



# IRAN VI. IRANIAN LANGUAGES AND SCRIPTS (3) WRITING SYSTEMS

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## IRAN vi, continued

### vi. (3) Writing Systems

Writing systems for Iranian languages include cuneiform (Old Persian); scripts descended from “imperial” Aramaic (q.v.; earliest monuments of Middle Persian, Parthian, Sogdian, and Chorasmian); two Syriac scripts, Estrangelo or “Manichean” (Middle Persian, Parthian, Bactrian, Sogdian, Modern Persian) and “Nestorian” (Christian Sogdian, Modern Persian); Hebrew (Modern Persian and local dialects); Arabic (Modern Persian, Chorasmian, Kurdish, Pashto, Baluchi); Brāhmī (Khotanese, Tumshuqese, Sogdian); Greek (Bactrian); Cyrillic (Ossetic, Tajik); Georgian (Ossetic); and Latin (Kurdish, Ossetic). The earliest forms of “Imperial” Aramaic are those seen in Achaemenid and Parthian inscriptions, Parthian and Persian coins, and in the Sogdian Ancient Letters (q.v.). Later forms are those of the royal Parthian and the Sasanian Middle Persian and early Chorasmian inscriptions. The latest and most cursive versions of this script are seen in the later Middle Persian (Pahlavi) script and the cursive Sogdian script (secular, Buddhist, and Manichean texts), which have in common the merger of many letters into identical shapes, which render them ambiguous and difficult to read.



For bibliographies, see the individual languages. On Old Persian cuneiform, see also [CUNEIFORM](#). On scripts derived from Aramaic, see Skjærvø (1996). On the Avestan script, see [AVESTAN LANGUAGE i](#); Hoffmann and Narten (1989). On Brāhmī, see also Skjærvø (2002).

#### SCRIPTS OF OLD IRANIAN LANGUAGES

*The Old Persian cuneiform script.* Old Persian is written in a cuneiform (q.v.) script different from the Mesopotamian cuneiform writing systems, which are all descended from Sumerian. The Old Persian cuneiform has a small number of signs, and the signs contain a relatively small number of strokes. It has been suggested that this script was invented under Darius I (q.v., 522-486 B.C.E.) for the purpose of recording his deeds (see [BĪSOTŪN iii](#)) and that the inscriptions purporting to be from his ancestors (the Ariyāramna, Aršāma, and Cyrus inscriptions) are either modern forgeries or added by Darius or another Achaemenid king. The script changes somewhat throughout its short history from Darius I (522-486) to Artaxerxes III (359-338) in the relative proportions of the strokes, but not in the composition of the signs.

The Old Persian cuneiform script is not ideal for the language. For instance, short and long vowels are not distinguished except *a* ~ *ā*. Several sounds that, judging from the history of the language and the way words are spelled in the Elamite, Akkadian, and Greek traditions, were presumably pronounced are not written, such as *h* before *u* (e.g., = *huv-aspa*) and *n* before consonant (e.g., = *bandaka*). The diphthongs *ai* and *au* probably became *ē* and *ō* some time under the Achaemenids, but the orthography cannot show this.

The orthographic rules of Old Persian must have been determined by the kings' scribal offices, as it varies little under each of the kings Darius and Xerxes, but differs slightly between the kings. For instance, the word *ahmi* "I am" is spelled under Darius, but under Xerxes. There was therefore no "standard" Old Persian orthography, as only the royal and other professional scribes wrote the language and only for a short period.

*The Avestan script.* Avestan is written in an alphabetic script created on the basis of the Middle Persian Pahlavi script (see below) in order to record the sacred texts precisely the way they were pronounced at the time (see [AVESTAN SCRIPT](#)), presumably by select priests whose pronunciation was considered to be especially reliable. All the Avestan texts are known to us only the way they were pronounced (recited or read) about 1000 C.E., the



approximate date of the earliest known manuscripts. This form differs already somewhat from that in which they were written down (perhaps sometime in the early 7th cent. C.E.), as several letters originally representing distinct sounds are no longer kept distinct in the extant manuscripts and, presumably, their archetype (e.g., š š š).

