

The Origin and the Development of Phrygian *si*-formations

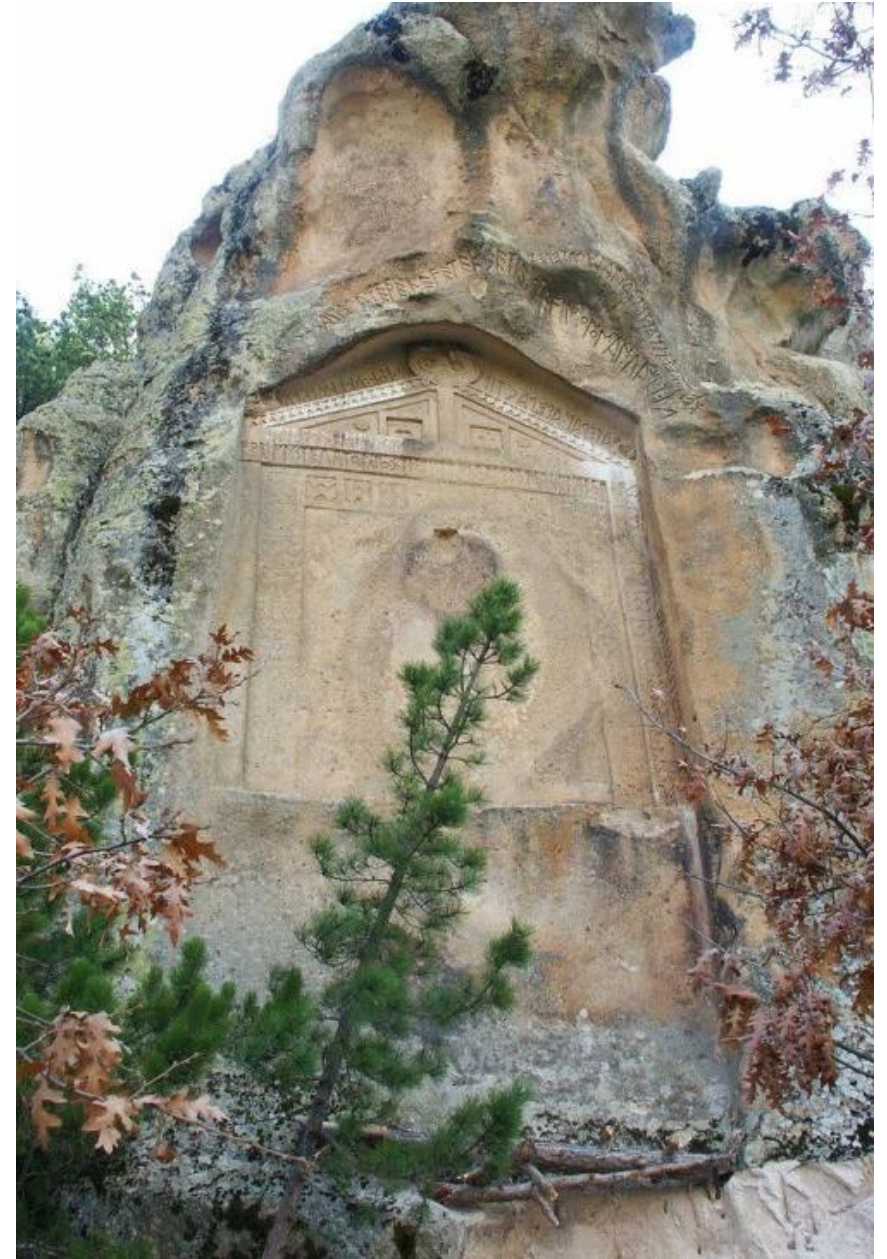
Aljoša Šorgo | 18/09/2021 | Barcelona
International Workshop on Phrygian



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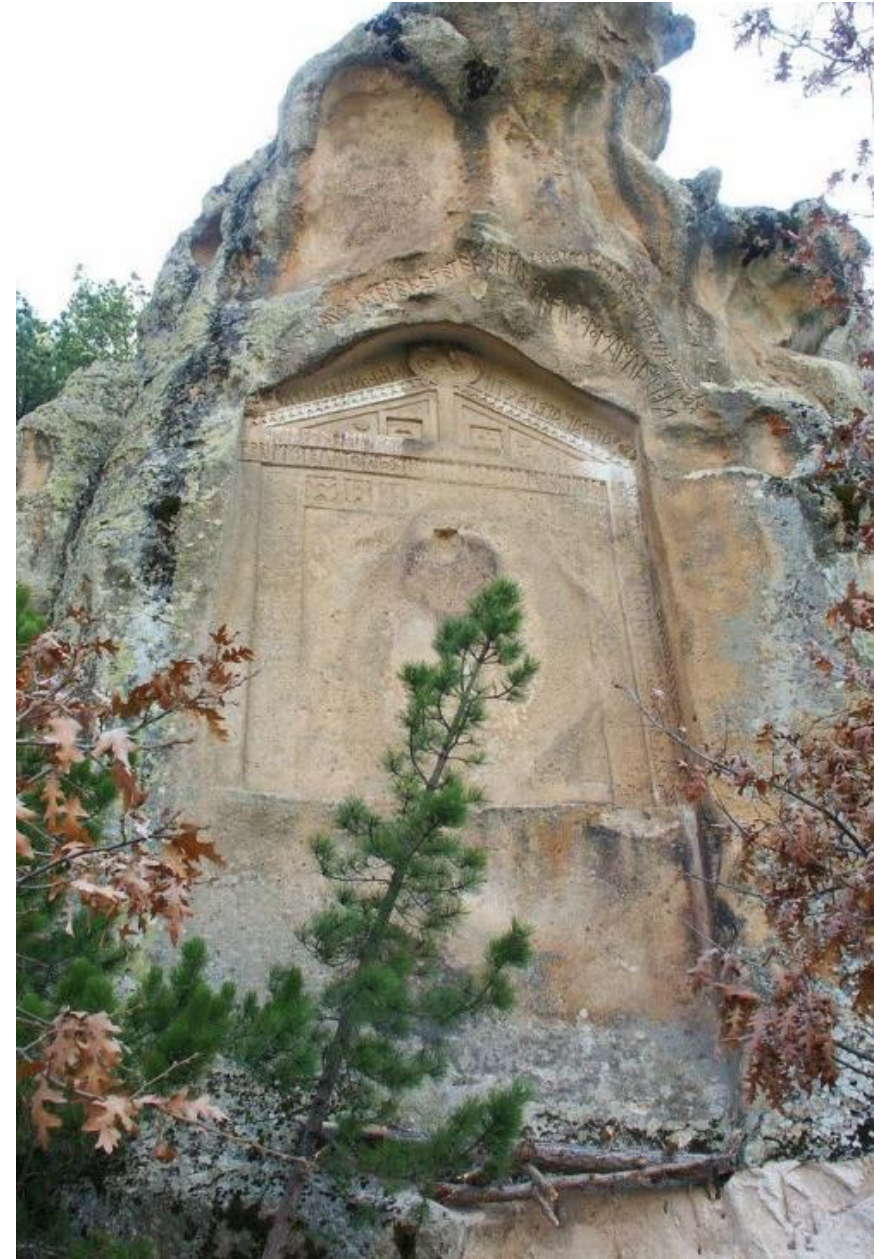
The *si*-formation

- A type of verbal formation characterized by the presence of a suffix found spelled as *-se-*, *-si-*, *-σ(σ)ι-*, *-σσει-*.
- Also known as:
 - subjunctives (Ligorio & Lubotsky 2018: 1828);
 - *set(i)* forms, Subjunctive II (both Hämmig *ftc.*);
 - (reduplicated) subjunctives with *-se-* ~ *-si-* (Obrador-Cursach 2020: 100-101);
 - sigmatic futures (Brixhe 2004: 24 et passim);
 - futures (Sowa 2007: 84-85; Orel 1997: 399).



