

Sound Changes from Old Phrygian to New Phrygian in an Areal Context

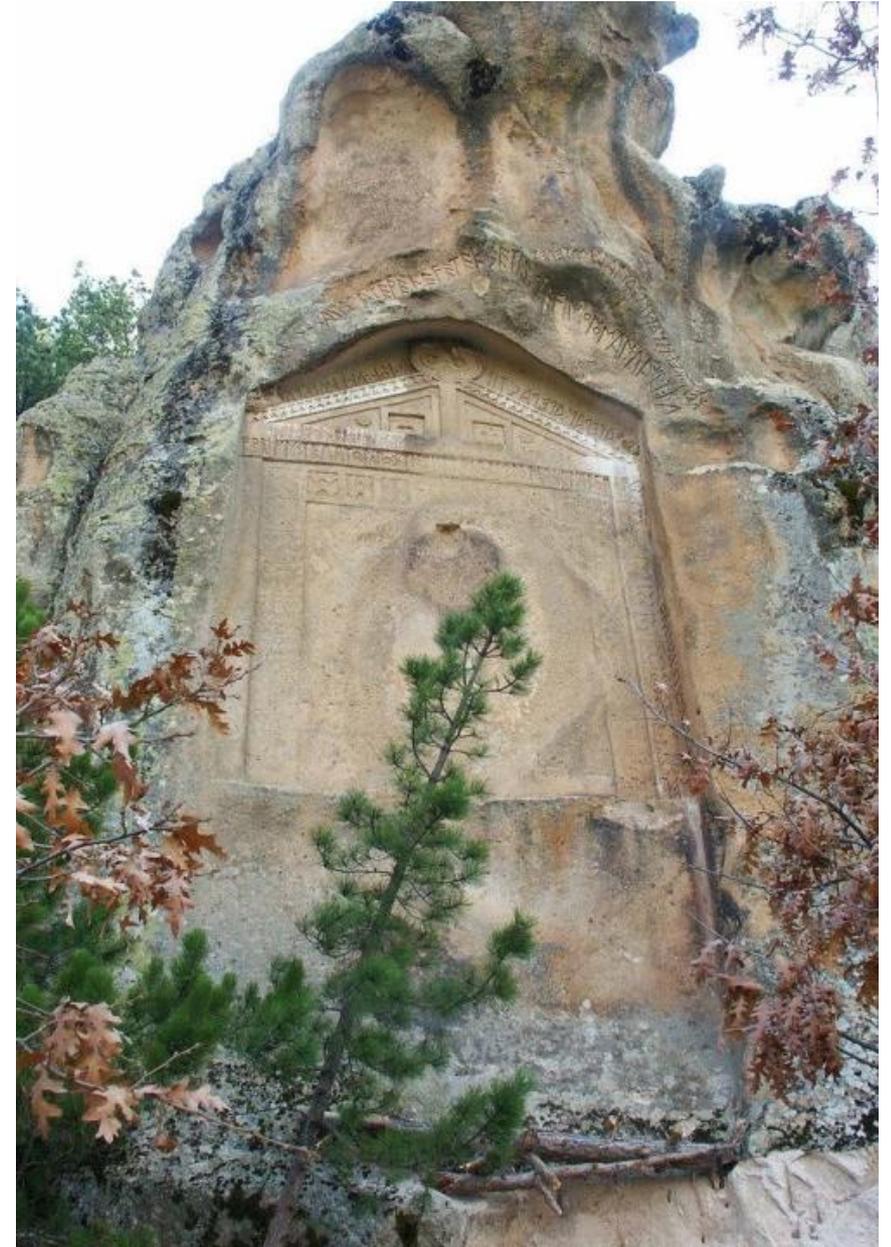
Aljoša Šorgo | 18/06/2018 | Ascona
Beyond All Boundaries



