## LESSON 2

# THE PHONOLOGY (SOUND SYSTEM) OF AVESTAN. GENERAL REMARKS.

One of the things that strikes one about Avestan as opposed to Old Indic (Sanskrit) is the seemingly chaotic orthography. The cause of this state was long thought to be that the Avestan text had been corrupted by the manuscript writers, and scholars therefore decided that the text had to be "corrected" and "normalized" in order to recapture the "original" Avestan text. They never proved their point by examining in detail the orthography and the individual characteristics of the manuscripts, however.

The first Western scholar to undertake a complete analysis of the phonology of Avestan was G. Morgenstierne, who in an article written during World War II and published in 1942 showed that the Avestan alphabet reflected an internally consistent phonological system, in many respects similar to those of living Iranian dialects and languages. Most of the seemingly orthographic aberrations, which at the time were commonly explained as scribal errors, could be explained in terms of the phonological system of the language(s) of the Avesta.

It must be kept in mind, however, that the Avestan texts as we have them do not necessarily in every detail reflect a genuine linguistic system. For centuries they were adjusted by editors (diascevasts) and then by scribes who spoke dialects or languages with phonological systems differing fundamentally from that of the original Avestan language. Thus, on one hand, the Old Avestan texts contain many elements that are clearly borrowed from or influenced by Young Avestan, and, on the other hand, the Young Avestan texts contain both elements that are imitations of Old Avestan ("pseudo-OAv.") and elements belonging to later stages of Iranian that were probably introduced by the scribes.

It is, finally, almost impossible to determine which of the sound changes we observe in our extant manuscripts already belonged to the original language and which ones were introduced at various stages of the 1000-1500 years' oral and written transmission of the texts. One way of determining early changes is to compare the Avestan phonological system with that of Old Indic.

As much of the transmission of the surviving Avesta probably took place in southwestern Iran, phonological changes shared with other East-Iranian languages as opposed to West-Iranian languages may be assumed to belong to the early period.

One such typically East-Iranian sound change is the shortening of  $\bar{\imath}$  and its disappearance in *juua*-"alive," which agrees with Sogdian  $\bar{z}w$ -, Khotanese juva-, and Pashto  $\bar{z}w$ -, against OInd.  $j\bar{\imath}va$ -; and in cuuan- "how great," OInd.  $k\bar{\imath}vant$ -.

Palatalization and labialization of vowels, however, which is typical of the transmitted Avestan text, are also found in western Iranian languages and do not necessarily belong to the eastern stage of the transmission.

### Important:

Some students may find it useful to compare Sanskrit (Old Indic) when learning the Avestan grammar, but both they and the teachers should avoid phonetically "translating" the Avestan into Sanskrit to explain the Avestan forms. Such an approach not only hints at an "inferior" status of Avestan compared to Sanskrit but also—more importantly—may take the focus away from the linguistic structure of Avestan in its own right—its phonetic and grammatical systems and the indigenous semantic developments. In my own experience, students who routinely see the Sanskrit forms in the Avestan ones may experience great difficulties in identifying typically Avestan, especially "contracted," forms.

The students are not expected to master completely the following description of the phonological system of Avestan right away but use it for reference.

#### **PHONEMES**

We call "phonemes" the smallest units of speech that distinguish meanings. Phonemes are usually determined by exhibiting "minimal pairs," e.g., English  $bad \sim sad$ , a pair that establishes /b/ and /s/ as separate phonemes in English.

Phonemes are denoted by writing them between //. The phoneme is not a "sound" (the sound that somebody produces and which we hear when somebody speaks) but a linguistic entity devised, as it were, to provide the theoretical link between acoustic sound (the "physical" aspect of speech) and meaning (the "psychological" aspect of speech).

When we want to emphasize that we are talking about the actual sound, or the "phonetic realization" of a phoneme, we use square brackets [], e.g., [p], [b], [z]. These actual sounds are also called "phones" or "allophones."