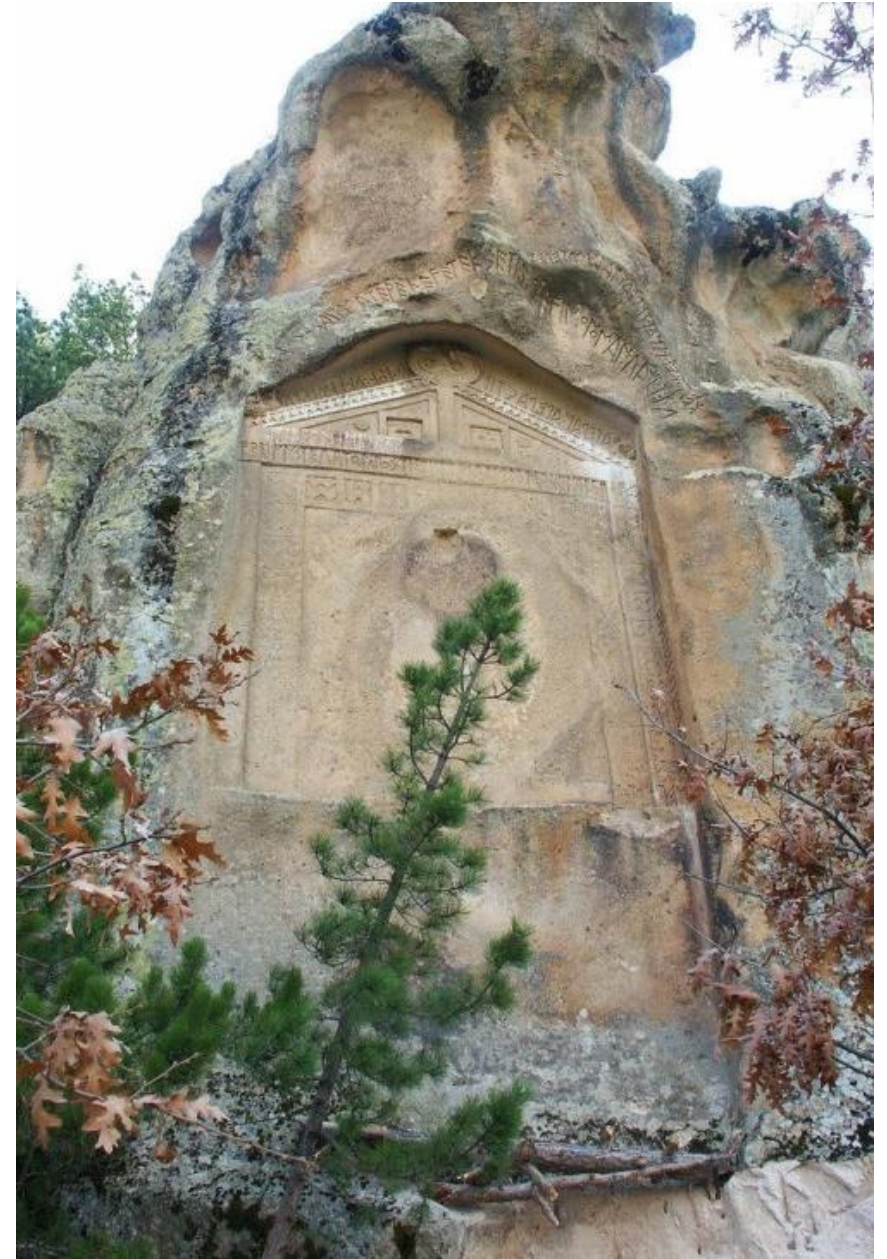
Attested examples

- *anivaΨeti* °B-07;
- *daΨet* °W-01b;
- *dedasitiy* °B-05, δεδασσιννι °130;
- *egeseti* °P-04a;
- εγεσιτ °58;
- *isini* °P-101;
- ομνισιτους °W-11, *umniset* °B-05;
- *tekiseton* °Idol;
- τΟΤΟσσΕΙΤΙ °99, °18.



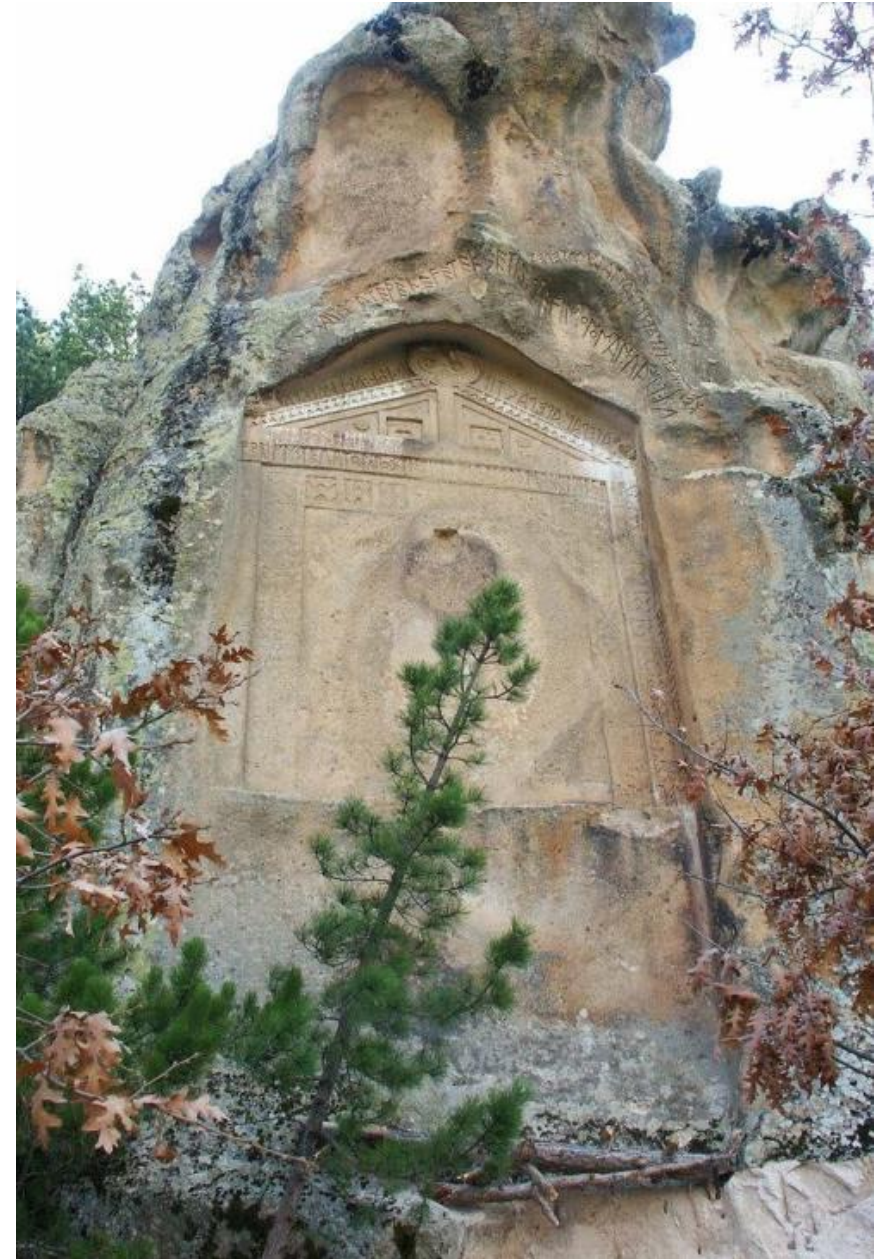
Structure

- Composed of a primary (i.e. aspectual) verbal stem, the suffix *-se/i-*, and a grammatical ending.
- Likely appear with present and originally aorist verbal stems:
 - present: *dedasitiy*, *egeseti*,
 - aorist: *umniset*.
- Spelling of the suffix:
 - *-se-* 5x; *-si-* 2x; *-σι-* 2x; *-σσι-* 1x; *-σσει-* 2x.
- Appear with both primary and secondary endings, as well as with imperative endings:
 - primary 7x; secondary 3x; imperative 2x.



