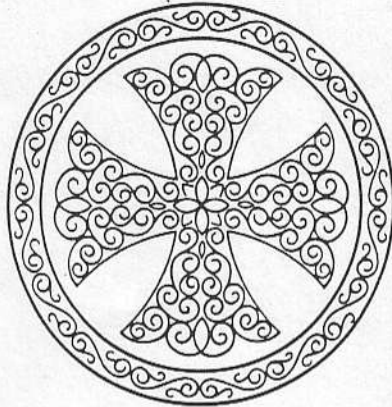


# The Coptic Encyclopedia



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analysis of spelling irregularities that are based on phonetic phenomena and of transcriptions in the writing system and orthography of another language the phonetics of which are better known. Absolute proof of the issue can never be gained. But results obtained from different sources and by different methods are to be regarded as probable if they are consistent.

But is Coptic a dead language in respect to phonetics? Has not the Coptic liturgy been recited in a traditional way down to this day? Although some authors have claimed near-perfect authenticity for one or another modern tradition, it seems highly improbable that the mother tongue of the Copts has left no mark on the spelling of the liturgical language. It is, therefore, advisable to take a critical stand—that is, to reconstruct the pronunciation of ancient living Coptic from contemporary sources and to confront the issue of such an endeavor with modern evidence only as a last resort.

For the literary Coptic of the thirteenth century (which is, of course, the BOHAIRIC dialect), much elucidation can be gained from a codex of an Arabic version of the *Apophthegmata Patrum* that is entirely written in the Coptic alphabet (Casanova, 1901; Sobhy, 1926; Burmester, 1965–1966). Some remarks on the character of the Arabic idiom of the text are necessary. It has been plausibly classified by Blau (1979) as "Middle Arabic Substandard." He wrote, "Its author(s) intended to write Classical Arabic, but whether as a result of his (their) ignorance or negligence, elements of Neo-Arabic penetrated into it. Like Middle Arabic texts in general, our text is characterized by freely alternating features of Classical Arabic, Neo-Arabic and pseudo-corrections" (ibid., p. 215, sec. 2). The main features of its phonetics have been elaborated with a substantial degree of certainty. *q* was probably pronounced in the classical way (voiceless uvular plosive), although a pronunciation as [g] or [g̃] cannot be ruled out (ibid., p. 221, sec. 8; Satzinger, 1971, p. 61). *ḡ* was of palatalized articulation ([ḡ̃] or [ḡ̊]). *ḍ* and *ẓ* had coalesced in an emphatic spirant, most probably *ḏ̣*. This pronunciation may also suggest that *ḍ* and *ṭ* had preserved their spirant articulation, although there is no direct evidence to exclude a plosive articulation *d* and *t*, respectively (Blau, 1979, p. 221, sec. 9; Satzinger, 1971, p. 52). The author generally preserves *aw* and *ay* in diphthong transcription, but in some cases slips to his Neo-Arabic vernacular monophthong articulation (ibid., p. 47). In forms of the verb *ḡā'a*, to come, he presents purely Neo-Arabic features, clearly eliding the glottal stop or *hamz*

#### BOHAIRIC, PRONUNCIATION OF LATE.

The phonetics of a dead language can be determined in an indirect way only—namely, by a scrutinizing

(*ḡeyt*, I came, *ḡeyyeh*, fem. sing. active participle; *ibid.*, p. 52).

The main regular correspondences between the Arabic phonemes of the text and the Bohairic signs of the transcription are given in the following tables (*ibid.*, pp. 49–50, but with observations of Blau, 1979, pp. 218–22, sec. 6–10):

### 1. The Consonants

'	zero
<i>b</i>	π
<i>t</i>	θ; in final position also τ (see remarks)
<i>ṭ</i>	θ
<i>ḡ</i>	χ
<i>h</i>	ʔ
<i>ḥ</i>	ħ
<i>d</i>	Δ
<i>ḍ</i>	Δ
<i>r</i>	ρ
<i>z</i>	ζ
<i>s</i>	σ
<i>ṣ</i>	ϣ
<i>š</i>	σ
<i>ḍ</i>	ζ
<i>ṭ</i>	τ; in nonfinal position also θ (see remarks)
<i>ẓ</i>	ζ
<i>ḏ</i>	ʔ
<i>ḡ</i>	Γ
<i>f</i>	φ
<i>q</i>	κ
<i>k</i>	κ, more rarely κ; in final position, exclusively κ (see remarks)
<i>l</i>	λ
<i>m</i>	μ
<i>n</i>	ν
<i>h</i>	ʔ
<i>w</i>	β
<i>y</i>	ι

No use is made of the following Coptic letters for transcribing Arabic consonants: α, φ, ψ, ς, consonantal ογ.

