapatāt-*, *carətu^o*, *carəkəṛəθra-*, *marətan-*, and the finite forms of the present *pərəta-* (to *part-*).

A few of the derivatives and compounds which at first sight seem to contradict VOR are also ambiguous, since they may have adopted the accented simplex form: *ašauuan-*, *tanu.kəhrp(a)-*, *pəšu.pā-*, *maxši.kəhrpa-*, *vanaṭ.pəšana-* and *vəhrkauuaṇt-*.

e. We may assume that VOR did not yet function in OAv., but operated in (a prestage of) YAv. only. The evidence consists of:

OAv. *pərətu-* vs. YAv. *pəšu-*.

OAv. *marəta-* vs. Skt. *mārta-*, and YAv. *mašīia-*.

OAv. **arəiti-* vs. YAv. *aši-*.

OAv. *marəka-* vs. YAv. *mahrka-*.

Irrelevant is:

OAv. *dəjūt.arəta-* vs. YAv. *jūt.aša-* < **djūt.arta-*, because *jūt.aša-* has introduced the simplex *aša-*.

Although the evidence forcing us to deny VOR for OAv. is not extensive, there is not much that would contradict such a scenario. In OAv., we find the accented reflex in the forms *kəhrp-*, *aməša-*, *aša-*, *aši-*, *ašauuan-*, *ašiuuaṇt-*, *pəšō.tanū-*, *frauuāši-* and *mašīia-*. All of these occur frequently in YAv., and it would be no problem to assume that the YAv. sound was introduced into the OAv. text when it was transmitted by YAv. speakers.

If this addition to VOR is accepted, this has as a consequence that the inherited accentual differences did not cause a voicing opposition on *r̥ in OAv. We may go even further: some of the forms (*pərətu-*, *marəta-*) which must have possessed a barytone accent in IIr. apparently did not undergo devoicing of *r* at the canonization of OAv., even if other allophonic features of Early YAv. were adopted in the OAv. texts, such as the pronunciation [ə] for /a/. This implies that the devoicing of *r* under the accent had already been concluded in Early YAv. Otherwise, **p̥rtu-*, **marta-* and other OAv. forms would probably have undergone the same development as genuine YAv. words, and they would have yielded †*pəšu-*, †*maša-*.

RELATIVE CHRONOLOGY

The change of accented *r̥t etc. to voiceless *hrt etc. was an accomplished fact of the Early YAv. language, ultimately at the moment of canonization of the OAv. texts. It seems only natural to assume that at that

time, the voiceless variants had already become separate phonemes, which later on could be shipped into OAv. texts (e.g. *mašīia-*, *aša-*). This in turn means that the free and distinctive stress placement which had caused the voicing opposition must have already ceased to exist.

Another clear terminus ante quem for VOR, which is much more recent than the preceding, is provided by the anaptyxis between *r* and a following stop.

A terminus post quem for VOR seems to be the development (voicing?) of word-final *-t* to *-t̥*, but this may be a mirage. Word-final *-t̥* remains the only option throughout YAv., so that it was probably generated synchronically in all forms in **-t*. But note that the restriction on the devoicing of **-t̥* implies that we cannot date the rise of *-t̥* later than the change of **-hrt-* to *-hr-*; after this change, it would have been impossible to restore final *-t̥*.

When trying to establish when **hrt* underwent the subsequent phonetic developments which ended in *š*, we have little internal evidence to rely on. If it is correct that V 5.61 **mrtáscit̥* was changed to voiceless **māhrt̥* under the influence of preceding **áhrtauuā* (> *ašauua*), this would mean that, when this happened, the development of **hrt* to **hr* (i.e. the assimilation of **t*) had not yet taken place. If this replacement is indeed due to non-Avestan speakers, as it seems likely, then **hrt* > **hr* occurred after Avestan had ceased to be a spoken language.

A more precise date of the change **hrt* to *š* may be found by looking closely at the Middle Persian loan words from Avestan. These attest three different sound forms, which reflect the subsequent stages through which the Avestan sequence **hrt* went (Henning 1958: 99f.). The MP stages are [*hr*], [*hl*] and [*š*]⁷⁴⁸ in chronological order of borrowing: MP *amahaspad* for Av. *aməša spənta*, *fravahr* for *frauuāši-*; *ahlaw* for *ašauuan-*, *mahliya* for *mašīia-*; *spāš* for *šβāša-*, *Ašwahišt* for *aša- vahišta-*. The change from **hr* to **hl* must therefore have taken place on Western Iranian territory, and the parallelism with the Southwest-Iranian development of PIr. **rθ* to *hl* (e.g. *pahlom* ‘best’ < **parθama-*, *puhl* ‘bridge’ < **pθu-*), to which Hoffmann 1986: 179 points, suggests that it had been accomplished before the Sasanian inscriptions in the third century AD were written, on which *p’hlwm* and *pwhly* are found.

⁷⁴⁸ The possible phonetic development is sketched by Hoffmann 1986: 173. Here we may add the possibility that the devoiced **r* developed into a fricative much like Czech *ř* (cf. PIr. **fra-* > Khwar. *š-*), which assimilated *t*; thus Morgenstierne 1942: 55. The spelling in MP *hr* probably reflects a voiceless (retroflex) trill, *hl* a voiceless lateral fricative (Welsh intervocalic *ll*).

VIII. CONCLUSION

§ 30 Summary and evaluation

The purpose of the conclusion to this study is to synthesize the various partial summaries and conclusions which have been provided in the final subsections of §§ 3, 4, 5, 6, 10, 14, 16, 19, 20, 21, 22, 23, 24, 25, 28 and 29. In each of those subsections, we have — as far as possible — focused on three elements of the linguistic analysis, viz. (1) a summary of the vowel changes which have taken place with regard to the phoneme(s) in question, (2) a short discussion of the phonetics of the developments observed, and (3) a discussion of the implications which these developments have for the relative chronology of sound changes.

As to the first element, the summaries as given in the different subsections already give a clear survey of the developments of the Proto-Indo-Iranian vowels into Avestan. We will therefore not repeat those data in a new list. For the sake of convenience, however, § 30.3 below will provide a survey in the reverse direction, viz. enumerating the different sources for every attested Avestan vowel grapheme. Subsections § 30.1 and § 30.2 will address the two other elements of the linguistic analysis, viz. the phonetic reasons for the different developments witnessed in the texts (§ 30.1) and the overall relative chronology of vowel changes, extracted from the different partial chronologies (§ 30.2).

§ 30.1 Internal and external factors

The present subsection intends to address some of the more interesting questions about the linguistic system of Avestan as they arise from the developments which we have observed. I have selected six problems which seem worthy of discussion. The selection is based on two criteria: one criterium is the occurrence (or inference) of a given linguistic phenomenon in more than one of the vowel sections which this study has investigated, and the other criterium is the discussion of a given (or alleged) phenomenon by previous scholars of Avestan. The six problems which I have selected are arranged in the following way: internal linguistic factors precede external linguistic factors, and older developments precede more recent ones. This yields the following order of subjects: the accent (§ 30.1.1), disyllabic vowels in YAv.? (30.1.2), open and closed syllables (30.1.3), vowel quantity and quality (30.1.4), the relation between OAv. and YAv. (30.1.5), YAv. dialects (30.1.6).

§ 30.1.1 The accent

We will evaluate the various changes which may be ascribed to the accentuation of Avestan at a given moment. Classifying them according to the place of the stress, we find three different stages in the accentuation of Avestan. In chronological order, they are: 1. free stress inherited from IIr., 2. stress on the syllable preceding enclitic *-ca* and *-ciṭ*, 3. stress on the initial syllable.

1. The only change which must be ascribed to the IIr. place of the stress is VOR, the voicing opposition on **r* (discussed in § 29), which is responsible for minimal pairs such as *karəta-* versus *kaṣa-*. The investigation of the relative chronology has yielded the conclusion that VOR had already been phonemicized at the Early YAv. stage, so that it left no traces in OAv. when the OAv. texts were canonized by the speakers of YAv. This implies that the free stress of IIr. had changed to a different kind of accentuation ultimately in the final stages of Early YAv.

2. The following developments show the influence of word-final *-ca* and *-ciṭ* in YAv.: 1. the shortening of **ā* in the endings **-ārasca* > *-arasca*, **-ārasciṭ* > *-arasciṭ*, **-ārəmciṭ* > *-arəmciṭ*, **-ānasca* > *-anasca*, and in isolated forms such as **zāuarca* > *zauuarəca* and **āpəmciṭ* > *apəmciṭ* (§ 4.1.1); 2. the shortening of the abl.sg. ending **-āṭ* in front of *haca*: **-āṭ haca* > *-aṭ haca* (§ 4.1.2). Both changes must clearly have taken place when YAv. was a living language, i.e. they reflect a linguistic reality.

The most straightforward explanation is to assume a strong stress on the syllable preceding *-ca* and *-ciṭ*, causing the shortening of the then pretonic **ā*. It is unclear to what extent this change points to a general stress placement on the penultimate syllable at that stage of YAv. One is reminded of the accentuation of Latin, where the stress is also attracted by the syllable preceding enclitic *-que* 'and', but only if this is a closed syllable or contains a long vowel. In fact, Meillet (1900) has explicitly drawn the parallel with Latin, assuming that Proto-Iranian stressed the penultimate syllable if this was a heavy syllable, but the antepenultimate if the penultimate was light. However, it is striking that there are no indications outside final *-ca* and *-ciṭ* for such an accentuation. Therefore, we must leave the possibility open that the vowel shortening observed here is due to the prosodic characteristics of *-ca* and *-ciṭ* alone, and does not allow any conclusions as to the place of the stress in general.

Another change which is due to final *-ca* is less likely to reflect a linguistic reality of YAv., viz. the lengthening of final **-a* in front of *-ca* in

originally disyllabic words, e.g. **xšaθraca* > *xšaθrāca* (§ 5.3.1). As opposed to the shortening observed above, this lengthening occurs much less in front of *-ci̯t* than in front of *-ca*. It may therefore be due only to the syllabic and vocalic structure of the words, and not to the — originally similar — enclitic status of *-ca* and *-ci̯t*.

It has been suggested that OAv. *-x̄-*, as it occurs in the gen.sg. *-ahiiā* versus *-axiiācā*, may also be due to the addition of *-cā*. However, *x̄* appears in other contexts in OAv. as well (e.g. dat.sg. *axiiāi* and *manaxiiāicā*, *nəmaxiiāmahī*, *saxiiāt*), so that it is uncertain whether in *-axiiācā*, *-x̄-* is really due to *-cā* and not to the character of the following vowel (§ 28.3).

3. As a third stage in the transmission of Avestan, we may posit a period in which the initial syllable of the word was stressed. This must have been a relatively recent period in the history of the transmission, long after the YAv. language had become extinct. We may regard as a result of initial stress at least the following vowel lengthenings:

- **u* > *ū* in open initial syllable (§ 10.2).
- **i* > *ī* in open reduplication syllable in OAv. (§ 6.2.1).
- **i* > *ī* in open, initial syllable in front of *t, s, š* (§ 6.2.2).
- **-au̯ia* > **-āu̯ia* (§ 3.4.1).
- **a* > *ā* in initial syllable, especially if several short syllables follow (§ 3.4.2).
- **-aš̄-* > *-āš̄-* / *C_[+labial]-* (§ 3.3).

As we have seen in the respective relative chronologies, all of these changes can be dated quite late, although we do not know exactly at what point they took place. The word-initial stress which they presuppose might have been a linguistic reality for the people who transmitted the Avestan texts.

One more phenomenon is especially restricted to initial syllables, viz. the preservation or restoration of the pronunciation [*aN*] for *[*əN*] in YAv. Although it is unclear whether it was the initial syllable which has changed (restoration of [*a*]) or the following syllables (preservation of [*a*] in the initial), the simple fact that there is a difference between initial and following syllables seems enough to link this phenomenon with the initial stress placement in the post-YAv. era.

§ 30.1.2 Disyllabic vowels in YAv.?

An old crux in Avestan studies is the possible disyllabic reading of the vowel **ā* in certain positions in YAv. It has been claimed by Geldner 1877: 16ff. that a disyllabic reading of the gen.pl. ending *-qm*, the f.acc.sg. ending

-qm and the subj. vowel -ā- can in many cases provide the desirable number of syllables in the metrical parts of the Yašts. There is no indication that the f.acc.sg. ending -qm ever was disyllabic, but a disyllabic ending *is* attested for the gen.pl. and the subj. suffix in the Gāthās. Moreover, it can be justified by the etymology: Ir. gen.pl. *-a-ām, subj. *-a-a-. However, Hintze 1994: 53 has pointed out that, at least for Yašt 19, forms with a probable disyllabic reading and forms with a certain monosyllabic reading for ā/q occur side by side in the YAv. texts, without an apparent ratio. This means that a disyllabic reading for ā/q cannot beforehand be dismissed, but that it is impossible to prove it: the metre of the metrical parts of YAv. is not trustworthy enough to allow any compelling conclusions about the mono- or disyllabicity of individual vowels.