It is today tacitly assumed that the form of the letters in the manuscripts is that of the first manuscript (what Karl Hoffmann called “the Sasanian archetype”), but this need not be so. We see considerable difference in ductus in the extant manuscripts, and it is not unlikely that the script was originally closer to that of the Pahlavi *Psalter* or other variants than to later Avestan and Book Pahlavi. As the script developed, the letters that were identical with Pahlavi letters then changed as the Pahlavi letters changed, while the remaining letters stayed closer to their original form. Letters may also have been added or omitted over time, or their value may have changed.

Transliteration systems for Avestan proliferated in the 19th century, but a standard was established with Christian Bartholomae’s (1855-1925; q.v.) dictionary (1904), which lasted until Karl Hoffmann (1915-96; q.v.) showed that a more adequate system was needed; and today Hoffmann’s principles are, with few exceptions, universally recognized. In this system, each Avestan letter is rendered by one letter (with or without diacritics) in the Latin alphabet.

#### SCRIPTS OF MIDDLE IRANIAN LANGUAGES

*Scripts derived from Aramaic.* During the Achaemenid period (549-330 B.C.E.), Aramaic (“Imperial Aramaic”) was used as the chancellery language; and the Aramaic script was subsequently, at the latest by the Parthian period (ca. 210 B.C.E.-224 C.E.), adopted by several Iranian states: Parthia, the local Persian dynasty in Pārs, Chorasmia, and Sogdiana. Over time, each script developed differently into its later standard form.

In the 3rd century C.E., under the first Sasanians, Manichean missionaries used a Syriac-Aramaic script, the Estrangelo script, to write the various languages they encountered in Iran and Central Asia. To express sounds not found in Syriac, they modified some letters and added others.

Christian missionaries brought another Syriac-Aramaic script, the Nestorian script, which was the standard in the Church of the East (see [CHRISTIANITY](#)



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The Iranian scripts derived from Aramaic have in common that they express vowels other than short *a* by means of *matres lectionis* to a greater extent than was common in Aramaic and Syriac: (1) <'> = short or long *ā/ā*- in initial position (long *ā*- is often written <"->; = long *ā*, between vowels, but in the Sogdian script also short *a*; (2) and = short or long *ī/ī* or *ē/ē* and *ū/ū* and *ō/ō*, respectively, between vowels; in the Sogdian script <'y> and <'w> are used for *āy* and *āw* (also written <"y, "w>) or instead of ; in the Manichean script initial <'y-> = > *ī/ī*- may be used to distinguish it from <'y> = *ē*-, *āy*-/*āy*-.

In the Sogdian and Persian Nestorian Syriac script, vowel quality/quantity is sometimes indicated by vowel marks, often combined with *matres lectiones*.

Typical of the scripts derived from Imperial Aramaic is a tendency for many letters to become identical or almost so. This is a problem that plagues especially Sogdian and Middle Persian. The problem is only partially (and not always successfully) obviated by the use of diacritical marks or special orthographic conventions.

The orthography of languages written in this script is typically very archaic, reflecting pronunciation dating back to late Achaemenid times ("historical" spelling). In Middle Persian, certain spelling habits then spread by analogy and produced what we call "pseudo-historical" spellings (thus, since OPers. *rādiy* "on account of" had become MPers. *rāy*, spelled , <-d-> could be used where it did not originally belong, e.g., *ziyān* "damage" spelled from Av. *ziāni*-).

All the languages using this script also use arameograms (heterograms, ideograms, q.v.; see also [HUZWĀREŠ](#)), that is, "petrified" Aramaic words that were used to spell their Iranian counterparts, to a lesser (Sogdian) or greater (Parthian, Middle Persian) degree (e.g., "day" = Chor. *mēθ*, Sogd. *mēθ*, Parth. *rōž*, MPers. *rōz*).

These scripts have been variously transliterated over time, and there are still different transliteration systems in use, notably those used by anglophone and francophone authors, respectively. In practice, this amounts to either following the practice used to transliterate Semitic languages, as opposed to a simplified system probably closer to the intent of the Iranian scribes, who no longer knew Aramaic well or at all. The simplified approach is especially useful in transliterating arameograms, for which capital letters have long been



used. In this system, the Aramaic letters *alef*, *ayin*, *hē*, *hēt*, and *tēt* are rendered by capital letters , rather than by <ʾ, ʿ, H, Ḥ, Ṭ>, thus avoiding diacritical marks. Similarly, is used instead of <ḥ>, since Aramaic *hē* is used only in arameograms and there thus is no ambiguity (e.g., = *rāh* “road,” *pas* “after,” *pus* “son,” instead of ).