Phonemes are described by listing their "distinctive features." These distinctive features are descriptions of how the sound is produced in the mouth and which parts of the mouth are involved in the sound production. Following are some examples:

/b/: stop, labial, voiced ~ /p/: stop, labial, unvoiced, ~ /m/: nasal, labial.

/x/: fricative, velar, unvoiced  $\sim /\gamma$ /: fricative, velar, voiced.

/s/: sibilant, alveo-dental, unvoiced  $\sim$  /z/: sibilant alveo-dental, voiced  $\sim$  /š/: sibilant, alveo-palatal, unvoiced  $\sim$  /ž/: sibilant, alveo-palatal, voiced.

Note that English t is sometimes aspirated [t h], sometimes not aspirated [t]. The feature "aspiration" is not, however, distinctive in English or Avestan, so there is no phonemic opposition  $t/v \sim t^h/v$ ,  $t/v \sim$ 

In the case of /n/ we note that "voiced" is not a distinctive feature of nasals in English or Avestan, as no two words can be distinguished by the presence or absence of voicing in a nasal /n/. On the other hand, Avestan has a voiceless or, probably, pre-aspirated [hm], which may be a separate phoneme: /m/  $\sim$  / hm/, but more probably it is simply an allophone of /m/ after h or alternative (short-hand) way of writing hm.

# PHONEMIC NEUTRALIZATION

Phonemes may not be distinguished in all positions. Thus, in English we cannot find any minimal pairs distinguished by the phoneme sequences /st/ and /sd/. In such cases we say that the phonemic opposition between /t/ and /d/ has been neutralized after /s/.

## **VOWEL PHONEMES**

Vowel phonemes are defined by features relating to the position of the tongue in the mouth and the shape of the lips. There are three basic parameters:

- 1. The height of the highest point of the tongue: high mid low.
- 2. The place of the highest point of the tongue: front central back.
- 3. Rounding or non-rounding of the lips.

In Avestan there are the additional features of *short - long* and of *nasalized - oral* (= non-nasalized), only some of which have distinctive function.

Diphthongs may be regarded as combinations of phonemes or single, composite, phonemes.

We may tentatively posit the following vowel (simple and diphthongs) phonemes for Young Avestan (spelling in <>):

Front	Ce	ntral	Back, rounded	Nasal
i <i, ī=""></i,>			u <u, ū=""></u,>	
e <e, ē=""></e,>	· ə, ā	จิ<จ, จิ>	o <o, ō=""></o,>	(ē <e>?)</e>
a <a></a>	ā <	ā>	å < å>, (å <å>)	(a <a>?)</a>
				ā <a></a>
			Long	
	~ oi/a	oi <ōi>	āi <āi>	
>	~ ou <ou></ou>	~ อน <อิน>	āu <āu>	
	i <i, ī=""> e <e, ē=""></e,></i,>	i <i, ī=""> e <e, ē=""> a <a> a <a> a &lt; oi/a</a></a></e,></i,>	i <i, ī=""> e <e, ē=""> a <a> a &lt;ā&gt; a &lt;ā&gt; a &lt;ā&gt; a &lt;ā&gt; a &lt;ā&gt; a &lt;ā&gt; a &lt;ā a&gt; a &lt;ā a a &lt;ā a a &lt;ā a &gt;a a &lt;ā a &gt;a a &lt;ā a &gt;a a &lt;ā a &lt;ā a &gt;a a &lt;ā a &lt;ā a &gt;a a <a a="">a a <a a=""></a></a></a></a></a></a></a></e,></i,>	$i < i, \bar{i} >$ $u < u, \bar{u} >$ $e < e, \bar{e} >$ $9, \bar{9} < 9, \bar{9} >$ $0 < 0, \bar{0} >$ $a < a >$ $\bar{a} < \bar{a} >$ $a < a >$

The difference between  $\bar{o}$  and  $\hat{a}$  must have been between closed and open [o: ~ å:] (approximately as in English home ~ hawk, Germ. rote ~ Rotte).