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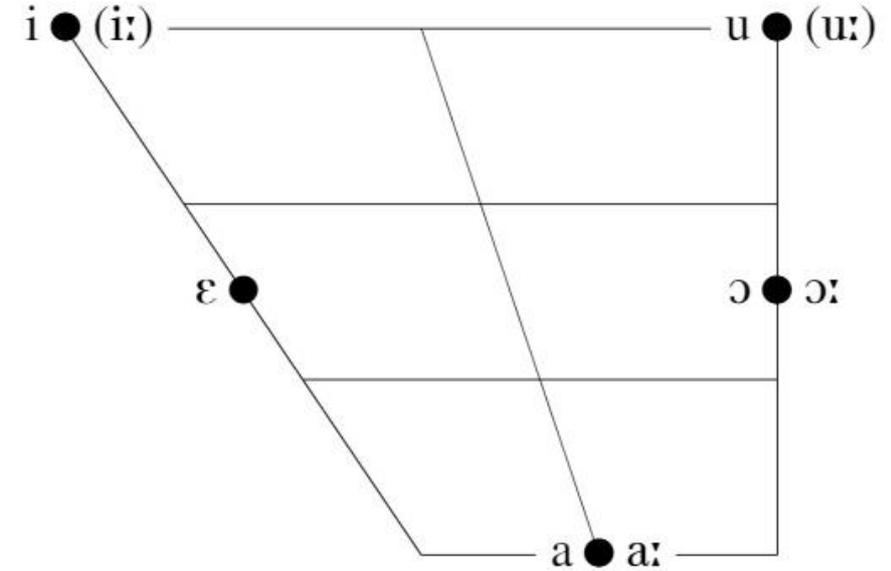
The Phrygian language

- Attested in two phases: Old Phrygian (8th to 4th century BCE) and New Phrygian (2nd to 3rd century CE).
- Old Phrygian:
 - around 200 inscriptions;
 - written in a native alphabet.
- New Phrygian:
 - around 200 inscriptions, mostly malediction formulae;
 - written in the Greek alphabet.
- Two inscriptions in the Greek alphabet can be dated to the „Middle Phrygian“ era (4th to 2nd century BCE) and provide a glimpse into a stage of the language partway between Old and New Phrygian.



The phonemic system of Old Phrygian

	labial	dental	alveolar	palatal	velar
voiceless stop	/p/ <p>	/t/ <t>			/k/ <k>
voiced stop	/b/ 	/d/ <d>			/g/ <g>
affricate		/dz/? <↑>, <ś>			
fricative		/s/ <s>, /s:/?			
nasal	/m/ <m>	/n/ <n>, /n:/?			
resonant			/r/ <r>, /l/ <l>		
semi-vowel				/j/ <y>, <i>	/w/ <v>



Developments from Old to New Phrygian

- The two long diphthongs /āi/ and /ōi/, found only in the last syllable, develop into /ā/ in /ō/;
 - the /i/ appears to be preserved on occasion, which is most likely due to an analogical spread from consonant stems.
- /ō/ is raised to /ū/;
 - the dative plural o-stem ending *-ōis* has a special development into a sound that is written <ω> in New Phrygian.
- Subsequently, all long vowels are shortened: vocalic length ceases to be phonologically relevant.
- Within the New Phrygian era, the diphthong /ei/ monophthongizes into [ē].