*The Chorasmian script.* The Chorasmian script is known from a few inscriptions and fragments of letters and other documents on parchment and wood. It is of the Imperial Aramaic type (see Livshits, 1984).

*The Sogdian script.* Indigenous Sogdian was written in a script descended from Imperial Aramaic. The earliest form is that used in the *Ancient Letters* (q.v.), in which most letters are distinct, although *γ* and *χ* tend to be confused. Next comes the formal cursive script used in Buddhist texts, in which *alef* is still distinct from , and its later variant, in which *alef* is identical with , and is distinguished from by not being connected to the preceding letter. Still more cursive forms are also found, in which an increasing number of letters become indistinguishable. At this stage (as well as earlier), may be distinguished by a subscript dot, but the dot may also be used to signify <ž>. Some disambiguation is found; for instance, *γ* and *χ* are usually indistinguishable, but kept distinct in final position in some manuscripts.

Sogdian orthography in this later script is archaizing, sometimes “pseudo-historical.” In particular, the endings of the *aka*-declensions are still often spelled with *k* as if proto-Sogdian, although no longer pronounced (e.g., <ʾkw> /-aku/ beside <ʾw> /-ō/). The groups *δr* and *θr* had probably early on become *ž* and *š*, respectively, but are still spelled <δr> (e.g., <δryt- > = *žayt*- “held”; <ʾkδry>, Man. and = *kšē* “now”; note, especially, Buddh., Man. <ʾtδrmnw > = Man. <šmnw > = *šamnu* [Old Turkish *šimnu*] from *\*ahrimenu*, the devil).

Arameograms are restricted to pronouns (e.g., = *xō*, = *aw*- “he, that”; = *yō* “this”), prepositions ( = *at* “to,” = *par-ō* “on the,” = *aδ*, *δ*- “with”), conjunctions (e.g., = *at*- “and,” = (*a*)*rt*- “then, and,” = *kaδ*- “that,” = *ti* “and”), and just a few nouns ( = *xuβu* “king,” = *ptar*- “father”), adjectives ( = *mzēxk* “great”), and verbs (e.g., = *wēn-t* “he sees”). See also [IDEOGRAPHIC WRITING i](#).

*The Parthian script.* The earliest form of the Parthian script is seen on early Parthian coins, and a not much changed form was used at Nisa, found mainly on potsherds dating from the 1st century B.C.E. The standard monumental form is that of Parthian royal inscriptions from Parthian times (inscriptions of



Aršak Walyaš, son of Miθrdāt/Mihrdād, 151 C.E., and Artabān, 215 C.E.; see Skjærvø, 1995 [1997], pp. 292-93, with references) and Sasanian times (2nd-3rd cents. C.E.; Parthian versions of the inscriptions of the Sasanian kings Ardašīr, Šāpūr, and Narseh). The Parthian script contains few ambiguous letters ( = <’>, <†> = ). The orthography is historical, and arameograms are common. An unusual feature of the Parthian writing system is the element <-yw-> found in verb endings (e.g., , Man. Parth. *kāmēd* “wishes”; see Durkin-Meisterernst, 2000).

*The Middle Persian script.* This is the most complex of all the scripts descended from Imperial Aramaic. It developed much like Parthian, with still more merger of letters ( ), and already in the 3rd-century inscriptions pseudo-historical spellings were common (see above). The same orthography is still seen in the Pahlavi *Psalter*, with the difference that phonetic complements have become more explicit and standardized (e.g., inscr. , Ps. = *dīd* “saw”; inscr. or , Ps. = *wēnēd* “he sees”; inscr. or , Ps. = *wēnād* “he may see”). In the *Psalter* script, omission of the letter <’> in the ending *-ān* is indicated by a superscript dot.

In the Book Pahlavi script, few distinct letters remain, and it is necessary to read words as units, the context being crucial for determining their correct readings. This development continues and reaches its final stage in the papyri and parchments of the 7th century. The book Pahlavi script is a cursive script, in which the letters are joined (or not) in complex ligatures according to strict rules.

