

(which, however, is at the extreme limits) mark the boundary to the north, Sīstān and Baluchistan to the south.

One of the old, thorny problems in studies on Avestan geography is represented by Airyana Vaējah (Pahlavi: Ērānwēz), "the area of the Aryans" and first of the sixteen districts in *Vd.* 1, the original name of which was *airyānəm vaējō vañhuyā dāityayā*, "the Aryan extension of Vañuhī Dāityā (Benveniste, art. cit., pp. 267f.; against Christensen, op. cit., p. 74; Herzfeld, *Zoroaster and His World*, p. 698), where Vañuhī Dāityā "the good Dāityā" is the name of a river connected with the religious "law" (*dāta-*). The concept of Airyana Vaējah is not equivalent to that of *airyō.sayana-* in *Yt.* 10.13, or to the group of *airyā daiñhāvā* "the Aryan lands" which is recurrent in the *yašts*; this, in fact, refers to just one of the Aryan lands, as the first chapter of the *Vidēvdāt* clearly shows. It does not designate "the traditional homeland" (Boyce, op. cit., I, p. 275) or "the ancient homeland" (R. N. Frye, *The History of Ancient Iran*, Munich, 1984, p. 61) of the Iranians. These definitions perpetuate old interpretations of the Airyana Vaējah as "Urheimat des Awestavolkes" (Geiger, op. cit., p. 32), "Urland" of the Indo-Iranians (F. Spiegel, *Die arische Periode und ihre Zustände*, Leipzig, 1887, p. 123), "Wiege aller iranischen Arier" (J. von Prášek, *Geschichte der Meder und Perser bis zur makedonischen Eroberung* I, Gotha, 1906, p. 29), drawing from the texts more than the contents really warrant. Airyana Vaējah is only the homeland of Zaratuštra and of Zoroastrianism (Nyberg, op. cit., pp. 326f.; Henning, *Zoroaster*, p. 43). According to Zoroastrian tradition Ērānwēz is situated at the center of the world; on the shores of its river, Weh Dāitī (Av. Vañuhī Dāityā), there were created the *gāv ī ēw-dād* (Av. *gav aēvō.dāta*) "uniquely created bull" and Gayōmard (Av. *Gayō.marətan*) "mortal life," the first man; there rises the Čagād ī Dāidīg, the "lawful Summit," the Peak of Harā, in Avestan also called *hukairya* "of good activity"; the Činvat Bridge is there, and there too, Yima and Zoroaster became famous. Taken all together, these data show that Zoroastrianism superimposed the concept of Airyana Vaējah onto the traditional one of a center of the world where the Peak of Harā rises (see above). The fact that Airyana Vaējah is situated in a mountainous region explains its severe climate (*Vd.* 1.2.3) better than does its supposed location in Chorasmia (Markwart, *Ērānšahr*, p. 155). This is not surprising if we consider the analogy between the Iranian concept of the Peak of Harā with the Indian one of Mount Meru or Sumeru. The Manicheans identified Aryān-waižan with the region at the foot of Mount Sumeru that Wištāsp reigned over (W. B. Henning, "The Book of the Giants," *BSOAS* 11, 1943, pp. 68f.), and the Khotanese texts record the identification of Mount Sumeru in Buddhist mythology with the Peak of Harā (*ttaira haraysā*) in the Avestan tradition (H. W. Bailey, *Indo-Scythian Studies. Khotanese Texts* IV, Cambridge, 1961, p. 12; idem, *Dictionary of Khotan Saka*, Cambridge, 1979, p. 467). All this leads us to

suppose that the concept of Airyana Vaējah was an invention of Zoroastrianism which gave a new guise to a traditional idea of Indo-Iranian cosmography (Gnoli, *Ricerche storiche sul Sīstān antico*, pp. 86ff.). At any rate, identifications of Airyana Vaējah with Chorasmia are quite unfounded (Markwart, loc. cit.; H. W. Bailey, "Iranian Studies I," *BSOAS* 6, 1930-32, pp. 948-53; idem, "Iranian Studies IV," *BSOAS* 7, 1933-35, pp. 764-68; Benveniste, art. cit.; Nyberg, op. cit., p. 326; Christensen, op. cit., pp. 66-76; Monchi-Zadeh, op. cit., pp. 115f.), whether this is understood to refer to K'ārazm itself or to a "greater Chorasmia" (Henning, *Zoroaster*, pp. 42ff.; Gershevitch, *The Avestan Hymn to Mithra*, pp. 14ff.). As for the river of Religious Law, it is not at all easy to identify (see H. Humbach, "About Gōpatšāh, His Country, and the Khwārezmian Hypothesis," *Papers in Honour of Mary Boyce* I, p. 330): The most likely hypotheses seem to be those that identify it with the Oxus, or rather the Helmand, which at times appears to be in a curious "competition" with the Oxus (Markwart, *Wehrot und Arang*, pp. 122 n. 3, 159 note; Gnoli, *Ricerche storiche sul Sīstān antico*, pp. 13, 38, 87) in the Zoroastrian tradition.

*Bibliography:* Given in the text. See also F. Justi, *Beiträge zur alten Geographie Persiens*, Marburg, 1869. W. Tomaschek, "Zur historischen Topographie von Persien," *Sb. d. Wiener Akad. d. Wiss., Phil.-hist. Kl.*, 102, 1883, pp. 146-231; 108, 1885, pp. 583-652 (repr. Osnabrück, 1972). W. Geiger, "Geographie von Iran," in Geiger and Kuhn, *Grundr. Ir. Phil.* II, 3, pp. 371-94. H. Lommel, "Anahita-Sarasvati," in *Asiatica. Festschrift Friedrich Weller*, Leipzig, 1954, pp. 15-32. H. Humbach, "Die awestische Länderliste," *Wiener Zeitschrift für die Kunde Süd- und Ostasiens* 4, 1960, pp. 34-46. Idem, "Ptolemaios-Studien," *ibid.*, 5, 1961, pp. 68-74. G. Gnoli, "Apixvñ. Postilla ad *Airyō.sayana*," *RSO* 41, 1966, pp. 329-34. Idem, "More on the Sistanic Hypothesis," *East and West* 27, 1977, pp. 309-20. H. Humbach, "A Western Approach to Zarathushtra," *Journal of the K. R. Cama Oriental Institute* 51, Bombay, 1984, pp. 15-32. W. Barthold, *Istoriko-geograficheskii obzor Irana*, Moscow, 1971; Eng. tr. S. Soucek, *An Historical Geography of Iran*, Princeton, New Jersey, 1984.

(G. GNOLI)

**AVESTAN LANGUAGE**, the language of the Avesta (q.v.), an Old Iranian language.

- i. *The Avestan script.*
- ii. *The phonology of Avestan.*
- iii. *The grammar of Avestan.*

#### i. THE AVESTAN SCRIPT

The Avestan script is known from manuscripts written in Iran (at Yazd and Kerman) and in India (in Gujarat, e.g., Cambay, Broach, Ankleshwar, Surat, and Navsari). The earliest manuscript dates from A.D. 1288. The script consists in 14 (or 16) letters for vowels

Table 2  
THE AVESTAN SCRIPT

|    |     |     |    |     |                |    |      |                |
|----|-----|-----|----|-----|----------------|----|------|----------------|
| 1  | 𐬀   | a   | 17 | 𐬀   | k              | 35 | 𐬀    | 𐬀              |
| 2  | 𐬁   | ā   | 18 | 𐬁   | x              | 36 | 𐬁    | 𐬁              |
| 3  | 𐬂   | ā̇  | 19 | 𐬂   | á              | 37 | 𐬂    | 𐬂 <sup>v</sup> |
| 4  | 𐬃   | ā̇̇ | 20 | 𐬃   | x <sup>v</sup> | 38 | 𐬃    | n              |
| 5  | 𐬄   | q   | 21 | 𐬄   | g              | 39 | 𐬄/𐬄  | 𐬄              |
| 6  | 𐬅/𐬅 | q̇  | 22 | 𐬅   | ġ             | 40 | 𐬅    | ṅ             |
| 7  | 𐬆   | ə   | 23 | 𐬆   | ɾ              | 41 | 𐬆    | m              |
| 8  | 𐬇   | ē   | 24 | 𐬇   | c              | 42 | 𐬇    | m̄             |
| 9  | 𐬈   | e   | 25 | 𐬈   | j              | 43 | 𐬈    | y              |
| 10 | 𐬉   | ē   | 26 | 𐬉   | t              | 44 | 𐬉    | v              |
| 11 | 𐬊   | o   | 27 | 𐬊   | θ              | 45 | 𐬊    | r              |
| 12 | 𐬋   | ō   | 28 | 𐬋   | d              | 46 | 𐬋    | š              |
| 13 | 𐬌   | i   | 29 | 𐬌/𐬌 | ð              | 47 | 𐬌    | s              |
| 14 | 𐬍   | ī   | 30 | 𐬍/𐬍 | t̄             | 48 | 𐬍    | z              |
| 15 | 𐬎   | u   | 31 | 𐬎   | p              | 49 | 𐬎    | š̄             |
| 16 | 𐬏   | ū   | 32 | 𐬏   | f              | 50 | 𐬏    | ž              |
|    |     |     | 33 | 𐬐   | b              | 51 | 𐬐    | š̄̄            |
|    |     |     | 34 | 𐬑   | β              | 52 | 𐬑    | y              |
|    |     |     |    |     |                | 53 | 𐬒(𐬒) | h              |

and 37 letters for consonants, see Table 28. In printed texts the letters  $\hat{a}$ ,  $\hat{g}$ ,  $\hat{h}$ ,  $\hat{n}$ ,  $\hat{m}$ , and  $\hat{y}$  are not used. The transliteration given in Table 28 differs in some points from that almost universally used until recently. Thus, it has been usual to use  $h'$  for  $\hat{x}$ ;  $\hat{e}$  and  $\hat{j}$  for  $c$  and  $j$ ;  $w$  for  $\beta$ ;  $n$  for both  $n$  and  $\hat{n}$ ;  $\hat{s}$  for  $\hat{s}$ ,  $\hat{\acute{s}}$ , and  $\hat{\ddot{s}}$ ;  $y$  for both  $y$  ( $\hat{y}$ ) and  $i$ ;  $v$  for both  $v$  and  $uu$ . The signs for  $\hat{q}$ ,  $\hat{g}$ ,  $\hat{h}$ ,  $\hat{n}$ ,  $\hat{m}$ ,  $\hat{s}$ , and  $\hat{\acute{s}}$  were not used at all until recently.

The letters are written from right to left and are not connected. Ligatures (e.g.,  $\hat{s}k$ ,  $\hat{s}c$ ,  $\hat{s}t$ ,  $\hat{s}a$ ) are rare and clearly of secondary origin. A point (dot) is used to indicate the end of a word or the end of the first member of a compound, no distinction being made between the two. The letters have almost the same shapes in all manuscripts. Only some Indian manuscripts show peculiarities: H2 (A.D. 1415), S1 and J9 (14/15th century A.D.).

The large number of letters used suggests that their invention resulted from an attempt to record an orally recited text with all its phonetic nuances. For that reason the Avestan script must have been the deliberate invention or creation of a scholar or of a group of scholars (see, e.g., Morgenstierne, "Orthography and Sound-system," pp. 31-33; Henning, "Disintegration," p. 44).

The Avestan script is based on the Pahlavi (q.v.) script in its cursive form as used by theologians of the Zoroastrian church when writing their books. The earliest Pahlavi manuscripts date from the fourteenth century A.D., but the Pahlavi cursive script must have developed from the Aramaic script already in the first centuries A.D. This is proved for example by the fact that an early inscription on the lid of a sarcophagus found in Istanbul that for archeological reasons can not be dated later than A.D. 430 already shows the characteristic written forms of the Pahlavi cursive script with two insignificant exceptions ( $k$  and  $s$ ). (See the bibliography in Ph. Gignoux, *Glossaire des inscriptions pehlevies et parthes*, Corp. Inscr. Iran., Suppl. Ser. I, London, 1972, p. 14.) In the Pahlavi cursive script almost all the letters represent several different sounds. This ambiguity is due in part to inadequacies of the Aramaic alphabet from which it developed, in part to the phonological development of the Middle Persian language ("historical spelling"), and in part to the graphic coalescence of signs. In addition, many individual letters of a word are joined to one another, with the result that extremely ambiguous ligatures occur.

Apart from the Pahlavi cursive script as used in the Zoroastrian church there was a still older kind of script that was to some extent less ambiguous. This script, called here the "Psalter script," is known to us from a manuscript from the seventh or eighth century A.D. containing a "Christian" Pahlavi translation of the Psalms. (See D. N. MacKenzie, *A Concise Pahlavi Dictionary*, London, 1971, pp. xi, xiii, for tables of the Pahlavi and Psalter scripts; and Aramaic, i.)

The creator of the Avestan script took over from the Pahlavi cursive script the letters  $a$ ,  $i$ ,  $k$ ,  $t$ ,  $p$ ,  $b$ ,  $m$ ,  $n$ ,  $r$ ,  $s$ ,  $z$ ,  $\hat{s}$ , and  $x'$  to represent the same sounds as in Pahlavi. The

sign (28) for  $d$  derives likewise from the unambiguous Psalter script. In Pahlavi the sign for  $k$  (17) represented both the sounds  $k$  and  $\gamma$  because  $k$  had developed to  $\gamma$  in word-interior position. In the Psalter script the sign for  $k$  differed from that of the Pahlavi cursive in that the Psalter sign ended in a flourish towards the right. The creator of the Avestan script made use of this variation in the shape of the letters by assigning to the Pahlavi form (17) the fixed value  $k$  and to the Psalter form (23) the fixed value  $\gamma$ . In this way the flourish could be reinterpreted as a diacritical mark, which the creator of the script put to further use. The Pahlavi Psalter sign (25) for  $c/j/z/\acute{z}$  had a similar flourish and was accordingly adopted to represent the voiced sound  $j$ . By removing the flourish the creator of the script obtained the sign (24) for  $c$ , which has a different shape in the Pahlavi cursive script. Pahlavi  $p$  represented the sounds  $p/(f)/\beta$ . It was retained unchanged in Avestan for  $p$  (31) while an initial flourish converted it into the sign for  $\beta$  (34). The addition of a flourish to Pahlavi  $t$  (26) either initially or finally was not used, as might be expected, to represent  $\delta$  but to represent a word-final  $\acute{t}$  (30) that was probably implosive. The Pahlavi *alef* was adopted as  $a$  (1) in the Avestan alphabet. In Pahlavi, *alef* had coalesced graphically with  $h$ , from which it was still distinguished in the Psalter script. Thus, Pahlavi had only one sign to represent *alef*,  $h$ , and  $x$ . In order to represent the sound  $x'$  in Avestan, use was made of an ambiguous Pahlavi ligature (20) of  $'h + w/n/r$ , which among many others had the value  $xw$ . The shape of the ligature  $hw$  adopted for Avestan  $x'$  is characteristic not only of the Pahlavi books but is found already in the inscription on the sarcophagus lid from Istanbul whereas the ligature has a different shape in the Psalter script. In the Avestan script a flourish was added to distinguish  $\acute{x}$  (19) from  $x'$  (20). An unusual diacritic in the form of a loop at the end of a curved flourish was used to distinguish  $h$  (53) from  $a$  (1). The loop may have been a secondary addition providing graphical resemblance to  $p$  (31) since a variant form of  $h$  (53 in brackets) without the loop is found in such manuscripts as H2 and J9. By extending the curve further upwards than in the unlooped variety of  $h$  it was possible to distinguish  $x$  (18) from both  $a$  (1) and  $h$  (53). The curved upwards flourish was further used to create Avestan  $f$  (32) out of Pahlavi  $p$  (31) and is seen in the voiceless fricative  $\theta$  (27). The basic shape to which the curved upwards flourish was added in the case of  $\theta$  is to be seen in the form taken by final  $s$  in Pahlavi words such as  $g's$  for Avestan  $g\acute{a}\theta\acute{a}$ , in which  $s$  represents Avestan  $\theta$  (MacKenzie, *Pahlavi Dictionary*, p. xiii, the second  $s$ , to the right).