Plosives in Coda

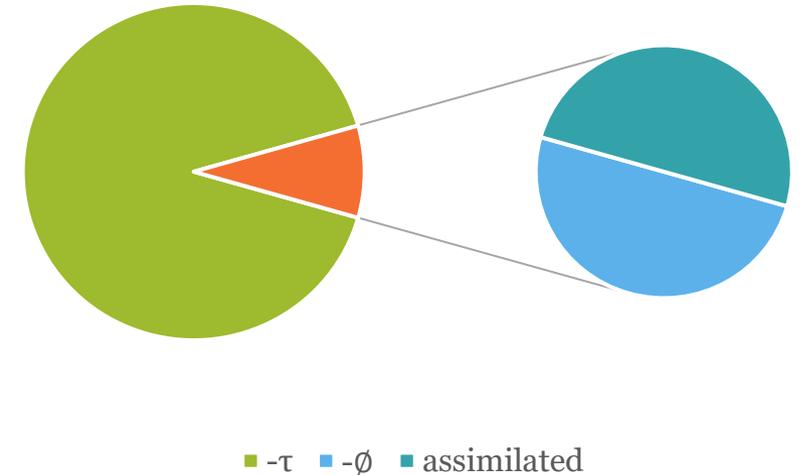
- Only <τ>, <δ>, and <κ> seem to appear in coda.
- <τ>#:
 - as part of a „geminating“ preposition;
 - 3rd person singular active secondary (= non-present) verbal ending.
- <δ>#:
 - the preposition αδ in pre-vocalic position.
- <κ>#:
 - as part of a „geminating“ preposition;
 - the conjunction κε in pre-vocalic position (e.g. αυτος κε ουα κ(ε) οροκα °36).

Plosives in coda II

- Final plosives are only preserved in some prepositions and the secondary verbal ending -τ.

- Spellings of the secondary verbal ending -τ:

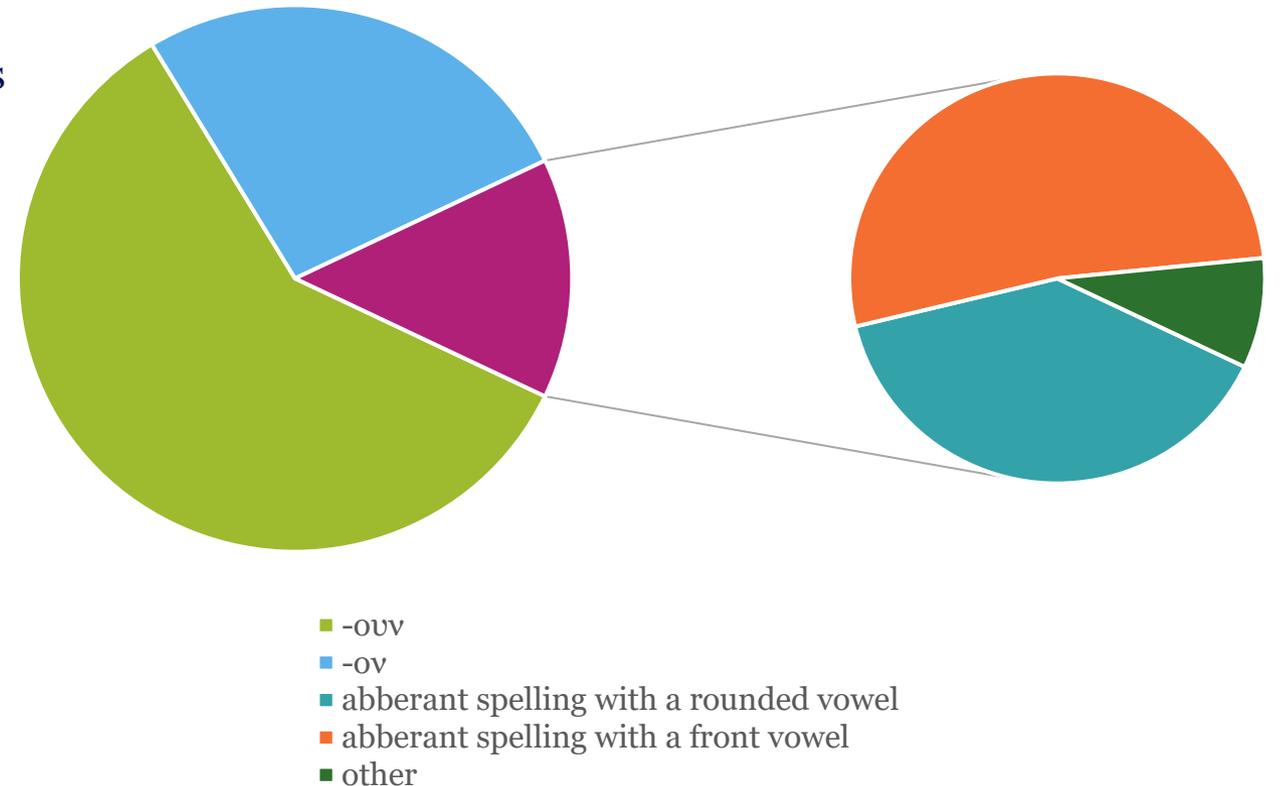
- 62x as -τ (e.g. αδδακετ);
- 3x not written: αδ[δα]κε μανκαι °60, αδ[α]κε ατε[τικμενο]ς °51, αδδακε ταικαν °62;
- 3x assimilated: αδακεν με °5, αδδακεμ μανκαι °35, αδδακεκ γεγρειμ[ε]ναν °32.