**Remarks.** Arabic *t* is generally rendered by the aspirate, θ. If in the final position, *t* may also be rendered by τ.

Arabic *t* is generally rendered by τ; in nonfinal positions it may also be rendered by θ.

Arabic *k* is rendered generally by χ or, more rarely, by κ. In the final position, however, *k* is exclusively rendered by κ. This letter is also used to render Arabic *q* (see Table 1).

It is remarkable that τ is not used to render Arabic *t* (except in some cases where the latter is in the final position). This can be best explained by assuming a "soft" articulation [d] for τ. Furthermore, three tendencies can be observed: (1) the use of aspirate signs for nonemphatic stops and of nonaspirate signs for emphatic stops, the reason for this being, in all probability, the notably nonaspirated character of the Arabic emphatics; cf. Kästner, 1981, p. 43); (2) the use of nonaspirate signs instead of aspirate signs for stops in the final position, such as τ occasionally for θ, and κ regularly for χ, proving that Coptic nonaspirate stops were of soft articulation in nonfinal positions only; (3) the use of κ rather than χ (Blau, 1979, pp. 218–20, sec. 6) (one may conclude from this that the articulation of κ was less soft than that of τ and η).

In the Arabic transcriptions of Coptic liturgical texts (of later date; cf. Worrell, 1934, pp. 5–6), nonfinal τ is regularly rendered by Arabic *d* or *ḍ* (or *z*, which had coalesced with *d* in Arabic), though not in Greek words (صوتير, σωτηρ; خرستوس, χρεστος; etc.). In what is probably the oldest transcription text preserved, an undated codex published in excerpts by Galtier (1905), final τ is regularly rendered by Arabic *t*. The transcription that Sobhy (1940) published in excerpts—which is dated, according to him, A.M. 1438 (but this cannot be confirmed from the printed rendering; at any rate read "9" [= *ṭā*] instead of "8" [which would be *hā*])—is less consistent in this, as are the records by Petraeus (1659; cf. Galtier, 1905, pp. 109–110), de Rochemonteix (1892; taken down 1876–1877), and Sobhy (1915 and 1918; taken down early in this century). Modern reformed

TABLE 1.

ARABIC	COPTIC TRANSCRIPTIONS	
	NONFINAL POSITION	FINAL POSITION
<i>t</i>	θ	θ (τ)
<i>ṭ</i>	τ (θ)	τ
<i>k</i>	χ (κ)	κ
<i>q</i>	κ	κ



pronunciation does not articulate  $\tau$  "softly" at all; it is, rather,  $t$  or  $\dagger$  in all positions, in accordance with the Greek pronunciation.

## 2. The Vowels

$a$ ,  $\bar{a}$  if there is a *ḥarf mufahḥam* in the same syllable; otherwise,  $\epsilon$  (see Blau, 1979, p. 222, sec. 11, and remarks)

$i$   $\epsilon$ , occasionally  $\iota$

$\bar{i}$   $\bar{\iota}$

$u$   $o$ , occasionally  $oy$

$\bar{u}$   $oy$ , but also  $o$  if in the vicinity of a *ḥarf mufahḥam* (see remarks)

$ay$   $\Delta$  if preceded by a *ḥarf mufahḥam*; otherwise,  $\epsilon$  or  $\eta$  indiscriminately

$aw$   $\Delta Y$

**Remarks.** *Tafḥīm*, or the glottalizing effect, is a characteristic of the emphatics  $s$ ,  $d$ ,  $t$ ,  $z$ , uvular  $q$ , and, to a lesser extent, the postdorsal uvular consonants  $ḥ$  and  $ḡ$ , the pharyngeal sounds of  $\text{'}$  and  $h$ , and in many instances  $r$ . Although, for example, both Arabic  $s$  and  $\dot{s}$  are rendered by Coptic  $c$ , the transcription differentiates in rendering  $sa$  by  $ce$  and  $\dot{s}a$  by  $c\Delta$ . This proves beyond doubt that  $\Delta$  and  $\epsilon$  were pronounced differently in the Bohairic idiom which underlies the Coptic transcription.