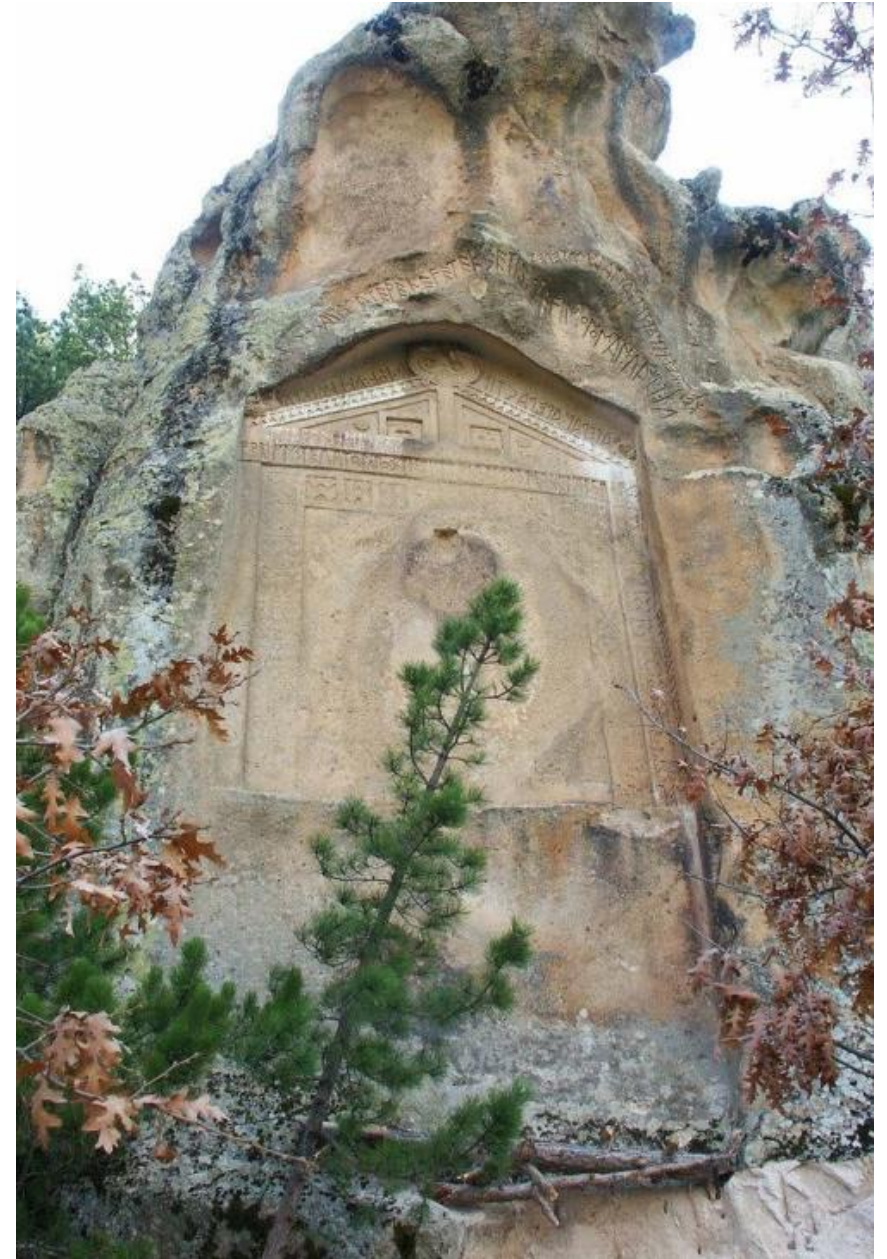
Semantics

- The formation has some modal meaning.
- In a conditional indefinite relative clause, it is apparently similar in meaning to the "injunctive" (i.e., the formation of (αδ)δακετ, (αβ)βερετ):
 - *yos* = [...] *ovevin onoman daΨet*, °W-01b;
 - *ios ni akenan egeseti*, °P-04a;
 - *αινι ουεβαν δεδασσιννι πατρος* [...], °130.
- Otherwise, the meaning appears to be jussive:
 - *με κε οι τοτοσσειτι Βας βεκος* °99,
 - *βεκος ιοι με τοτοσσειτι σαρναν* °18,
 - *is* [...] *mekos anivaΨeti smanin* °B-07,
 - ? *μονανμρο τηιον εγεσιτ γεγρειμενον* °58.
- With an explicitly imperative ending also likely has a jussive or optative meaning:
 - *tekiseton dagoy*, °Idol,
 - ... *ομαστα ομνισιτους*, °W-11.



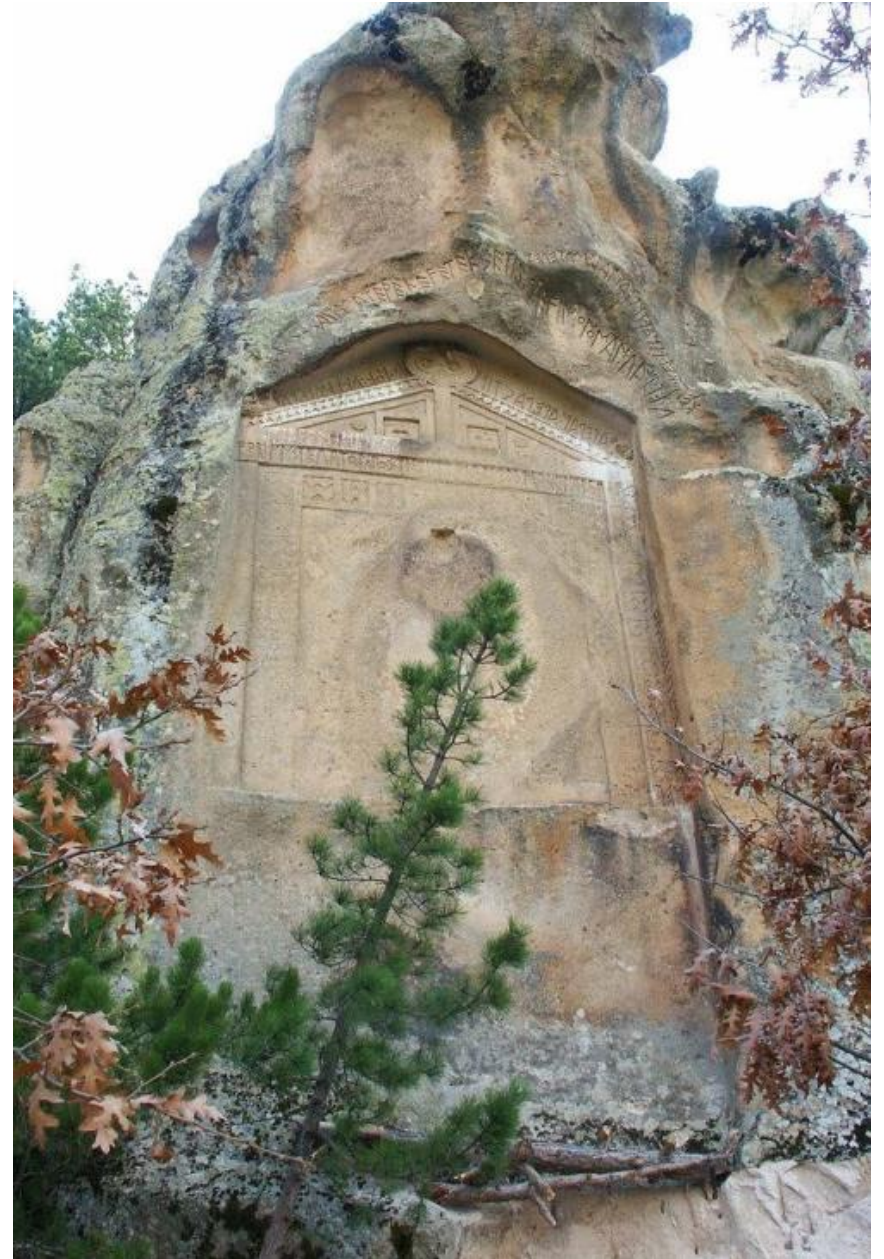
Athematic formation

- 1) The thematic vowel /e/ in Phrygian is spelt consistently as <e>:
 - egeseti, lakedo, ordoinete(t), βερετ, δακετ, εγεδου, εγεσιτ;
 - BUT: the suffix of *si*-formations is spelled inconsistently.
- 2) The thematic vowel in Phrygian has the same distribution as in PIE:
 - /o/ in 3pl impv. εγουννου < **seg^h-o-ntōd*;
 - /o/ in the thematic optative: kakuiοι, κακοιοι < **kako-jo-i-t*;
 - BUT: the vowel in 3pl *si*-formations is not /o/: δεδα-σσι-ννι < **-nti*.
- 3) The suffix *-si-* is appended to primary thematic verbal stems:
 - *eg-e-se-ti*, εγ-ε-σιτ;
 - doubly thematic **-e-se-* is suspect.
- Conclusion: *si*-formations are not thematic.