- Conclusion: final oral stops in pre-consonantal position assimilate to the following segment, producing a geminate which is sometimes shortened. Phonetically, final oral stops were at some stage most likely unreleased and only fully pronounced before a vowel. The verbal -τ ending with full release is generally re-introduced on the basis of its pre-vocalic allomorph.

Nasals in coda

- The accusative singular ending of the *o*-stems in New Phrygian is generally spelt -o(v)v;
 - phonetic raising of the mid-vowels /e/ and /o/ into mid-high vowels [ɛ] in [ɔ] before a syllable-closing nasal is already productive in Old Phrygian.
- Spellings of the accusative singular ending of the *o*-stems in New Phrygian in two commonly appearing words:
 - 43x σεμουν, 21x σεμον, 53x κακουν, 22x κακον;
 - κακε 4x, κακεν 3x, κακην 1x, κακιν 1x, κακευν 1x;
 - κακυν 2x, κακων 1x,
 - σεμου 3x, σεμιν 3x, σεμυν 2x, σεμν 1x, σεμουμ 1x.



Nasals in coda II

- Since vowel alternations are almost entirely absent in Phrygian, this variation requires a systematic explanation.
- Brixhe's explanation (2002: 264; 1983: 123-4):
 - a) final nasals are weakly pronounced and prone to loss;
 - b) that all $\kappa\alpha\kappa$ - forms with front vowels are the adverb $\kappa\alpha\kappa\epsilon$, with nasal forms a result of hypercorrection.
- However:
 - not all forms may be explained this way (e.g. $\sigma\epsilon\mu\omicron\upsilon\mu\ \kappa\nu\omicron\upsilon\mu\alpha\nu\epsilon\iota$ or $\sigma\epsilon\mu\upsilon\nu$);
 - the assumption of the adverb $\kappa\alpha\kappa\epsilon$ is *ad hoc*, since the front vowel forms behave identically to the usual adjective in a syntactic sense;
 - no model for hypercorrection by adding a nasal is provided and forms with nasals are in fact more common.