The Avestan letter  $\acute{a}$  (2) is also derived from the Pahlavi script, where this sign was used for  $\gamma$  at the end of a word (already in the Istanbul sarcophagus inscription). However, as early as in Middle Persian inscriptions from the third century A.D.,  $\gamma$  was used to represent the final  $-\acute{a}$  of foreign names as in  $sw\gamma'y$  for (Greek) *Sūriā*, and the Pahlavi Psalter confirms that this convention continued to be adopted as the Psalter itself

has the spelling 'pl't'y for Syriac 'prt', that is (Greek) Ephrathá (Bethlehem).

The Avestan letter *o* (11) corresponds in graphic shape to a special form of Pahlavi *l* that is found only in Aramaic heterograms. The commonest of those heterograms is the preposition 'L "to, at," which was read in Middle Persian as *ō* (MacKenzie, *Pahlavi Dictionary*, p. 187, left column, 3rd line from the top). It looks as though the creator of the Avestan script used this special form of *l* without the initial 'ayn to represent the sound *o*. The letter *e* (9) seems to have a similar origin. Pahlavi *ēw* "one" was probably pronounced simply as *ē* already at an early date. This pronunciation is actually attested in the later Pahlavi literature. Avestan *e* differs from the Pahlavi ligature *ēw* only by the absence of a small initial hook which was indispensable for Pahlavi but unnecessary for Avestan. (Words with initial *ēw*-/*ēn*- in MacKenzie, *Pahlavi Dictionary*, pp. 232f.)

The original (Aramaic) letters *n*, *w*, *r*, and ' ('ayn) coalesced in a single short vertical stroke in Pahlavi. This sign was taken over unchanged for *n* in the Avestan alphabet (38). A slight bend in the stroke was made to distinguish Avestan *u* (15) from *n* since Pahlavi *w* was used in internal position also to designate the sound *u*.

The Pahlavi script had very inadequate means to designate the vowel sounds. By contrast the creator of the Avestan script quite clearly invented a special sign for every vowel distinguished in the oral tradition. No doubt the Greek script had provided a model; the Greek script was well known in Iran as is shown by the fact that already under Šāpūr I (241-72 A.D.) Greek translations accompanied the royal inscriptions. Thus Avestan *ə* (7) could have been adopted from Greek minuscules, which had a comparable form already in the fourth century. The sign for *ā* (2) probably came directly from Pahlavi but the letters for the remaining long vowels were evidently formed by adding diacritics to letters for the corresponding short vowels. *ā* (8) was accordingly formed by adding to *a* (7) a flourish to the left, while *ē* (10) was formed by adding to *e* (9) a flourish to the right. The letters for *ō* (12), *ī* (14), and *ū* (16) were distinguished from the letters for the corresponding short vowels by the addition of a short vertical stroke at the bottom. It is likely that the creator of the script based the sign for *ō* (12) on the Pahlavi heterogram 'L, which was pronounced *ō*, by placing the 'ayn, the vertical stroke on the right, under the *L*. The sign for the short vowel was then formed by treating the vertical stroke as a diacritic denoting length. The same stroke may subsequently have been used by analogy in order to differentiate between *ī* and *i* and between *ū* and *u*.

As yet few plausible statements can be made concerning the origin of the remaining letters of the Avestan alphabet, but it must be accepted that the creator of a script is free to invent letters or diacritics arbitrarily.

*ā* (4), which looks like a ligature of *ā* + *ə*, was differentiated from *ā*. Short *ā* (3) has been found in one manuscript only (Pd, where it is used instead of *q* before *ḡh*; see Salemann, "Parsenhandschrift," p. 510). *q* (5) seems to be a free invention. In some manuscripts (e.g.,

Mf4, ed. in facsimile by K. M. JamaspAsa) *q̇* (6) is found instead of *q* (5). There is some slight evidence that *q* and *q̇* were not just graphic variants but two different letters. *q* may have been a nasalized long *q̄* and *q̇* a nasalized short *ə*. The original form of *q̇* may have been the left variant of no. 6 in the table.

The Avestan script originally possessed also the letter *ḡ* (22). All the known Avestan alphabets, most of which are very corrupt, begin with the letters *g*, *ḡ*, *γ* (21-23). *ḡ* is seldom found in the manuscripts but relatively often in final *-əḡḡ*, especially in the manuscripts S1 and J3. This suggests that *ḡ* was implosive, like *ɟ*, the only other final stop in Avestan.

Avestan *g* (21) may be a modification of the corresponding Pahlavi letter. Neither of the forms of *ḡ* (29) appears to be based on Pahlavi letters.

Among the nasal signs *ḡ* (35), the labialized nasal *ḡ̄* (37), and the uvular nasal *ḡ* (40) appear to be free inventions. Both forms of palatalized *ḡ* (39)—that on the right in the table is found only in MS K7—are modifications of *n* (38). The voiceless *m̄* (42) is simply *m* (41) plus a diacritic.

The sign for initial *y* (43) and *v* (44) are free inventions.

The left part of *z̄* (50) resembles the Pahlavi ligature 'c (written like 53). The reason for that could be that *c* in Pahlavi 'cydh'k was pronounced by theologians in agreement with Avestan *aži-dahāka-* as *až(i)dahāy* (for genuine Middle Persian *azdahāy*).

*š̄* (51) is simply *š* (49) plus a diacritic. In Indian manuscripts initial *y* (43) is replaced by initial *ṣ* (52), which looks like *š* (49) with a slightly different diacritic. If the sign originally had the phonetic value palatal *ž*, that may in fact have been its origin. Even *š̄* (46) could be a modification of *š* (49) if the sound it represents was already some kind of *š* sound at the time the script was invented (see on phonology below).

It is generally considered that the Avestan script dates to the Sasanian period (224-651 A.D.). The evidence of the Istanbul sarcophagus inscription (before A.D. 430) suggests that it may have been invented already by the fourth century A.D., perhaps even under Šāpūr II (310-379 A.D.). Note, however, that none of the letters of the alphabet used in the monumental Mid. Pers. inscriptions seem to have been borrowed for the Avestan alphabet (table in MacKenzie, *Pahlavi Dictionary*, p. xi).

It may be assumed that the Avestan texts were written down shortly after the invention of the script, which was designed to provide a special sign for each sound used in the traditional pronunciation of Avestan. In this first notation of the Avestan texts, the so-called "Sasanian archetype," the aim of the inventor of the script must have been put into practice.

In the post-Sasanian period there took place a serious deterioration in what had become a manuscript tradition. There must have been numerous errors even in the manuscripts written in the ninth or tenth century, from which ultimately the extant manuscripts descend. Thus, for example, the letters *š̄*, *š̄̄*, and *š̄̄̄* were only in part

correctly employed and *ṅuh* or *ṅh* was written instead of *ṅ'h*. The manuscripts themselves constantly betray a marked deterioration in the pronunciation of the vulgate.

*Bibliography:* C. F. Andreas, "Die Entstehung des Awesta-Alphabetes und sein ursprünglicher Lautwert," *Verhandlungen des XIII. internationalen Orientalisten-Kongresses, Hamburg, September 1902*, Leiden, 1904, pp. 99-106. W. B. Henning "The Disintegration of the Avestic Studies," *TPS*, 1942, pp. 40-56 (*Selected Papers II*, Acta Iranica 15, pp. 151-67). Idem, "Mitteliranisch," p. 52. K. Hoffmann, "Zum Zeicheninventar der Avesta-Schrift," in *Festgabe deutscher Iranisten zur 2500 Jahrfeier Irans*, Stuttgart, 1971, pp. 64-73 (*Aufsätze zur Indoiranistik I*, Wiesbaden, 1975, pp. 316-25). A. V. W. Jackson, *The Avestan Alphabet and its Transcription*, Stuttgart, 1890. K. M. JamaspAsa, *Manuscript D90: Yasnā with its Pahlavi Translation I-II*, Shiraz, 1976 (facsimile of Geldner's ms. Mf4). G. Morgenstierne, "Orthography and Sound-system of the Avesta," *NTS* 12, 1942, pp. 30-82 (*Irano-Dardica*, Wiesbaden, 1973, pp. 31-79). C. Salemann, "Ueber eine Parsenhandschrift der Kaiserlichen Oeffentlichen Bibliothek zu St. Petersburg," *Travaux de la troisième session du Congrès international des Orientalistes 1876 II*, St. Petersburg and Leiden, 1879, pp. 508-19. G. Windfuhr, "Diacritic and Distinctive Features in Avestan," *JAOS* 91, 1971, pp. 104-24 (somewhat speculative). See also J. Duchesne-Guillemin, *Kratylos* 7, 1962, pp. 4-9.

(K. HOFFMANN)

## ii. THE PHONOLOGY OF AVESTAN

*Attested forms and stages of development.* Avestan is attested in two forms, known respectively as Old Avestan (OAv.) or Gathic Avestan and Young Avestan (YAv.). They differ from each other not only chronologically but also dialectally. Avestan, which is associated with northeastern Iran, and Old Persian, which belongs to the southwest, together constitute what is called Old Iranian. It is possible to some extent to reconstruct Proto-Iranian by comparing Avestan with Old Persian. This Proto-Iranian is closely related to the Vedic language of ancient India. Both Proto-Iranian and Vedic go back to Proto-Indo-Iranian or Proto-Aryan, which in turn descends from Proto-Indo-European.

By comparison with Vedic, whose phonemes are consistently recorded, Avestan in the form in which it has been handed down in manuscripts from 1288 A.D. onwards is attested in a very irregular notation. Apart from errors introduced in the post-Sasanian period, the essential features of the manuscript tradition of the Avesta must have been present already in the Sasanian archetype. When the Avestan texts were first recorded, perhaps as early as the fourth century A.D., each sound of the current Avestan pronunciation was designated by a special letter. The fact that a phonetic notation was used rather than a phonemic one means that it is

possible to assess the linguistic significance of the individual spellings with regard to both the synchronic description of the language and its historical development.

Every Avestan text, whether composed originally in Old Avestan or in Young Avestan, went through several stages of transmission before it was recorded in the extant manuscripts. During the course of transmission many changes took place.

For Old Avestan the following stages may be assumed: 1. The original language of the Zarathustrian *Gāthās*, the *Yasna Haptaṅhāiti*, and the four sacred prayers; 2. Changes involved by the practice of slow chanting; 3. Changes due to transmission by YAv. priests, who introduced many YAv. sound forms into the OAv. texts; 4. Deliberate alteration of the text in the course of an orthoepic revision ("School text"); 5. Continued transmission of the OAv. texts along with the YAv. texts.

Young Avestan went through the following stages: 1. The original language of the composers of grammatically correct YAv. texts; perhaps in Marv or Herat; 2. Dialect influences as a result of the transfer of the Av. texts to Southeast Iran (Arachosia?); 3. Transfer of the Avesta to Persis in Southwest Iran, possibly earlier than 500 B.C.; 4. Transmission of the Avesta in a Southwest Iranian theological school, probably in Eṣṭāḱr: Old Pers. and Mid. Pers. influences, the insistence on fantastic pronunciations by semi-learned schoolmasters (Av. *aēθrapaiti-*), the composition of ungrammatical late Av. texts, the adaptation of portions of texts taken from other regions where they were recited; 5. The end of the oral transmission: phonetic notation of the Avestan texts in the Sasanian archetype, probably in the fourth century A.D.; 6. Post-Sasanian deterioration of the written transmission due to incorrect pronunciation (Vulgate); 7. In the ninth and tenth centuries A.D. the manuscript copies of individual texts were made on which the extant manuscripts are based; 8. Earlier manuscripts were copied in manuscripts dating from A.D. 1288 till the nineteenth century by scribes who introduced errors and corruptions. These are the manuscripts extant today.

Many phonetic features can not be ascribed with certainty to a particular stage since there may be more than one possibility. Every phonetic form that can be ascribed to the Sasanian archetype on the basis of critical assessment of the manuscript evidence must have gone through the stages mentioned above so that "Old Avestan" and "Young Avestan" really mean no more than "Old Avestan and Young Avestan of the Sasanian period."

*The vowels.* The Proto-Indo-Ir. vowels *a*, *ā*, *i*, *ī*, *u*, *ū* and the diphthongs *ai*, *āi*, *au*, *āu* (= Vedic *e*, *ai*, *o*, *au*) remained unchanged in Proto-Iranian. Proto-Indo-Ir. *i* that arose from Proto-IE. *ə* (the vocalization of a consonantal laryngal *H*) is attested by such forms as Av. *pitār-* "father," OAv. *sīšā* "teach," cf. Vedic *śiṣat*, from Proto-IE. \**k̑ase-*; OAv. *-maidī*, cf. Vedic *-mahi*, 1 plur. verb ending, from Proto-IE. \**-medʰə*. But Proto-IE. *H*

was maintained under certain accentual conditions in Proto-Ir. and was lost in Av. Hence we find such contrasting forms as Av. *draonah-* “possession” beside Vedic *dráviṇas-*; OAv. *dugədar-* “daughter” beside Vedic *duhitár-*; OAv. *vərəntē* “he wishes” beside Vedic *vr̥ñtē*; OAv. *fəδrōi* “to the father” beside OAv. *piθrē*. Proto-Indo-Ir. sonant *r̥* (= Vedic *r̥*) became in Proto-Ir. and Av. *ər* but before *š* the tradition introduced the YAv. spelling *ar(š)* also into OAv. texts. The corresponding long vowel *r̄* from Proto-IE. *r̄H* developed in Proto-Ir. and Av. to *ar* whereas Vedic had either *ir/ur* or *īr/ūr*.

There is a wide variety in the representation of the vowels in the manuscripts. Most of these features were already present in the Sasanian archetype.

Numerous anaptyctic vowels, represented mostly by *ə* but also by *a*, *ō*, and other vowel signs, were used to simplify consonant clusters especially after *r*: *arəθa-*, *karapan-*, *vīzibiθō*, *θβarōzδūm* etc. These anaptyctic vowels were introduced during the course of transmission in order to account for the pronunciation used in the slow chanting of the texts.

A late feature, perhaps arising in Southwest Iran, is the use of epenthetic *i* before consonants that are followed by *i*, *ii* or *ē*: *aiti*, *mrūtē*, *irista-*, *iθiiejah-*. This epenthesis is not found before *ń*, *ǰ*, *st*, *m*, *hm*, but it does occur before *rm*: *zairimiia-* “house,” cf. Vedic *harm'iyá-*; *airime* “quiet” beside *armaē*<sup>9</sup>. Anaptyxis and epenthesis may occur together: YAv. *kərəiti-*; OAv. *daibitā*.

Epenthetic *u* occurs only before *ru*, *ry*: *uruθβarə*, *pouru*. It is a genuine YAv. development in the case of *-uri-* arising from older *\*-ur̥i-*: YAv. *paoririia-* “first” from *\*paur̥rija-* from older *\*par̥rija-*, cf. OAv. *paouruuiia-*; YAv. *ūiriia-* “father’s brother” from *\*taur̥rija-* from older *\*t̥ar̥rija-* and ultimately from Proto-Indo-Ir. *\*pHir̥rija-*, cf. Vedic *pitrv̥iya-*. (On the phonological status of epenthetic *i* and *u*, see Morgenstierne, “Orthography and Sound-system,” pp. 55-58 par. ix.)