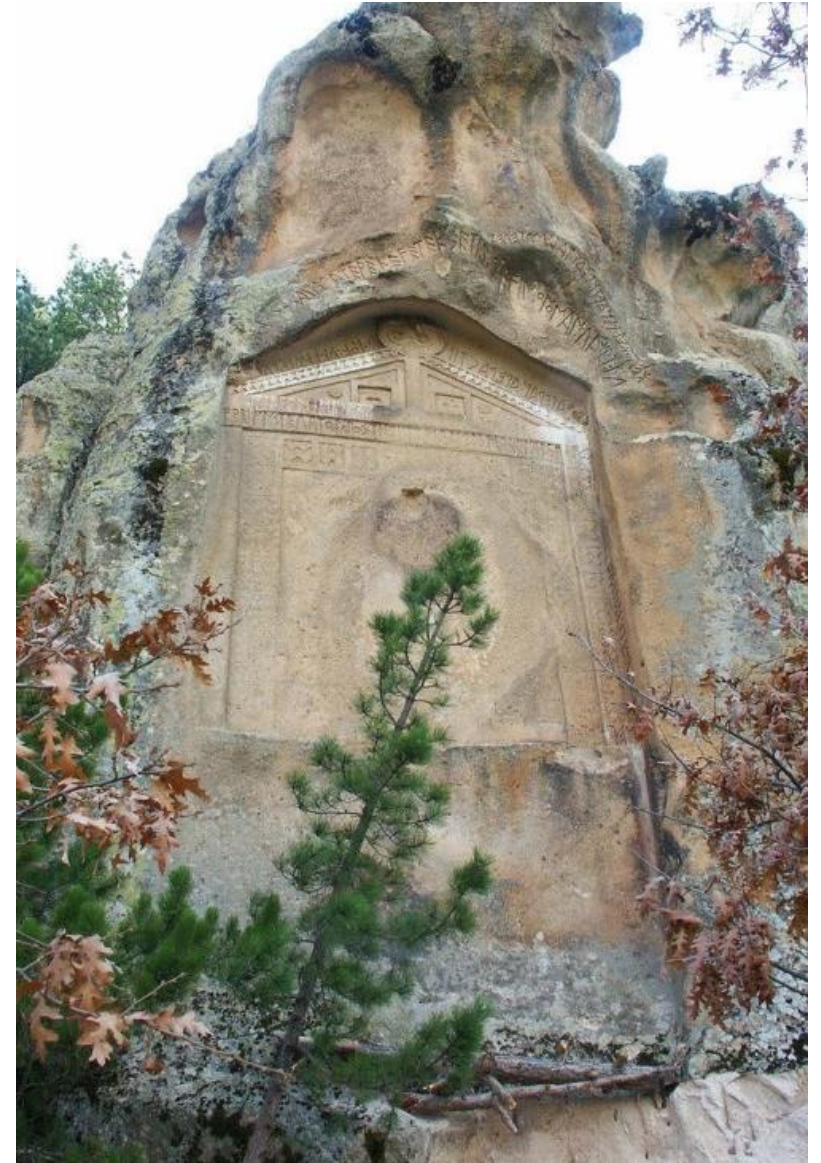
The phonetic value of the vowel I.

- Old Phrygian shows spellings with both <i> and <e>.
 - Otherwise only known to occur in *ake/inanogavo-*, *kube/ileya-*, which can be explained by $\acute{e} > e / _R\text{\$}$ (cf. also New Phrygian $\alpha\beta\beta\iota\rho\epsilon\tau\omicron$, $\zeta\mu\epsilon\lambda\omega\varsigma$, $\sigma\iota\mu\omicron\upsilon\nu$).
- No judgment on length is possible.
- The phonetic value must be between [e] and [i], i.e. [e̞] *vel sim.*



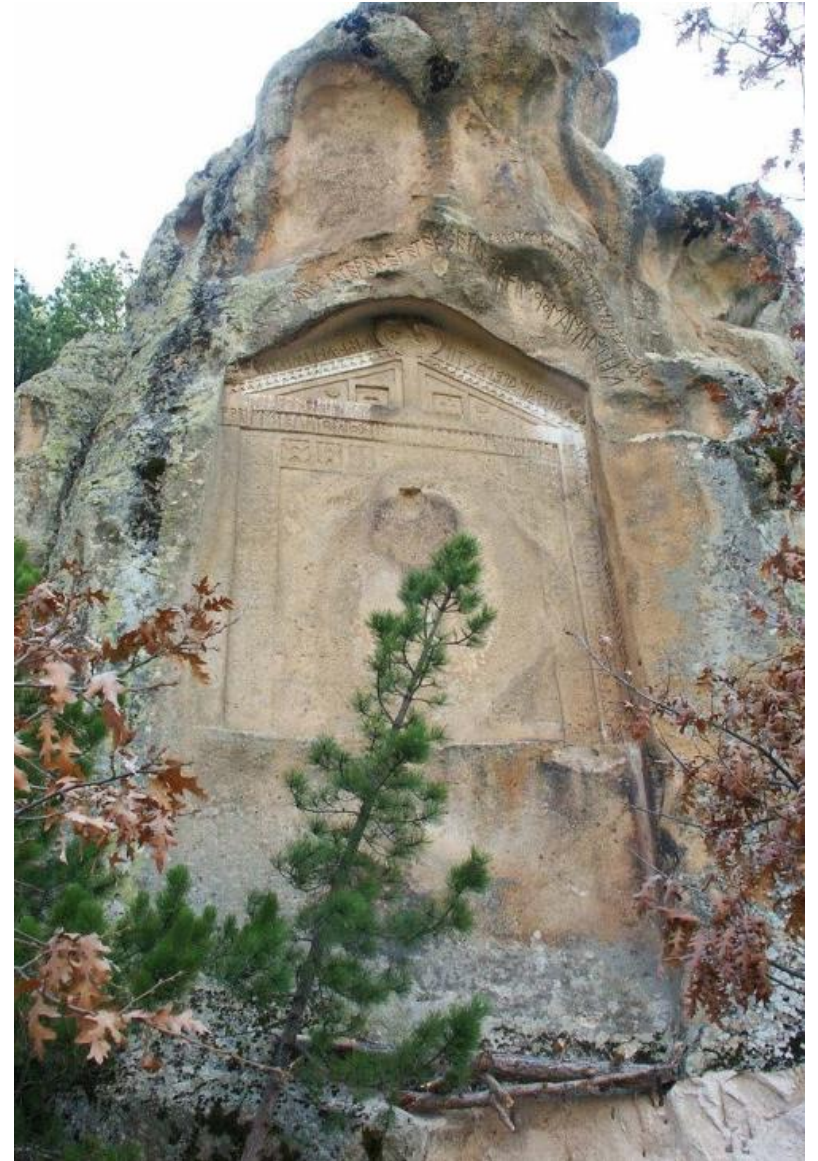
The phonetic value of the vowel ι .