Cf. the following minimal or almost minimal pairs:

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\bar{a}p\bar{o}\sim ap\bar{o} "waters" nom. plur. ~ gen. sing., acc. plur. ap\bar{o}\sim apa "water" gen. sing., acc. plur. ~ instr. sing. am\bar{o}m\sim apa "water" gen. sing., acc. plur. ~ instr. sing. am\bar{o}m\sim apa "with strength" ~ "this" apa\sim upa "with water" ~ "up to, at" asp\bar{o}\sim aspa\sim asp\bar{o} "horse" nom. sing. ~ instr. sing. ~ acc. plur. sur\bar{o}\sim sur\dot{a} "rich in life-giving strength" masc. nom. sing. ~ fem. nom.-acc. plur. a\bar{e}ta\sim a\bar{e}te "this" instr. sing. ~ nom. plur. a\bar{i}s\sim a\bar{e}sa "with these" ~ "this (one)" g\bar{a}us\sim gaos\sim g\bar{o}us "cow" nom. ~ gen. ~ gen. par\bar{o}na\sim par\bar{o}na "feather" ~ "full" massia\sim am\bar{o}sa\sim massa\sim mas
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The phonemic status of vowel length in the case of i and  $\bar{i}$ , u and  $\bar{u}$  is uncertain. Standard editions and grammars give the impression that the distribution of short and long i and u (in Young Avestan) is conditioned by phonetic context and that they are therefore in complementary distribution, but the distribution of i and  $\bar{i}$ , u and  $\bar{u}$  in the actual manuscripts has not been investigated in any detail, and from the studies that have been made (e.g., Hintze in JamaspAsa, 1991), it appears that the choice between i or  $\bar{i}$ , u or  $\bar{u}$  may be a matter of scribal preference. Thus, the distribution by phonetic context may be a mirage of Western editions and not supported by the manuscripts.

Note that in relatively modern Iranian manuscripts long  $\bar{u}$  is replaced by  $\bar{\iota}$ . Investigation of this phenomenon may help establish the correct distribution of u or  $\bar{u}$ .

In this manual,  $\log \bar{\imath}$  and  $\bar{u}$  are used in final position in monosyllables only  $(z\bar{\imath}, n\bar{u})$  and separated preverbs  $(n\bar{\imath}.^{\circ}, v\bar{\imath}.^{\circ})$ , as well as to indicate stem forms  $(tan\bar{u}.^{\circ}, \text{etc.})$ , but in all other cases short i and u are used consistently (with a few exceptions in the reading exercises), in order to stress the fact that the choice of (Young) Avestan short or  $\log i$  and u is not conditioned by their origins, such as Proto-Iranian short and  $\log i$  and u or by their being contraction products  $(*-im, *-\bar{\imath}m, \text{ and }*-i\underline{\imath}am \text{ all }>-im \text{ or }-\bar{\imath}m \text{ and }*-um, *-\bar{\imath}m, \text{ and }*-u\underline{\imath}am \text{ all }>-um \text{ or }-\bar{\imath}m$ ). Obviously,  $\log \bar{\imath}$  and  $\bar{u}$  could also have been used.

The same *caveat* may to some extent apply to short and long e and  $\bar{e}$ , o and  $\bar{o}$ . Thus, in our standard editions,  $\bar{e}$  other than in monosyllabic words (see below), is restricted to the diphthong  $a\bar{e}$ , while  $\bar{o}$ , other than as word final and composition vowel is only found before the morpheme border. Pairs such as  $v\underline{ohu}$  and  $d\bar{a}m\underline{\bar{o}hu}$  do not, therefore necessarily prove a phonemic opposition  $o \sim \bar{o}$ . The distribution of  $o \sim \bar{o}$  also varies by manuscripts, however. Thus, many manuscripts have consistently  $v\bar{o}hu$  instead of vohu, and for the diphthong ao many manuscripts commonly have  $a\bar{o}$ .