In the inscriptions and the *Psalter*, many words are written with a final <-y>, which was obviously not pronounced and the origin of which has been disputed (the studies by Back [1978] and Huyse [2003] both suffer from serious methodological flaws, and their conclusions can not be trusted). In the cursive script, a letter identical with , a short vertical stroke (the “otiose stroke”) is used in many manuscripts at the end of words, but only after consonants with which is not joined in ligature.

*The Manichean script.* The Manichean script used for Sogdian, Bactrian, Parthian, and Middle Persian is mostly phonetic, but has a few particularities. A new letter <ž> was invented to spell ž in Parthian and Sogdian. In Sogdian δ and θ are both spelled <δ> (= Aramaic ). The letter *tēt* (usually transliterated as <†>) is used in Parthian and Middle Persian in final position as an alternative to (<’wd, ’wt†> = *ud* “and”) and in Sogdian commonly instead of . Omission of



the letter <'> in the ending *-ān* is indicated by a superscript dot. Two superscript dots can be used above and <š> to spell *ud* “and” and *u-š* “and he/him/his.” Letters can be spelled double (or more) to fill a line.

In the Bactrian Manichean script double dots above <š> and <ž> apparently denote palatalized <ś> and <ź> (cf., Bactr. = Man. “every, all,” = Man. <βyžg> “evil”).

The Modern Persian texts in Manichean script tend to use regular Manichean Middle Persian orthography, but they date from after the Arab conquest and are recognizable as Modern Persian by the frequent use of Arabic words and occasional Persian forms (Henning, 1962; Sundermann, 1989, 2003, esp. pp. 244-51), e.g., <'wd> *u* “and,” <'yg, 'y> *ī* (*ežāfe*), for *jumla* “summary,” *walēkin* “but” (Arabic word with *emāla*), for *ranj* “trouble,” for *ranja* “troubled.” Arabic letters are rendered by means of diacritics, e.g., or with superscript double dots for (<ʔk:syr< = *taqsīr* “offense, fault,” <:q:l> *'aql* “understanding”); <'ayn>, which was used before initial front vowels in Manichean, was provided with superscript double dots (for *fī'l*); <β> and <ḡayn>, however, were expressed by the modified and already used in Manichean for β and γ, e.g., <βzwn> *aβzōn* “increase,” Pers. *afzūn*, *mašyūlī(h)* “being busy.” Manichean <δ> was used for δ, and <δ> or <δδ> was used for θ, e.g., <:δ'b> for *'ādāb* “pains,” for *maṭal* = *maθal* “parable,” <δδyk:t> for *ṭiqat* = *θiqat* “trust.” Arabic emphatic consonants were usually not distinguished from unemphatic ones, e.g., <'sl> for *aṣl* “origin,” for *ḥawz* “pool”; and both <ʔ> and were used to spell *t*. Instead of final <-y>, the numeral <-1> could be used, e.g., *malik-ē* “a king,” *nēst-ē* “were it”; note also and for *hamē*, verbal particle. Final <-ȳ> with superscript dots is sometimes used for *-ē*.

*The Nestorian Syriac script.* In the Nestorian Sogdian script, the orthography is phonetic, the only ambiguity being in the use of and <ʔ> to spell *t* and θ, which varies between manuscripts. In some manuscripts, vowels can be marked by super- and subscript dots, which permits distinguishing between short *a* and long *ā* and between *ī/ī̄* and *ē/ē̄*, *ū/ū̄* and *ō/ō̄* (but not between *i* and *ī*, etc.; see Sims-Williams, 1985, p. 190). This vocalization system varies between manuscripts and has not yet been described completely.

Among the spelling peculiarities of the Persian poems in Nestorian Syriac script, note, for instance, the vowels in *kerdam*; final *-a* spelled with final *alep̄* and vowel *a*; the *ezafe* spelled with final *alep̄* and vowel *e* (*-e*); *-rā* is spelled with final *hē* and vowel *a* <sup>a</sup>*h*>.



In the Modern Persian Turfan fragment of the *Psalms*, <ḏ> ( with subscript dot) = ḏ, short *i* and *u* are spelled with and , sometimes with vowels marks added (ḏ<sup>o</sup>kw = *nīkō*, ḏ<sup>o</sup>š = *stā'iš* = *setāyeš*, ḏ<sup>o</sup>nd = *kunaḏ*). The *ezafe* is spelled and vocalized as *ī/ī*, and *majhul* vowels *ē* and *ō* are distinguished from *ī* and *ū* (Sachau, 1915, Sundermann, 1974).