Since a disyllabic value of *ā might have to be assumed for a certain (pre)stage of YAv., some scholars have used this observation to explain some of the YAv. vowel changes. In the course of our investigation, we have come across the following changes for which a disyllabic reading of ā/q was earlier invoked:

- final -ā in jōiiā (§ 14.2, fn. 423).
- the ending *-ātca > -āatca (§ 4.2): alleged /-aatca/.
- dat.sg. *spitāmāi > spitamāi (§ 4.6): alleged /-amaai/.
- acc.pl. *ādāh > adā (§ 4.7): alleged /-aah/.
- prs.subj. *aua.zānān, *pati.zānāt > auua.zanān, paiti.zanāt (§ 4.8): alleged */zānaan/, */zānaat/.
- prs.subj. *frādāt > fraδāt (§ 4.8): alleged /frādaat/.
- gen.pl. *-ānām → -anqm (§ 4.9.2): alleged */-ānaam/.
- acc.sg.f. *āḡhānām > āḡhanqm (§ 4.9.4): alleged */-ānaam/.

In all these cases, we have proposed an alternative solution for the vowel shortening (and for the change to āa), which does not require the assumption of a following disyllabic vowel. In other words, these following long vowels are indistinguishable from old monosyllabic *ā. This does not mean that it is inconceivable that there were disyllabic long vowels at some stage of Early YAv., but they have probably lost their disyllabicity before the YAv. vowel shortenings and lengthenings of *a and *ā started to develop.

§ 30.1.3 Open and closed syllables

The investigation has revealed several changes which are or seem to be conditioned by the difference between open and closed syllables. There are probably two different layers of open-syllable conditioned phenomena: the reflex of the diphthong *ai in front of a consonant (which must belong to

Early YAv.) and the lengthening of **a/i/u* in initial syllable (which belongs to the post-YAv. period).

1. The oldest change which is conditioned by open vs. closed syllables is the reflex of **ai* in YAv., and hence also mostly in OAv.:

**ai* > *aē* / *_CV* and / *_st, _sm, _šm* (§ 14.3).

This change mainly affects the phonetic quality of the vowels. In a closed syllable, the earlier allophone [əi] of **ai* was maintained, but in open syllable, it apparently had a more open quality, merging with [ai] and eventually yielding *aē*. The fact that vowel quality is involved is also apparent from the influence of a preceding *r-*, after which we find *-aē-*. The fact that *st, sm* and *šm* do not close the preceding syllable may be significant for the syllable structure of Avestan, but in the absence of any other YAv. phenomena which are conditioned by a following *st/sm/šm*, the value of this insight remains limited.

2. As a second phenomenon which is due to the position in open syllable we may discuss the lengthening of short vowels in initial syllables. This was certainly a post-YAv. development, restricted to the initial syllable. The following lengthenings belong to this category:

- **u* > *ū* in open initial syllable (§ 10.2).
- **i* > *ī* in OAv. (and some YAv.) reduplication syllables (§ 6.2.1).
- **a* > *ā* in front of two or more syllables containing *a* or *ə*: the type *frātacaiia-*, and the forms *ātarəθra, kāidiiehe, kāidiiasca, kāuuaiieheca, pāraiiia-, yāsa-* (§ 3.4.2).
- **a* > *ā* / *C_[+labial]-š-* (§ 3.3).
- **i* > *ī* / *C_[+labial, +glide]-*; also in front of *sp, št, šm* (§ 6.2.3)

The first four of these lengthenings do not occur in front of any consonant cluster. They must be dated quite recently, in any case post-YAv., although not all these lengthenings need to belong to the same period. Phonetically, they can be interpreted in the most straightforward way as vowel lengthening in an open syllable; compare the open syllable lengthening of Germanic short vowels in initial syllable in the medieval Germanic languages.

In the case of the lengthening of **i* after labials, it is clearly the preceding labial glide which triggered the lengthening, more than the open syllable: in front of the consonant clusters *sp, št* and *šm*, lengthening also applies. Nevertheless, other consonant clusters do impede the lengthening, so that the inclusion of this lengthening here is justified, and it can be regarded as a case of open-syllable lengthening.

There is another phenomenon which has been described in terms of open syllables, viz.:

- * \bar{a} > a in antepenultimate syllable, in front of *-asca*, *-asciṭ*, etc. (§ 4.1).

Most of the forms in which this shortening is attested had * \bar{a} in open syllable, viz. the type *dātarasca*, *caθβarasca*, *apəmciṭ*, *zauuarəca*, *aḍaēca* and others. There is one exception: the pronoun **ābjas* appears shortened in *aibiiascā*, *aīβiiasca* and *aibiiasciṭ*. Furthermore, there is shortening in the abl.sg. ending **-āṭ haca* > *-aṭ haca*; yet here, * \bar{a} stood in a closed syllable. It is therefore not certain that we must invoke open syllables as a necessary phonetic condition for the shortening. We have seen that the result of this shortening, viz. an alternation between a and \bar{a} in the suffix of several stems, was only tolerated if these suffixes had already inherited such an alternation from IIr. Since no such alternation existed in closed syllables (most of the stems with an IIr. alternation have this because of Brugmann's lengthening of PIE * o in open syllable), we would not expect a shortening to survive in stems with *-ā-* in a closed syllable anyway. This implies that the shortening in *dātarasca* etc. does not yield any trustworthy evidence as to the phonetic influence of open vs. closed syllables in Avestan.

§ 30.1.4 Vowel quantity and quality

Hoffmann (1971: 68, compare also Hoffmann 1987: 52 and Hoffmann-Forssman 1996: 44,54) has put forward the idea that Avestan short and long vowels, such as a and \bar{a} , i and \bar{i} , u and \bar{u} , were not only different in quantity, but also in quality. He assumed that the short vowels were closed as opposed to the more open long vowels. Hoffmann proposed this interpretation in order to explain the fact that the Avestan vowels often do not agree in quantity with their IIr. predecessors ("Die Quantitäten sind aber gegenüber dem sprachgeschichtlich Erwarteten so häufig vertauscht"), but as we have seen in the course of this investigation, the original quantity has been preserved in the majority of cases. Where the original quantity has changed, the changes can mostly be described in phonetic terms of lengthening and shortening. There is no reason to assume that the alphabet indicated vowel quality rather than quantity.

Hoffmann argues that the vowel changes can be interpreted as open vowels becoming closed and closed vowels becoming open, but the examples he gives contradict his own assumptions. For instances, he cites "*ni-*, aber *vī-*", suggesting that * vi has yielded a more open (i.e. lower) vowel; but it would be strange for a labial to bring about such a lowering. Hoffmann also cites "*ahura-*, aber *ahūiri-*", whereas it can hardly be imagined that

i-epenthesis would *lower* the preceding **u*; as a remedy, Hoffmann 1987: 52 suggests that *ahūiri-* is due to "dissimilation with the closed *i*?", but this is not very likely either. For an alternative explanation of the grapheme *-ūi-*, see § 10.5.4 above.

In short, we may assume that the Avestan vowel pairs *a : ā*, *i : ī*, *u : ū*, *e : ē*, *o : ō* and *ə : ē* reflect a difference of vowel length at the time the Avestan script was created. It is possible that the vowels *also* differed in quality (e.g. *ī* being [i:], *i* being [i], *a* being [a], *ā* being [ɑ:], etc.), but I see no evidence which suggests, let alone proves this.

§ 30.1.5 The relation between OAv. and YAv.

The problem of discerning the mutual influences of OAv. and YAv. on each other has already been introduced in § 1.3. We may now summarize what additional evidence has been found during our investigation. I distinguish four categories of forms which are relevant in this respect. The first group of forms concerns the morphological innovations of YAv., which we must distinguish in order to see the remaining evidence in its proper perspective (1). The second category concerns the OAv. borrowings, adaptations and quotations in YAv. (2). The third category consists of the more recent phonetic tendencies which are characteristic of OAv. (3). The fourth category comprises the forms showing the influence of YAv. phonology and phonetics in OAv. (4).

1. The morphological differences between OAv. and YAv. have already been pointed at in § 1. The following additional evidence has been found in the course of the investigation:

- PAv. **ártāu(a)n-* → YAv. **ártau(a)n-* (§ 4.4).
- PAv. verbal suffix (or root plus verbal suffix) **-āja-* → YAv. **-aja-*: *gəuruuāia-*, *dāia-*, *paia-*, *maia-*, *raia-*, *stāia-*, *snāia-*, *zāia-* (§ 4.9.7).
- PAv. verbal suffix **-iā-*, or part of the ending containing **-iā-* → YAv. **-ia-*: prs.ptc.med. *sraiana-*, *saiiana-* for **-iāna-* (§ 4.9.4), 1p.ind. *-aiiamahi*, *-aiiamaide* for **-aiāmahi*, **-aiāmadai* (§ 4.9.5), 1p. and 2p. opt.aor. *buiiama*, *dāiata*, *buiata* for **-iāma*, **-iāta* (§ 4.9.6), 1s. *-iiemi*, *-iieni* and *-iiene* for **-iāmi*, **-iāni*, **-iānai* (§ 20.5)⁷⁴⁹.

⁷⁴⁹ The same YAv. tendency to preserve *-iia-* in all forms of a given verb explains the 3p.inj. *-aiian* instead of †*-aēn* (§ 23.2) and the prs.part.med. *-iiamna-* instead of †*-imna-* (§ 23.4).

- Formation in YAv. of the acc.pl.f. *nāmēnīš*, *paouruuainīš* on the basis of nom.acc.pl.n. **-anī* (§ 9.4).
- Replacement in YAv. of the acc.pl. **-ansca* by *-āscā* (§ 23.6.2.5).

These phenomena confirm the view, already defended as Model B in § 1.3, that all the differences between OAv. and YAv. may be due to the chronologically more recent date of YAv.; they need not reflect a theoretical dialect split of PAv. in OAv. and YAv.

2. The definitions of OAv. borrowings, OAv. adaptations and OAv. quotations have been given in § 1.3. Below, I list the instances of these phenomena which have been discussed in this study, together with the number of the section where the discussion can be found.

a. (Possible) OAv. borrowings in YAv.:

<i>aibigāiia-</i> 26.1.2	? <i>jījīša-</i> 6.2.1.2	<i>vaiiōi</i> 14.1
<i>aibiš-</i> 26.1.2	? <i>tāiiu-</i> 4.3	<i>vīspəmāi</i> 22.4
⁺ <i>arāiti-</i> 29.4	? <i>dadrāna-</i> 3.7.1.1	<i>spēništa-</i> 23.3.2.2
<i>arəməidō</i> 14.3.2	<i>fradaθa-</i> 4.9.9	
<i>jāgərəbuštara-</i> 3.7.1.1	<i>nāmēnīš</i> 9.4	

b. (Possible) OAv. adaptations in YAv.:

<i>aməšā spəntā</i> 5.1	? <i>vahehīš</i> 20.4	<i>hāta.marəniš</i> 25.2
<i>xšmāuuia</i> 3.4.1	? <i>vītarə.maibiia-</i> 16.1.2	<i>huuōuuā-</i> 16.3.1
<i>tušnāmaiti-</i> 5.2.1.4	<i>vīduuāēštuua-</i> 14.3.1	<i>huuōuuī-</i> 16.3.1
<i>druuāite</i> 3.2.1	<i>sōire</i> 14.3.2	<i>humatōibiiasca</i> 14.3.4
<i>pərətu-</i> 29.3	<i>stē</i> 20.3	<i>hūxtōibiiasca</i> 14.3.4
<i>yaēθma</i> 14.3.1	<i>spəntā.mainiiu-</i> 5.2.1.4	<i>huuarštōibiiasca</i> 14.3.4

c. (Possible) OAv. quotations in YAv.:

<i>auuaxīiāi</i> 28.3	<i>cīšmaide</i> 4.9.5	<i>məzaraiia</i> 4.3
<i>ašāṭ haca</i> 4.1.2.1	<i>cōišta</i> 14.3.1	<i>nāmēni</i> 9.4
<i>uxδaxīiāca</i> 28.3	<i>dadəmaide</i> 4.9.5	⁺ <i>zrahehīm</i> 20.4
<i>kamnamaēzqm</i> 23.4	<i>magaonō</i> 17.3	<i>hātqm</i> 3.5

3. The later transmission of OAv., especially in the period after the canonization of YAv., is characterized by a number of phonetic changes which can be ascribed to a more protracted pronunciation of the words, i.e. the chant of the *gāθā* ‘songs’. One symptom of this phenomenon is probably the lengthening of all vowels in auslaut. Other effects of the chanting pronunciation are the large number of anaptyctic vowels in consonant clusters,

and several recent cases of vowel lengthening. We may draw the following list of vocalic phenomena which we have found during our investigation:

- $*a > \bar{a} / _T_{[+dental]}\bar{a}, q$ (§ 3.5).
- $*a > \bar{a} / v, uu_$ (§ 3.2).
- $*a > \bar{a} / \#_C-$, especially if $C = r$ (§ 3.4.3).
- $*a > \bar{a}, \bar{e} / _Cu$ (§ 22.8).
- $*\tilde{a} > \bar{e}\bar{a} / _C\tilde{u}, _uu\bar{a}$ (§ 22.8).
- the larger number of anaptyctic vowels in consonant clusters than in YAv.; anaptyctic \bar{e} instead of \bar{e} (§ 25).
- the more frequent rounding of $*ar$ to \bar{or} in the vicinity of labials ($\vartheta\beta\bar{or}\bar{a}\check{s}tar-$) and elsewhere ($c\bar{or}\bar{a}\check{t}$, $d\bar{or}\bar{a}\check{s}t$) (§ 24.1.3).
- $-qn > -qm / m_$ (§ 19.3.1).
- the denasalization of $*-qm$ in $str\bar{e}m$, $\acute{x}i\bar{i}\bar{e}m$, $\acute{x}\check{s}n\bar{e}m$ (§ 23.1).