 $\mathring{a} \leftarrow \text{was an allophone of } \bar{a} \text{ before } \eta, \eta t, \text{ and } s.$  [The short  $\mathring{a} \leftarrow \text{is found in a single manuscript (Pd) for short } a \text{ before } \eta.$ ]

q was an allophone of  $\bar{a}$  before n or m, e.g., nqma or  $n\bar{a}ma$ . In the accusative plural it is in complementary distribution with  $\bar{a}$ , and so apparently stands for \*q or  $*\bar{q}$ . The two letters  $q_{\kappa}$  and q (\*q) q are used indiscriminately in the extant manuscripts. In Geldner's edition q is the "default" letter.

The primary diphthong  $a\bar{e}$  is never found in final syllable, open or closed. In final closed syllable,  $a\bar{e}$  is the result of contraction (e.g.,  $-a\bar{e}m < *-aiiam$ ).

The diphthong  $\bar{o}i$  appears to be an allophone of  $a\bar{e}$  used primarily in closed syllables. Thus, in Young Avestan  $\bar{o}i$  is preferred before consonant clusters, though not before s or  $\check{s}$  plus one consonant.<sup>2</sup>

The only apparently minimal pair for  $a\bar{e} \sim \bar{o}i$  is  $a\bar{e}m$  "he"  $\sim \bar{o}im$  "one" ( $< a\bar{e}uua$ -). Instead of  $\bar{o}im$  we also find the spelling aoim, so  $\bar{o}im$  may be just a manuscript variant of aoim. In the table above it is suggested that  $\bar{o}i$  is structurally for / $\bar{o}i$ /. It occurs occasionally in monosyllables instead of  $\bar{e}$ , e.g.,  $y\bar{o}i$  but  $t\bar{e}$ .

Note: aē is never used in final syllable, open or closed.

The diphthong  $\delta u$  is used in a small number of words as a variant of ao, probably in imitation of Old Avestan.

The diphthong ou is only found as the result of labialization (see the next lesson), e.g., pouru < \*paru. In the manuscripts it is also written  $\bar{o}u$  ( $p\bar{o}uru$ ).

#### **EXERCISES 2**

1. Practice reading and pronouncing the following words and phrases and translate them:

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2. Read and try to translate the following sentences:

<sup>&</sup>lt;sup>2</sup> See Fortson.