*The Greco-Bactrian script.* Bactrian was written in Greek script with one letter added to write š, similar in form to the Old Norse letter thorn [þ], which is commonly used to transcribe it. The inscriptions are written in capital letters (without spaces between the words), while secular documents are written in a cursive ductus, in which several letters are sometimes identical (for instance, in the cursive ductus the letters are not distinct and not always easy to distinguish). The letter <θ> is found only in *iθo* (inscr.) *iθao* (docs.) “thus” (cf. Av. *iθa*).

The Greek convention of writing for *ng* is maintained (-*zaggo* “kind” < \*-*zanaka*-, Sogd. -*znk*). Other conventions of the script are: = *h*, = *u*, *w*, = *ū* (e.g., inscr. = *harūg* “all, every,” = *pur* “son,” = *wāwar* “valid”). It has not been determined whether the final -*o* was still pronounced or served to delimit a word (like the final -*y* in the Middle Persian inscriptions and the “otiose stroke” in Book Pahlavi). In both the inscriptions and the documents most words end in -*o*, and increasingly so in the documents.

*The Brāhmī scripts.* Tumshuqese is written in the northern variant of Brāhmī, with several new letters also found in Uighur, e.g., <ḏ>, <ḡ>, , , <ž>, <ž̄>, (see, most recently, Maue, 2006).

Khotanese is written in the southern variant of Brāhmī (q.v.), with special ligatures for specific Khotanese phonemes not found in Indic: = *z*, = *ts*, = *tsh*, = *dz*, = rolled *r*.

There are also a few Sogdian fragments in Brāhmī script, which provide important information, especially about vowel qualities that cannot be expressed in the Sogdian script (see Sims-Williams, 1996).

## SCRIPTS OF MODERN IRANIAN LANGUAGES

*Arabo-Persian script.* The Arabic script is used to write Chorasmanian, Persian, and other modern languages. Pash-to, written in the Persian variant of the Arabo-Persian script, and Baluchi, written in the Pakistani variant, both employ additional diacritics for the retroflex consonants; Pashto also uses



diacritics to distinguish phonemes not found in Persian. In Chorasmian and Pashto, similar strategies are employed to spell *ts* and *dz*, distinct from *č* [tš] and *ǰ* [dž].

Literary Kurdish in Iraq, Persia, and the Soviet Union written in this script employs a circumflex accent placed above the letters to distinguish non-Persian sounds: with *w* and *y* to denote *majhul* vowels (*ō*, *ē*), with *l* to express *l̥*, and with *r* (below) to express the rolled *r* as opposed to the single-flap *r* (Blau in *CLI*, p. 328).

*Hebrew script.* The Hebrew script has been used over the centuries by Iranian Jews to write, especially, Persian, but also other forms of Judeo-Iranian. Various strategies were used to express the additional consonants of the Arabo-Persian script, especially *č* and *ǰ*, which, in some texts, were both written either  *,* corresponding to Arabic *ǰim*, or *<š>*, like Middle Persian = Aramaic *<š>*, but, in others, *<š>* was used for *č* and for *ǰ* (see, e.g., Lazard, 1968, pp. 81-83; repr., 1995, pp. 31-33; Shaked, 2003, pp. 204-5). Vowels are sometimes marked by vowel marks, including *majhul* vowels, for instance,  *= ē* and  *= ō*.

*Various modern scripts.* The Latin alphabet is today used notably to write Kurmānǰi Kurdish with Turkish orthography, thus  *= ǰ*, *<ç> = č*, *<ş> = š*,  *= ž*. In addition, a circumflex accent denotes long vowels, and an umlaut on denotes the voiced *ž*. In the past, it was also used for Ossetic.

The Cyrillic script is used to write Ossetic and Tajik, with some modified signs and special use of existing signs; it was also used, with the addition of several signs and diacritics, to write Kurdish in the USSR (Blau in *CLI*, p. 328).

The Georgian script was used in the past to write southern Ossetic.

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Sections to follow:

(4) Origins of the Iranian Languages

(5) Indo-Iranian



(6) Old Iranian Languages

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