- New Phrygian $\langle \iota \rangle$ is used for:
 - the reflex of short $*i$ (cf. $-v\upsilon\iota < *-nti$);
- New Phrygian $\langle \epsilon\iota \rangle$ is used for:
 - the reflex of $*ei$ in non-final and final position ($\epsilon\iota\upsilon < *h_1ei-t\bar{o}d$; $\tau\iota\epsilon\iota < *diu-ei$);
 - the reflex of long $*\bar{i}$ ($\gamma\epsilon\gamma\rho\epsilon\iota\mu\epsilon\nu\alpha\nu < *g^he-g^hriH-mh_1no-$).
- Less common uses:
 - $\langle \iota \rangle$ for the reflex of $*\bar{i}$ and non-final $*ei$: $\gamma\epsilon\gamma\rho\iota\mu\epsilon\nu\omicron\nu$, $\iota\upsilon$;
 - $\langle \epsilon\iota \rangle$ for usual $\langle \iota \rangle$: $\tau\epsilon\tau\epsilon\iota\kappa\mu\epsilon\nu\omicron\varsigma$, $\zeta\epsilon\iota\rho\alpha$;
 - $\langle \eta \rangle$ for the reflex of $*ei$: $\eta\tau\upsilon$, $\tau\eta$;
 - ($\langle \iota \rangle$ for $[e]$: 1) $e > \epsilon / _n\#$; 2) $\acute{e} > \epsilon / _R\$\$ (cf. $\alpha\beta\beta\acute{\iota}\rho\epsilon\tau\omicron$, $\zeta\acute{\iota}\mu\epsilon\lambda\omega\varsigma$, $\sigma\acute{\iota}\mu\omicron\nu\omicron$)).
- There was a qualitative merger of older $/\bar{i}/$ and $/ei/$ in New Phrygian, presumably into $[\bar{e}]$.



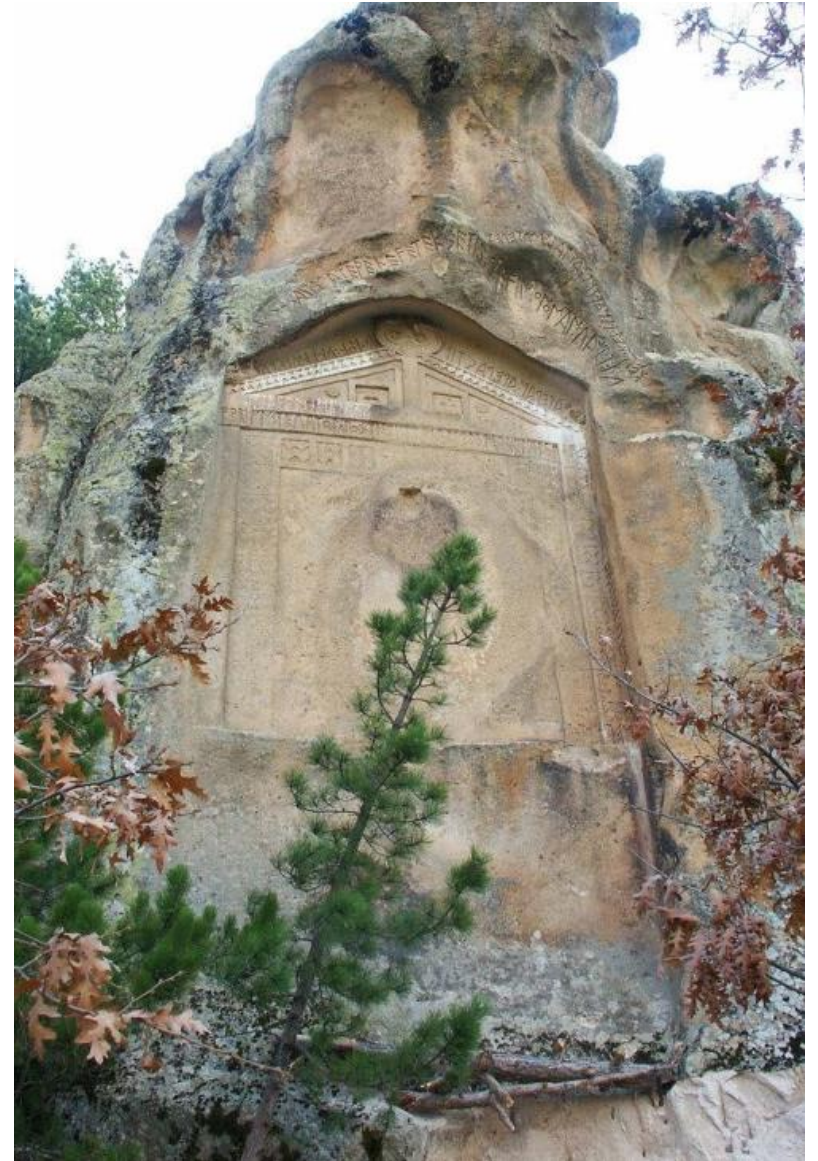
The phonetic value of the vowel III.

- The spelling of a phonetically long vowel with <ι> (= Koiné [i]) is trivial; the spelling of a phonetically short vowel with <ει> (= Koiné [ī]) would be unexpected.
- Therefore, the vowel of *si*-formations was long.
- The quality of the vowel was [ē] in both Old and New Phrygian.
 - [i] and [e] are impossible in light of spelling vacillation in Old and New Phrygian;
 - an Old Phrygian value [ei] is impossible, since it would have been spelled <ey>.
- How could Old Phrygian [ē] have arisen?
 - Not from any known diphthong;
 - in some cases through compensatory lengthening of some kind, but not in the *si*-formations;
 - possibly from late vowel contraction ($*e + *e > *e_2$), but compositionally unlikely in the *si*-formations;
 - from a phonetic lowering of Proto-Phrygian $*\bar{i}$ (as supported by New Phrygian data; no counterexamples are known).



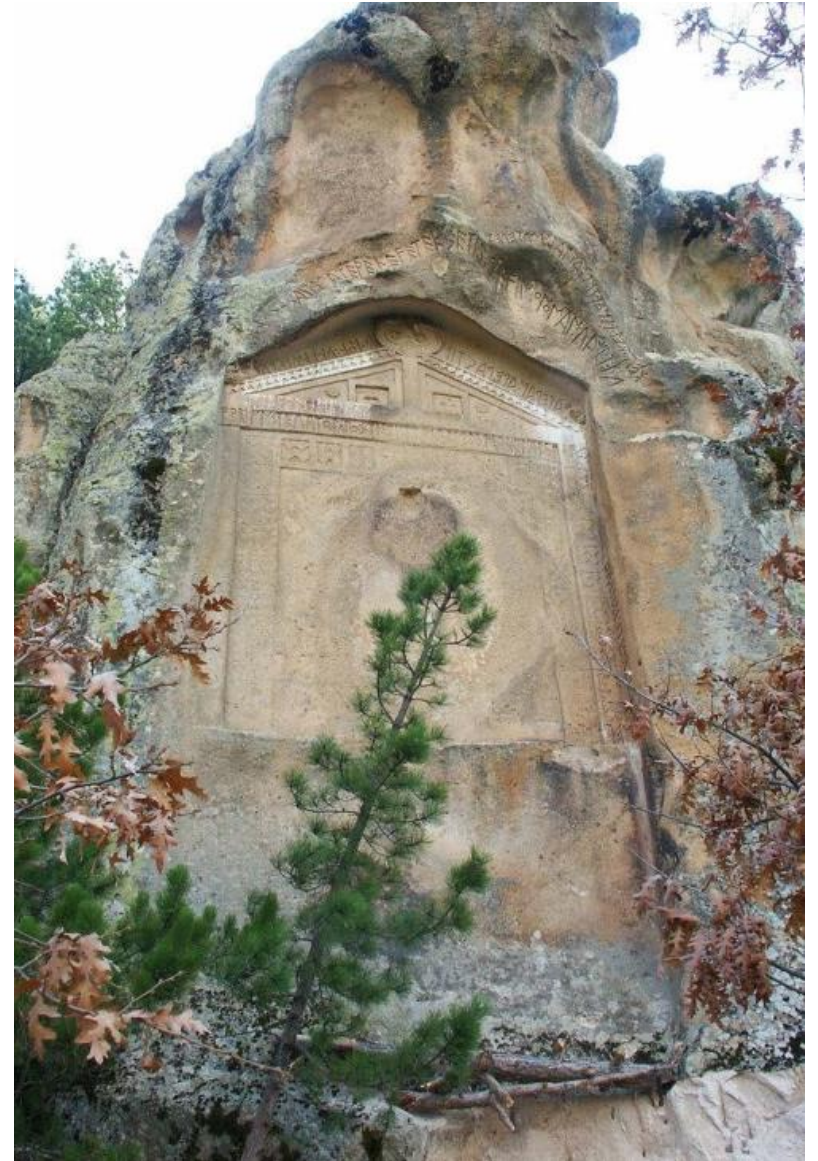
The phonetic value of the consonant

- Old Phrygian <*s*> can stand for both a single or geminate /s/.
- Old Phrygian <Ψ> has the value [ks]:
 - *contra* Obrador-Cursach (2020): [k];
 - *contra* Hämmig (*fthc.*): unknown, but develops into NPh. <σσ>.