There is a consistent pattern in the representation of the quantities of the vowels *a*, *ā*, *ə*, *ā*, *i*, *ī*, *u*, *ū*, *e*, *ē*, *o*, *ō* in final position: in OAv. they are always long, that is, both original *a* and *ā* are written *ā*, etc., while in YAv. they are always short, except for *-ō*, *-ō* (the YAv. final *-q* is always long) and in monosyllabic words. The short vowels were probably closed, the long open, as in Attic Greek. Hence in the Sasanian archetype short and long vowels were often used to indicate degrees of openness of the vowels rather than their quantities. Thus we find *vīspa-* “all” with *ī* indicating a (short) open vowel: cf. Vedic *viśva-*. Similarly explainable are the spellings of *ahura-* “lord,” with (long ?) closed *u*, beside the derivative *ahūiri-* with (short ?) open *u* (through dissimilation with the closed *i* ?); note also *ao* from *\*au* beside *aē* from *\*ai*.

Qualitative changes are seldom found in the case of *ī* and *ū* but note OAv. *ənəiti-* from *\*ən̥iiti-* and *drəguuant-* from *\*druguant-*. As in East Iranian dialects, Av. *\*-īy-* became *-uy-* in *juua-* “living,” cf. Vedic *jivá-*, and

*cuuant-* “how much, how big” from *\*cīyant-*.

Proto-Ir. *a* suffered very many changes: to *ā*, *ə*, *ā*, *ē*, *o*, *ō*. These came about partly due to phonological development caused by the surrounding sounds, partly due to the liturgical chanting, and partly due to dialect influence. Before final *-n* and *-m*, *a* always became *ā*. This was originally the case also in word-interior position but *ə* was often replaced by *a* in this position in YAv., from where it was introduced also into OAv. Thus both OAv. and YAv. have *nəmah-* beside *manah-*. Before *-ŋh-* (*-ŋgh-*) where the nasal is etymological (*-ŋh-* from *\*-ns-*), OAv. has only *ā* in *səŋgha-* “pronouncement,” cf. Vedic *sám̐sa-*. But before *-ŋh-* where the nasal is secondary (*-ŋh-* from *\*-s-*), OAv. has only *a* e.g. in *manəhā*, cf. Vedic *mán̐asā*. In both cases YAv. has *a*: *səgha-*, *manəgha*. In final position *\*-ans* became *-əŋg* in OAv. and *-ə* in YAv.

In YAv. *ə* developed further to *i* after *i*, *č*, *j*: YAv. *yim* beside OAv. *yəm*; YAv. *drujim*, beside OAv. *drujəm*. Postconsonantal *\*-iə-* became first *\*-i-*, then YAv. *-ī-*, which was introduced from YAv. into OAv.: YAv. *ainim*, OAv. *aniim*, *ainim*, cf. Vedic *anyám* “other.” Similarly *\*-uə-* became *-u-* and then *ū*: YAv. *tūm*, OAv. *tuum*, cf. Vedic *tvám* “you.” Note that *-aiiūə-* became *-ōiū-* by umlaut: YAv. *ōiium* from *aēiūua-* “one;” YAv. *vidōiium* from *vīdaēiūua-* “abjuring the devils;” YAv. *Harōiium* beside OPers. *Haraiva-*. An exception is *daēum* (not *\*dōiium!*) from *daēiūua-* “devil.” Proto-Av. *\*aiə*, *\*āiə*, *\*auə*, and *\*āuə* before *n*, *m* were reduced in YAv. to the disyllabic diphthongs *aē*, *āi*, *ao*, *āu* respectively: YAv. *aem* beside OAv. *aiim* “this;” YAv. *daēnā-* “religion” (from *\*daijənā-*) was introduced into OAv.

Before *\*-i-*, *a* became *ə*: *səuišta-* “strongest,” cf. Vedic *sáviṣṭha-*. In certain environments *a* became *e*: between *i* and *j*, cf. *iθiiejah-* “abandonment;” between *i* and a syllable containing *ī*, *ii*, or *ē*, cf. *yesne*, loc. sing. from *yasna-* “veneration.” In some environments *a* became *o*: between *p*, *m*, *u* and a syllable containing *u* (but not *ū*): *puru* “much;” *mošū* “soon;” *vohu* “good;” but there are exceptions: *vanhuš* “good;” *pasu-* “cattle;” *maðu-* “wine.”

Proto-Ir. *\*ān* became *q* before spirants *x*, *θ*, *f*, *s*, *z*, *š*, *hi*: *maqbra-* “sacred utterance,” cf. Vedic *mántra-*; *qsa-* “party,” cf. Vedic *ám̐sa-*; *mqsta* “he thought,” cf. Vedic *mám̐sta*; *qzō* “narrowness,” cf. Vedic *ám̐has-*; *dqhišta-* “most versed,” cf. Vedic *dám̐siṣṭha-*; *vaš* “he prevailed” (from *\*uān̐st*); *sqstā* (2 plur. inv.) “appear,” cf. Vedic *á-chántta-*; *frqš* “forward” (from *\*prāñš*).

In OAv. final *-ah* (cf. Vedic *-ah* from *-as*) became *-ō* but it has in most cases been replaced by YAv. *-ō*. That even YAv. originally had *-ə* (cf. Khot. *-ā* [ə] from *\*-ah*) is indicated by such forms as YAv. *vacəbīš* (instr. plur.) based on nom. sing. OAv. *vacə* (= Vedic *vacaḥ*).

We often find long, that is, open (*back*) *ā* instead of closed (*front*) *a* in initial position: *ārmaiti-* “right-mindedness,” cf. Vedic *arám̐ati-*; *kāuuiiō* “princes,” cf. Vedic *kaváyah* “seers;” *srāuuiiēiti* “he desires fame,” cf. Vedic *śravasyāti*; *hātəm* (gen. plur.) “of the existing (ones);” cf. Vedic *satām*. Note also *ā* for *a* after *i* and *u*: *vii-adarəsəm* “I have seen,” cf. Vedic *adarśam*;

*vərəziātqm, nīdiātqm, višiiātā, hēmiiāsaite, paitii-āmraoī, aiβii-āma-, drəguuātā, drəguuāitē* (but *drəguuatō*), etc.

Proto-Ir. \**ai* usually becomes *aē* in open syllables (*vaēdā* “he knows”) but *ōi* in closed syllables (*vōistā* “you know”). In final position it appears as *-ōi* in OAv. but as *-e* in YAv. The spelling *-ē* in OAv. is due to YAv. YAv. has *-ōi* only in *yōi* and *maidiiōi*. The dat. sing. forms OAv. *axtōiōi* and YAv. *anumatē* point to an original \**-ōi* from Proto-Indo-Ir. \**-aiāi*, cf. Vedic *-aye*.

Proto-Ir. *au* became *ao*, but before final *-s* it usually became *əu* in OAv. and YAv.: *gəuš, mañiiəuš, mərəθiiaos*. In final position *-au* became sometimes *-uō*, sometimes *-ō* (cf. Vedic *-o*): OAv. *huuō* “yonder” (from \**hay*, cf. OPers. *havv*); *ərəzuuō* (voc. sing.) “O straight one;” *huxratuuō* (voc. sing.) “O skilful one;” cf. Vedic *sukrato*; but *mainiiō* (voc. sing.) “O spirit;” cf. Vedic *manyō*; *aṅhuuō* (loc. sing.) “in the life;” *gātuuō* “in the place;” *daṅhuuō* “in the land” beside *daṅhō*; *haētō* “on the bridge;” *šātō* “in peace;” *vaštō* “in the wish;” *həntō* “in gain;” cf. Vedic *sānitau*.

Many changes are found in the case of Proto-Ir. *ā*, e.g. *q: uruuqnō* “souls” beside *uruuānō*; in final position always *qm, qn*: *ā: mazāntəm* (acc. sing.) “great;” *māṅhəm* (acc. sing.) “moon;” *e: aiiēnī* “I shall go;” cf. Vedic *ayāni*; *zbaiiēmi* “I call;” cf. Vedic *hvayāmi*. Final *-āh* became *-ā* (cf. Vedic. *-āh* from *-ās*); *sāsnā* “commandments” (by analogy also *sāsnās-ca* “and commandments”).

Original *ā* is often shortened, as in *dātaras-ca* beside *dātārō* “creators;” *-anqm*, gen. plur. ending with disyllabic *-qm*, cf. Vedic and OPers. *-ānām*; *aētāṅhqm*, cf. Vedic *etāsām*: *-aī,haca* (instead of \**-āī,haca*), but *-āaīcā* in *ašāaīcā*.

Before a vowel, *āi* and *āu* are often shortened to *ai* and *au*, a feature shared by Avestan with East Iranian dialects such as Sogdian: *vaiiu-* “wind;” cf. Vedic *vāyiu-*; *zaiiata* “he was born;” cf. Vedic *jāyata*; *-aiiā*, gen. sing. fem. ending, cf. Vedic *-āyāh*; *-aiiāi*, dat. sing. fem. ending, cf. Vedic *-āyāi*; *nauuāza-* “boatman;” cf. Vedic *nāvājā-*; *yauuaṅt-* “as great, as much;” cf. Vedic *yāvant-*; *ašauuā* “righteous;” cf. Vedic *ṛtāvā*.

The consonants: (a) *Semivowels*. In the Sasanian archetype the semivowels *i* and *u* were always written *y* and *v* in word-initial position. These sounds probably represent an intermediate stage in the development of initial *i* and *u* to *j* and *b* as seen in NPers. In the Indian manuscripts *y* is replaced by *y*, whose original value was probably palatal *ḷ*. In medial position the manuscripts have *ii*, *uu* and not *y*, *v* as earlier transcriptions seemed to indicate, (e.g., *vayv-* for *vaiiu-*). The graphs *ii* and *uu* are to be interpreted phonetically as *iī* and *uū*: *friiia-* “dear;” cf. Vedic *priyā-*; *druua-* “firm;” cf. Vedic *dhruvā-*. The fact that *jiia* “bowstring” and *kuua* “where” were disyllabic in YAv., cf. Vedic *jīyā* and *kuvā* respectively, is proved by their being written with a short final vowel, since the final vowel of monosyllables was regularly written long in YAv. *iī* and *uū* may have developed in West Iran under the influence of Old Persian, where every postconsonantal *i* and *u* became *iy* and *uv*

respectively: Av. *aniia-* (from \**aniā-*, cf. Vedic *anyā-*) like OPers. *aniya-*; Av. *hauruua-* (from \**haruā-*, cf. Vedic *sārva-*) like OPers. *haruva-*. Even intervocalic *i* and *u* are sometimes written *iy* and *uv* in OPers. Thus Av. *dāraia-* and *bauuaiti* correspond to OPers. *adā-raiya* and *bauvatiy*. Note too that intervocalic *ii* and *uu* may even be etymologically justified: OAv. *āiīāt* from \**āiīāt*, cf. Vedic *iyāt*, Av. *sraiaih-* “more excellent;” cf. Vedic *śréyas-* (from Proto-Indo-Ir. \**śraiHias-*); *gauuāstriia-* “belonging to the cattle pasture” from \**gau-uāstriia-*. In the manuscripts the sequences *-iiuu-* (from \**-iūu-*) and *-uiii-* (from \**-uīi-*) are usually simplified to *-iiuu-* and *-uii-* or else expanded to *-iiuuu-* and *-uuaii-*, but the original spellings are sometimes still attested: *mañiiuuā*, that is, \**mañiiuuā*, from \**mañiiuāh* “of the two (evil) spirits;” *paouruuiia-*, that is, \**paouruuiia-*, from \**pauruuiia-* “first;” cf. OPers. *paruviya-*.

Internal *i* was lost in YAv. before *e*: YAv. *vahehī-* (fem.) “the better;” from \**uahiehī-*, cf. Vedic *vāsyasī-*; *-ahe*, gen. sing. masc. ending, cf. Vedic *-asya*; *kaine* “girl;” cf. Vedic *kanīyā*; *bāzuβe* “with both arms;” from \**bāzuβia*, cf. Vedic *bāhūbhyaṃ*; YAv. *-əe*, dat. sing. ending, cf. Vedic *-aye*.

A late but consistent change is that of *-uue* (from earlier \**-uuai* and \**-uai*) to *-uiie*: OAv. *mruiē*, YAv. *mruiē* “I say;” cf. Vedic *bruve*; OAv. *viduiē* “to know” from \**uiduai*.

In some cases Proto-Ir. *i* and *u* combine with a preceding consonant. Proto-Indo-Ir. \**ci* became \**śi* in original OAv. and then *šii* in the Sasanian archetype. In original YAv. it became *ś* but is mostly written *s* or *š* in the manuscripts. Thus we have: OAv. *šiiāta-* beside YAv. *šāto* (mostly written *sāto* or *šātō*).

Proto-Ir. *hi-* from Proto-Indo-Ir. *-si-* remained unchanged in original OAv. but became *-hii-* in the Sasanian archetype. After the change of *h* to *ṅh*, Proto-Ir. *-hi-* developed in original YAv. to *-ṅh-* from \**-ṅhi-*. Thus we have: OAv. *vahiiō* beside YAv. *vaṅhō* (wrongly written *vaṅhō*), cf. Vedic *vāsyah* “better.” In the same way Proto-Ir. *-hu-* (from Proto-Indo-Ir. *-su-*) developed into OAv. *-huu-* (from *-hu-*) and original YAv. *-ṅh-* (often written *-ṅuh-* or *-ṅh-* in the MSS): OAv. *gūšahuuā*; YAv. *pərəsaṅha* (often written *pərəsaṅuha*, *pərəsaṅha*). Initially \**hu-* became in Av. *x̄*: *x̄afna-* “sleep;” cf. Vedic *svāpna-*. On *x̄* see also under (f) below.

After certain consonants Proto-Ir. *u* underwent further changes. Proto-Ir. *śu* became *sp* in Avestan and Median: *aspa-* “horse;” cf. Vedic *āsva-*. Proto-Ir. *zu* became *zb* in Av. and Median: *zbaiia-* “to call;” cf. Vedic *hvaya-*, from Proto-Indo-Ir. \**ḷuāia-*. Proto-Ir. *θu* became *θβ* in Av.: *caθβārō* “four;” cf. Vedic *catvārah*, Sogd. and Parth. *ctfr*. Proto-Ir. *δu* became in YAv. *δβ* (*ərəδβa-* “upright” beside *ərəduua-* from \**ərduā-*) but initial \**dui-* became OAv. *dbi-* (*daibišiant-* but *duuāēšah-*, cf. Vedic *dvēśas-* “hatred”) and YAv. *tbi-* (*tbišiant-* and by analogy *tbaēšah-*). From initial \**dui-* YAv. has also *bi-* perhaps by dissimilation; *bitiia-* “second” beside OAv. *daibitiia-*, cf. Vedic *dvitīya-*.

Initial \**ur-* was metathesized to \**ru-* and written

*uruu-* in Av.: *uruuata-* “commandment,” cf. Vedic *vratá-*.

(b) *Liquids* (only *r*).