4. The phonological make-up of OAv. has been largely determined by the phonological system of Early YAv. at the time of the canonization of the OAv. texts. When the EYAv. speakers came across a phoneme for which they had no exact phonetic equivalent, they replaced it by an allophone of their own (e.g. OAv. $*h$ between \tilde{a} -vowels). If the speakers of EYAv. came across a phoneme for which they did have a counterpart in their own pronunciation, they adopted it in the text of OAv., even if it concerned words which had meanwhile acquired a different phoneme in EYAv. The latter fact explains why some of the phonemic splits of Early YAv. are not reflected in the OAv. texts, e.g. EYAv. $*\acute{h}h/\acute{h}^h$ versus OAv. $*h\acute{i}/h\acute{u}$, EYAv. $*h\acute{r}t$ versus OAv. $*rt$, EYAv. $*-e$ versus OAv. $*-i\bar{a}$. The list of phonetic replacements of OAv. phonemes by YAv. allophones includes the following elements (see also § 30.2):

- the automatic distribution of vowel length in the endings.
- $*aha \rightarrow *a\eta ha$, $*ahr \rightarrow a\eta r$
- $*-ah \rightarrow *-\bar{a}h$, $*ahm \rightarrow *a\eta m$
- $*-\bar{a}h \rightarrow -\bar{a}h$
- $*ai \rightarrow *a\acute{i}$
- $*au \rightarrow \bar{a}u / _s\check{}$
- $*aN \rightarrow \bar{a}N$
- $*\bar{a}nT$, $*\bar{a}\eta \rightarrow \bar{a}\bar{n}T$, $\bar{a}\eta$

After the canonization of OAv., there is a period when the YAv. system undergoes several changes which are not reflected in OAv., such as the lenition of intervocalic voiced stops. This points to a separate transmission of the OAv. and the YAv. texts, or at least a different treatment as far as faithfulness to the original text is concerned.

5. After the Late YAv. period, however, OAv. and YAv. are merged in one single tradition, which we may probably identify as the *final liturgical arrangement* of the Avesta as posited by Kellens (1998: 479), see § 1.4. From this moment on, the phonetic changes which the transmitters have (unconsciously) introduced into the YAv. texts are found in the same way in OAv.: *i*-mutation, *u*-mutation, *i*-epenthesis, *u*-epenthesis, **āN > qn*, and others; see § 30.2, stage VI, for more details.

§ 30.1.6 YAv. dialects?

Several YAv. grammatical forms show vacillation between two variants, without any apparent syntactic or semantic reason. For instance, we find the acc.sg. of **dahiu-* ‘country’ both as *daχiiiūm* and as *daŋhaom*, and the gen.sg. of the demonstrative pronoun *a-* appears as *ahe* beside *aŋhe*. In theory, it is possible that some of this apparent morphological heterogeneity is due to the fact that the YAv. text corpus contains material from different dialects, or from texts which were transmitted in the midst of different priest schools living in different regions of (Greater) Iran. Yet it seems to me that the explanation of morphological variation from dialect mixing is quite hazardous. And in any case, no morphological variation has been found yet which must inevitably be explained as the result of two or more different linguistic systems; compare the explanation for *ahe/aŋhe* given in § 20.2.

In the case of phonetic developments, I have not found any vacillation in the texts for which we must assume dialectal differences either. The possibility of dialectal origin of certain phonetic phenomena has been raised especially by Hoffmann-Narten 1989: 79ff., who assumed that an Arachosian dialect was to be held responsible for them; cf. also Hoffmann-Forssman 1996: 35, 107f. This theory has already — and justly — been criticised by Tremblay 1996: 104. In the course of our investigation, we have dealt with the following phenomena for which a dialectal explanation had been offered by previous scholarship: **arəiti-* (§ 29.4), *ašāum* (§ 4.4), **ai > ōi* (§ 14), **-au > -ō* vs. *-uuō* (§ 16.3), **-anh > -q* after other consonants than *N, h, i* (§ 23.6.2.3), **-uan > -uuqn* (§ 23.2), *juua-* (§ 6.5), *nāmənīš* (§ 9.4), *dbōišṭəm* (fn. 426) and YAv. *x^v-*, *-x^v-* (§ 28.2, 28.4). In every case, there is an alternative explanation for the problem involved.

§ 30.2 Relative chronology

This subsection intends to incorporate the indications for the relative chronology of sound changes, as they have been established across this study, into one comprehensive relative chronology. We will adopt the chronological scheme of § 1.4 as a framework:

Stage I (± 2000 to ± 1500 BC)	Proto-Indo-Iranian
Stage II (± 1500 to ± 1100 BC)	Proto-Iranian
Stage III (± 1100 BC)	Old Avestan
Stage IV (± 1100 to ± 700 BC)	Early Young Avestan, ending in the Canonization of Old Avestan texts
Stage V (± 700 to ± 300 BC)	Late Young Avestan
Stage VI (± 300 BC to ± 950 AD)	Post-Young Avestan, ending in the Archetype
Stage VII (after ± 950 AD)	Post-archetype

We will reconstruct the phonological system of vowels at different points in the chronology. For the oldest stages, the system has already been given in § 1.4. Subsequent developments within these stages are numbered 1, 2, 3, etc. in the chronology. If different developments cannot be mutually dated, but must belong to the same chronological phase, they are enumerated by means of letters a, b, c, etc. Within the same stage, these letters do *not* have chronological implications. Stages numbered by means of letters, however, may be subdivided into developments which *can* be mutually dated; those are numbered in the usual way by means of 1, 2, 3, etc.

Not all discussed developments are mentioned in this chronology. E.g., the shortening of abl.sg. in front of *haca* (*-ā̄t̄ *haca* > -āt̄ *haca*) and of the type *-ā̄rasca > -arasca, *ā̄pəmcī̄t̄ > apəmcī̄t̄, etc. cannot be dated precisely enough to make a discussion worthwhile.

I: Proto-Indo-Iranian

IIr. vowel system:

i *a* *u*
 ā

II + III: From Proto-Indo-Iranian to Old Avestan

We may take stages II and III together, because it is impossible to determine any specifically OAv. developments in the field of phonetics or phonology.

Changes

1. a. $*s > *h / \check{a}_m, r, V, \#$
- b. $*-iN\check{s} > *-\bar{i}\check{s}$, $*-uN\check{s} > -\bar{u}\check{s}$
- c. $*aH$, $*iH$, $*uH > \bar{a}$, \bar{i} , $\bar{u} / _C, \#$

The consonant change of $*s$ to $*h$ in certain positions was relevant for the later vowel developments. This certainly was a PIr. change. Two other changes directly affected the vowel system, yielding the two new phonemes $/\bar{i}/$ and $/\bar{u}/$. It is uncertain whether these two changes took place before the separation of the PIr. dialects, or afterwards.

System

The OAv. vowel system will have been as follows:

i	\bar{i}	u	\bar{u}
	a	\bar{a}	

IV: Early Young Avestan: From OAv. to the canonization of OAv.**Changes**

- a. 1. $*-\check{a}$, $*-\check{i}$, $*-\check{u} > -a$, $-i$, $-u$ in polysyllables.
 $*-\check{a}$, $*-\check{i}$, $*-\check{u} > -\bar{a}$, $-\bar{i}$, $-\bar{u}$ in monosyllables.
 In front of enclitic $-ca$ and $-ci\check{t}$, the same form was used as in the simplex.
2. $*-h\check{i}a > -he$.

3. a. $*\tilde{a}h\tilde{a} > *\tilde{a}\eta h\tilde{a}$ -, $*\tilde{a}hr > \tilde{a}\eta r$ -, $*\tilde{a}hi\tilde{a} > *\tilde{a}\eta h\tilde{a}$ -, $*\tilde{a}hu\tilde{a} > *\tilde{a}\eta h\tilde{a}$ -.
 b. $*\tilde{a}h > \tilde{a}h$.
 c. $*ah > \tilde{a}h$, $*ahm- > \tilde{a}hm$ -.
 d. $*ai > \tilde{a}i$.
 e. $*au > \tilde{a}u / \tilde{a}$.
 f. $*aN > \tilde{a}N$, probably also $*\tilde{a}\eta T$ -, $*\tilde{a}\eta > \tilde{a}\eta T$ -, $\tilde{a}\eta$ -.
 Only development (a) must necessarily be dated after $*h\tilde{a} > \tilde{a}h$.
 Developments (b) and (c) are also dated to this stage because they seem to show a similar retracting effect of $*h$ as in (a). Developments (d), (e) and (f) are subsumed under this stage because they too show the change of $*a > \tilde{a}$ as in (c). The changes (b)-(f) are all of allophonic nature.

- b. 1. Voicing Opposition on R (VOR): $*rp$, $*rt$, $*rk$ develop the allophones $[rp]$, $[rt]$, $[rk]$ if $*r$ or the directly preceding $*a$ was unstressed; they develop the allophones $[hrp]$, $*[hrt]$, $[hrk]$ if $*r$ or the directly preceding $*\tilde{a}$ was stressed.
 2. The inherited, IIr. stress placement is given up, and $[hr]$ becomes phonemic.
- c. $*ru- > \tilde{a}ur- / \tilde{a}ia$.

System

The vowel system at the end of Early YAv., around 700 BC, will have been as follows:

i	\tilde{i}		u	\tilde{u}
	e			
	a			\tilde{a}

The only phonological change as far as the vowels are concerned is the change $*\tilde{a} > \tilde{a}$. It is less likely that the monophthongization of $*au$ to \tilde{a} already took place in Early YAv., cf. § 16.5. Note that the functional load of \tilde{a} was rather small at this point: it only occurred in auslaut.

End of stage IV: Canonization of OAv.

The canonization by speakers of YAv. caused the replacement of OAv. phonemes by their Early YAv. allophones, both in word-internal position and

in the endings. For instance, the vowel **a* became [ə] in front of nasals, *h* and **i*; later in the tradition of OAv. this became [ə̄], which is why we find *-ə̄N-* and *-ə̄hm-* in OAv. The most important Early YAv. vowel features which were introduced into the OAv. texts are:

- the automatic distribution of vowel length in the endings.
- **-aha-* → **-aṇha-*, **-ahr-* → *-aṇr-*.
- **-ah* → **-əh*, **-ahm-* → *-əhm-*.
- **-āh* → *-ā̇h*.
- **-ai(-)* → **-əi(-)*.
- **-au-* → *-əu-* / *-ṧ*.
- **aN* → *əN*.
- **-āṇT-*, **-āṇ-* → *-ā̇ṇT-*, *-ā̇ṇ-*.

The YAv. vowel /e/ did not exist in OAv., which explains why the OAv. gen.sg. ending **-ahia* was not replaced by YAv. *-/ahe/*. A phoneme sequence /ia/ still occurred in YAv. in other positions in the word, so that the OAv. ending could be adopted unchanged⁷⁵⁰.