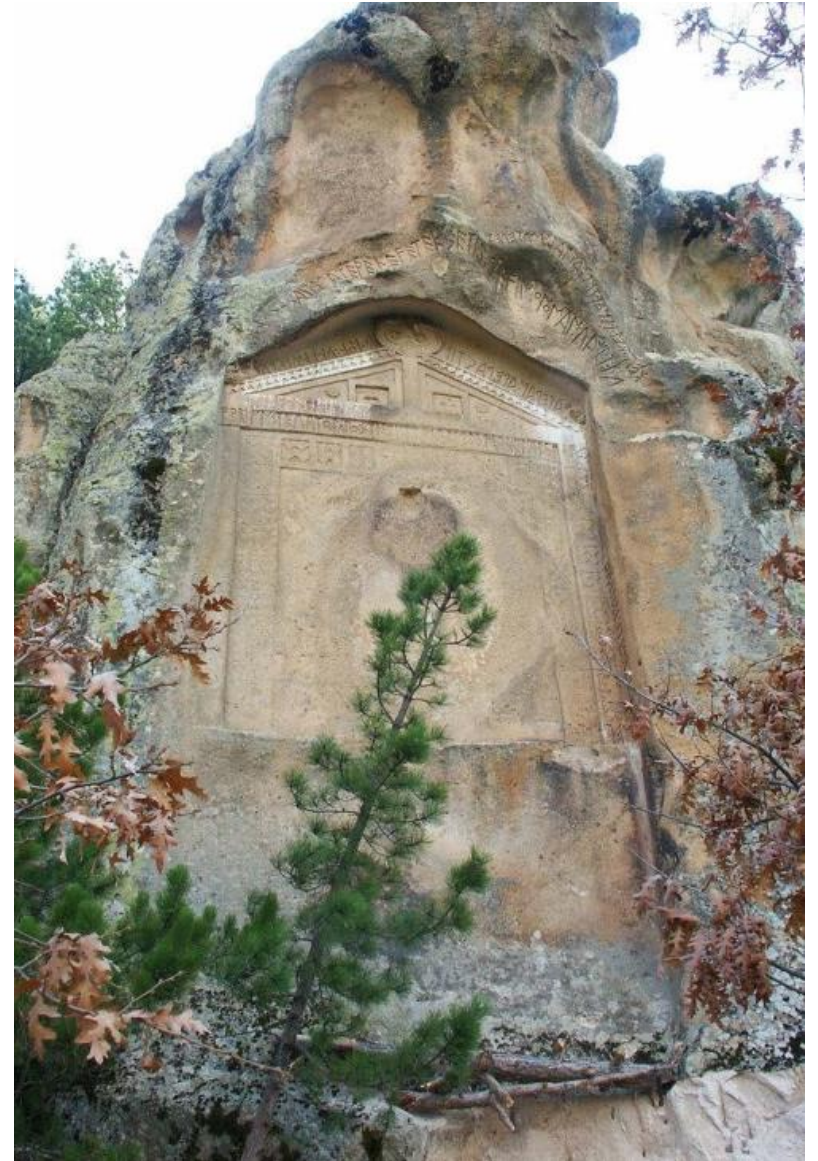
Distribution between New Phrygian <σ> and <σσ>

- Hämmig (*fhc.*): <σ> after front vowels, <σσ> after back vowels;
 - odd in terms of known Phrygian phonetic developments.
- Rather: <σ> after short vowels, <σσ> after originally long vowels:
 - explains the short vowel in $\tau\sigma\sigma\sigma\epsilon\iota\tau\iota$ (instead of expected $**\tau\sigma\sigma\sigma\epsilon\iota\tau\iota$ < $*tot\bar{o}$ - < $*d\sigma-deh_3$ -) through a simple moraic redistribution rule: $V_{\mu}\sigma_{\mu} > V_{\mu}\sigma_{\mu}\sigma_{\mu}$;
 - suggests that *dedasi*-/δεδασσι- < $*ded\bar{a}s\bar{i}$ - had a synchronically short vowel.
- Since /s:/ can be explained as secondary, the original duration of the sibilant must have been short.



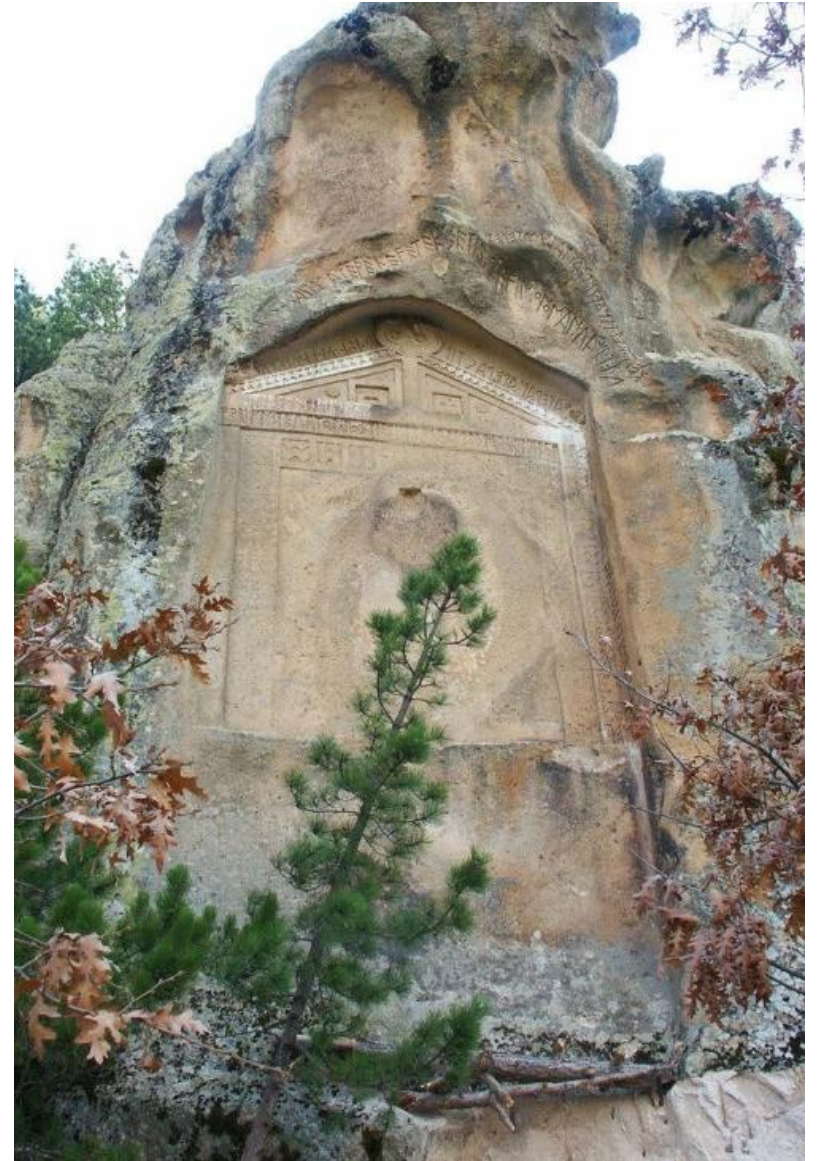
The origin of *s*

- **k*:
 - not a known productive suffix;
 - rare in PIE already.
- **g*:
 - not known to be a verb-forming suffix at all.
- **s*:
 - present as a first element in many verbal suffixes in PIE and Proto-Greco-Phrygian;
 - lost between vowels, but trivial to restore on the basis of consonant-final verbal stems.
- If the *s* of the *si*-formations originates in PIE **s*, which *s*-initial verbal suffix is it?
 - Desiderative **s-* is thematic and thus incompatible with *si*-formations;
 - present-forming **s-* is exceedingly rare and its existence is disputed;
 - aorist-forming **s-* is very productive and is primarily aspect-forming, i.e. need not be limited to past-tense formations.



