

## 2. WRITING SYSTEMS

### 2.1 Paleo-Phrygian

The Paleo-Phrygian documents are written in an alphabetic script which resembles the archaic Greek alphabets (from which it is derived for the most part), characterized by the total absence of the letters that mark the aspirated stops in Greek, and presenting several regional variations:

1. A common set of seventeen symbols (conventionally transcribed by Latin letters): *a, b, g, d, e, v, i, k, l, m, n, o, p, r, s, t, u*, with the rectilinear *i* – as in Greek – and the splitting of the Semitic *waw* into F and Υ.
2. Apart from a few symbols, the values of which are not evident, two letters are limited to certain regions: (i) a sign for the palatal glide /y/ (ϣ, ϣ̣, of variable orientation), transliterated as *y*, the usage of which is optional and which, with the rectilinear *i*, evokes the pair formed by the two Greek *iôtas* (rectilinear and serpentine); (ii) a letter which probably corresponds to an affricate /ts/ or a variant thereof (↑, Π; see Brixhe 1982:229–235), and which recalls the Ionian *sampi*, formally as well as functionally (cf. Woodard 1997:175–184).

A little less than one-third of the texts are sinistrovers (right to left); a few are written *boustrophedon* (alternating direction every other line). Exceptionally among the graffiti, more often on stones, words are separated by punctuation signs (three or four super-script dots).

The “peripheral” texts of §1.1.1 use an alphabet which diverges from the above on only two points: (i) each has a distinct symbol for /y/ (that of **1** being almost identical to that of **2**), though it is likely that the graffiti of **3** use the common sign or a variant thereof; (ii) according to the editors of the texts, **1** and **2** have two symbols corresponding to voiceless sibilants: one of the two could represent /ts/ and replace the common sign (↑, Π) which is here absent.

### 2.2 Neo-Phrygian

The script used is the Greek alphabet of the period, taking into account the phonological needs of the language, with a fund of seventeen letters: Α, Β, Γ, Δ, Ε, Ζ, Ι, Κ, Λ, Μ, Ν, Ο, Π, Ρ, Σ, Τ, Υ. The letter Ω is rare except in the formula ΔΕΩΣ/ΖΕΜΕΛΩΣ (“gods/men” or “heavenly gods / infernal gods”). Also rare is Η which often appears to be equivalent to Ε. The characters Ξ and Ψ and the “aspirated” signs, Φ, Χ, and Θ, are extremely rare or absent (on the value of the Greek characters, see WAL Ch. 24, §2.3).

The texts are always written without separation of words.

## 3. PHONOLOGY

Though nearly a thousand years separates the earliest Paleo-Phrygian and the latest Neo-Phrygian documents, the conservatism inherent in the writing and in the formulary character of the texts allows one readily to verify that these are indeed two states of a single language (see Brixhe 1993:330–333). Having been spoken over such a vast area, Phrygian must have presented some local variations, even certain dialectal differentiations (see §1.1.1),

but our ignorance of much of the language, and the formulary nature of the evidence, prevents us from reaching definite conclusions on this point (see Brixhe 1993:337–338). The reader should bear in mind that Phrygian is still far from being well understood. At present only the simple texts are relatively clear – the short Paleo-Phrygian dedications and the Neo-Phrygian imprecations for instance. Phrygian is a language which is still undergoing decipherment.

### 3.1 Paleo-Phrygian consonants

The consonantal inventory of Paleo-Phrygian is presented in (1):

#### (1) Paleo-Phrygian consonantal phonemes

p	t	k
b	d	g
	ts	
	dz	
	s	
m	n	
	l	r
w	y	

#### 3.1.1 Obstruents

It was long claimed that the Phrygian consonantal system was dominated by a mutation (*Lautverschiebung*) of stops – the Proto-Indo-European aspirates becoming voiced, the voiced stops becoming voiceless, and the voiceless becoming aspirates. This is, however, a highly unlikely hypothesis; see Lejeune 1979 and, especially, Brixhe 1994:171–172.

The voiceless stop phonemes /p/, /t/, and /k/ developed from the voiceless stops of Proto-Indo-European – \*p, \*t, and \*k/\*k<sup>w</sup> respectively (on the Proto-Indo-European stops, see WAL Ch. 17, §2.1.1): for example, *podas* (G-02), *matar* (e.g., W-04). The voiced stops, /b/, /d/, /g/, have two Proto-Indo-European sources: (i) the plain voiced stops \*d, \*g (e.g., again, *podas*); no certain examples exist for \*b, other than, possibly, the one that provides a *Lallname* like *Baba(s)* (*passim*); and (ii) the voiced aspirates \*b<sup>h</sup>, \*d<sup>h</sup>, \*g<sup>h</sup>: for example, *bagun* (G-136, if < \*b<sup>h</sup>ago-, cf. Neo-Phrygian (αβ)βερετ(ορ), root \*b<sup>h</sup>er-); *edaes* (root \*d<sup>h</sup>eh<sub>1</sub>, *passim*), and so forth.