Consonantal *r* and original syllabic *\*r̥* fell together in Avestan, syllabic *\*r̥* becoming *ər*. After *t* the *ə* was usually dropped: *ātrəm* (acc. sing.) “fire” from *\*ātərəm*; *strəš* (acc. plur.) “stars” from *\*stərəš*; *striia-* “to sin” from *\*stəriia-*, where the *ə* must have been lost before *i*-epenthesis could take place. Immediately following the Proto-Indo-Ir. accent *rk* became *hrk* and *rp* became *hrp*: *mahrka-* “destruction,” cf. Vedic *mārka-*; *vahrka-* “wolf,” cf. Vedic *vīka-*; *kəhrpəm* “body” from *\*kīrpam*. Instead of the expected *\*hrt* from *\*rt* we find *š*: *mašīia-* “man,” cf. Vedic *mārtīya-*; *amašša-* “immortal,” cf. Vedic *amīta-*. From the third century A.D. Mid. Pers. loanwords from Av. are attested which have *hr/hl* for Av. *š*: Mid. Pers. *hlw* [ahlaw] from Av. *ašauua*. *š* will accordingly have been pronounced originally as a voiceless *l*-like lateral fricative, which, at any rate in the post-Sasanian period, merged with *š*.

(c) *Nasals*.

On the whole the nasals *n* and *m* remained unchanged in Av., but they are regularly written *ṇ* before *t, d, k, g, c, j, b*. The letter *ṇ* probably represents a uvular nasal that was articulated just by lowering the soft palate. It is indicated in this article by *N* in reconstructions. The same sound no doubt occurred in OPers. but it was not written: Av. *aṇtarə* “inside” but OPers. *a-ta-ra* [a<sup>h</sup>tar]. The dorsal nasal was, however, retained in YAv. *paṇtaṇhum* “a fifth” from *\*paṇ<sup>h</sup>tahūm*. An unusual metathesis is attested by YAv. *mərəṇte* “he destroys” for *\*mərəṇte* from *\*mrṇ<sup>h</sup>tai*. Proto-Indo-Ir. *ns* before *ā* resulted in Av. *ṇ(g)h*: YAv. *saṇha-*, OAv. *səṇgha-*, cf. Vedic *sāmsa-*.

For discussion of Av. *-aṇha-*, *-aḥha-*, *aṇ<sup>h</sup>ha*, and *-aḥhi-* see above under (a) and below under (f).

Before *j, n* was palatalized to *ñ* but in the manuscripts *ñ* is usually replaced by *n*: *añīia-*, cf. Vedic *anyā-*. The manuscripts often have *ṇi* instead of *hm*, which makes it probable that *ṇi* was a voiceless *m*. Final *-m* is found for *-n* when the syllable in question had a labial initial: OAv. *dāmam*, *nāmam*: YAv. *uruθβam*, *θrizafəm*, *ašāum* (from *\*ašāum*).

Phonetically Av. *q* was probably nasalized *ḡ*. Not only did it develop from Proto-Indo-Ir. *ān* (*āN*) before *s* and *š* as seen above on the vowels but it occurs also in OAv. *ərəqš* from *\*-ərəNš* from older *\*-rNš*: *nərəqš*, *mātərəqš*, *mərəqšdīiāi*. Note also *mərəqšīiāt* from *\*mərəNšīiāt* from older *\*mrṇ<sup>h</sup>īiāt*. As in the case of the OAv. and YAv. acc. plur. endings *-iš* and *-ūš* from *\*-iNš* and *\*-uNš*, the nasalization is not attested in the acc. plur. of consonant stems in YAv.: *nərəš*, *strəš*, and *pairīiātrəš-ca*. In the manuscripts these forms are often miswritten, e.g., *nərəūš* for *nərəš*.

(d) *Occlusives*.

The Proto-Indo-Ir. occlusives *p, t, k*, became *f, θ, x* in Proto-Ir. before a consonant. Proto-Indo-Ir. *p<sup>h</sup>, t<sup>h</sup>, k<sup>h</sup>* also became *f, θ, x* before a vowel. However, Av. shows certain peculiarities. After *s* and *š* it has only *p, t, k*. Moreover, Av. has *pt* instead of the expected *\*ft; fθ* and

*xθ* for expected *\*fθ* and *\*xθ*; *šī* and *še* for expected *\*xi* and *\*xiāj* in *hašī* and *haše* corresponding to Vedic *sákhi* and *sákhye*.

It is characteristic of OAv. that it has preserved *b, d, g* from Proto-Indo-Ir. *b, d, g* and *b<sup>h</sup>, d<sup>h</sup>, g<sup>h</sup>*. In YAv., *b, d, g* are retained only in initial position while in medial position they were replaced by the voiced fricatives *β, δ, γ* except after a nasal or a sibilant. Thus, OAv. *dugədar-* “daughter” contrasts with YAv. *duγdar-*. There are, however, a number of exceptions. Note OAv. *-βz-* and *γz-*, YAv. *γz-*, *γəm-*, and *γən-*. Proto-Ir. *-dn-* became *-n-*: OAv. and YAv. *būna-* “bottom,” cf. Vedic *budhnā-*. Proto-Ir. *dm-* was retained in OAv. but became *nīm-* in YAv.: OAv. *dəmāna-* “house” beside YAv. *nmāna-*. In YAv., *γ* was lost before *u* and *ū*: *Mourum*, cf. OPers. *Margum*; *raum*, cf. Vedic *raghūm*; *druuant-* from *\*druγuant-*, cf. OAv. *drəguuant-*. In YAv. *driγūm* “pauper,” the *γ* was restored by analogy with other forms of the paradigm such as gen. sing. *driγaoš*.

The YAv. change of *β* to *u* is dialectal, perhaps Arachosian; it may also have belonged to the colloquial language. Examples are: *gəuruuāiia-* “to seize” from *\*gərβāiia-*, cf. Vedic *grbhāyā-*; the prep. *auui* “to,” which is also written *aoui*, *aoi*, from *\*aβi* contrasting with *aīβi-* in nominal compounds, cf. OAv. *aibī* and Vedic *abhi*; the adj. *uuaiia*, *uuāēm* “on both sides,” cf. Vedic *ubháya-*; *uua* “both,” cf. Vedic *ubhá* (masc. dual); *uiie* from *\*uue*, cf. Vedic *ubhé* (neuter dual); *nəruuiō* “to the men” beside *nərəβiūō*, cf. Vedic *nṛbhyaḥ*; *ašauuaoiūō* “to the righteous” from *\*ašauaβiūō*. In some cases the spellings seem to be arbitrary: YAv. *māuuōiia* “to me” from *\*maūiia* from older *\*maβiia*, cf. OAv. *maibūā*; *huuāuuōiia* “to (your)self” from *\*huuauūiia* from older *\*huuauβiia*, cf. original *\*-uī-* in *hāuuōiia* (inst. sing.) “with the left (hand)” from *\*hauūā*, cf. Vedic *savyā*.

The occasional replacement of *δ* by *θ* appears also to be dialectal, perhaps West Iranian. In the athematic *daδāiti* “he puts; he gives,” cf. Vedic *dad(h)āti*, *δ* is retained but in the thematic new formation *daθaiti* earlier *δ* has been replaced by *θ*. The gen. sing. of *daδuuā* “creator” is *daθušō*, which is confirmed by *dathousa* (in Greek script) in the Cappadocian calendar. Note also *h* from *θ* in Parth. *dh-*, NPers. *dah-* “to give.” *θ* is attested also in East Iranian in Khot. *parāth-* “to sell” from *\*parā-daθa-*, cf. Av. *para.daθa-*.

Proto-Indo-Ir. *t* was lost before *s*: Av. *masiia-* “fish,” cf. Vedic *mātsya-*. Similarly, Av. has *st* from *\*-t<sup>h</sup>t-* from *t/d + t* as in *vista-* “found” from *\*uid<sup>h</sup>tā-*, cf. Vedic *vitā-* and *zd* from *\*-d<sup>h</sup>d<sup>h</sup>-* from *d<sup>h</sup> + t* as in *vərəzda-* “grown” from *\*ur<sup>h</sup>d<sup>h</sup>d<sup>h</sup>ā-*, cf. Vedic *vṛddhā-*.

Final *-t* was lost after *n*, probably already in Proto-Indo-Ir., and also after *s*. Examples are: YAv. *ās* “he was” from *\*āst*; OAv. *cinas* “she assigns” with *-s* from *\*-st*; *vqs* “it prevailed” from *\*vān-s-t*; OAv. *sqs* “it seemed” from *\*sšānd-s-t*. However, both *-st* and *-št* are also found: OAv. *urūraost* “he wailed (?)” from *\*ruraud<sup>h</sup>t*; YAv. *nāist* “he cursed” from *\*nāid-s-t*; OAv. *vaxšt* “he made grow,” *cōišt* “he assigned,” *tāšt* “he shaped.” In all other cases *-t* became *-t̥* (probably an implosive): YAv. *baraṭ* OAv. *cōrəṭ* from *\*cari*; OAv.



yaogəi "he harnessed" from \**jaugd* (?) from older \**jaukt*. The graph *-gəi* may represent an implosive *-k/-g* in YAv. *paragəi* "apart from," cf. Vedic *pārāk*; YAv. *ašiš.hāgəi* "following Aši:" OAv. *paitiiaogəi* "responding."

(e) *Affricates.*

The palatal affricates of Proto-Indo-Ir. *č, j, ǰ*, which in Vedic became *c, j, h*, survived in Av. as *c, j, j*. On the development of Proto-Indo-Ir. \**čj* to OAv. *šii* and YAv. *š* see above on the vowels. The YAv. change of *j* to the palatal \**ž*, always written *ž*, is dialectal, perhaps Arachosian: *družā-* "to deceive" from \**drujia-*, cf. OAv. *a-drujiiant-*; *snaēža-* "to snow;" *draža-* "to hold;" *daža-* "to burn;" *baža-* "to distribute;" *naēnižaiti* "he washes." It occurs very rarely in nouns: *aži-* "snake;" *tiži-* "sharp;" *snaēžana-* "slaving;" *a-družqm* (gen. plur.) "of the deceitless" (otherwise only *druj*-).

The primary palatal affricates of Proto-Indo-Ir., namely *č, j* and *ǰ* from Proto-IE. *ḱ, ǵ, ǵʰ*, developed via Proto-Ir. *ś, ž, ž* to Av. *s, z, z* corresponding to Vedic *ś, j*, and *h* respectively: Av. *satəm* "hundred," cf. Vedic *śatām*; *zaoša-* "pleasure," cf. Vedic *jōša-*; *zotar-* "priest," cf. Vedic *hotār-*. Before *t, dʰ*, and *hʰ*, *č* and *j* developed already in Proto-Indo-Ir. to *ś* and *ž* respectively: OAv. *vaštī* "he wishes" beside *vasəmī* "I wish," cf. Vedic *vásṭi* beside *vásmi*; OAv. *važdra-* "pulling" from *vaz-* "to pull," cf. Vedic *vodhár-* "draught (i.e., pulling) animal" from *vah-*; OAv. and YAv. *vīžibiūō*, abl. plur. from *vīs-* "tribe," cf. Vedic *vidbhyaḥ* from *vīs-*. In initial position *žn-* became *zn-* in YAv. (= OPers. *xšn-*): *žnātar-* "knower," cf. Vedic *jñātār-* "knower," OPers. *xšnā-* "to know;" *žnu-* "knee," cf. Vedic *jñu-*. Internally both *śn* and *žn* became *šn*: YAv. *frašna-* "question," cf. Vedic *praśná-*; YAv. *barsna* "in height, depth" (= OPers. *baršnā*) from \**baržnā* from older \**h<sup>h</sup>arjñā*. But *šn* is found instead of *žn* in some cases due to the influence of other forms: OAv. *vasnā* "according to wish" (= OPers. *vašnā*) from *vas-*; OAv. and YAv. *yasna-* "veneration" (cf. Vedic *yajñā-*), from *yaz-*.

The Proto-Indo-Ir. clusters *śč* and *šč* from Proto-IE. *śḱ* developed via Proto-Ir. *śś* and *šš* to Av. *s* (= Vedic *ch*): Av. *pərəsa-* "to ask," cf. Vedic *prchá-*. Similarly, *čš* and *jž*, from Proto-IE. *ḱs, ḱp* and *ǵʰs, ǵʰp* respectively, developed via Proto-Ir. *śś* and *žž* to Av. *š* and *ž*: Av. *šōiθra-* "dwelling-place," cf. Vedic *kṣētra-*; *uz-uuažat* "he drew out," cf. Vedic *vákṣat* (subj.) from Proto-IE. *ueǵʰ-se-* (see next paragraph).

(f) *Sibilants.*

Proto-Indo-Ir. *s* and *z* were maintained in Av. before *n* and occlusives, and after *t* and *d*, which were lost in that position as noted above. Thus we find: YAv. *snāuuarə* "sinew," cf. Vedic *snāvan-*; *asti* "he is," cf. Vedic *asti*; *masiia-* "fish," cf. Vedic *mātsya-*; YAv. *mazga-* "marrow" from Proto-IE. *mozǵʰo-*; YAv. *aspasca-* "and the horse," cf. Vedic *ásvas-ca*; OAv. *zdi* (2 sing. impv.) "be," cf. Vedic *edhi*, from Indo-Ir. *azdʰt*; *vərəzda-* "grown" from \**urdz<sup>h</sup>ā-*, cf. Vedic *vṛddhā-*.

After Proto-Indo-Ir. *ī* (*i*), *ū* (*u*), *r* (*r*), *k/g/gʰ*, and *č/j/ǰ* (from Proto-IE. *ḱ/g/ǵʰ*), Proto-Indo-Ir. *s* and *z* became *š* and *ž*: Av. *viša-* "poison," cf. Vedic *viṣā-*; *mīžda-*

"reward," cf. Vedic *mīdhā-*; *zušta-* "loved," cf. Vedic *jūšta-*; *aršti-* "spear," cf. Vedic *ṛṣṭi-*; *uxšan-* "bull," cf. Vedic *ukṣān-*; OAv. *aojžā* "you say" from \**augʰ-sa*; *vaši* "you wish," cf. Vedic *vakṣi*, from Proto-IE. *ueḱ-si*; *tašan-* "fashioner," cf. Vedic *tákṣan-*, from Proto-IE. *tekʰon-*. In Proto-Ir. this development took place also in clusters with labials. Thus Av. has *fš* from \**ps* and \**pś*: Av. *drafša-* "banner," cf. Vedic *drapsá-*; *fšu-* from \**pśu-* to *pasu-* "cattle." Similarly Av. has *βž* from \**bžʰ*: *diβža-* "to deceive," cf. Vedic *dīpsa-*, from Proto-Indo-Ir. *ḍ<sup>h</sup>ibz<sup>h</sup>a-*; *vaβžaka-* "wasp" from \**uabz<sup>h</sup>a-* from Proto-IE. *uobʰso-*.

In all other positions Proto-Indo-Ir. *s* became Proto-Ir. *h*. This *h* was kept initially before a vowel: *haftu* "seven," cf. Vedic *saptá*. But \**hi* became *xii-* in OAv.: *xiiū* "he should be," cf. YAv.: *hiū*, Vedic *syāt*; and \**hu* became *x* in both OAv. and YAv.: *x<sup>h</sup>afnu-* "sleep," cf. Vedic *svápna-*. Medial *h* was unchanged only before *i* and *u*: *ahī* "you are," *ahura-* "lord." In OAv. medial *h* remained unchanged also before *i* and *u*: OAv. *ahiiā*, cf. Vedic *ásya*; *gūshahuū* with the ending *-ahuuū* corresponding to Vedic *-asva*. In the sequence *āha*, *h* probably became voiced and resulted in *ḥ*: *aḥat*, cf. Vedic *ásat*; *āḥarə*, cf. Vedic *ásur*. That this *ḥ* was phonemically significant is shown by the fact that it was extended from the gen. sing. *vaḥḥūš* from \**uahaus* (= Vedic *vásoḥ*) to the nom. sing. masc. *vaḥḥūš* although it is not found in the neuter *vohū* or when *m* or *n* follow as in *vohūm* and *vohunqm*. In medial position *hi* and *hu* developed in YAv. to *ḥh* and *ḥh*: see (a) above. (See also Hoffmann, *Aufsätze II*, pp. 595-96).