Stage V: Late Young Avestan: From the canonization of OAv. to the canonization of YAv.

Changes

1. a. **-əh* > *-ə̄*, **-ā̇h* > *-ā̇*.
- b. **-(ə)rnṧ(-)* > **-(ə)rā̇ṧ(-)*.
- c. **-au* > **-ō̄*.

⁷⁵⁰ Even though we have only discussed the evidence for YAv. vowel allophones ousting the OAv. ones, the same process must have taken place among the consonants. Therefore, we may assume that Early YAv. still possessed intervocalic *b*, *d* and *g* unchanged: if these consonants had already undergone the lenition to intervocalic voiced fricatives *β*, *δ*, *γ* (as shown by the YAv. texts), these fricatives would surely have been introduced into the canonized OAv. texts. This lenition must be dated before change (6) of the Late YAv. period.

2. a. $*-\partial nh > *-\tilde{a}$.
 b. 1. $*-\partial i > -e$.
 2. $*-\partial \dot{i}e > -\bar{e}e$.
 3. $*\partial i$ becomes $*ai$ in front of a vowel or a single consonant, but $*\bar{\partial}i$ in a closed syllable.
 c. $*\partial N > *aN$ in many positions, especially in initial syllable and in suffixes $*-\dot{i}a-$, $*-\mu a-$, $*-na-$, etc.
3. $*-\mu \partial m > *um$, $*-\dot{i} \partial m > *im$.
4. a. $*\bar{\partial}i > *\bar{o}i$.
 b. 1. $*-\bar{\partial} > -\bar{o}_2$.
 2. $*-\bar{\partial}_1 > *u\bar{o}$ except after \dot{i} .
5. a. $*-\tilde{a} > -\bar{\partial}$ except after $n, m, \eta h, h, \dot{i}$.
 b. $*-r\tilde{a}\check{s} > -r\bar{\partial}\check{s}$.
6. $*\tilde{a}N > q / _C_{[+fricative]}$

The changes under (1) have been fully applied in OAv., which suggests that they must be the oldest of the Late YAv. changes. The changes (2b), (2c), (3) and (4) are at least partly reflected in the OAv. texts, which were therefore still susceptible to YAv. influence. OAv. preserves traces of the earlier distribution: word-internally, OAv. $\bar{o}i$ alternates with YAv. $aii/a\bar{e}$, and OAv. $\bar{\partial}m$, $\bar{\partial}n$ with YAv. aN ; word-finally, the older and newer forms of several endings interchange: $-\bar{o}i$ and $-\bar{e}$, $-\bar{\partial}$ and $-\bar{o}$, $-\bar{\partial}m$ and $-\partial m$. The newer, YAv. endings occur especially pāda-finally ($-\bar{e}$, $-\bar{o}$, $-\partial m$), the older ones ($-\bar{o}i$, $-\bar{\partial}$, $-\bar{\partial}m$) pāda-internally. Compare the following survey of the most important endings:

A phoneme **ā* arose through the development **-anh* > *-ā*, and **e* has extended its domain by means of the development **-əi* > *-e*. The vowel written as *ō* can be analyzed as a simple phoneme /*o*/. Note that the central phonemes /*e*/, /*ā*/, /*o*/ and /*ā̇*/ only occurred in auslaut, except maybe for the plural *b*-cases in *°ābiiō*, *°ābīš*, etc. However, the analysis of these case forms as one single word may be of a later date. The phoneme /*ā*/ was also restricted to endings, viz. **-ā* and **-rāš*.

The changes under (4) and (5) do not seem to create new phonemes. One might argue that there was a stage in which there were two phonemes /*ō*₁/ and /*ō*₂/, but this remains uncertain. The change in (6) would have greatly increased the occurrence of /*ā*/, but if this change post-dates YAv., it is phonologically irrelevant.

Stage VI: Post-Young-Avestan: From the canonization of YAv. to the Archetype

The developments in this period are difficult to relate to each other. I have left out of consideration several changes which we cannot date relatively with the help of other developments.

The Redactional Compound Split (RCS) is an analogical change and can therefore be left out of the relative chronology. It is uncertain to what degree the RCS reflects a single moment in time. Many instances of RCS post-date the extinction of YAv. as a living language, but some cases may already have occurred in YAv.

Changes

I distinguish six clusters of changes. Within these clusters, the developments can be placed in a relative chronology, although in some cases the relative dates are based on little evidence. It is impossible to date the clusters with regard to each other; the order in which they appear below is therefore random.

Cluster 1:

- a. YAv. **-Ċiaca* > *-Ċiāca*, **-Ċiaciṫ* > *-Ċiāciṫ*.
- b. YAv. **#_šaca* > *#_šāca*; much less in front of *-ciṫ*.

Cluster 2:

1. $^*-\gamma\underset{\sim}{u}- > ^*-\underset{\sim}{u}-$. Before (2) because of $r\underset{\sim}{a}uu\bar{i}$.
2. $^*-\underset{\sim}{a}u\bar{i}-, ^*a\underset{\sim}{u}r-$ > $-\underset{\sim}{a}u\bar{i}-, \underset{\sim}{a}u\bar{r}\bar{a}$ -. Before (3) because of $auui$.
3. $^*-\underset{\sim}{V}\beta\underset{\sim}{V}- > ^*-\underset{\sim}{V}u\underset{\sim}{V}-$. Before (4) because of $auui.ama$ -.
4. a. $^*-\underset{\sim}{C}i\underset{\sim}{i}a- > ^*-\underset{\sim}{C}i\bar{a}$ -.
 b. $^*-\underset{\sim}{u}u\bar{i}\check{s} > ^*-\bar{u}\check{s}$.
 c. 1. *i*-epenthesis, *u*-epenthesis.
 2. $^*\underset{\sim}{a}iri > ^*iri$.
 3. $^*i > \underset{\sim}{i}i, ^*u > \underset{\sim}{u}u$.
 4. $^*-\underset{\sim}{C}u\underset{\sim}{u}i > ^*-\underset{\sim}{C}u\bar{i}$.

Cluster 3:

1. *i*-mutation of *a .
2. $^*-\underset{\sim}{h}i\underset{\sim}{e}h- > ^*-\underset{\sim}{h}e\underset{\sim}{h}-$.
3. $^*i > \underset{\sim}{i}i$.

Cluster 4:

This cluster subsumes a number of vowel shortenings, and lengthenings in initial syllable. It is uncertain whether they all really took place in the same period, but that is the best guess we can make:

1. a. Shortening of $^*\bar{a} / C_C_{[+stop,-voice]}$ in second syllable.
 b. 1. a. $^*\bar{i} > i / _u$.
 b. $^*\bar{u} > u / _i$.
 2. $^*ci\underset{\sim}{u}-, ^*ji\underset{\sim}{u}- > cu\underset{\sim}{u}-, ju\underset{\sim}{u}-$, except when $-ij-$ followed.
2. a. $^*a > \bar{a}$ in initial syllable (esp. $fr\bar{a}^\circ$).
 b. $^*hau\underset{\sim}{i}V > ^*hau\underset{\sim}{i}V (V \neq ^*a), ^*hau\underset{\sim}{i}a > ^*h\bar{a}u\underset{\sim}{i}a$.
 c. $^*i > \bar{i} / _u\bar{i}$ - in initial syllable.
 d. $^*i > \bar{i} / _i\check{C}, \check{C}$.
 e. $^*u > \bar{u} / _i\check{C}$.
 f. $^*u > \bar{u} / _CV$.
 g. $^*i > \bar{i} / C_C_CV$.
 h. $^*i > \bar{i} / C_{[+labial,+glide]}_CV$.

Development (1a) must precede (2a). The developments under (1b) must precede development (2c). Developments (2b) and (2c) are given as contiguous because the conditioning environment is the same; similarly (2d) and (2e), and (2f), (2g) and (2h).

Cluster 5:

1. $^*-\underset{\sim}{h}r\underset{\sim}{t}- > ^*-\check{s}$ -.
 2. $^*a > \bar{a} / \#C_{[+labial]}_i\check{s}$ -.

Cluster 6:

1. **-ān, *-ām* > *-qn-, -qm*.
2. *-ān-, -ām-* > *-qn-, -qm-* / *_V* (partly also later than the archetype).
3. **frqna-* → *frāna-*, etc.

Most of the post-YAv. changes occur in YAv. and OAv. alike. They were conditioned purely by the pronunciation of the transmitted texts. However, some changes betray a difference of transmission between OAv. and YAv. Some of the lengthenings are restricted to OAv. texts, and so is most of the labialization of **a* and **ə*. The most striking OAv. phenomenon is the lengthening of vowels in auslaut, yielding *-ā, -ī, -ū, -ē* in all OAv. words. It is likely that this took place relatively recently, since it fits well into the category of phenomena caused by the chanting pronunciation of OAv. Moreover, the text redactors were conscious of this lengthening, as is shown by the different treatment of vowels in front of *-cā* ‘and’ (cf. § 5.3): beside *-ācā*, we find *-icā* and *-ucā* in OAv. The lengthening of vowels in auslaut was then also applied to some YAv. passages, in order to make them sound more Gāthic: the pseudo-OAv. texts.

VII: Post-archetype

Manuscript-specific changes are not enumerated here. The most important tendencies which can be observed in all or many of the available mss. are the following:

- Sporadic lengthening **a* > *ā* / *v,uu_* (except in OAv. when the next syllable contains *(*)-ā-*; this is older).
- Sporadic shortening **-āna-* > *-ana-*.
- Sporadic shortening **āC-* > *aC-*.
- Dissimilation **ā_ā* > *a_ā*.
- Corruption *hamō* > *haomō* > *hāmō*.
- Corruption *-ai-* > *-āi-*, especially in front of *t* and *r*.
- **u* > *ū* / *_Cr* (*aiβisrūθrima-*, *būdra-*, *gūzra-*)
- Lengthening *-iie* > *-iiē*.
- **-caN-*, **-jaN-* > *-ciN-*, *-jiN-*.
- *-C_[+palatal]əm* > *-Cim*.
- **-ān-, *-ām-* > *-qn-, -qm-* (partly).
- **aṇm* > *qnm*.
- **-āuuīia#* > *-āuuōīia*, **-āuuīia-* > *-āuu(a)īia-*.
- Several other cases of anaptyxis, e.g. in **zraz-*, **sras-*, **-uuīi-* and **-iiuu-*.

§ 30.3 The origins of the Avestan vowels

In the summaries to the different chapters we have already provided a survey of the Avestan reflexes of the individual IIr. vowels. We will now provide a list of correspondences in the reverse direction, viz. from Avestan to Indo-Iranian. The list below summarizes for every Avestan vowel grapheme of the archetype all possible (PAv., IIr.) phonetic sources. Unexpected vowel quantities which have been brought about by analogical changes in the period between IIr. and PAv., and in the period of the living Avestan language, are ignored. The reconstructed vowels which undergo the changes are PIr. (after the loss of laryngeals) unless stated otherwise.

Monographs:

- Av. *a* <
1. **a*.
 2. **ā* / $_ \$ascā, _ \$asci\check{t}, _ \$əmca, _ \$əmci\check{t}, _ \$aēca, _ \$arəca$ in YAv.
 3. **ā* / $_ t\ haca$ in YAv.
 4. **ā* / $_ i\check{ā}$.
 5. **ā* / $_ u\check{ā}$.
 6. **ā* / $_ nV$ (*V* = mostly *a*).
 7. **ā* / $_ \$C_{[-voice]}aiā/e-$ in YAv.
 8. **ā* / $\#C-$.
 9. **ā* / $_ \$ā, _ \q .
 10. Anaptyctic vowel (in **ui*, **sr*, **zr*).
 11. **ā*# in polysyllables in YAv.
 12. **ā* / $_ ca$ in YAv.
- Av. *ā* <
1. **ā* (< IIr. **ā*, < **aH* / $_ C$, < **aHā*).
 2. **-a* + *a-* on the compound boundary.
 3. **a* / **Ci(i)* $_$.
 4. **a* / **u* $_$.
 5. **a* / $\#C_{[+labial]}_ r\check{t}$.
 6. **a* / * $_ uiā$ in YAv.
 7. **a* / $fr_CaCaia-$, / $fr_Cərə-$ in YAv.
 8. **a* in initial syllable, followed by at least two syllables in *-a-* or *-e-*.
 9. **-a*# in monosyllables.
 10. **-a*# in polysyllables in OAv.
 11. **-a* / $_ ca$ in OAv.
 12. **-a* / $_ ca$ in YAv. monosyllables.
 13. **ā* / $_ ca$ # in YAv. if preceded by one syllable.