The voiceless affricate /ts/ (?), written ↑, developed from \*k occurring before the front vowels /i/ and /e/, and is probably matched by a voiced /dz/ which arose from \*g and \*g<sup>h</sup> in the same context (see Brixhe 1982:229 ff.).

#### 3.1.2 Sonorants

Paleo-Phrygian has a pair of nasals, /m/ and /n/, with a neutralization of the contrast in word-final position in favor of the dental (just as in Greek). The liquids /l/ and /r/, and the glides /w/ (traditionally transcribed as *v*) and /y/ complete the sonorant inventory.

### 3.2 Neo-Phrygian consonants

As far as can be determined, several consonantal changes have occurred by the Neo-Phrygian period:

1. The voiced affricate /dz/ may have become a voiced fricative /z/, supplying a voiced counterpart to /s/ (which itself might possibly have merged with the voiceless affricate, though no examples are available).
2. Word-final nasals have been eliminated. However, since they were preserved in the orthography, they at times appear by hypercorrection in unexpected positions: compare the dative of the masculine/neuter demonstrative σεμουν (the norm, < \**se-me/o-*) with the feminine σαν (for σα/σαι); see Brixhe 1978b:13–14, 19–20.
3. While the palatal glide /y/ has been preserved in all positions, the labiovelar /w/ (now written ΟΥ) seems to have disappeared before a rounded vowel.

### 3.3 Paleo-Phrygian vowels

The vocalic inventory of Paleo-Phrygian consists of five short vowels, /i/, /e/, /a/, /o/, and /u/, and at least four long (not distinguished from the short ones in writing): /i:/, /a:/, /o:/, and /u:/. The inherited long mid vowel \*ē merged with \*ā (cf. *matar* from \**mātēr*), a merger which is perhaps structurally linked to the appearance of a secondary /e:/ arising by monophthongization of the Proto-Indo-European diphthong \*ei (see Brixhe 1990:70–71; on vowels in general, see Brixhe 1983:115 ff.; 1990).

When occurring before another vowel, the high vowels /u(:)/ and /i(:)/ were pronounced with an off-glide, [w] and [y] respectively, either written (*kuliya*, G-101, -127; *t/guvatis*, G-133) or not (*agartioi*, G-02a; *tuaveniy*, M-01f). In addition, the mid vowel *o* was raised to *u* before the word-final nasal -n (e.g., *avtun*, W-01b, corresponding to Greek αὐτόν).

The language possesses both so-called “short” and “long” diphthongs: /oi/, /ai/, /au/; and /o:i/, /a:i/. It was noted above that \*ei had perhaps already yielded /e:/; and it is possible that \*ou had undergone a similar fate: \*ou > /o:/ > /u:/.

### 3.4 Neo-Phrygian vowels

Neo-Phrygian has only five isochronous vowels (Brixhe 1983:118–121; 1990): (i) /a/ (which arises from the /a(:)/ and /a(:)i/ of the earlier language); (ii) /e/ (from /e/); (iii) /o/ (from /o/); (iv) /u/ (from /u(:)/, /o:/ [primary or secondary], and /o:i/; see Brixhe 1990:97); and (v) /i/ (from /i(:)/ and secondary /e:/ (< \*ei)). The Neo-Phrygian vocalic system is further characterized by a neutralization of the contrast of /e/ and /i/ in hiatus (cf. δεως/διως [*passim*]). In addition, the language exhibits a neutralization of the contrast /e/ ~ /i/ and /o/ ~ /u/ (in favor of the high vowel) in absolute-final position (bear in mind the elimination of the nasal in this position): compare, for example, κακουν (the norm) for κακον (*passim*) or the adverb κακιν (with a purely graphic nasal, no. 14) for κακε(ν) (e.g., no. 88); the inflectional ending of the Paleo-Phrygian athematic singular dative, -ei or -ey, can appear in Neo-Phrygian as -ei (historical), -i (phonetic), or -e (an inverse spelling related to the interchangeability, in final position, of *e* and *i*), see Brixhe 1990:78–79.

### 3.5 Middle Phrygian vowels

The stage I have proposed to identify as Middle Phrygian (see §1.2) perhaps preserves an intermediary phase of certain vowel changes. For example, in the phrase εϣ [σ]ϣ σοροι (ll. 2–3), the spelling [σ]ϣ (for Paleo-Phrygian \**sai* or \**say*) suggests that the final syllable of σοροι probably continues a historical spelling; the diphthong /-o:i/ has already lost its second element, but has not yet become /u(:)/ (cf. Neo-Phrygian σορου, no. 21).