In OAv. the gen. sing. ending *-ahiiā* is always written with *x* before enclitic *-cā* "and": *-axiiā-cā*. This pronunciation may reflect the secondary accentuation \**ahīā-ca*. *-xii-* is also found elsewhere for *-hi-*: OAv. *da<sup>h</sup>xiiūš* "of the land" but YAv. *daḥḥūš*; both OAv. and YAv. *da<sup>h</sup>xiiūm* (acc. sing.) and *da<sup>h</sup>xiiūnqm* (gen. plur.).

The use of *-x-* for internal *-hu-* in YAv. *Harax<sup>h</sup>aiti-* "Arachosia" and OAv. *nəmax<sup>h</sup>aiti-* "respectful" may be dialectal, perhaps Arachosian. The same applies to the use of *x* for unaccented syllabic *huu-* in the following: *X<sup>h</sup>āstrā-*, name of an Archosian river, from \**hu-uāstrā-*; OAv. *x<sup>h</sup>āθra-* "welfare" from \**hu-āθra-*, cf. *duž-āθra-* "discomfort;" *x<sup>h</sup>āng* (gen. sing.) from \**huuāng* to *huuarə* "sun," cf. Vedic *suvár*; *x<sup>h</sup>āeta-* "easy to walk along" from \**hu-ā-ita-*; *x<sup>h</sup>iti-* "easy walking." (See also Hoffmann, "Das Avesta in der Persis," pp. 92-93.)

Proto-Ir. *hm* is retained internally as in *ahmi* "I am" but the *h* is lost in initial position: *mahi* "we are," cf. Vedic *smasi*. Proto-Indo-Ir. *sr* appears to have become *θr* in YAv. in initial position: *θraotō.stāc-* "flowing in rivers," from \**srautas-tāc-*, cf. Vedic *srótas-* but OPers. *rautah-*. Medially *hr* became *ḥr* in YAv.: *aḥra-* "evil," cf. Vedic *asrá-* "painful;" *daḥra-* "knowing," cf. Vedic *dasrá-*. These forms were introduced from YAv. into OAv., where one also finds the spellings *angra-* and *dangra-*.

For the loss of final *-h* see above on the vowels.

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### iii. THE GRAMMAR OF AVESTAN

The morphology of Avestan nouns, adjectives, pronouns, and verbs is, like that of the closely related Old Persian, inherited from Proto-Indo-European via Proto-Indo-Iranian (Proto-Aryan), and agrees largely with that of Vedic, the oldest known form of Indo-Aryan. The interpretation of the transmitted Avestan texts presents in many cases considerable difficulty for various reasons both with respect to their contexts and their grammar. Accordingly, systematic comparison with Vedic is of much assistance in determining and explaining Avestan grammatical forms.

Old Avestan (OAv.) or Gathic Avestan, the language of Zarathustra, the founder of the Zoroastrian religion, is particularly archaic. Young Avestan (YAv.) is the language of the later texts, the earliest of which may date from the sixth century B.C. It already shows numerous innovations when compared with OAv.

A particular difficulty of Avestan is caused by the fact that many sound changes took place which obscure the original structure of the forms. Note that words ending in *-ā*, *-ī*, *-ū*, *-ē* are OAv. while those ending in *-a*, *-i*, *-u* *-e* are YAv. Forms that are otherwise identical in OAv. and YAv. are indicated by *-ā*, *-ī*, *-ū*, *-ē*. Apart from forms with these endings, forms that are common to both OAv. and YAv. are not specified.

#### I. Nominal inflection.

Like Vedic and Proto-IE., Avestan distinguishes three genders: masculine, feminine, and neuter. Words designating male and female beings are masculine and feminine respectively, but also many words that designate inanimate objects and concepts are masculine or feminine and not neuter as might be expected. Avestan

has three numbers: singular, dual, and plural. The dual is used to refer to two persons or objects. Avestan has eight cases: nominative for the subject, accusative for the direct object, dative for the indirect object, genitive to indicate possession or relation, instrumental to indicate means or association, ablative to indicate separation, locative to indicate location, and vocative used in addressing a person, less commonly a thing.

The basis of the nominal inflection is the noun stem, which not only conveys the lexical meaning but in most cases also the gender. In general, inflectional categories are marked by endings, most of which indicate at the same time number, case, and, in part, gender. Thus a particular ending may be characteristic of the genitive sing. masc. Neuter nouns are inflected like masc. nouns except that they have different endings in the nom. and acc. for all three numbers. The nom. and acc. of neuter nouns are always identical. Some noun stems remain unchanged throughout the paradigm whereas others have different ablaut grades according to the case.

The paradigm followed by a noun or adjective is usually determined by the final sound of its stem. Thus, there are masculines and neuters in *-a-*, feminines in *-ā-*, *-ī-*, *-ū-*, masculines and feminines in *-i-*, *-u-*, masculines in *-n-* and *-r-*, neuters in *-man-* and *-ah-*, and words of all three genders ending in consonants (e.g., *-p-*, *-t-*, *-k-*, *-g-*, *-s-*).

The addition of the case ending to the final sound of the stem often involves special sound changes. Thus, the original Proto-IE. ending of the nom. sing. masc. and fem. of most noun stems is *-s*, and this *-s* is retained in the case of *-a-* stems before *-cā* "and" (in sandhi), but otherwise *-as* developed via *-ah* to *-ō*. After *-ī-*, *-ū-* and some consonants, *-s* became *-š*, e.g., *gairiš* "mountain," *aṅhuš* "life," *vāxš* "voice" (< \**uāk* + *s*).

*a-*stems. The thematic stems in *-a-* are particularly numerous. Examples are masc. nouns: *ahura-* "lord," *mašīia* "mortal," *yasna-* "worship," *vīra-* "man," *zasta-* "hand;" neuter nouns: *aša-* "truth," *uxda-* "word," *xšaθra-* "rule," *šīiaθna* "action;" and adjectives: *aka-* "bad," *aniia-* "other," *hauruua-* "entire."

The masc. *a-*stem inflection is as follows. Sing.: nom. *ahurō*, *yasnas-ca*;—acc. *ahurəm* (*mašīm* < \**mašīim*; *haurum* < \**haurum*),—inst. *ahurā*;—dat. *ahurāi*, OAv. *ahurāi.ā*; abl. *yasnāt*, *yasnāat-ca*, *-at haca*;—gen. OAv. *ahurahīiā*, *-axīiā-cā*, YAv. *ahurahe*;—loc. *yesnē* (*zastaiia* < \**-ai* + *ā*); OAv. *ōi*;—voc. *ahurā*.—Dual: nom. *ahurā*;—inst./dat./abl. *ahuraēibiia*;—gen. *vīraiīā*;—loc. OAv. *zastaiiō*.—Plur.: nom. *mašīiā*, *mašīiāṅhō*, *ahura-ca*;—acc. OAv. *mašīiṅg*, *mašīiṅg-ca*, YAv. *-q/-ē* (*zastē*);—inst. *zastāiš*;—dat./abl. OAv. *-ōibiū*, YAv. *-aēibiū*;—gen. *yasnanqm*;—loc. *mašīiaēšū*, YAv. *-aēšuuā* (< \**-aišu* + *ā*);—voc. OAv. *ahurāṅhō*.

Neuter *a-*stem inflection differs from masc. *a-*stem inflection only in having special forms in the nom./acc., e.g. sing. *xšaθrəm* "rule;" dual OAv. *šīiaθnōi* "the two actions;" plur. *uxdā* "words."

*ā-* and *ī-*stems. The inflection of fem. *ā-*stem words, e.g., *gaēθā-* "living being," *daēnā-* "religion," and the inflection of fem. *ī-*stem words, e.g., *nāirī-* "woman,"

*ašaoni-* "righteous" (fem. adjective from *ašauuan-*) are largely parallel.

The fem. *-ā*- and *-ī*-stem inflection is as follows. Sing.: nom. *daēnā, nāirī*;—acc. *daēnəm, ašaonīm*;—inst. *daēnā, daēnaiiā, -iiā*; dat. *daēnaiiā, ašaoniiā*;—abl. YAv. *-aiiāt*, YAv. *-iiāt*;—gen. *daēnaiiā, nāirīiā*;—loc. *grūuuaiia* "on the neck";—voc. *daēne, sūra, ašaoni*.—Plur.: nom./acc./voc. *gaēθā, ašaonīs*;—inst. *gaēθābiš*;—dat./abl. *gaēθābiiō, ašaonibiiō*;—gen. *gaēθanəm, ašaoninəm*;—loc. *gaēθāhu, gaēθāhuua, -išu, -išuua*.

*i-* and *u-*stems. Similarly formed are the paradigms of masc. and fem. stems ending in *-i-* (e.g., *aši-* "reward," *axti-* "pain," *gairi-* "mountain," *paiti-* "master") and in *-u-* (e.g., *aḡhu-* "life," *xratu-* "mental vigor," *daḡhiu-/daḡhu-* "land, country," *mainiu-* "spirit," *vaḡhu-/vohu-* "good"). The stem final shows the ablaut grades *-i-*, *-ai-*, *-āi-* and *-u-*, *-au-*, *-āu-* respectively.

The *i-* and *u-*stems inflect as follows. Sing.: nom. *ašiš, xratuš*;—acc. *ašim, xratum*;—inst. *aši, xratū*;—dat. (< *\*-ai-ai*) OAv. *axtiōiōi*, YAv. *°patē*; (< *\*-au-ai*) *vaḡhauuē*;—abl. YAv. *garōit, xrataot*;—gen. (< *\*-ai-š*) *patōiš*; (< *\*-au-š*) *xratōuš*;—loc. (*\*-ā* < *\*-ā(i)*) *gāra; vaḡhāu*;—voc. (< *\*-ai*) *paite*; (< *\*-au*) *mainiō*.—Dual: nom./acc. *paiti, mainiū*;—inst. *ašibiū, ahubiū*;—gen. *mainiūā* (< *\*manīuū-āh*);—loc. *aḡhuō* (< *\*ahuū-au*).—Plur.: nom. (< *\*-ai-ah*) *garaiō*; (< *\*-au-ah*) *xratuuō*;—acc. (< *\*-i-Nš*) *gairiš*; (< *-u-Nš*) *xratūš*;—dat. *gairibiō, daḡhubiō*;—gen. *gairinəm, vohunəm*;—loc. *vaḡhuš*.

The nom./acc. of neuter stems in *-i-* and *-u-* has in all three genders the endings *-ī* and *-ū* respectively.

The only *i-*stem word that is declined irregularly is *paiti-* in the sense of "husband," which in the dat. sing. has the ending *-i-ai* instead of *-ai-ai*: YAv. *paiθiiaē-ca, paithe* (Vedic *pātye*). Several *u-*stem words have exceptional forms: nom. sing. OAv. *darəgō.bāzāuš* "long-armed"; inst. sing. *xraθβā* (Vedic *krātāvā*); dat. sing. *xraθβe* (Vedic *krátve*), OAv. *aḡhuiē*, YAv. *aḡhe* (< *\*ahū-ai*); loc. sing. *daḡhuō, daḡhauua* (< *\*dahīau + ā*, cf. Vedic *dāsyav-i*) reflecting the ending *\*-au* (+ *ā*).

*Root nouns, etc.* A large group of masc. and fem. nouns are monosyllabic "root nouns" (that is, nouns whose stem consists of the root alone), and other nouns, not all monosyllabic, that end in *-ā-*, *-ī-*, *-ū-* (e.g., *xā-* "source," *əḡəḡ-ji-* "right-living," *tanū-* "body") or in a consonant (except *-n-* and *-r-*). The case endings are the same in almost all paradigms. As mentioned above, the original ending *-s* of the nom. sing. appears in various forms: *-ā + s* > *-āh* > Av. *-ā* (*raθaē-štā* "charioteer"); *-ī + s*, *-ū + s* > Av. *-īš, -ūš* (*əḡəḡ-jiš, tanūš*) *-p + s* > Av. *-fš* (*ašš < āp-* "water"); *-k (g) + s* > Av. *-xš* (*vāxš < vāc-* "voice," *druxš < druj-* "lie"); *-š + s* > Av. *-š* (*vīš < vis-*, Vedic *viš-*, "settlement"); *-t (d) + s* > Av. *-s* (*hauruātās < hauruātāt-* "completeness").

The other endings of this group are: Sing.: acc. *-əm* (*āpəm, vācəm*), *-im* (*drujim*);—inst. *-ā* (*visa* = Vedic *višā*);—dat. OAv. *-ōi, -ē*, YAv. *-ē = \*ai* (*više* = Vedic *višē*);—abl. (OAv. = gen.), YAv. *-at* (*višat*);—gen. *-ō* < *\*-ah* < *\*-as* (*vīšō* = Vedic *višāh*);—loc. *-ī, -iia* < *\*-i + ā* (*vīsi, višija*; Vedic *viśi*).—Dual: nom./acc. *-ā* (*ratu-*

*friia* "delighting the Ratus");—inst./dat./abl. *-biiā* (*vaḡzibiia*);—gen./loc. *-ā* (*aməḡətātā*).—Plur.: nom. *-ō* < *\*-ah* < *\*-as* < Proto-IE. *\*-es* (*āpō*);—acc. *-ō* < Proto-IE. *\*ns* (*vīšō*);—inst. *-biš* (*vaḡzibiš*);—dat./abl. *-biiō* (*višibiō*);—gen. *-əm* (*vīšəm*);—loc. *-hu/-šu* < Proto-IE. *\*-su* (*našsu* "among the grandsons" < *\*napt-su*).

In a number of paradigms the noun stem shows ablaut. The "strong" cases are the sing. nom., acc., and loc.; the dual nom.-acc.; and the plur. nom. The remaining cases are "weak," that is, they show zero grade or a short vowel in the stem. Thus, among the root nouns, we find nom. sing. *āšš, vāxš*; acc. sing. *āpəm, vācim*, but inst. sing. *apa, vaca*.

Ablaut is particularly well preserved in the case of the possessive suffixes *\*-uant-/ \*-mant-* "having," which in the "weak" cases appear as *\*-uat-/ \*-mat-* (< Proto-IE. *\*-unt-/ \*-munt-*). Thus, OAv. has acc. sing. *drəguuantəm* but gen. sing. *drəguuatō* from *drəguuant-* "deceitful." The same ablaut is found in the case of the participles of athematic temporal stems (*\*-ant-*: *\*-at-*) and in the case of the adjective *bəḡzant-/bəḡzat-* "high." The nom. sing. masc. takes various forms. The participles have *-as* in OAv. (< *\*-ant-s*: *pəḡsas* "asking," *həs* "being") but usually *-ō* in YAv. (*pəḡsō, bəḡzō*), only rarely *-a* (*hə* "being"). The expected form *\*-uas/ \*-mas* (< *\*-uant-s \*-mant-s*) is attested only in OAv. *θβāuuas* "like you" and in YAv. *cuuas* "how big" (< *\*cī-uant-s*). Elsewhere it is replaced by *\*-uūā/ \*-mā* (< *\*-ūāh/ \*-māh*); OAv. *drəguuā, YAv. druuā* "deceitful" (< *\*drugūāh*); YAv. *xratumā* "having mental vigor."