- Av. \ddot{a} < 1. $*\text{-}\ddot{a}h\#$.
2. $*\ddot{a} / _nk,nc,nt,nh$.
- Av. q < 1. $*\ddot{a} / _n\#, _m\#$.
2. $*\ddot{a} / _nV_{[+back]}, _mV(\#)$.
3. $*\ddot{a}N / _C_{[+fricative]}, _h$
4. $*\text{-}anh / _C\#$ in YAv., if $C = N, i, h$.
5. Corruption of archetype $*a / _nm$.
6. Corruption of archetype $*\partial / _ii_n$.
- Av. \acute{q} < $*a / \#h_mC_{[+labial]}$.
- Av. ∂ < 1. $*a / _N$.
2. $*a / _u\check{i}$.
3. $*a / _ur$.
4. $*a / _Cu$ in OAv. (only in *bəzuuaṅt-* and *drəguuaṅt-*).
5. $*\text{-}ah\#$ (only in more recent texts).
6. $*ah / _m$ (only in *vīspəmāi*).
7. Anaptyctic vowel.
- Av. $\bar{\partial}$ < 1. $*a / _iV$ in OAv.
2. $*a / _iai\#$ in YAv.
3. $*a / _hm$ in OAv.
4. $*a / _N$ in OAv.
5. $*a / _Cu$ in OAv. (only in *həbuuaṅt-*)
6. $*\text{-}ah\#$ in OAv.
7. $*\text{-}ah. / _b-$.
8. $*\text{-}anh\#$ in YAv.
9. $*\ddot{a} / _m\#$ in OAv.
10. $*\ddot{a} / _nV$ in YAv.
11. Anaptyctic vowel in OAv.
- Av. e < 1. $*a / _i_š\check{e},\check{i} / _h_š\check{e},\check{i}$.
2. $*a / _i_c.j$.
3. $*\text{-}\check{i}\check{a} / _C\#$.
4. $*\text{-}ai\#$ in YAv. polysyllables.
- Av. \bar{e} < 1. $*\text{-}ai$ in YAv. monosyllables.
2. $*\text{-}ai$ in OAv.
3. Corruption of archetype $*\text{-}e / _ii\#, / _š\check{e}\#$.

Av. *o* < **a* / $C_{1[+labial]}C_2u$ if $C_2 = \gamma, r, \check{s}$ or *h*.

Av. \bar{o} < 1. **a* / $\underline{i}V$ in OAv.
 2. **a* / $\underline{i}uam$ in YAv.
 3. *-*au*# / \underline{i} -.
 4. *-*ah*#.
 5. *-*ah*. / \underline{b} -.
 6. Anaptyctic vowel in *-*ui*- (YAv.) and *-*rC*- (OAv.).
 7. Corruption of archetype *-*uu* \bar{o} , *-*u*, *- \bar{u} .

Av. *i* < 1. **i*.
 2. * \bar{i} # in polysyllables in YAv.
 3. * \bar{i} / \underline{ca} in YAv.
 4. * \bar{i} / *- $\underline{u}\check{a}$ -.
 5. **a* / $\underline{i}N$.
 6. *i*-epenthesis on * \underline{r} / $C\underline{i}\check{a}$.
 7. Anaptyctic vowel.
 8. Corruption of archetype * \bar{o} and **a* / $c,j,\check{z}N$.

Av. \bar{i} < 1. * \bar{i} (< IIr. **iH* / \underline{C}).
 2. *-*i* + *i*- on the compound boundary.
 3. **i* / \underline{m} #.
 4. *(*i*) $\check{i}a$ / \underline{m} #.
 5. **i* / $\underline{b}\check{s}$ #.
 6. **i* / \underline{t} #, / $\underline{\check{s}}$ # in OAv. monosyllables.
 7. **i* / # C_1C_2 - in OAv., maybe in YAv.
 8. **i* / # $C_{\underline{t},s,\check{s}}$ -.
 9. **i* / $C_{[+labial,+glide]}C,\check{s}t,sp,\check{s}m$.
 10. **i* / $\underline{\check{z}}C$, / $\underline{\check{s}t}$.
 11. * \bar{i} in monosyllables.
 12. *-*i* / \underline{ca} in OAv. monosyllables.
 13. *-*i* / \underline{Cu} # in YAv.
 14. IIr. **in* / $\underline{\check{s}}$ #.

Av. *u* < 1. **u*.
 2. * \bar{u} # in YAv. polysyllables.
 3. * \bar{u} / \underline{ca} in YAv.
 4. * \bar{u} / \underline{i} .

- Av. \bar{u} <
1. $*\bar{u}$ (< IIr. $*uH / _C$).
 2. $*-u + u-$ on the compound boundary.
 3. $*u / _m\#$.
 4. $*(u)\hat{u}a / _m\#$.
 5. $*u / \#C(C)_CV-$.
 6. $*u / _i-$.
 7. $*u / _žC, / _šC$.
 8. IIr. $*un / _š\#$.
 9. $*ubi / _š\#$.
 10. $*-uuanh\#$ (< IIr. $-uHan(t)s$).
 11. $*\bar{u}$ in monosyllables.
 12. $*-u / _ca$ in OAv. monosyllables.
 13. Corruption of archetype $*-\bar{d} / -auu\#, -a\bar{e}uu\#, -aruu\#$.
 14. Corruption of archetype $*\bar{d} / -uu_sca\#$.

Digraphs:

- $a\bar{e}$ <
1. $*ai / _C$.
 2. $*ai / _CC$ in YAv. if $CC = st, sm, šm$.
 3. $*ai / \#_r$ in YAv.
 4. $*ai / r_CC$ in YAv. if $CC = xn, xš, \vartheta\beta, št$.
 5. $*a\hat{i}a / _N\#$.
 6. Corruption of archetype $*aii\bar{a} / _n\#$.
- ao <
1. $*au / _C$.
 2. $*a\hat{u}a / _N\#$.
 3. Corruption of archetype $*auu$.
- ai <
1. i -epenthesis on $*a$.
 2. i -epenthesis on an anaptyctic vowel in OAv.
- au < u -epenthesis on $*a$.
- ar <
1. $*ar$.
 2. IIr. $*r / _H$.
- $\bar{a}a$ <
1. $*\bar{a} / _tca$.
 2. $*\bar{a} / \#_t\#$ in sentence-initial position.

- āi* < 1. **āi*.
 2. Contraction of **-ā + i-*, **-ā̃ + ai-* on the compound boundary.
 3. **āia* / *_N#*.
 4. *i*-epenthesis on *ā*.
 5. Corruption of archetype **-ai-*.
 6. Corruption of archetype **-aē-* and **-aēi-*.
 7. Corruption of archetype **-ā.i-*.
- āu* < 1. **āu*.
 2. Contraction of **-ā + u/u-*, **-ā̃ + au-*.
 3. **āua* / *_N#*.
 4. *u*-epenthesis on **ā*.
 5. Corruption of archetype **ao* / *_n(-)*, *_m(-)*, *_r*, *_š#*.
 6. Corruption of archetype *-ā.u-*.
- əi* < 1. **i* / *_t̃* in OAv.
 2. *i*-epenthesis on (anaptyctic) *ə*.
- ər* < III. **r* / *_C*.
- əu* < 1. **au* / *_š#*.
 2. **au* / *_šV* in OAv.
- ər* < Contraction of **-a + r-* / *_C*.
- ei* < *i*-epenthesis on *e*.
- ou* < *u*-epenthesis on *o*.
- ōi* < 1. **ai* / *_CC*, *_C#*.
 2. **ai* / *_CV* in OAv.
 3. **-ai#* in OAv.
 4. **-ai#* in YAv. (only in *yōi* and *maidiiōi*).
 5. *i*-epenthesis on *ō*.
 6. Corruption of archetype **-ō.i-*.
- ōr* < 1. **a* / *_rC*_[+dental] in OAv.
 2. **r* / *C*_[+labial]*_C* in OAv.
 3. Contraction of **-a + r-* / *_C* in OAv.

- ii* < 1. $\hat{*i}$.
2. $\hat{\text{I}r}$. $\hat{*iH} / _V$.
- ui* < 1. *i*-epenthesis on *u*- (only in *uiti*).
2. Corruption of archetype *-ūi*-.
- uu* < 1. $\hat{*u}$.
2. $\hat{\text{I}r}$. $\hat{*uH} / _V$.
3. $\hat{*b} / V_V$.
4. YAv. $\hat{*}u\# / _.\check{a}_-, _.\check{i}_-, _.\check{u}V-$.
- ūi* < 1. *i*-epenthesis on \check{u} .
2. *i*-epenthesis on $\hat{*}r_u / _i$.
- rə* < Corruption of archetype *ərə*.
- rē* < $\text{I}r$. $\hat{*}r / -t_n\check{s}\#$ in YAv.

Trigraphs:

- aēi* < *i*-epenthesis on *aē*.
- aēu* < *u*-epenthesis on *aē*.
- aoi* < 1. *i*-epenthesis on *ao*.
2. *i*-epenthesis on *u*-epenthesis on $\hat{*}a / _r$.
- aou* < 1. *u*-epenthesis on $\hat{*}a / C_{[+labial]}_$.
2. Corruption of *au*, especially $_r$.
- əur* < *u*-epenthesis on $\hat{*}r$.
- ərə* < $\hat{*}r / _n\check{s}, _n\check{z}$ in OAv.
- ərē* < $\hat{*}r / _n\check{s}\#$ in YAv.
- ēāā* < $\hat{*}\check{a} / _C\check{u}, _uu\check{a}$ in OAv.
- ōir* < *i*-epenthesis on $\hat{*}r / \underline{u}_$.
- uuō* < $\hat{*}au / -C_\#$.

Appendix: Corrections of Geldner's edition

This appendix provides a list of the corrections which have been proposed or discussed in this study. It does not represent an exhaustive list of all possible corrections which the extant edition should undergo.

1. Corrections rejected or not proposed by Bartholomae 1904. The list includes new proposals by myself and previous proposals by other scholars. See in each case the relevant subsection:

- passim *mainiiō spāništa* → ⁺*mainiu spāništa* § 16.3.3
 passim *vahištōišti-* → ^x*vahištō.išti-* § 14.3.1
 Y 1.11ff. *bərazanbiia* → ⁺*bərazanbiia* § 23.5.4
 Y 4.2ff. *vīspaiiā sqaṭca* → ^x*vīspaiiāscā* § 19.1
 Y 9.5 *məraḍiiuš* → ⁺*məraḍiiuš* § 24.1.2
 Y 9.11 *ārštiiō.barəza* → ⁺*ārštiiō.barəza* § 25.3.1
 Y 9.14 *vībərəḍβantəm* → ^x*vībərəḍβantəm* § 23.5.1.2
 Y 9.26 *grauuasca* → ^x*grauuāscā* § 11.1.2
 Y 10.11 *upāiri.saēna-* → ⁺*upairi.saēna-* § 3.6
 Y 10.12 *irīraḍarə* → ^x*irīriḍarə* § 6.2.1.2
 Y 23.3 *dahma* → ^x*dahme* § 6.5
 Y 23.3 *vāstriiāuuarəzi* → ⁺*vāstriiāuuarəze* § 6.5
 Y 28.3 *aγžōnuuamnəm* → ^x*aγžō.nuuamnəm* § 22.5.4
 Y 31.8 *patarēm* → *ptarēm* § 25.9
 Y 33.1 *hāmēmiāsaitē* → ^x*hām.yāsaitē* § 3.4.2.2
 Y 34.4 *zastāištaiš* → ⁺*zastā.ištāiš* § 15.3
 Y 38.3 *maēkaiṇtīscā* → ^x*maēkaii(i)ṇtīscā*
 Y 38.5 *vīspō.paitīš* → ^x*vīspō.pitīš* § 6.3
 Y 38.5 *mātərqscā* → ^x*mātrqscā* § 24.5
 Y 43.1 *dəraḍiiāi* → ⁺*dəraḍiiāi* § 24.1.2
 Y 44.3 *patā* → ⁺*ptā* § 25.9
 Y 45.2 *hacaiṇtē* → ⁺*haciṇtē* § 26.1.3
 Y 45.4 *patarēm* → ⁺*ptarēm* § 25.9
 Y 48.2 *ākəraṭiš* → ⁺*ākəraṭiṣ* § 24.1.2
 Y 48.7 *didrayžōduiiē* → *didrayžō.duiiē* § 6.2.1.1
 Y 48.12 *xšnūm* → ⁺*xšnəm* § 23.1
 Y 50.5 *zastāištā* → ⁺*zastā.ištā* § 15.3
 Y 51.14 *arēm* → ^x*arəm* § 24.1
 Y 53.2 *xšnūm* → ⁺*xšnəm* § 23.1
 Y 53.6 *spašnuḍā* → ^x*spašnuḍā* § 10.2.2
 Y 57.18 *nəmaṇte* → ⁺*nəmaṇte* § 23.5.1.2
 Y 58.4 *ašəṇhācā* → ^x*ašəṇhācō* § 28.3