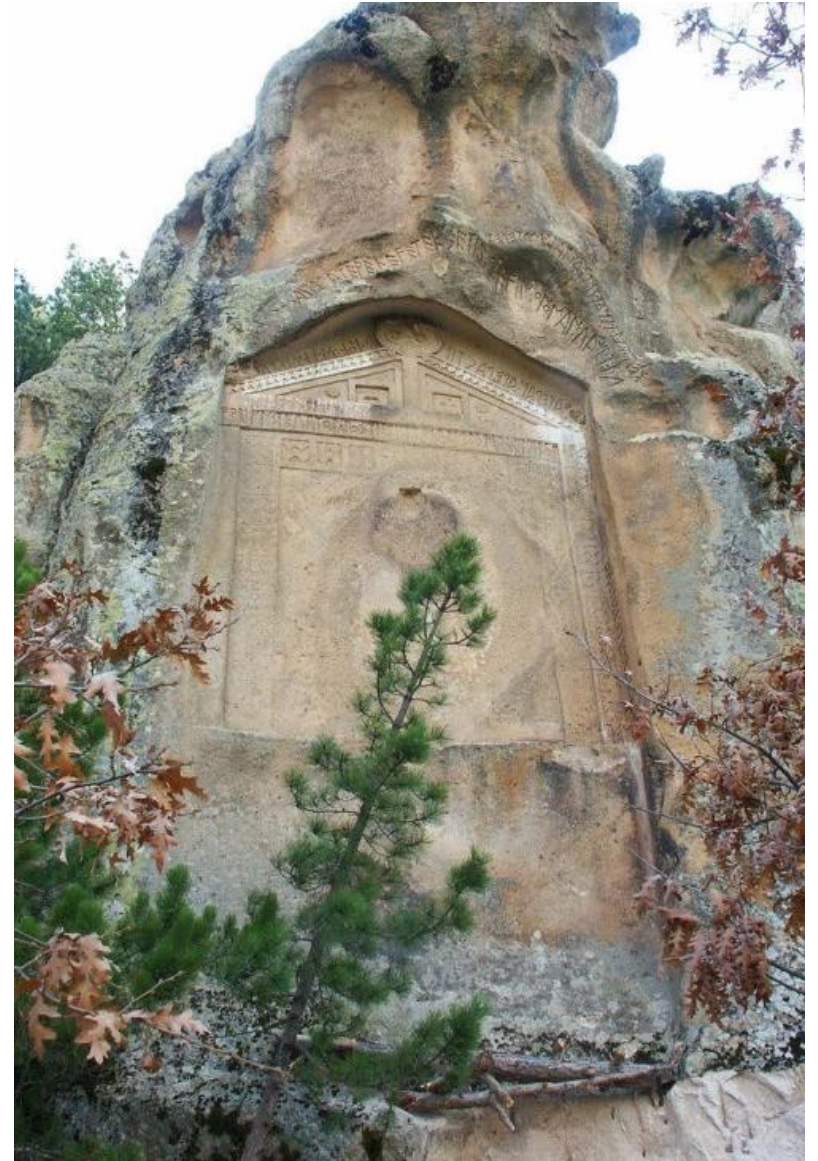
The origin of [ē]

- In the *si*-formations, most likely from PGPh. *ī̄.
- In a verbal context, there is only one reasonable assumption for its origin: the ablauting optative suffix *-ieh₁-/-ih₁-.
- The weak allomorph *-ih₁- > PGPh. *ī̄ was levelled throughout the Proto-Phrygian paradigm.



si-formations as sigmatic optatives

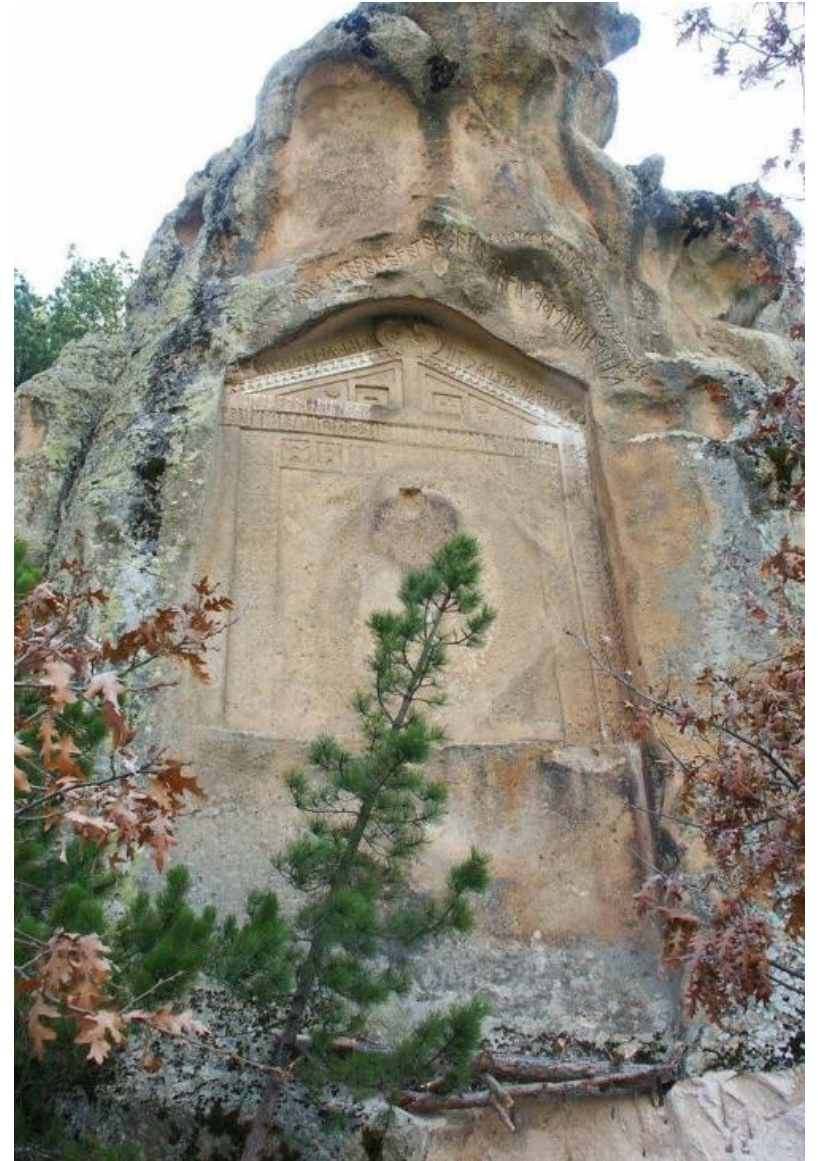
- Created by appending the optative suffix **-ieh₁-/-ih₁-* to an aoristic verbal stem, which was most commonly sigmatic: **-s-* + **-i(e)h₁-*.
- Greek mostly remodelled the category on the basis of the alphathematic conjugation (but not everywhere; cf. the Aeolic optative).