*Stems in -an- and -ar-*. Masc. and fem. stems in *-an-* (*-man-*, *-uan-*) and in *-ar-* (*-tar-*) form the nom. sing. in *-ā* (YAv. *-a*) < Proto-IE. *\*-ē/ \*-ō* with loss of the final consonant, e.g., *tašā* "carpenter" (Vedic *tākšā*, Greek *téktōn*); OAv. *ptā*, YAv. *pita* "father" (Vedic *pitā*, Greek *patēr*). In the other "strong" cases we find both *-an-*, *-ar-* (< Proto-IE. *\*-en-*, *\*-er-*) and *-ān-*, *-ār-* (< Proto-IE. *\*-on-*, *\*-or-*), e.g., OAv. *tašānəm* (Vedic *tākšānəm*, Greek *téktōna*); OAv. *patarəm*, YAv. *pitaram* (Vedic *pitāram*, Greek *patéra*). In the "weak" cases the stem ends in simple *-n-*, *-r-* before an ending beginning with a vowel but in *-a-* (< Proto-IE. *\*-n-*), *-ər-* (< Proto-IE. *\*-r-*) before an ending beginning with a consonant, e.g., dat. sing. *tašne* (Vedic *tākšne*); OAv. *ašaunē* (Vedic *ṛtāvne*) "to the righteous one;" OAv. *fəḡrōi*, OAv., YAv. *piθrē* (Vedic *pitṛé*);—dat. plur. *ašaauabiō* (with *-uabiō* < *\*-uñ-b'iōs*); YAv. *piḡəbiō* (Vedic *pitṛbhyaḡ*). The rare gen. sing. YAv. *-arš* (< *-r-š*) corresponds to Vedic *-ur*: *zaotarš* "of the sacrificer" = Vedic *hōtur*.

Neuter *n-*stems have in the nom.-acc. sing. *-ā* (< Proto-IE. *\*-n*), e.g., YAv. *nəma* "name" (Vedic *nāma*, Latin *nōmen*), in the nom.-acc. plur. both *-ənī*, e.g., *nāmənī* and *-an* (*-man/-mən*), e.g., *nāmən*. A peculiarity of the nt. *n-*stems is the formation of the gen. sing. in OAv. *-əng*, YAv. *-a[n]* (< *\*-anh* < *\*-an-s*), e.g., *cašməng* < *cašman-* "eye;" *barəsmən* < *barəsmān-* "bundle of twigs." Note also YAv. *zrū* gen. sing. of *zruuan-* masc. "time," from *\*zruuū* < *\*zruuō* < *\*zruuəḡh*, and abl. sing. *barəsmən* < *\*-man + t*.

Neuter *r*-stems are well attested in Avestan in the nom.-acc. sing. with the ending *-arə*, e.g., *aiiarə* “day” (Vedic *áhar*), *karšuarə* “continent,” *yākarə* “liver” (Vedic *yákr̥t*, Greek *hēpar*), *vadarə* “weapon” (Vedic *vádhar*). The remaining cases were formed from an *n*-stem in Proto-IE. and Proto-Aryan. Only a few such forms are attested in Avestan, e.g., OAv. *rāzarə* “directive” has *n*-stem forms in the inst. sing. (*rāšnā*), gen. sing. (*rāzəng*), and gen. plur. (*rāšnəm*); *huuarə* “sun” (Vedic *súvar*) contrasts with gen. sing. OAv. *xəng* (disyllabic, < \**huuəng*), YAv. *hū* (< \**huuū* < \**huuō* < \**huuəng*); YAv. *aiiarə* “day” contrasts with gen. sing. *aiiqn* (< \**aiəng*); \**azar* “day” (Vedic *áhar*) contrasts with dat. sing. *asne* (Vedic *áhne*) and gen. plur. *asnəm* (Vedic *áhnām*). In the nom.-acc. plur. we find both *-ārə* and *-qm*, *-əni*, e.g., OAv. *aiiārə* “days,” YAv. *aiiqn* (cf. Vedic *áhāni*).

*h*-stems. Neuter *h*-stem words with *-ah-* < \**-as-* have in the nom.-acc. sing. the ending *-ō* < \**-ah*, e.g., *manō* “thought” (Vedic *mānah*, Greek *ménos*). Before endings beginning with a vowel, *-ah-* usually becomes *-aṅh-*, e.g., inst. sing. *managhā*, dat. sing. *managhe*, gen. sing. *managhō*. Noteworthy are: nom.-acc. plur. OAv. *manā* with *-ā* < \**-ās*, inst. YAv. *manəbiš*, and loc. plur. YAv. *qzahu* “in distresses” (Vedic *ámhasu*). When *ah*-stems are used as masculines, e.g., in the case of the comparative suffix *-iaḥ-*, the nom. sing. ends in *-ā* < \**āh*, e.g., OAv. *vaxiiā*, YAv. *naḥhā* < \**uahiāh* “the better one.” Contrast the neuter sing. OAv. *vahiiō*, YAv. *vajhō*, Vedic *vásyah*.

The suffix *-uāh-* of the perfect participle active takes the form *-uš-* in the “weak” cases. Sing.: nom. masc. OAv. *viduuā* “knowing” (cf. Vedic *vidvān*)—acc. YAv. *viduuāṅhəm* (Vedic *vidvāmsam*);—dat. OAv. *vidušē* (Vedic *vidúše*);—gen. OAv. *vidušō* (Vedic *vidúśah*).—Plur.: nom. YAv. *viduuāṅhō* (Vedic *vidvāmsah*).

*Irregular nouns.* For historical reasons a number of words are inflected irregularly. The most important are:

*Mazdā-* (*Ahura-*) “the Wise (Lord).” Voc. *Mazdā*, nom. *Mazdā*, acc. *Mazdqm*, dat. *Mazdāi*, gen. *Mazdā*. The last three cases have disyllabic endings *-qm*, *-āi*, *-ā*.

*pañtā-*/*paθ-* “way, path.” Sing.: nom. *pañtā* (cf. Vedic *pāñtāh*), acc. *pañqm* (cf. Vedic *pāñtām*), inst. *paṭa* (Vedic *pañtā*), gen. *paṭō* (Vedic *pañtāh*), loc. *paiṭī* (Vedic *pañtī*).—Plur.: acc. *paṭō* (Vedic *pañtāh*), inst. *padəbiš* (cf. Vedic *pañtibhiḥ*), gen. *paṭqm* (Vedic *pañtām*).

*kauuāi-* “seer” and *haxāi-* “companion.” Sing.: nom. *kauuā*, *huš.haxā*, YAv. *haxa* (Vedic *sákhā*); acc. *kauuāəm*, *huš.haxāim* (Vedic *sákhāyam*); inst. YAv. *haša* (Vedic *sákhya*); dat. YAv. *haše* (Vedic *sákhye*).—Plur.: nom. OAv. *kāuuaiias-cī* (Vedic *kāvayaḥ*), YAv. *haxaiiō* (Vedic *sákhāyah*); gen. YAv. *kauiiqm* (< \**kaui-ām*), *hašqm* (< \**sákhī-ām*).

\**raji-* “wealth” has “weak” stem \**rāi-*. Sing.: acc. YAv. *raēm* (Vedic *rayim*), inst. YAv. *raia* (Vedic *rāyā*), gen. OAv. *rāiiō* (Vedic *rāyāh*).—Plur.: gen. YAv. *rāiqm* (Vedic *rāyām*).

*āiiū* “life” (nom.-acc. sing. nt.) has oblique forms in OAv.: inst. *yauuā*, dat. *yauuōi*, *yauuē*, gen. *yaos̄. dāuru*

“wood” (Vedic *dāru*) has gen. sing. YAv. *draos̄* (Vedic *dróh*). *zānu* “knee” (Vedic *jānu*) has abl. plur. YAv. *žnubiias-cī*.

*gauu-* masc. fem. “ox, cow.” Sing.: nom. *gāuš* (Vedic *gāuh*), acc. *gqm* (Vedic *gām*), inst. *gauua* (Vedic *gāvā*), dat. OAv. *gauuōi*, YAv. *gauue* (Vedic *gáve*); abl. OAv. *gōuš* (Vedic *góh*), YAv. *gaot̄*, gen. *gōuš* (Vedic *góh*), voc. YAv. *gao-spənta*.—Dual: nom. *gāuuā* (Vedic *gāvā*).—Plur.: nom. YAv. *gauuō* (Vedic *gāvah*), acc. *gā* (Vedic *gāh*), inst. *gaobīš* (Vedic *góbhiḥ*), gen. *gauuqm* (Vedic *gāvām*).

*zam-* “earth,” *ziām-* “winter,” *dam-* “house,” *ham-* “summer.” Sing.: nom. *zā* (Vedic *kṣāh*), *ziā*, acc. *zqm* (Vedic *kṣām*), *ziiqm*; inst. YAv. *zəmā* (Vedic *jmā*), *hama*; abl. YAv. *zəmat̄*; gen. *zəmō* (Vedic *jmāh*), *zimō*, OAv. *dəng* (Vedic *dān* < \**dām-s*); loc. *zəmə* (Vedic *kṣmay-ā*), *zəmi* (Vedic *kṣāmi*), OAv. *dqm*, YAv. *dqmi*.

*-jan-/-yn-* “striking,” in *vərəθra-jan-* “breaking the resistance.” Sing.: nom. masc. *vərəθra-jā* (Vedic *vṛtra-hā*); acc. *vərəθrā-janəm* (Vedic *vṛtra-hānam*); dat. *vərəθra-ṅne* (Vedic *vṛtra-ghné*).

YAv. *span-/sun-* “dog.” Sing.: nom. *spā* (Vedic *śvā*); acc. *spānəm* (Vedic *śvānam*); dat. *sūne* (Vedic *sūne*); gen. *sūnō* (Vedic *śunah*).—Dual: nom. *spāna* (Vedic *śvānā*).—Plur.: nom. *spānō* (Vedic *śvānah*); gen. *sunqm* (Vedic *śunām*).

*nar-* “man” and *star-* “star.” Sing.: nom. OAv. *nā*, acc. *narəm* (Vedic *nāram*), YAv. *stārəm*; dat. OAv. *narōi*, YAv. *naire* (Vedic *nāre*); gen. OAv. *nərəš*, YAv. *narš*; voc. YAv. *narə*.—Plur.: nom. OAv. *narō* (Vedic *nārah*), YAv. *stārō*; acc. OAv. *nərəš*, YAv. *nərəš*, incorrect *nərəuš* (cf. Vedic *nṛñ*), YAv. *strəš*, incorrect *strəuš*; dat. OAv. *nərəbiias-cā*, YAv. *nərəbiiō*, *nəruiiō* (Vedic *nṛbhayah*); abl. *stərəbiiō*; gen. YAv. *narqm* (Vedic *nārām*); OAv. *strəm-cā*, YAv. *strqm*.

*atar-* masc. “fire” has been remodeled from an old neuter. Sing.: nom. OAv., YAv. *atarš* (< \**ātr-š*); acc. OAv. *ātrəm*, YAv. *ātrəm* (< \**ātr-m*); inst. OAv. *āθrā* (< \**āθr-ā*); dat. YAv. *āθre*; abl. OAv. *āθras-cā*, YAv. *āθrat̄*; gen. OAv., YAv. *āθrō*; voc. OAv., YAv. *atarə* (< \**ātr*).—Plur.: acc. (< nom.) YAv. *ataro*; inst. YAv. *ātrəbiiō*; gen. YAv. *āθraqm*.

*Pronouns.* The irregularity of the Avestan pronominal inflection is almost entirely inherited from Proto-Indo-Ir. and Proto-IE. Thus the personal pronouns for the first and second persons have in all three numbers stem forms in the nominative differing from the stems of the remaining cases (cf. English I : me, we : us). In the case of the personal pronouns no distinction of gender is made, but masculine, feminine, and neuter are distinguished in the demonstrative, relative, and interrogative pronouns.

Personal pronoun for the first person (“I, we both, we”). Sing.: nom. *azəm*; acc. *mqm*; dat. OAv. *maibiū*, *maibiū*, YAv. *māuuōiia*, *māuuaiia-ca* (< \**maūia* < \**maβia*); abl. *mat̄* (OPers. *-ma*); gen. OAv. *mā.nā*, YAv. *mana* (OPers. *manā*). Enclitic forms: acc. *mā*; gen., dat. OAv. *mōi*, YAv. *mē* (OPers. *-mai*).—Dual: nom. OAv. *vā*; acc. *āuuā*. Enclitic gen. *nā*.—Plur.: nom. *vaēm* (< \**uaiəm*, cf. OPers. *vayam*); acc. OAv. *əhmā*, YAv.

*ahma*; inst. OAv. *əhmā*; dat. OAv. *ahmaibiiā*; abl. OAv. *ahmaṭ*; gen. YAv. *ahmākəm*. Enclitic forms: acc. OAv. *nā*, YAv. *nō*; gen., dat. OAv. *nā*, YAv. *nō*.

Personal pronoun for the second person ("you"). Sing.: nom. OAv., YAv. *tū*, OAv. *tuuəm*, YAv. *tūm* (OPers. *tuvam*); acc. *θβəm* (OPers. *θuvām*); inst. *θβā*; dat. OAv. *taibiiā-cā*, *taibiiō*; abl. OAv. *θβaṭ*; gen. *tauuā*. Enclitic forms: acc. *θβā*; gen., dat. OAv. *tōi*, YAv. *tē* (OPers. *-taiy*).—Dual: gen. YAv. *yauuākəm*.—Plur.: nom. *yūžəm*, OAv. *yūs*; inst. OAv. *xšmā*; dat. OAv. *xšmaibiiā*, YAv. *xšmauuōiia*; OAv. *yūšmaibiiā*, YAv. *yūšmaoiio*; abl. OAv. *xšmaṭ*, OAv., YAv. *yūšmaṭ*; gen. OAv., YAv. *xšmākəm*, YAv. *yūšmākəm*. Enclitic forms: acc. OAv. *vā*, YAv. *vō*; gen., dat. OAv. *vā*, YAv. *vō*.

Personal pronouns for the third person ("he, she, it; they") are represented by various forms of the stems *i-*, *h(i)-/š(i)-*, *di-*. All forms are enclitic except for OAv. *hī* (sing. nom. fem. and dual nom. nt.). Sing.: acc. masc. fem. *īm*, *hīm*, YAv. *dim* (OPers. *dim*); gen., dat. OAv. *hōi*, YAv. *hē/šē* (OPers. *-šaiy*).—Dual: acc. OAv. *ī*.—Plur.: acc. OAv. *īs*, OAv., YAv. *hīs* (OPers. *-šīs*), YAv. *dīs* (OPers. *-dīs*).—Neuter forms: acc. sing. OAv. *ī*, YAv. *ī*, *dī*; plur. YAv. *ī*, *dī*.—Reflexive sing. dat. YAv. *hūuāuōiia* (< \**hūuāβia*).

Demonstrative pronouns: *ta-* "this," *aēta-* "this," *auua-* "that one over there (yonder)," relative pronoun *ya-* "who, which," interrogative pronoun *ka-/ca-* "who, which" (when followed by the enclitics *-cā*, *cī*, this becomes an indefinite pronoun "whoever, whichever"). The case endings of all these pronouns are largely the same in the masc. and nt. as those of the *a*-declension nouns and in the fem. as those of the *ā*-declension nouns. Examples: masc. sing. nom. OAv. *yā*, *kā*, YAv. *yō*, *kō*; acc. *tām*, *kām*, OAv. *yəm*, YAv. *yim*, *aom* (< \**aum*, OPers. *avam*); gen. YAv. *aētahe*, *auuaṅhe*, OAv. *yehiiā*, YAv. *yeṅhe*, OAv. *kahiiā*, *cahiiā*, YAv. *kahe*, *kahiiā-cī*;—plur. acc. OAv. *tāng*, *tā*, YAv. *tā*, *tā*, YAv. *auuū*, *auū* (< \**auū*).