- Y 62.2 *dāitiiō.aēsmi* → ⁺*dāitiiō.aēsmə* § 22.7
 Y 62.2 *dāitiiō.baoiði* → ^x*dāitiiō.bao(i)ðə* § 22.7
 Y 62.2 *dāitiiō.piθβi* → ⁺*dāitiiō.piθβə* § 22.7
 Y 62.2 *dāitiiō.upasaiieni* → ⁺*dāitiiō.upasaiienə* § 22.7
 Y 62.2 *pərənāiiuš.harəθri* → ⁺*pərənāiiuš.harəθrə* § 22.7
 Y 62.2 *dahmāiiuš.harəθri* → ⁺*dahmāiiuš.harəθrə* § 22.7
 Y 62.3 *frašō.kərətīm* → ⁺*frašō.kərətīm* § 24.1.2
 Y 62.3 *saoci.buiie* → ⁺*saocə buiie* § 22.7
 Y 62.3 *maṭ.saoci.buiie* → ^x*maṭ.saocə buiie* § 22.7
 Y 62.3 *raocahi.buiie* → ^x*raocahə buiie* § 22.7
 Y 62.3 *vaxšaθi.buiie* → ⁺*vaxšaθə buiie* § 22.7
 Y 62.10 *hikūš* → ^x*hiškūš* § 6.6
 Y 65.9 *frāuuuuuaca* → ⁺*frāuuuuaca* § 3.4.2.1
 Y 67.8 *mātrəscā* → ^x*mātrəscā* § 24.5
 Y 68.13 *vōiγnāuiiō* → ⁺*vōiγnāuiiō* § 17.5
 Y 68.14 *hubərəti* → ⁺*hubərəti* § 24.1.2
 Y 68.14 *yahmāt* → *yahmaṭ* § 4.1.2.1
 Y 71.3 *manahiiāca* → ⁺*manaxiiāca* § 5.3.1.4
 Y 71.10 *ahurō* → ⁺*ahurahe* § 3.2.2
 Y 71.11 *hauuaγhum* → ^x*hauuaγʰəm* § 12.2.2
 Yašt passim ^o*um* → ^{xo}*ūm*, e.g. Yt 5.127 *minum*, 19.42 *jiyāurum*, 19.89 *yauuaēsum* § 12.1.2
 Yt 1.6 *daēuua* → ^x*daēuiū* § 11.1.2
 Yt 1.7 *fraxštiiā* → ^x*fraxštiiə* § 22.7.1
 Yt 1.12 *baēšaziia* → ⁺*baēšaziiō* § 22.7.1
 Yt 1.12 *baēšaziiōtəma* → ^x*baēšaziiōtəmō* § 22.7.1
 Yt 1.12 *āθrauuatəma* → ^x*āθrauuatəmō* § 22.7.1
 Yt 1.12 *ašuuuastəma* → ^x*ašuuuastəmō* § 22.7.1
 Yt 1.12 *xʰarənaγuhastəma* → ^x*xʰarənaγʰastəmō* § 22.7.1
 Yt 1.12 *pouru.darštəma* → ^x*pouru.darštəmō* § 22.7.1
 Yt 1.12 *dūraēdarštəma* → ^x*dūraēdarštəmō* § 22.7.1
 Yt 1.13 *žnōišta* → ^x*žnōišto* § 22.7.1
 Yt 1.13 *fšūše.mqθra* → ^x*fšūšo.mqθrə* § 22.7.1
 Yt 1.13 *isə.xšaθra* → ⁺*isə.xšaθrə* § 22.7.1
 Yt 1.14 *hadrauuane* → ^x*hadrauuənə* § 22.7.1
 Yt 1.14 *vīspauuane* → ⁺*vīspauuənə* § 22.7.1
 Yt 1.14 *vīspa.xʰāθra* → ⁺*vīspa.xʰāθrə* § 22.7.1
 Yt 1.14 *pouru.xʰāθra* → ^x*pouru.xʰāθrə* § 22.7.1
 Yt 1.15 *vərəzi.saoka* → ^x*vərəzi.saokō* § 22.7.1
 Yt 1.15 *səuiišta* → ⁺*səuiišto* § 6.2.3.1, 22.7.1
 Yt 1.15 *aša* → ⁺*ašə* § 22.7.1

- Yt 1.15 *xšadriia* → ^x*xšadriiō* § 22.7.1
 Yt 1.15 *xšadriiōtama* → ⁺*xšadriiōtamō* § 22.7.1
 Yt 1.15 *dūraē.sūka* → ^x*dūraē.sūkō* § 22.7.1
 Yt 2.3 *aspanibiia* → ⁺*aspənibiia* § 23.3.2.2
 Yt 2.8 *aspanāca* → ⁺*aspənāca* § 23.3.2.2
 Yt 3.4 *ašāuuaoiō* → ^x*ašāuuaoiō* § 4.4
 Yt 3.4 *nərāiō* → ^x*nəruiō* § 24.4
 Yt 5.11 *dražāite* → ⁺*dražete* § 7.4
 Yt 5.26 *frasastišca* → ^x*frasastišca* § 9.5
 Yt 5.26 *ištišca* → ⁺*ištišca* § 9.5
 Yt 5.64 *pāiti.šmuxta* → ^x*paiti.šmuxta* § 3.6
 Yt 5.78 *pāiti.šmuxta* → ^x*paiti.šmuxta* § 3.6
 Yt 5.86 *θrāiiaonō* → ^x*θrāiō.yaonō* § 3.2.2
 Yt 5.87 *vadre yaona* → ^x*vadairiiauuō* § 4.2.3
 Yt 5.87 *zīzanāitiš* → ^x*zīzanāitiš* § 6.2.1.2, 11.4
 Yt 5.92 *vītarētō.tanuš* → ⁺*vītarētō.tanuš* § 24.1.1
 Yt 5.93 *pouru.jira* → ^x*pouru.jīra* § 6.4
 Yt 5.109 *tqθriiauuantəm* → ^x*tqθriiāuuantəm* § 3.1.3
 Yt 5.113 *pəšō.cingha-* → ⁺*pəšō.caŋga-* § 23.5.1.1
 Yt 5.126 *frazušəm* → ^x*frazūšəm* § 10.2.1
 Yt 5.130 *stərəmaēšu* → ⁺*starəmaēšu* § 24.1.1
 Yt 5.131 *vaḡuhī* → ^x*vaḡuhi* § 7.2
 Yt 8.4 *yahmāt* → *yahmaṭ* § 4.1.2.1
 Yt 8.6 *vazāite* → ^x*vazaitē* § 3.6
 Yt 8.12 *auue* → ^x*auuē* § 11.1.2
 Yt 8.33 *frašāupaieiti* → ^x*frašāuuaieiti* § 17.5
 Yt 8.36 *siždraca* → ^x*siždraca* § 6.2.4.1
 Yt 8.40 *uruuāitiš* → ^x*uruuāitiš* § 9.4
 Yt 8.40 *barəntiš* → ^x*barəntiš* § 9.4
 Yt 8.42 *varəšajiš* → ^x*varəšajiš* § 9.4
 Yt 8.43 *važədriš* → ^x*važədriš* § 9.4
 Yt 8.46 *apayžāire* → ^x*apayžārē* § 23.6.2.2
 Yt 8.48 *āidi* → ^x*āide* § 4.1.1
 Yt 9.30 *uruui.xaoδō* → ^x*uruuī.xaoδō* § 7.1
 Yt 9.30 *uruui.vəṛəθrō* → ^x*uruuī.vəṛəθrō* § 7.1
 Yt 9.30 *stuuī.manoθriš* → ⁺*stuuī.manoθriš* § 9.4
 Yt 10 *huxšnuta-* → ^x*huxšnūta-* § 10.2.2
 Yt 10.7ff. *jayāuruuah-* → ⁺*jayauruuah-* § 17.4.1
 Yt 10.14 *pəṛəθβiš* → ^x*pəṛəθβiš* § 9.4
 Yt 10.33 *hauuaḡhum* → ^x*hauuaḡhəm* § 12.2.2
 Yt 10.38 *haiθīm.ašāuuu.janasca* → ^x*haiθīm.janasca* § 5.2.2.2

- Yt 10.45 *auue* → ^x*auuē* § 11.1.2
 Yt 10.48 *gauuō* → ^x*gauuē* § 11.1.2
 Yt 10.51 *kərənāun* → ^x*kərənaon* § 17.3
 Yt 10.60 *vasō.yaonāi.in̄təm* → ^x*vasō.yaonāiian̄təm* § 4.9.7
 Yt 10.65 *āzūiti.dā* → ^x*āzūiti.dā* § 10.5.2
 Yt 10.68 *haṅgrəβnāiti* → ⁺*haṅgrəβnāiti* § 24.1.5.2
 Yt 10.72 *vohunišca* → ^x*vohunišca* § 9.5
 Yt 10.77 *aš.frabərəitica* → ^x*aš.frabərəitica* § 24.1.2
 Yt 10.77 *hufrabərəitica* → ^x*hufrabərəitica* § 24.1.2
 Yt 10.104 *fragrəβənti* → ^x*fragrəβənti* § 24.1.5.2
 Yt 10.107 *fraxštāite* → ^x*fraxštāite* § 3.6
 Yt 10.109 *axšnuštahe* → ⁺*axšnūtahe* § 10.2.2
 Yt 10.113 *nauiiθiiqn* → ^x*niuiiθiiqn* § 16.4
 Yt 10.113 *gouru.zaοθranqm* → ^x*pouru.zaοθranqm* § 21.1.1
 Yt 10.118 *āiti* → ^x*āiti* § 15.4
 Yt 10.125 *spaētita* → ^x*spaētita* § 26.1.1
 Yt 10.142 *vaēidiš* → ^x*vaēidiš* § 9.5
 Yt 10.143 *adauiiš* → ^x*adauiiš* § 9.4
 Yt 10.143 *haṅgrəβnāiti* → ⁺*haṅgrəβnāiti* § 24.1.5.2
 Yt 11.4 *aša.sara* → ⁺*ašasara* § 5.2.2.1
 Yt 11.6 *gadōtušca* → ^x*gadō.tišca* § 13.2
 Yt 12.3ff. *āzūitīmca* → ^x*āzūitīmca* § 10.5.2
 Yt 12.25 *uruuisənti* → ^x*uruuisənti* § 6.2.3.1
 Yt 13.14 *dunmō.frutō* → ⁺*dunmō.frutō* § 10.2.1
 Yt 13.18 *vohu.bərətqm* → ^x*vō hubərətq* § 23.6.2.3
 Yt 13.21 *hāitiš* → ^x*hāitiš* § 9.4
 Yt 13.21 *zəuiištiiā* → ^x*zəuiištiiā* § 6.2.3.1
 Yt 13.21 *zəuiištiiānqm* → ^x*zəuiištiiānqm* § 6.2.3.1
 Yt 13.26 *afraouruuisuuat* → ⁺*afrō.uruuisuuat* § 6.2.3.1
 Yt 13.32 *anā.mqθβā* → ⁺*anāmqθβā* § 5.2.1.1
 Yt 13.47f. *uyraca* → ⁺*uyrāca* § 5.3.1.1
 Yt 13.53 *afrataṭ.kušīš* → ⁺*afrātaṭ.kušīš* § 3.4.2.1
 Yt 13.57 *afrašīmantō* → ^x*afrašūmantō* § 10.2.2
 Yt 13.60 *auue* → ^x*auuē* § 11.1.2
 Yt 13.61 *gaēšāuš* → ^x*gaēsaoš* § 17.2
 Yt 13.88 *fšuiieinte* → ⁺*fšuiiente* § 26.1.3
 Yt 13.89 *daēuuō* → ^x*daēuuē* § 11.1.2
 Yt 13.93 *uxšin* → ⁺*uxšiiən* § 23.2
 Yt 13.101 *tižiiarštōiš* → ⁺*tižiiarštōiš* § 6.2.4.1
 Yt 13.101 *bujasrauuaḡhō* → ⁺*būjasrauuaḡhō* § 10.2.1
 Yt 13.109 *viaršauuatō* → ⁺*viiāršauuatō* § 3.1.1