Nasals in coda III

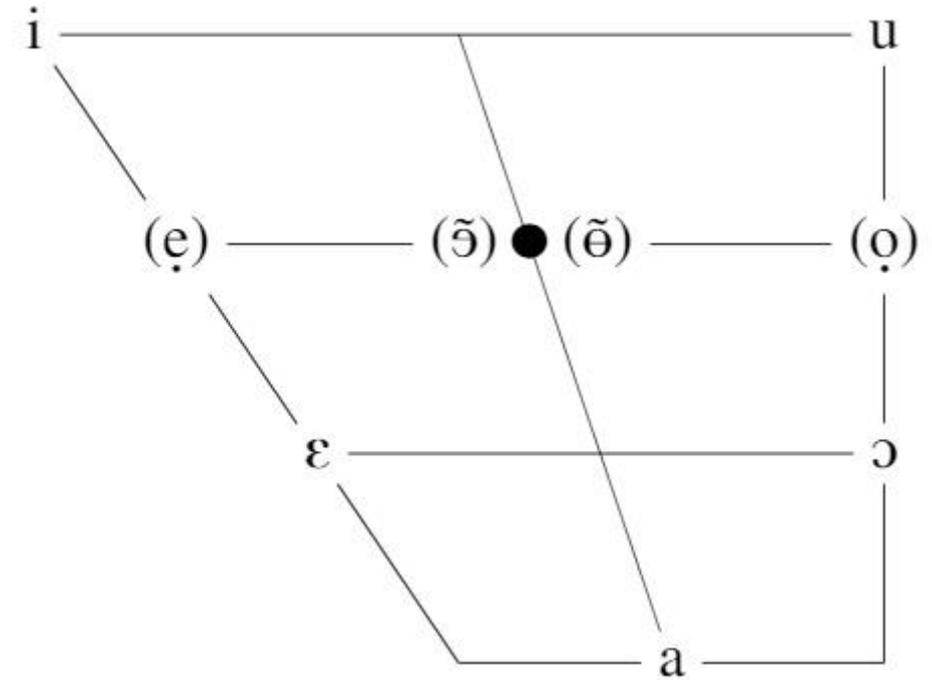
- Alternative explanation: vowels before a final nasal are raised and nasalized, which results in a more centralized pronunciation. The segmental nasal might have been lost entirely. The resulting segments (likely merged for some speakers), closer to a central [ə]~[ɘ] than any of the phonological vowels, have no way of being represented in the Greek alphabet and are, as a result, written inconsistently.
- Some additional arguments:
 - in both Old and New Phrygian, -μ cannot appear in coda, so the spellings αδακεμ and σεμουμ must represent something other than -m#;
 - likewise, /nm/ is always assimilated into [m(:)] (very likely across word boundaries as well), so αδακεν με does not presumably spell [adakenme];
 - unexpected non-final spellings κνουμμανει °44, κν[ου]μμανει °53, [κνο]υνμανει °101, κνουνμανει °105 (all for κνουμανει) are most likely attempts at writing a vowel, which has been nasalized by being between two nasals;
 - nasals are phonetically stops, so their development may mirror that of the oral stops.

Gemination

- Gemination mostly arose as the result of assimilation of the final plosive of a preposition or preverb to the following consonant: e.g. αδδακετ (αδ=δακετ), αββερετ (αδ=βερετ), τιττετικμενος (τιτ=τετικμενος).
- Forms with an expected geminate are sometimes written with a single consonant: e.g. αδακετ, αβερετ, τιτετικμενος.
- The ratio between double versus single spellings respectively is ~2:1 for αδ- and ~3:2 for τιτ-.
- A likely relative chronology:
 - 1) final plosives are assimilated to the following consonant (e.g. *αδ Τιη > ατ Τιη; *αδ βερετ > αβ βερετ);
 - 2) the prepositions αδ and τιτ, when part of a verbal phrase, become preverbs (e.g. *αβ# βερετ > αββερετ);
 - 3) the malediction formula is composed;
 - 4) earliest New Phrygian inscriptions;
 - 5) simplification of word-internal gemination (e.g. αδδακετ > αδακετ);
 - 6) simplification of gemination across word boundaries (e.g. ατ Τιη > α Τιη).

The phonemic system of New Phrygian

	labial	dental	alveolar	palatal	velar
voiceless stop	/p/ <π>	/t/ <τ>			/k/ <κ>
voiced stop	/b/ <β>	/d/ <δ>			/g/ <γ>
fricative		/s/ <σ> /z(:)/ <ζ>			
nasal	/m/ <μ>	/n/ <ν>			
resonant			/r/ <ρ>, /l/ <λ>		
semi-vowel				/j/ <ι>	/w/ <ου>, <ο>



Conclusions

- Phonetic developments from Old to New Phrygian are typologically trivial.
- Nonetheless, the fact that Lycian has parallels to all of them is unlikely to be due to random chance; Lycian seems to have influenced Phrygian phonetics and particularly phonotactics.
- On the other hand, Anatolian Greek does not appear to have phonetically influenced Phrygian at all.
- In the future, Phrygian accentology may benefit from an examination of possible areal accentual patterns, especially the nature of vowel reductions in unaccented syllables.



Thank you for your attention.

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