Characteristic pronominal forms are, e.g., masc. sing. (from the pronoun *ta-*, *aēta-*) YAv. *hā*, *hō* (Vedic *sá*), YAv. *aēšō* (Vedic *eśá*); (from the pronoun *auua-*) OAv. *hūuō* (< \**hau*), YAv. *hāu* (= fem.) (OPers. *hauv*);—inst. *kana*;—dat. *aētahmāi*, *yahmāi*, *kahmāi*, *cahmāi* (Vedic *yásmāi*, *kásmāi*);—abl. *aētahmāṭ*, *yahmāṭ*, *kahmāṭ* (Vedic *yásmāt*);—loc. *aētahmi*, *yahmī*, *kahmi*, *cahmi* (cf. Vedic *yásmīn*, *kásmīn*).—Plur. nom. OAv. *tōi*, YAv. *tē*, *aēte* (Vedic *té*, *eté*), *auue* (OPers. *avaiy*), OAv., YAv. *yōi*, *kōi* (Vedic *yé*, *ké*);—gen. *aētaēšəm* (OPers. *avaišām*), *yaēšəm* (Vedic *yéšām*).—Neuter sing. nom./acc. OAv., YAv. *taṭ* (Vedic *tát*), YAv. *auuaṭ*, OAv. *hūiaṭ*, YAv. *yaṭ* (Vedic *yát*), *kaṭ* (Vedic *kát*).—Fem. sing. nom. *hā*, *aēša* (Vedic *sā*, *eśá*), YAv. *hāu* (OPers. *hauv*);—inst. *aētaiia* (Vedic *etáyā*);—dat. YAv. *auuaṅhāi* (< \**auuaṅhāi*);—abl. *auuaṅhaṭ*;—gen. *aētaṅhā* (< *aitaṅhā*, Vedic *etásyāh*);—loc. *yeṅhe* (< \**iaṅhā*, cf. Vedic *etásyām*).—Plur. gen. YAv. *aētaṅhəm* (Vedic *etásām*).

A special pronoun with the meaning "this one here" is based on the stems *a-* and *i-/ai-*: masc. sing. nom. OAv. *aiiəm*, YAv. *aēm* (Vedic *ayám*);—acc. YAv.

*iməm*;—inst. *anā* (OPers. *anā*);—dat. *ahmāi* (Vedic *asmai*);—abl. *ahmāṭ*;—gen. OAv. *ahiiā*, YAv. *ahe*, *aṅhe* (Vedic *asya*);—loc. *ahmī*, *ahmīia*.—Dual nom./acc. *ima*;—dat. *ābiia*;—gen. *aiiā*.—Plur. nom. *ime*;—acc. *ima*;—inst. OAv. *āiš*, *anāiš*, YAv. *aēibiš*;—dat. *aēbiiō*;—gen. *aēšəm*;—loc. *aēšu*, *aēšuuu*.—Neuter sing. nom./acc. *imaṭ*.—Plur. nom./acc. OAv. *ī*, *imā*.—Fem. sing. nom. YAv. *īm* (\* < *iṅəm*, Vedic *iyám*);—acc. *iməm*;—inst. OAv. *ōiā*, YAv. *āiia* (Vedic *ayā*);—dat. OAv. *axiiāi*, YAv. *aṅhāi* (Vedic *asyāi*);—abl. *aṅhāṭ*;—gen. *aṅhā*;—loc. *aṅhe* (< *ahīā*).—Dual dat. OAv. *ābiā*.—Plur. nom./acc. *imā*;—inst. OAv. *ābīs*;—dat. *ābiiō*;—gen. *aṅhəm* (Vedic *āsām*);—loc. *āhū*, *āhuua*.

In addition to the interrogative pronoun *ka-/ca-* there is a stem *ci-* (*ci-* + *cā* "someone," *naē-ci-* "no one"): sing. nom. masc. *ciš*, *ciš-cā*, *naē-ciš* (Latin *quis*, *quis-que*, *nīquis*);—acc. *cīm*, *naē-cim*.—Nom./acc. nt. *ciṭ* (Latin *quid*), *naē-ciṭ*.—Plur. nom. masc. *caiiō*, *caiias-cā*;—nom./acc. nt. *cī-cā*.

The possessive pronouns OAv. *ma-* "my," OAv. *θβa-* "your" (sing.), and OAv., YAv. *x'a-*, YAv. *hauua-*, *huua-* "one's own" also have some pronominal endings, e.g., masc. sing. *θβahmāi*, *θβahmāṭ*, *θβahmī*, *x'ahmi*.—Plur. nom. *θβōi*.—Fem. sing. nom. *θβōi* (< \**tuā* + *i*), *x'aē-cā* (< \**suā* + *i*);—inst. *maiā*;—dat. OAv. *x'axiiāi*;—gen. *θβaxiiā*. Note also the pronominal endings used with *aēuua-* "one," *aniia-* "other," and *vispa-* "all:" sing. *aniiahmāi*, *vispəmāi* (< \**ahmāi*, Vedic *visvasmai*), *aēuuahmāṭ*, *aēuuahmi*.—Plur. *aniie*, *vispe* (Vedic *anye*, *visve*), *aniiaēšəm*, *vispaēšəm*, (Vedic *anyéšām*, *visvéšām*).—Fem. sing. gen. *aēuuahṅhā*.

## 2. Verbal inflection.

Many Avestan verbal forms have counterparts in the Vedic language. Since Vedic is attested by an extensive literature that enables its grammatical forms to be determined with exactitude, it is possible to establish the complicated Avestan verbal system with considerable certainty by comparing it systematically with Vedic. With the exception of certain nominal forms such as participles, every verbal form terminates with a personal ending. The personal endings determine the first, second, and third persons in singular, dual, and plural. In addition, they indicate at the same time the diatheses active (e.g., English "I praise") and middle (e.g., English "I praise in my own interest, we praise each other, I am praised"). The middle may be reflexive, reciprocal, or passive, etc. There are four kinds of personal endings: the primary and secondary endings, the imperative endings, and the perfect endings. The secondary endings indicate only the person and the diathesis whereas the primary endings indicate also present time (e.g., English "I am praising"). The special perfect endings indicate, together with the perfect stem, the state arrived at as a result of an action ("I have praised"). The basis of a verb form is the so-called "verb root," which conveys the lexical meaning of the verb. By means of changes of the verb root or by the addition of suffixes the so-called "tense stems" are formed. These are known as the present, aorist, and perfect stems. The future stem is

typologically a present stem.

When an imperative ending is added to a present stem the verb form expresses a command (imperative present). The addition of a primary ending to the present stem results in an indicative present whereas the addition of a secondary ending to the present stem results in an injunctive present. The injunctive present is used to mention an action without reference to time, one which is general or adhortative, past or future. The preterite is expressed by the imperfect, which is formed by prefixing to the verbal stem the augment *a-*. Whereas the augment *a-* is common in Vedic and OPers., it is seldom found in Avestan.

Originally the aorist stem was used to indicate the perfective aspect of an action, that is the view of a completed action in its entirety, but this function of the aorist is usually no longer evident in the Avestan texts. The aorist stem can take only imperative or secondary endings. With secondary endings the aorist is known as the injunctive aorist, which has functions corresponding to those of the injunctive present. The aorist stem with prefixed augment *a-* and secondary endings forms the indicative aorist, which has preterite meaning.

The moods of the verb are: indicative, injunctive, imperative, subjunctive, and optative. The subjunctive expresses volition and futurity. It is characterized by the addition of the suffix *-a-* to the high-grade present, aorist, and perfect stems. The subjunctive may take either primary or secondary endings, no difference in meaning being discernible. The optative expresses volition and potentiality. It is formed by adding to the low-grade tense stems the suffix *-iā/-ī-* and the secondary endings.

*The present system.* Since the Proto-IE. period, present stems have been formed in many different ways, but it has in most cases not been possible to determine the reason for any particular formation. From the point of view of morphology two broad groups can be distinguished: the thematic and the athematic present stems. The thematic present stems end in the thematic vowel *-a-*, which with certain variations is retained before the personal endings. In the case of the athematic present stems the personal endings and the suffixes for subjunctive and optative are added directly to the various present stems instead of being preceded by the thematic vowel.

*Thematic present stems.* To the full or zero grade of the verb root is added the thematic vowel *-a-* alone or a suffix ending in *-a-*: *-iā-*, *-aiā-*, *-sa-* (= Vedic *-cha-*). Examples: *bar-a-* "carry," *spas-iiā-* "espionage," *kir-iiā-* (passive) "be done," *xš-aiiā-* "rule," *vaxš-aiiā-* (causative) "make grow," *ja-sa-* "come" (= Vedic *gaccha-* < Proto-IE. *g<sup>m</sup>m-ské-*). The root can receive an infix *-n-*, e.g., *kərənta-* "cut" (Vedic *kṛ-n-ta-*). The desideratives are characterized by reduplication and the addition of the suffix *\*-sa-* (*-ha-*, *-ša-*), e.g., *su-srū-ša-* "wish to hear." In some cases the present stems look quite different from the root, e.g., *sixša-* (Vedic *śikṣa-*) "wish to be able (*sak*), learn," *dibža-* (Vedic *dipsa-*) "wish to cheat (*dab*). The future stem in *\*-sīa-* (*-hiā-*, *-šīa-*) can

also be classified as a thematic present, e.g., *vaxšīiā* "I shall say."

*Inflection of the thematic present stems.* Active: indic. pres. sing. 1. *barāmi* (OAv. *pərəsā* "I ask"), 2. *barahi*, 3. *baraitī*.—Dual 3. *baratō*.—Plur. 1. *barāmahī*, 2. *-aθā*, 3. *barənti*.—Inj. pres. sing. 1. *barəm*, 2. *barō*, 3. *baraṭ*.—Dual 3. *-atəm*.—Plur. 2. *-ata*, 3. *barən*.—Subj. pres. sing. 1. *barāni*, 2. *barāhi*, 3. *-āiti*, *barāt*.—Dual 1. *-āuua*, 3. *barātō*.—Plur. 1. *barāma*, 2. *āθā*, 3. *barānti*, *barən*.—Opt. pres. sing. 2. *barōiš*, 3. *barōiṭ*.—Plur. 1. *-aēma*, 2. *-aēta*, 3. *baraitən*.—Imv. pres. sing. 2. *bara*, 3. *baratu*.—Plur. 2. *barata*, 3. *barəntu*.—Part. pres. *barənt-*.

Middle: indic. pres. sing. 1. *baire*, 2. *-ahe*, 3. *baraite*.—Dual 3. *baraēte*.—Plur. 1. *barāmaide*, 2. OAv. *dīdraγzō.duiiē* "you wish to fasten" (< *\*-a-duai*, Vedic *-a-dhve*), 3. *barənte*.—Inj. pres. sing. 1. *baire*, 2. *-aṅha* (< *\*-a-sa*), 3. *barata*.—Dual 3. *-aētəm*.—Plur. 3. *-ənta*.—Subj. Pres. sing. 1. *-āi*, *āne*, 2. *-āṅhe* (< *\*-āhaṅ*), 3. *-āite*.—Plur. 3. *-ānte*.—Opt. pres. sing. 2. *-aēša*, 3. *baraēta*.—Plur. 1. *-ōimaidī*, 2. *-ōiðβəm*, 3. *-aiianta*.—Imv. pres. sing. 2. *baraṅha*, 3. OAv. *vərəziātəm* (< *\*-a-təm*).—Plur. 2. OAv. *gūšōdum* "listen" (< *\*-a-duəm*), 3. *-əntəm*.—Part. pres. *barəmma-*.

*Athematic present stems.* In the case of the athematic present stems the personal endings are added to the root or to the present suffix directly, that is, without the intervention of the thematic vowel *-a-*. The most important classes of these present stems are: 1. the root presents; 2. the reduplicated presents; 3. the present stems containing infix *-n-*; 4. the present stems ending in *-nū-*; 5. the present stems ending in *-nu-*. These present stems are affected by ablaut: they have the full grade of the root or the infix or suffixes in the case of the active singular forms of the indic., the inj., and, in part, of the imv. as well as throughout the active and middle paradigms of the subj. The remaining forms have the zero grade as far as that is phonologically possible.

1. The root presents. In this case the pres. stem is identical with the verb root, e.g., *ah-/h-* "to be" (Vedic *as-/s-*), *mrauu-/mrū-* "to speak" (Vedic *brav<sup>i</sup>-/brū-*); *vas-/us-* "to wish" (Vedic *vaś-/uś-*). A subgroup has the long grade in the act. sing. indic. and inj. and otherwise the full grade, e.g., *stāuu-/stauu-* "to praise," *tāš-/taš-* "to fashion;" *aog-* "to speak;" *sāh-* "to instruct."

Active inflection: indic. pres. sing. 1. *ahmī*, *mraomī*, *vasəmī*, *stāumi*, 2. *ahī*, *vašī*, 3. *astī*, *mraoiti*, *vaštī*; *tāšti*, *sāsti*.—Dual 1. *usuuahī*, 3. *stō* (Vedic *s-taḥ*), *mrūtō*.—Plur. 1. *mahī* < *\*hmahi* (Vedic *s-masi*), *usəmahi* (Vedic *uśmāsi*), 2. *stā* (Vedic *s-tha*), *uštā*, 3. *həntī* (Vedic *s-ānti*).—Inj. pres. sing. 1. *mraom*, 2. *mraoš*, 3. *mraoṭ*; *tāšt*.—Plur. 2. *mraotā*, *uštā*.—Subj. pres. sing. 1. *aṅhā*, *mrauuā*, *mrauuāni*, 2. *aṅhō*, 3. *aṅhaṭ*, *aṅhaitī*, *vasaṭ*.—Plur. 1. *āṅhāmā* (< *\*aṅhāma*), 3. *aṅhən*, *vasən*.—Opt. pres. sing. 1. OAv. *xiēm* (Vedic *s-yā-m*), 2. *xiīā*, *mruiiā*, 3. *xiīāt*/YAv. *hiīāt*, *usiiāt*, *sāhiṭ*.—Plur. 1. *xiīāmā*, 2. *xiīātā*, 3. YAv. *hiīārā*.—Imv. pres. sing. 2. OAv. *zdī* (< *\*s + d<sup>h</sup>i*) "be!," *mrūdi*, 3. *astū*, *mraoūt*.—Plur. 2. *staota*, 3. *həntu*.—Part. pres. *haṅt-* (sing. nom. masc. *həs*, acc. *həntəm*, gen. *hatō*.—Plur. gen. *hātəm*.—Fem.

stem *hūiti-*), *usañt-*; *stauuat-* (< \**stéu-ñt-*).

Middle inflection: indic. pres. sing. 1. *mruite* (< *mruuait*); *aojōi*, 3. *mrūite*.—Plur. 1. *mrūmaidē*; *aogomadaē-cā*, *staomaide*, 3. *aojaite* (Vedic *ohate* < \**-ñtoi*).—Inj. pres. sing. 1. *aojī*, 2. *aoγzā* (< \**aug<sup>h</sup> + sa*), 3. OAv. *aogādā* (< \**aug<sup>h</sup> + ta*), YAv. *aoxta*, *staota*.—Subj. pres. sing. 1. *aojāi*, *mrauuāne*, *stauuāne*.—Opt. pres. sing. 2. *mruuīša*, 3. *mruuīta*; *aojīta*.—Part. pres. *mruuāna-*, *aojana-*.

2. Reduplicated present stems. The commonest such verb is \**da-dā-*, which continues both Indo-Ir. *dā* "to give" and *d<sup>h</sup>ā* "to put."