- Yt 13.122 *vīuuārəšuuahē* → *^xvīuuaršuuatō* § 3.2.1
 Yt 13.125 *fīiūštahe* → *^xfīiūštahe* § 10.2.3
 Yt 13.125 *aoiγmatasturahe* → *^xaoiγmatastūrahe* § 10.3
 Yt 13.125 *fraturā* → *^xfratūrā* § 10.6
 Yt 13.126 *utaiiūtōiš* → *⁺utaiiūtōiš* § 10.2.3
 Yt 13.127 *aša.nəmaḡhō* → *⁺ašanəmaḡhō* § 5.2.2.1
 Yt 13.131 *garəṇāušca* → *^xgarənaošca* § 17.2
 Yt 13.131 *tumāspanahe* → *⁺tūmāspanahe* § 10.2.1
 Yt 13.132 *bīiaršānō* → *⁺bīiāršānō* § 3.1.1
 Yt 13.134 *vīiarəṭīiāiā* → *^xvīiārəṭ(ii)āiā* § 3.1.1
 Yt 13.136 *bāzāuš* → *^xbāzaoš* § 17.2
 Yt 13.153 *aṅtarəstā* → *⁺aṅtarəštā* § 5.2.1.3
 Yt 14.11 *gaēṭāuš* → *^xgaēṭaoš* § 17.2
 Yt 14.11 *vakqsaoš* → *^xvidqsaoš* § 19.1
 Yt 14.21 *saēniš* → *^xsaēniš* § 9.5
 Yt 14.21 *susrušəmnō* → *^xsraošəmnō* § 10.2.2
 Yt 14.28 *pāitiuuāke* → *^xpaitiuuāke* § 3.6
 Yt 14.38 *pəṛəṇine* → *^xparəṇine* § 6.1.2
 Yt 14.57 *niuuizaiti* → *⁺niuuīzaiti* § 6.2.3.1
 Yt 15.16 *məṛəṭīiūš* → *^xməṛəṭīiūš* § 24.1.2
 Yt 15.31 *spaētiniš* → *^xspaēitiniš* § 9.4
 Yt 15.40 *hubəṛəṭqm* → *^xhubəṛəṭq* § 23.6.2.3
 Yt 15.43 *apaiiate* → *^xapaiiatə* § 22.7.1
 Yt 15.44 *vohuuaršte* → *^xvohuuarštə* § 22.7.1
 Yt 15.45 *vindix^varəṇə* → *^xviṇda.x^varəṇə* § 22.7.1
 Yt 15.46 *taxmōtəma* → *^xtaxmōtəmō* § 22.7.1
 Yt 15.46 *hadṛauuana* → *^xhadṛauuanə* § 22.7.1
 Yt 15.48 *tižiiarštə* → *^xtīžiiarštə* § 6.2.4.1
 Yt 15.48 *tižiiarštis* → *^xtīžiiarštis* § 6.2.4.1
 Yt 15.49 *xrūišīieitiš* → *^xxrūišīieitiš* § 6.2.3.1
 Yt 15.54 *anāxrūiḍa.dōiḍre* → *^xanāxrūiḍa.dōiḍrə* § 22.7.1
 Yt 15.57 *zaraniio.pusəm* → *⁺zaraniio.pūsəm* § 10.2.1
 Yt 16.3 *x^vātacina* → *^xx^vā.tacina* § 23.3.2.2
 Yt 17.5 *xruuidruuō* → *^xxruuī.druuō* § 7.1
 Yt 17.6 *āgrəməitiš* → *⁺āgrəməitiš* § 24.1.5.2
 Yt 17.10 *tanuui* → *⁺tanuua* § 7.1
 Yt 17.10 *sispimna* → *^xsispəmna* § 6.2.1.2
 Yt 17.10 *zaraniio.pisi* → *^xzaraniio.pīsi* § 6.2.2
 Yt 17.10 *paitišām* → *^xpaitišāma* § 7.1
 Yt 17.11 *qymō.paidiš* → *^xqymō.paidīš* § 9.4
 Yt 17.11 *uruuizō.maiḍiā* → *^xuruuīzō.maiḍiā* § 6.2.3.1

- Yt 17.14 *nibərəði* → ^{*}*nibərəðe* § 24.1.2
 Yt 17.22 *hauuaṇhəm* → ^{*}*hauuaṇ^hhəm* § 12.2.2
 Yt 17.54 *viṇdita* → ⁺*viṇdīta* § 6.3
 Yt 17.57ff. *ni.uruiisiiāni* → ^{*}*ni.uruiīsiiāni* § 6.2.3.1
 Yt 17.60 *ni.uruiise* → ^{*}*ni.uruiīse* § 6.2.3.1
 Yt 18.8 *baēšaziš* → ^{*}*baēšazīš* § 9.4
 Yt 19.1 *pāirisāite* → ^{*}*pairi.saēte* § 15.4
 Yt 19.3 *išatāca* → ⁺*iškatāca* § 5.3.1.1
 Yt 19.3 *upāiri.saēna* → ⁺*upairi.saēna* § 3.6
 Yt 19.6 *yahmiia.jatarasca* → ⁺*yahmiiajatarasca* § 5.2.2.1
 Yt 19.32 *fšaoišca* → ^{*}*fšaoīšca* § 9.5
 Yt 19.32 *ištišca* → ⁺*ištīšca* § 9.5
 Yt 19.41 *zaraniio.pusəm* → ⁺*zaraniio.pūsəm* § 10.2.1
 Yt 19.42 *barō.zušəm* → ^{*}*barō.zūšəm* § 10.2.1
 Yt 19.43 *āite* → ^{*}*aēte* § 15.4
 Yt 19.46 *ašte* → ^{*}*aštē* § 23.6.2.2
 Yt 19.46 *āsište* → ^{*}*āsištē* § 23.6.2.2
 Yt 19.67 *spaētiniš* → ^{*}*spaēitiniš* § 9.4
 Yt 19.67 *sispimnō* → ^{*}*sispəmnō* § 6.2.1.2
 Yt 19.71 *būiaršānəm* → ^{*}*būiāršānəm* § 3.1.1
 Yt 19.80 *frāuuōiṭ* → ^{*}*frāuuaiiōiṭ* § 3.4.4
 Yt 19.82 *vaiiqn* → ⁺*viiq* § 23.6.2.3
 Yt 19.82 *uruuisiiatəm* → ^{*}*uruuiīsiiatəm* § 6.2.3.1
 Yt 19.84 *siždiiō* → ^{*}*siždiiō* § 6.2.4.1
 Yt 19.92 *vārəðraynəm* → ^{*}*vārəðraynīm* § 3.7.2.2
 Yt 19.95 *xruuidruxš* → ^{*}*xruui.druxš* § 7.1
 V 2 *bairiieinte* → ⁺*bairiiente* § 26.1.3
 V 2.7 *bərəðe* → ⁺*bərəði* § 24.1.2
 V 2.25 *gāuuaiianəm* → ^{*}*gāuuiianəm* § 3.4.1
 V 2.29f. *vītəratō.tanuš* → ⁺*vītəratō.tanuš* § 24.1.1
 V 2.31 *zəmə* → ⁺*zəmaēni* § 6.2.3.2
 V 3.5 *us.zīzəṇti* → ^{*}*us.zīzanəṇti* § 6.2.1.2
 V 3.8 *sairi* → ^{*}*saēre* § 14.3.2
 V 3.12 *sairi* → ^{*}*saēre* § 14.3.2
 V 3.14 *frašumakaṭ* → ⁺*frašūmakaṭ* § 10.2.2
 V 3.18 *pairi.daēzq̄n* → ⁺*pairi.daēzq̄* § 10.6.2.3
 V 3.20 *barəzaṇhəm* → ^{*}*barəzaṇhən* § 20.4
 V 3.25 *vantaōe* → ⁺*vantaūue* § 21.3
 V 3.27 *bərəði* → ^{*}*bərəði* § 24.1.2
 V 3.32 *uruðən* → ⁺*urūðən* § 10.2.1
 V 3.33 *puðrōištim* → ^{*}*puðrō.ištīm* § 14.3.1

- V 3.38ff. *āpārətīš* → ⁺*āpārəitiš* § 24.1.2
 VPtr. 3.40 *iririðušō* → ⁺*irīriðušō* § 6.2.1.2
 V 4.46 *cāxrare* → ^x*cāxrarə* § 26.1.1
 V 4.50 *auua.kərəθiiāt* → ^x*auua.kərəθiiāt* § 26.1.1
 V 6.10 *iriθiieiti* → ⁺*iriθiieite* § 6.2.1.2
 V 6.32ff. *nižbərəθi* → ^x*nižbərəθi* § 24.1.2
 V 6.33 *uzūitiāasca* → ⁺*uzūitiāasca* § 10.5.2
 V 7.12f. *aiβi.ərətīm* → ^x*aiβi.iritīm* § 6.4
 V 7.27 *xrūtahe* → ⁺*xrūrahe* § 10.3
 V 7.41 *caθru.yuxtəm* → ⁺*caθru.yuxtəm* § 10.2.3
 V 7.45ff. *sairi* → ^x*saēre* § 14.3.2
 V 7.59 *drəṅjaiti* → ^x*drəṅjaiie(i)ti* § 3.7.2.3
 V 8.4 *aiβi.gātō* → ^x*aiβi.gata* § 16.3.3
 V 8.10 *upa.θβərəsən* → ⁺*upa.θβərəsə* § 10.6.2.3
 V 8.10 *zəmōištūue* → ^x*zəmō.ištūue* § 14.3.1
 V 8.21 *daēuuī* → ^x*daēuui* § 7.2
 V 8.32 *vīptō* → *viptō* § 6.2.3.2
 V 8.38 *hiku* → ⁺*hišku-* § 6.6
 V 8.95 *skairiiaṭ* → ⁺*skairiiaṭ* § 3.1.2
 V 9.11 *āiti* → ^x*aiti* § 15.4
 V 9.12 *āiti* → ^x*aiti* § 15.4
 V 9.30 *hiku* → ⁺*hišku-* § 6.6
 V 9.31 *āiti* → ^x*aiti* § 15.4
 V 9.32 *āiti* → ^x*aiti* § 15.4
 V 9.53 *uruθəm* → ⁺*uruθməm* § 10.2.1
 V 10.10 *tauru* → ⁺*tauruuī* § 9.1
 V 10.14 *vātīm* → ^x*vātīm* § 26.1.1
 V 11.9ff. *xruuiγni* → ⁺*xruuī.γni* § 7.1
 V 12.13 *brātruiiō* → ⁺*brātūiriio* § 24.4
 V 12.13 *brātruiie* → ⁺*brātūiriie* § 24.4
 V 13.1 *aṅrō.mainiiuš* → ^x*aṅrō.mainiiūš* § 13.4
 V 13.5 *spəntō.mainiiūm* → ^x*spəntō.mainiiūš* § 13.4
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 V 13.16 *jažāuš* → ⁺*jažaoš* § 17.2
 V 13.16 *vīzāuš* → ⁺*vīzaoš* § 17.2
 V 13.37 *maēye* → ^x*maye* § 26.1
 V 13.37 *vaēmi* → ^x*vaēme* § 26.1
 V 13.44 *vaēsāuš* → ^x*vaēsaoš* § 17.2
 V 13.46 *vaēsāuš* → ⁺*vaēsaoš* § 17.2
 V 13.47 *disāuš* → ^x*disaoš* § 17.2
 V 13.48 *airitō* → ⁺*airitō* § 6.4