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#### VOCABULARY 2

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aēm, nom. sing. m. of ima-: this one, he
 aēša, nom. sing. m., f. of aēta-: this
 aēuua, nom. sing. f. of aēuua-: one (numeral)
 ahura-: lord
 Ahurō Mazdā, nom. sing. of Ahura- Mazdā-: Ahura Mazdā, literally: the omniscient lord
 ama-: force, strength
 amauua, nom. sing. m. of amauuant-
 Amərətatāt-, amərətāt- f.: Non-dying, Immortality; name of the sixth Aməṣa Spəṇta
 Anāhite, voc. sing. of Anāhitā-: O Anāhita!
 anhu-, ahu-: existence, especially the new-born Ordered existence, generated by the sacrifice
 anra-: evil, destructive; the opposite of spenta-
 Anrō Maniiuš, nom. sing. of Anra- Mainiiu-: the Evil Spirit
 aspō, nom. sing. of aspa-: horse
 asti < ah-: is
 Aşəm Vahistəm: Best Order, the second of the Life-giving Immortals
 ašauuan- m.: sustainer of Order, Orderly
 auuanhe, dative sing. of auuah- n.: to (the) assistance (of)
 Ārmaiti- f.: Humility; Spəntā- Ārmaiti-, Life-giving Humility, the fourth of the Life-giving Immortals
 ātar-/āθr-: fire
daēna, nom. sing., daēnam, acc. sing. of daēnā-: a visionary sense of man, his "vision soul," that after death
   assumes the form of a woman, beautiful or ugly according to the person's thoughts, words, and acts in
   life, who leads the soul to paradise or hell, as the case may be
daēuua-: old, evil god
dāmōhu, locative plur. of dāman- n.: creature
druj- f.: the cosmic Deception, the Lie
druuant-: possessed by the Lie, Lieful
duuasa-: to attack (? said of evil beings)
duraošō, nom. sing. duraoša-: standing epithet of Haoma- of unknown meaning, traditionally interpreted as
   "death-averting"
dušmatam, nom.-acc. sing. n., dušmata, nom.-acc. plur. n. of dušmata-: badly thought (thought)
dužuuaršta, nom.-acc. plur. n. of dužuuaršta-: badly done (deed)
dužuxta, nom.-acc. plur. n. of dužuxta-: badly spoken (word)
fraša-: Juicy, wonderful
frašō.kərəiti- f.: Juicy-making, Renovation, the permanent reestablishment of the first existence after the
  final victory over the powers of evil and darkness
gaēθiia-: belonging to/residing in the world of living beings,
gao- m., f.: ox, cow; plur. cattle, animal species
gāuš, nom, sing, of gao-
haomō, nom. sing. of haoma-, Haoma-: the haoma plant and a god
Hauruuatāt- f.: Wholeness; the fifth of the Life-giving Immortals
hauua, nom. sing. f. of hauua-: own
humata, nom.-acc. plur. n. of humata-: well-thought (thought)
huuaršta, nom.-acc. plur. n. of huuaršta-: well-done (deed)
huxtəm, nom.-acc. sing. n., huxta, nom.-acc. plur. n. of huxta-: well-spoken (word)
iməm acc. sing. m. < ima-: this
jasa < jasa- √gam: come!
juua: 1. nom. plur. m. of juua-: alive. — 2. imperative 2nd sing. of juua-: to live
juuō, nom. sing. m. of juua-: alive
kaša, nom. sing. of kašā-: armpit
manah- n.: thought, mind
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maniiauua-, fem. maniiauuī-: belonging to/residing in the world of thought

mașiia, nom. plur. of mașiia-

mazdā- m.: omniscient

māzdaiiasni-: of/belonging to the one who sacrifices to Ahura Mazdā (of the one who believes in Ahura

Mazdā)

mē: to/for/of me mošu: soon, quickly

nāman- or naman- n.: name nəmaxiia-: to revere, do homage

nəmaxiiāmahi < nəmaxiia-: we revere, do homage

nurəm: now

ōim, acc. sing. m. of aēuua-

paoiriiō.fraθβaršta, nom. plur. m., n. of paoiriiō.fraθβaršta-: first fashioned forth

parəna, nom.-acc. plur. of parəna- n.: feather

Pāuruuō, nom. sing. of Pāuruua-

pərəna-: full

pouru, nom.-acc. sing. n. of pauru-: much

pouru.sarəδa, nom. sing. f. of pouru.sarəδa-: of many kinds

Rašnu-: Rashnu, divine judge who judges the soul's thoughts, words, and deeds on his scale

ratu-: (divine) model, prototype

saošiiant-: revitalizer, said of the successful sacrificer, especially the last one, son of Zarathustra

spaēta, nom.-acc. plur. n. of spaēta-: white

Tištriia-: Tishtriia, god of the seasonal rains; the Dog Star, Sirius

upa: at, in (+ acc.)

vahištō, nom. sing. m. of vahišta-, vahišta- superlative of vanhu-: best

vahištō aŋhuš: the best existence, paradise

Vaiiu-: name of the god of the space between heaven and earth (note that heaven is spherical and the earth

situated in the middle of the sphere)

vairiia-: well-deserved, commonly used of rewards

Vərəθrayna-: name of the god of victory

Vohu Manō, nom. sing. of vohu- manah- n.: Good Mind, the first of of the Life-giving Immortals

xšaθra- n.: (royal) command

Xšaθrəm Vairim: Well-deserved Command, the third of of the Life-giving Immortals

yazata-: deserving of sacrifice, deity

Zaraθuštra-: name of the mythical first poet-sacrificer; protagonist of the Avesta zaraθuštri-: Zarathustrian, in the tradition of Zarathustra, spoken by Zarathustra