Active inflection: indic. pres. sing. 1. *dadāmi*, 2. *dadāhi*, 3. *dadāiī*, *dadāiti*.—Plur. 1. *dadāmahī*, YAv. *dānmahī*, 3. *dadāiī* (Vedic *dād(h)ati* with *-ati* from \**-ñti*).—Inj. pres. sing. 1. *dadāam*, 2. OAv. *dadā*, 3. OAv. *dadāt*, YAv. *dadāt*.—Plur. 3. *dadāt* (< \**d<sup>h</sup>a-d<sup>h</sup>-ñt*).—Subj. pres. sing. 1. *daθāni*, 3. OAv. *dadaṭ*, YAv. *daθaṭ*.—Plur. 1. *daθāma*, 3. *daθān*.—Opt. pres. sing. 1. *daiθiiqm*, 2. *daiθīs*, *daiθiūā*, 3. OAv. *daiθī*, YAv. *daiθī*, YAv. *daiθiūāt*, *daiθiūāt*.—Dual 3. *daiθiūam*.—Plur. 3. *daiθiūqm*, *daiθiūarəs*.—Imv. pres. sing. 2. *dazdī* (< \**d<sup>h</sup>a-d<sup>h</sup>-d<sup>h</sup>i*), 3. *dadātū*.—Plur. 2. *dasta*.—Part. pres. *daθat-* (sing. nom. masc. *daθō*, *daθō*).

Middle inflection: indic. pres. sing. 1. *dadē*, *daiθe*, 3. *dastē* (Vedic *dattē*), *dazdē* (< \**d<sup>h</sup>a-d<sup>h</sup>z + tai*).—Plur. *dadāmaidē*.—Inj. pres. sing. 3. *dazdā* (< \**d<sup>h</sup>a-d<sup>h</sup>z + ta*), *dasta*.—Subj. pres. sing. 3. *daθaite*.—Plur. 3. *dadāntē*.—Opt. pres. sing. 2. *daiθiša*, 3. *daiθitā*, *daiθiita*.—Imv. pres. sing. 2. *dasuuā* (Vedic *d(h)atsva*).—Plur. 2. *maz-dazdūm* (< \**d<sup>h</sup>a-d<sup>h</sup>z-d<sup>h</sup>uam*) "bear in mind!"—Part. pres. *dadāna-*.

3. Present stems containing infixes *-n-*. In the act. sing. forms of the indic. and inj. and throughout the subj., *-na-* is infixed but elsewhere only *-n-*, e.g., *vi-na-d* / *vi-ñ-d* "to find," *ci-na-h-*, *ci-na-s* / *ciñ-* (< *ci-N-š-*) "to assign," *mərəñ-c-* "to destroy."

Active inflection: indic. pres. sing. 1. *cinahmi*, 3. *cinasti*, *vinasti*.—Plur. 1. *cīsmahī*, 3. *viñdānti*.—Inj. pres. sing. 3. *cinas*.—Plur. 3. *viñdān*.—Opt. pres. sing. 3. *cīsiūāt*, *mərəñsiūāt* (< \**mṛñciāt*).—Plur. 3. *cīsiūqm*.—Imv. sing. 2. *cīzdī*.

Middle inflection: indic. pres. sing. 3. *mərəñte* (< \**mərəñ(g)te*).—Plur. 1. *cīsmāide*, 2. *mərəñgəduiīē* (< \**mṛng-d<sup>h</sup>uai*), 3. *mərəñcāitē* (with *-aitē* < \**-ñtoi*).—Opt. pres. sing. 3. *mərəñcīta*, *viñdīta*.—Part. pres. *viñdāna-*.

4. Present stems in *-nā-*. In the act. sing. forms of the indic. and inj. and throughout the subj. the affix *-nā-* is used but elsewhere only *-n-*, e.g., *frī-nā-* / *frī-n-*. "to delight," *gərəβ-nā-* / *gərəβ-n-* "to seize," *pərə-nā-* / *pərə-n-* "to drive away," *vərə-n-* "to choose."

Active inflection: indic. pres. sing. 1. *frīnāmi*, 3. *gərəβnāiti*.—Plur. 1. *frīnāmahī* (< \**frīnāmahī*), 3. *frīnānti*.—Subj. pres. sing. 1. *frīnāni*, 3. *frīnāt*.—Plur. 3. *gərəβnāqm*.—Imv. plur. 3. *frīnāntu*.

Middle inflection: indic. pres. sing. 1. *vərənē*, 3. *vərəntē*.—Inj. pres. sing. 3. *vərənta*.—Plur. 3. OAv. *vərənātā* (with *-ātā* < \**-ata*).—Subj. pres. sing. 1. *frīnai*,

*pərənāne*, 3. *pərənāite*.

5. Present stems in *-nu-*. The suffix appears in the full grade as *-nu-* in the sing. forms of the indic. and inj. active. In the subj. it takes the form *-nu-a-* and elsewhere it appears as *nu-* or *-nu-*. The commonest such verb is *kar* "to make, do."

Active inflection: indic. pres. sing. 1. *kərənaomi*, 3. *kərənaoiti*.—Plur. 3. *kərənuuāinti*.—Inj. pres. sing. 3. *(a-)kərənaoṭ*.—Subj. pres. sing. 1. *kərənauuāni*.—Plur. 3. *kərənaon* (with *-naon* < \**-nauən*).—Opt. pres. sing. 3. *kərənuūiāt*.—Imv. pres. 2. *kərənuūdi*.—Part. pres. *kərənañt-*.

The aorist system. As shown by Vedic, the aorist stem indicates the perfective aspect. Apart from the consideration of aspect, the inj., subj., opt., and imv. forms of the aorist have the same functions as the corresponding forms in the present system. The indic. aor. is formed by prefixing the augment *a-* to the injunctive. The indic. aor. is restricted to the past. Three types of aorist are found in Avestan: 1. thematic aorists, 2. athematic root aorists, 3. sigmatic aorists.

1. The thematic aorist. There are three kinds of thematic aorist. The thematic vowel may be added to the full grade of the root (e.g., *taša-* "to fashion," Vedic *tákṣa-*; *hana-* "to acquire," Vedic *sána-*) or to the zero grade of the root (e.g., *sīša-* "to instruct," Vedic *śiṣa-*, from the root *sāh*, Vedic *sās*; *xša-* "to rule" from the root *xšā*, Vedic *kṣā*; *xsa-* "to look" from the root *xšā*, Vedic *kśā*) or to the reduplicated root (e.g., *vaoca-* "to speak," Vedic *vóca-* < \**ya-uc-a-* from *vac*).

The thematic aorist inflection corresponds to that of the thematic present stems. Noteworthy forms are: active inj. *ā-xšō* "look at," *tašaṭ* "he fashioned," *ā-uuaocāma* (Vedic *ā-vocāma*) "we spoke."—Subj. *hanāni* "I shall acquire," *fra-uuaocāmā* "we will proclaim."—Opt. *sīšōit* "may he instruct," *hanāemā* "may we earn." Middle inj. *mā . . . xšəñtā* "they shall not rule."—Subj. *xšāi* "I shall look."—Opt. *xšāetā* "may he rule."—Imv. *xšəñtam* "let them rule."

2. The athematic root aorist. Thirty-seven verbs use the verb root as aorist stem without the addition of any further morphological feature. Their inflection is largely the same as that of the athematic root present stems. The following examples are attested forms of *dā* 1. "to give," 2. "to put" and *gam* "to go."

Active inflection: inj. aor. sing. 3. *dāt*.—Plur. 2. *dāta*, 3. *dān*, *gmən*.—Subj. aor. sing. 1. *jimā*, 2. *dāhī*, 3. *dāiī*, *dāt*, *jimāiī*, *jimaṭ*.—Plur. 1. *dāmā*, 3. *daiñtī*, *dān*, *jimən*.—Opt. aor. sing. 1. OAv. *dūqm*, 2. *jamiūā*, 3. *diiāt*, *jəmiūāt*.—Plur. 1. *jamiūāmā*, 2. *dāiīata*, 3. YAv. *jamiūqm*, *jamiūarəs*.—Imv. aor. sing. 2. *dāidī*, *gaidī*, 3. *dātū*.—Plur. 2. *dātā*.—Part. pres. *dānt-*.

Middle inflection: inj. aor. sing. 2. *dāñhā*, 3. *dātā*.—Dual. 1. *duuaidī* (< \**d<sup>h</sup>-uad<sup>h</sup>i*) "we two destined."—Subj. aor. sing. 1. *dānē*, 2. *dāñhē*, 3. *dāiīē*.—Dual 3. *jamaēitē*.—Plur. 2. *daduiīē* (< \**d<sup>h</sup>-a-d<sup>h</sup>uai*), 3. *dāntē*.—Opt. aor. sing. 1. *diiū* (< \**d<sup>h</sup>-iia*) 2. *dīšā*.—Imv. aor. sing. 2. *dāhuūā*.

Some special forms for the 3. sing. passive also belong to the root aorist: *a-uūācī* "it has been called," *srāuūi* "it

has been heard;” *vərəz-ucam* (imv. sing. 3.) “it shall be correctly told” (from the root *vac*).

3. The sigmatic aorist. Whereas the thematic aorist and the athematic root aorist can be distinguished from similarly formed present stems only on the basis of comparison with Vedic, the sigmatic aorist is clearly marked. Proto-IE. *-s-*, which may appear in Avestan as *-h-* or *-š-*, is affixed to the verb root. The root has the long grade in the indic. and inj. but the full grade elsewhere. The inflection is athematic. About twenty-seven verbs have attested sigmatic aorists. The following verbs have been selected to illustrate the inflection: *xšnu* “to satisfy” (*xšnāuš-/xšnaoš-*), *dis* “to show” (*dāiš-/dōiš-*), *fras* “to ask” (*fraš-*), *man* “to consider” (*mənggh-*, *mąs-*), *van* “to overcome” (*vənggh-*, *vąs-*), *varz* “to work” (*varš-*), *rā* “to present” (*rāh-*, *rāgh-*), *uruuaj* “to walk” (*uruuāxš-*), *sand* “to appear” (*sąs-*, Vedic *chānts-*).

Active inflection: inj. aor. sing. 2. *dāiš*, 3. *xšnāuš*, *sąs*.—Plur. 3. *uruuāxšat* (with *-at* from *\*-nt*).—Subj. aor. sing. 1. *dōišā*, 3. *vəngghaitī*, *vəngghat*, *varəšaitī*.—Plur. 3. *xšnaošəm*.—Imv. aor. 2. *dōiši* (< *daiš* + *ši*).—Plur. 2. *sąstā* (< *sšānd-s-tā*).

Middle inflection: inj. aor. sing. 1. *frašī*, *məngghī*, 3. *fraštā*, *mąstā*.—Plur. 1. (*a-*)*məhmaidī*.—Subj. aor. sing. 1. *məngghāi*, *varəšānē*, 2. *rāghahhōi*, 3. *varəšaitē*.—Plur. 2. *maz-dāghō.dūm*.—Imv. aor. sing. 2. *fərəšuuā*.—Part. aor. *maṅghāna-*.

*The perfect system.* The perfect originally designated the state arrived at as the result of an action but it came to be used as a preterite tense. It is found with fifty-six verbs in Avestan. In the perfect stem the verb root has the full grade in the sing. forms of the active and throughout the subj. but elsewhere it has the zero grade. With the one exception of *vaēd-/vid-* “to know” all the perf. forms are reduplicated, that is, the first consonant of the root followed by the vowel *-ā-* (occasionally *-i-*, *-u-*) is prefixed to the root. The perf. differs from the present-aorist system also in having special endings in the indic. active and middle. The following are examples of perf. stems: *āh-* (< *ah* “to be”), *dadā-/dāō-* (< *dā* “to give; put”), *mamn-* (< *man* “to think”), *yaiiat-/yaēt-*, *yōit-* (< *yat* “to take a firm stand”), *vāuuarəz-/vāuuərəz-* (< *varz* “to work”), *vaēd-/vid-* (< *vid* “to know”).

Active inflection: indic. perf. sing. 1. *vaēdā*, 2. *vōistā*, *dadāthā*, 3. *vaēdā*.—Dual 3. *yaētarə*.—Plur. 1. *yōitmā*, 3. *āgharə*, *vīdarə*.—Opt. perf. sing. 1. *daiđitiqm*, 3. *vīđitiāt*.—Dual. 3. *aṅghāt.təm* (< *\*āh-īā-təm*).—Part. perf. (suffix *-uāh-*, *-uš-*, fem. *-ušt-*) sing. nom. masc. *vīduuā*, *daduuā*, gen. *vīdušō*, *dadušō*, fem. *vīdušt-*.

Middle inflection (rare): indic. perf. sing. 3. *vāuuərəzōi* “it has been worked.”—Dual 3. *mamnāitē*.—Opt. perf. plur. 3. *vaozirəm* “they would have driven” (from root *vaz*).—Part. perf. *mamnāna-* “having thought,” *vāuuərəzāna-* “having been done.”

*Infinitives.* Infinitives are formed by the addition of various suffixes either directly to the root or to a tense stem: *\*-ai:* OAv. *pōi* (< *\*pH-ai*) “to protect,” YAv. *buīie* (< *\*buu-ai*) “to become;” *\*-uaj:* OAv. *dāuuōi* “to give,” *vīduiē* (< *\*uid-uai*) “to know;” *\*-uana:* OAv.

*vīduuanōi* “to know;” *\*-tai:* OAv. *itē* “to go,” *mrūtē* “to say,” *stōi* “to be;” *\*-ah:* OAv. *auuō* “to aid,” *vərəziio* “to work;” *\*-ahaj:* OAv. *vaocaṅhē* “to say” (from aorist stem *vaoca-*), *srāuuaiēṅhe* “to recite” (from caus. stem *srāuuaiia-*), *\*-d<sup>h</sup>iāi* (Vedic *-dhyai*): OAv. *jaidiīai* “to be killed” (from root *jan*), *diβzaidiīai* “to be deceived,” *vərəziēidiīai* “to do, be done.”

*Verbal adjectives.* Verbal adjectives ending in *-ta* have almost always passive meaning, but there are exceptions such as *gata-* (= Vedic *gatā-*) “gone.” If phonologically possible the root appears in the zero grade, e.g., *-uxta-* “said” (Vedic *uktā-* < *vac*); *vista-* “found” (< *\*uid<sup>2</sup>-tā-*, cf. Vedic *vittā-* < *vid*); *vərəzda-* “increased” (Vedic *vṛddhā-* < *\*urā<sup>2</sup>d<sup>h</sup>ā-* < *\*urā<sup>h</sup>z-tō-*); *jata-* “slain” (Vedic *hatā-* < *han*) from root *jan*; *zāta-* “born” (Vedic *jātā-* with *-ā-* < *ṅH-*) from root *zanH*. Roots ending in *-ā-* do not show ablaut, e.g., *dāta-* “given; put” (But Vedic *hitā* < *\*d<sup>h</sup>z-tō-*).

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**AVESTAN PEOPLE.** The term Avestan people is used here to include both Zoroaster's own tribe, with that of his patron, Kavi Vištāspa, and those peoples settled in Eastern Iran who, though not all “Avestan”-speaking, were “of the Avesta” in that they shared in transmitting, and in part composing, the holy texts. Of these texts, the linguistically later ones were handed down in fluid oral transmission—it seems well into the Achaemenian era—and reflect accordingly social conditions from over a long period, often anachronistically blended. Only Zoroaster's *Gāthās*, strictly memorized from the time of their composition, provide evidence for a particular period and place; but since they form only a small body of texts, their data have generally been interpreted in the light of more abundant Younger Avestan materials.

With regard to Old Avestan society, i.e., that reflected