- V 13.49 *vīdātō* → ^x*vīdātəm* § 16.3.3
V 14.9 *zaēnāuš* → ^x*zaēnuš* § 17.2
V 14.10 *yuiiō.səmi* → ^x*yuuō.səmi* § 23.3.2.1
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V 14.17 *maδuš* → ^x*maδaoš* § 21.1.2
V 15.14 *jījīšāiti* → ^x*jījīšāite* § 6.2.1.2
V 16.2 *hiku* → ⁺*hišku-* § 6.6
V 16.7 *niuruiδiiāt* → ^x*ni.uruiδiiāt* § 6.2.3.1
V 17.1 *daēuuō* → ^x*daēuuō* § 11.1.2
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V 18.16 *daēuua* → ^x*daēuuō* § 11.1.2
V 18.24 *daēuua* → ^x*daēuuō* § 11.1.2
V 18.34 *kasuuikəmcina* → ⁺*kasuuikəmcina* § 6.2.3.1
V 18.37 *kasuuikəmciṭ* → ⁺*kasuuikəmciṭ* § 6.2.3.1
V 18.51 *frašō.kərətīm* → ⁺*frašō.kərətīm* § 24.1.2
V 18.70 *frāuuinuiiāt* → ⁺*frāuuinuiiāt* § 6.2.3.1
V 18.70 *asmaniuuā* → ⁺*afsmaniuuā* § 25.10.3
V 19.8 *aṣrō.mainiiuš* → ^x*aṣrō.mainiiuš* § 13.4
V 19.13 *auuāēn* → ^x*auuāin* § 15.2
V 19.28 *uziōraitī* → ^x*uziō.raitī* § 22.5.4
V 19.37 *sauuəṣuhaitiš* → ⁺*sauuəṣuhaitiš* § 9.4
V 19.43 *tauru* → ⁺*tauruū* § 7.1
V 19.45 *dāuṣta* → ^x*daṣta* § 17.3
V 19.45f. *adāuṣta* → ^x*adaṣta* § 17.3
V 21.4ff. *pāiri.haēzaṣuha* → ⁺*pairi.haēzaṣuha* § 3.6
V 22.6 *bišazāni* → ^x*bišaziāni* § 20.5
Vr 1.2 *arəθō.karəθnahe* → ⁺*arəθō.karəθinahe* § 24.1.2
Vr 2.2 *arəθō.karəθnəm* → ^x*arəθō.karəθinəm* § 24.1.2
Vr 2.5 *spəntəm.ārmaitīm.darətəm* → ^x*spəntəm.ārmaitīm.darətəm* § 29.3
Vr 7.4 *paoiriō.fraθβarštəm* → ⁺*paoiriō.fraθβarštəm* § 3.4.2.1
Vr 8.1 *frāiiebišcaṭca* → ^x*frāiiebišcitca* § 19.1
Vr 9.4 *əṣθiiā* → ^x*əṣθiiā* § 24.1.2
Vr 9.5 *marždikauuatō* → ⁺*marəždikauuatō* § 25.3.1
Vr 19.2 *ātarəδāta* → ⁺*ātəṣṣāta* § 24.1.5.1
Vr 20.2 *miθōxtanəmca* → ^x*miθō.uxtənəmca* § 5.2.2.1
G 1.6 *zaozīzuiiē* → ^x*zaozuiiē* § 6.2.1.2
G 2.6 *mainiiauuīsca* → ^x*mainiiauuīsca* § 11.1.2
G 2.6 *yazata* → ^x*yazatē* § 23.6.2.2
S 2.7 *aspināca* → ⁺*aspənāca* § 23.3.2.2
S 2.7 *aspinibiia* → ⁺*aspənibiia* § 23.3.2.2
S 2.13 *aoe* → ^x*auuō* § 11.1.2

- A 1.11 *dušmainiiū* → ^{*}*dušmainiiuō* § 11.1.2
 F 138 *namra.vāxš* → ^{*}*namra.vāxš* § 19.1
 F 550 *dēuš.duš.srauuajhē* → ⁺*dēuš.srauuajhē* § 16.1
 F 655 *θrāθrā* → ^{*}*θrāθrāi* § 5.1
 F 692 *haṅkəṛəiti* → ^{*}*haṅdəṛəiti* § 24.1.2
 P 24 *aēsmō.stəṛəiti-* → ^{*}*aēsmō.starəiti-* § 29.4
 P 24 *barəsmō.stəṛəiti-* → ^{*}*barəsmō.starəiti-* § 29.4
 P 24 *zarahe.hīš* → ^{*}*zrahehīm* § 20.4
 P 31 *hauruuū* → ^{*}*hauruuō* § 11.1.2
 E 9 *fraiiarəna* → ^{*}*fraiie(i)re* § 20.4
 E 9 *dbōištəm* → ^{*}*bōištəm* § 14.3.1
 E 9 *aba* → ^{*}*naba* § 4.8
 E 15 *nana* → ^{*}*naba* § 4.8
 E 18 *pairiaβiiarəḥaṭ* → ^{*}*aīβiiarəḥaṭ* § 3.1.1
 E 7 *afra.sruiti* → ^{*}*afra.srūiti* § 10.5.2
 N 30 *a.sruiti* → ^{*}*a.srūiti* § 10.5.2
 N 33 *aētəe* → ⁺*aētə* § 23.6.2.2
 N 40 *kaiiāciṭ* → *kahiiāciṭ* § 5.3.1.3
 N 61f. *uiθe.tātō* → ^{*}*ūiθe.tātō* § 10.5.2
 N 75 *āsnatāra* → ^{*}*āsnatarš* § 4.8
 N 76 *baxšaiiāaṭ.ca* → ^{*}*baxšāaṭca* § 4.2
 N 79 *āsnatārš* → ^{*}*āsnatarš* § 4.8
 N 80 *raēxšaiti* → ^{*}*raēθβaiieiti* § 14.3.1
 N 103 *arəməidō* → ^{*}*arəməišādō* § 14.3.2
 N 108 *haoma.huitīm* → ^{*}*haoma.hūitīm* § 10.5.2
 H 2.9 *əṛəduuafšniā* → ^{*}*əṛəduuafšniā* § 5.2.2.1
 H 2.25 *gaitišca* → ^{*}*gaiṅtišca* § 9.5
 H 2.36 *viš.gaitaiiāaṭca* → ⁺*viš.gaiṅtaiiāaṭca* § 4.2
 Vyt 19 *sədre* → ^{*}*səṛe* § 14.3.2
 AZ 7 *dušmainiiū* → ^{*}*dušmainiiuō* § 11.1.2

2. As suggested by Bartholomae and here confirmed:

- Passim *gaēθiia-* → ⁺*gaēiθiia-* § 26.1.1
 Y passim *drujəm* → ⁺*drujim* § 8.2.1
 Y passim *vācəm* → ⁺*vācim* § 8.2.1
 Y 2.4ff. *frādaṭ.fšāum* → ⁺*frādaṭ.fšaom* § 17.3
 Y 10.14 *gāuš* → ⁺*gaoš* § 17.2
 Y 20.3 *saošiiantaēbiō* → ^{*}*saošiiantibiō* § 26.1.3
 Y 30.9 *kəṛənāum* → ⁺*kəṛənaon* § 17.3

- Y 31.13 *būjəm* → ⁺*būjim* § 8.2.1
 Y 32.11 *ašāunō* → ⁺*ašaonō* § 17.3
 Y 33.7 *magāunō* → ⁺*magaonō* § 17.3
 Y 33.10 *ābaxšōhuuā* → *ābaxšō.huua* § 22.5.2
 Y 40.3 *ašāunō* → ⁺*ašaonō* § 17.3
 Y 43.8 *stāumī* → ⁺*staomī* § 17.3
 Y 43.12 *uzərədiīāi* → *uzirədiīāi* § 6.6
 Y 43.14 *yāuš* → ⁺*yaoš* § 17.2
 Y 43.14 *uzərədiīāi* → *uzirədiīāi* § 6.6
 Y 43.15 *ašāunō* → ⁺*ašaonō* § 17.3
 Y 44.6 *rāniiō.skərətīm* → ⁺*rāniiō.skərətīm* § 24.1.2
 Y 44.9 *hudānāuš* → ⁺*hudānaoš* § 17.2
 Y 45.11 *patā* → ⁺*ptā* § 25.9
 Y 47.2 *patā* → ⁺*ptā* § 25.9
 Y 47.3 *rāniiō.skərətīm* → ⁺*rāniiō.skərətīm* § 24.1.2
 Y 47.4 *ašāunō* → ⁺*ašaonō* § 17.3
 Y 50.2 *rāniiō.skərətīm* → ⁺*rāniiō.skərətīm* § 24.1.2
 Y 50.9 *hudānāuš* → ⁺*hudānaoš* § 17.2
 Y 51.13 *ərəzāuš* → ⁺*ərəzaoš* § 17.2
 Y 51.14 *āsəndā* → ⁺*ā.səndā* § 3.4.3
 Y 53.4 *ašāunī* → ⁺*ašaonī* § 17.3
 Y 53.5 *vaədōdūm* → *vaədō.dūm* § 22.5.3
 Y 53.8 *mərəθiīāuš* → ⁺*mərəθiīāoš* § 17.2, § 24.1.2
 Y 58.7 *rafənōxiiāi* → ⁺*rafənō.xiiāi* § 22.5.4
 Y 60.6ff. *hubərətīmca uštəbərətīmca vaṇtabərətīmca* → ⁺*hubərətīmca*
⁺*uštəbərətīmca* ⁺*vaṇtabərətīmca* § 24.1.2
 Y 64.5 *hudānāuš* → ⁺*hudānaoš* § 17.2
 Y 71.1 *framərətiš* → ⁺*framərətiš* § 24.1.2
 Y 71.1 *haṅkərətiš* → ⁺*haṅkərətiš* § 24.1.2
 Yt passim *xruuišiiēitiš* → *xruuišiiēitiš* § 9.4
 Yt 1.14 *aδauuiš* → ⁺*aδauuiš* § 9.4
 Yt 1.14 *vīδauuiš* → ⁺*vīδauuiš* § 9.4
 Yt 7.5 *ištəuuant-* → ⁺*ištəuuant-* § 6.2.4.2
 Yt 8.46 *vairiš* → ⁺*vairiš* § 9.5
 Yt 9.10 *mərəθiīūmca* → ⁺*mərəθiīūmca* § 24.1.2
 Yt 10.14 *paoiriš* → ⁺*paoiriš* § 9.4
 Yt 10.129 *yā aṅhaēna* → ⁺*aiaṅhaēna* § 7.1
 Yt 10.142 *paoiriš* → ⁺*paoiriš* § 9.4
 Yt 13.11 *drəβdaca* → ⁺*dərəβdaca* (or ⁺*dərəβdaca*) § 5.3.1.2
 Yt 13.90 *daēuuō.dātəm* → ⁺*daēuuō.tātəm* § 22.5.1
 Yt 13.146 *aiβi.dərəštāiš* → ⁺*aiβi.dərəštāiš* § 24.6

- Yt 14.45 *aδβōžən* → *aδβō.žən* § 22.5.4
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 Yt 14.45 *fraδβōžən* → *fraδβō.žən* § 22.5.4
 Yt 16.3 *nāuiia* → ⁺*nāuiia* § 17.5
 Yt 19.4 *tuδaskaēca* → ⁺*tūδaδkaēca* § 10.2.1
 Yt 19.43 *asəŋgō.gāum* → ⁺*asəŋgō.gaom* § 17.3
 Yt 19.67 *paoiriš* → ⁺*paoiriš* § 9.4
 Yt 19.72 *bāun* → ⁺*baon* § 17.3
 V 1.11 *nāuma-* → ⁺*naoma-* § 17.3
 V 2.31f. *xšiuuisti* → ⁺*xšuiisti* § 6.2.3.2
 V 3.20 *kərafš.x'arqm* → ⁺*kərafš.x'arqm* § 3.2.2
 V 3.25ff. *haoiaca* → ⁺*hāuuiiaca* § 3.4.1
 V 5.28ff. *nāuma-* → ⁺*naoma-* § 17.3
 V 9.49 *kərafš.x'arqm* → ⁺*kərafš.x'arqm* § 3.2.2
 V 15.46 *maēθmanəm* → ⁺*maēθanəm* § 14.3.1
 V 15.49f. *bāuzdri* → ⁺*baozdri* § 17.5
 V 18.55 *gāmō.bəratīm* → ⁺*gāmō.bəratīm* § 24.1.2
 V 22.13 *para.āidi* → ⁺*para.āit* § 15.3
 A 1.11 *srauuahē* → ⁺*srauuahi* § 22.7
 A 3.4 *vouru.rafnōstəma* → ⁺*vouru.rafnō.stəma* § 22.5.4
 Ny 3.7 *īštauuant-* → ⁺*īštiiuant-* § 6.2.4.2
 F 451 *uruδiδieiti* → ⁺*uruuiδieiti* § 6.2.3.1
 P 39 *ārəitīmca* → ⁺*arəitīmca* § 29.4

3. Corrections suggested by Bartholomae which must be dismissed or are at least very uncertain:

- Y 10.15 *xarəδaiiā* (Geldner) not → ⁺*xradaiiā* § 6.6
 Y 57.31 *brōiθrō.taēžəm* (Geldner) not → *brōiθrō.taēžim* § 8.3
 Y 58.4 *ašəḡhācā* (Geldner) not → *ašəḡhācā* § 28.3
 Yt 13.122 *vīuuārəšuuā-* (Geldner) not → ⁺*vīuuārəšuuā-* § 6.6
 Yt 13.144 *sāininqm* (Geldner) not necessarily → ⁺*sāinunqm* § 15
 Yt 13.151 *vīšānō* (Geldner) not → ⁺*višānō* § 6.2.3.1
 V 14.9 *kūiriš* (Geldner) not → ⁺*kuiřiš* § 10.5.1

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