Subsequent developments in Phrygian

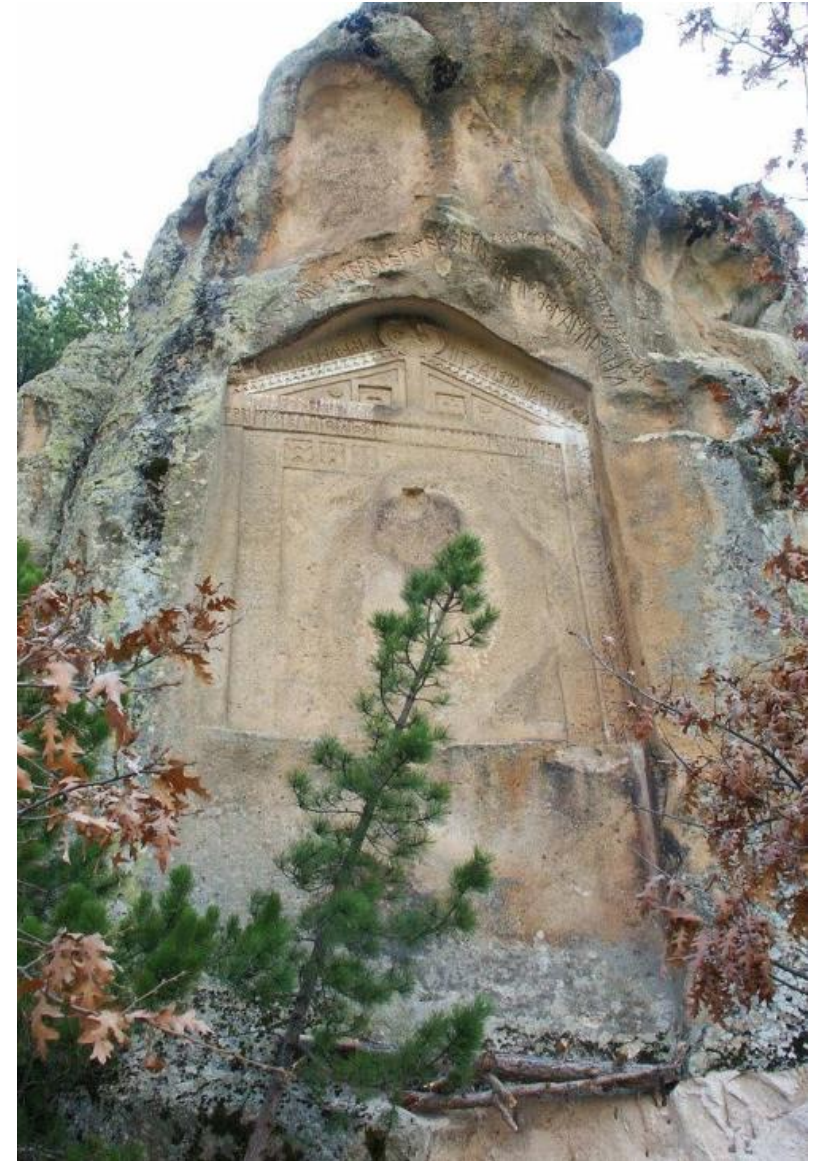
- The Phrygian aorist system was remodelled:
 - the adoption and proliferation of **-es-* as an aorist-marker in the active voice at the expense of other aorist types.
- The *sī-* complex was re-analysed as a single morpheme and extracted.
- **sī-* began to be used with present verbal stems as well.

- The *si-* formation was grammaticalized to such an extent that it formed a separate primary verbal stem (i.e. principal part), not simply a modal derivation:
 - evidenced by the fact that *si-* formations could use the endings of the imperative mood: e.g. *ομνισι-τους*, *tekise-ton*.
- The distribution between the primary and secondary endings remains unclear.



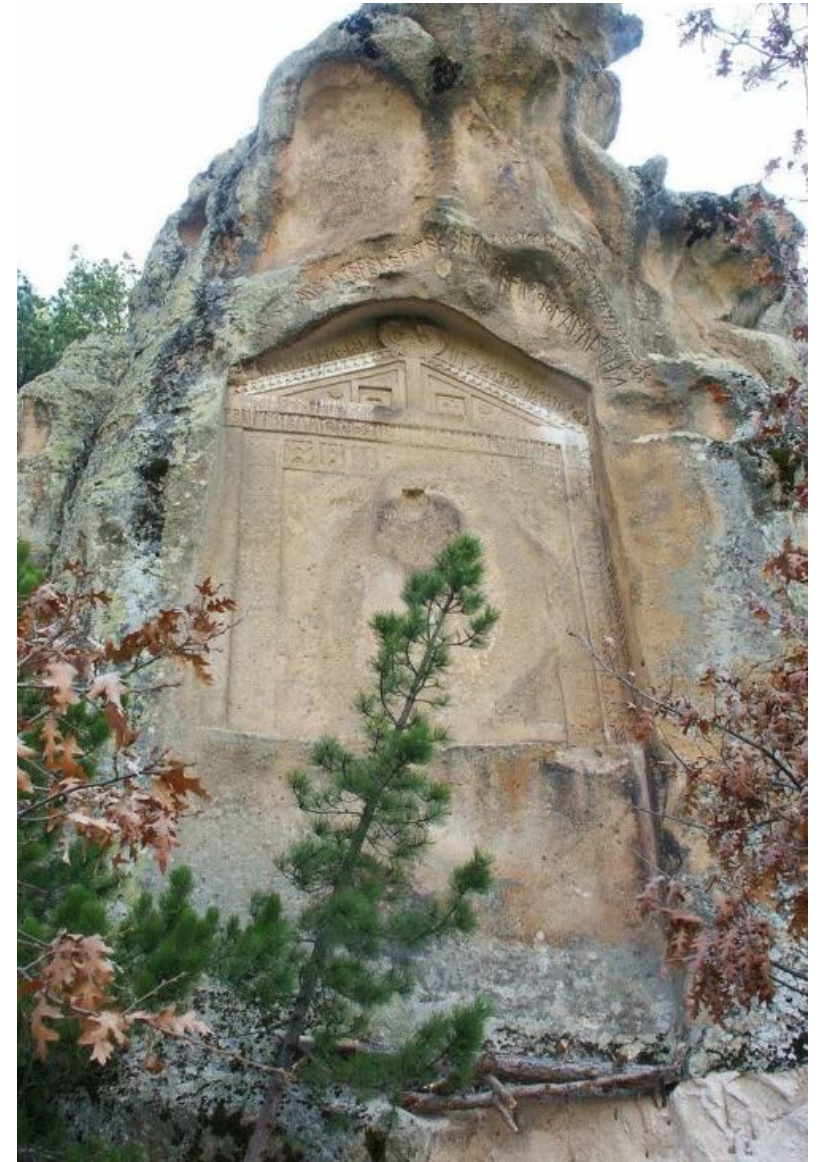
Late constructions

	#		root	TV	si	ending
<i>dedasitiy</i>	°B-05	de-	-dǎ-		si-	-tiy
δεδασσιννι	°130	δε-	-δǎ-		-σσι-	-ννι
			*d ^h eh ₁ -			
<i>egeseti</i>	°P-04a		eg-	-e-	-se-	-ti
εγσειτ	°58		εγ-	-ε-	-σι-	-τ
			*seǵ ^h -	-e-		
<i>isini</i>	°P-101		i-		-si-	-ni
			*h ₁ ei-			
τοτοσσειτι	°18, °99	το-	-το-		-σσει-	-τι
			*deh ₃ -			



Possibly old constructions

	#		root	sfx	si	ending
<i>anivaΨeti</i>	°B-07	<i>ani-</i>	<i>-vak-</i>		<i>-se-</i>	<i>-ti</i>
			<i>*ueh₂g^h-</i>			
<i>daΨet</i>	°W-01b		<i>dāk-</i>		<i>-se-</i>	<i>-t</i>
			<i>*d^heh₁k-</i>			
<i>tekiseton</i>	°Idol		<i>tek-</i>	<i>-i-</i>	<i>-se-</i>	<i>-tōn</i>
			<i>*tek-_?</i>	<i>-id-</i>		
ομνισιτους	°W-11		ομν-	-ι-	-σι-	-τους
<i>umniset</i>	°B-05		<i>umn-</i>	<i>-i-</i>	<i>-se-</i>	<i>-t</i>
			<i>*supn-_?</i>	<i>-id-</i>		



Thank you for your attention.

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