Similarly, the later Arabic transcriptions make use of the Arabic emphatics to distinguish Coptic vowels for which there are no distinct Arabic graphemes. In the text published by Galtier (1905), the reader can be sure that an Arabic  $\dot{s}a$  renders  $c\Delta$ , whereas the Arabic  $s\bar{a}$  renders  $ce$  (or  $ch$ ) rather than  $c\Delta$ , more often than not. Similarly, both  $co$  and  $c\bar{o}$  are almost always rendered by  $s\bar{u}$ , whereas  $s\bar{u}$  is the regular equivalent of  $coY$ . The writer of the text published by Sobhy (1918) does not proceed consistently, but a tendency toward distinguishing  $\Delta$  and  $\epsilon$  is still clearly discernible. In the Coptic idioms underlying these transcriptions (though not necessarily the copies preserved, one of them perhaps from the early eighteenth century), the vowels  $\Delta$  and  $\epsilon$  were obviously pronounced in a different way. But coalescence of these vowels is attested as early as the mid seventeenth century. In the record done by Petraeus (1659) both letters are regularly rendered by  $a$ . The same is found in de Rochemonteix's (1892) and Sobhy's (1915 and 1918) records of traditional pronunciation. It is only in the modern reformed pronunciation that  $\Delta$  and  $\epsilon$  are again distinguished as  $a$  and  $e$  [ $\epsilon$ ], rendered by alif and  $y\bar{a}$ , respectively, in the popular *khulagis* which have an Arabic transcrip-

tion. Here, emphatics are only used to distinguish  $to$  and  $to$  (transcribed by  $\bar{t}\bar{u}$ ) from  $toY$  (transcribed by  $\bar{t}\bar{u}$ ).

## Conclusion

The evidence gained from the Bohairic transcription, the Arabic transcriptions of liturgical Bohairic, and transcriptions of this into the Latin alphabet from the mid seventeenth century onward corroborates many of the results that have been gained from other evidence (see BOHAIRIC).

The Bohairic consonants are voiceless, except  $m$ ,  $n$ ,  $\lambda$ ,  $p$ , and, if in a nonfinal position,  $\bar{b}$  (see below).

A "soft" articulation of the nonaspirate plosives is assumed for all Coptic dialects. This has been corroborated by the evidence of the Arabic transcriptions: the usual equivalent of  $\tau$  is Arabic  $d$  or  $\dot{d}$ . It may, however, be assumed that  $\kappa$  was not of the same "softness" as  $n$ ,  $\tau$ , and  $\chi$ ; it is rather often used to render Arabic  $k$  instead of  $\chi$ . Worrell (1934) thought it possible that Bohairic  $n$ ,  $\tau$ ,  $\chi$ , and  $\kappa$  were voiced whenever going back to Egyptian  $b$ ,  $d$ ,  $\dot{d}$  (=  $\check{g}$ ), and  $g$ , respectively. In the Coptic alphabet of the Arabic Apophthegmata, however, these signs represent voiceless stops: it is not  $\tau$  that is used for Arabic  $d$  but rather  $\Delta$  (a letter of the alphabet of Coptic Greek). If  $n$  is used for Arabic  $b$  and  $\chi$  for Arabic  $\check{g}$ , this may have been done by default, there being no voiced alternative available, in contrast to the case of  $\tau$ .

The problem of  $\chi$  is rather one of Arabic dialectology, as this letter has by and large been identified with  $\check{g}\bar{m}$ , a phoneme whose articulation varies greatly in the Arabic idioms of Egypt (see Woidich, 1980, pp. 207-208). De Rochemonteix's (1892) Upper Egyptian informants pronounced  $\chi$  as  $j$  ( $\check{g}$ ), though one informant offered a free(?) variant  $\check{z}$ . Sobhy (1918, p. 54), on the other hand, claimed that in Upper Egypt,  $\chi$  is  $j$  where it corresponds to Sahidic  $\chi$  but  $g$  where it corresponds to Sahidic  $\epsilon$  (but note that  $\chi\epsilon$  in the text he reproduces is  $\chi\epsilon$ , not  $\epsilon\epsilon$ , in Sahidic). In Lower Egypt,  $\chi$  preceding vowel  $i$  was pronounced as  $\check{g}$ , but otherwise it was  $g$ , according to Sobhy (1915, p. 18). A very similar rule applies in modern reformed pronunciation, which has  $\check{g}$  before  $i$  and  $e$ . This is remarkable indeed. As it cannot be explained by Arabic influence, it is obviously a testimony to internal Coptic development.

In the final position,  $n$ ,  $\tau$ ,  $\chi$ , and  $\kappa$  seem to have coalesced with the aspirates,  $\phi$ ,  $\theta$ ,  $\epsilon$ , and  $\chi$ , respectively. This, again, is corroborated by the evidence of the Arabic transcriptions.

As to aspirate stops, in the Arabic transcriptions, a (possibly late) tendency to pronounce  $\phi$  as a fricative, even in genuine Coptic words, is attested; it is sometimes rendered by Arabic  $f$  (corresponding evidence can be found with de Rochemonteix, 1892).  $\epsilon$  is not used for transcribing Arabic. It is rendered by  $\xi$  in Arabic, although the assumed pronunciation is  $\xi^h$ . This can be explained by the fact that Arabic (both classical and Egyptian) has no  $\epsilon$  phoneme, and the device of rendering the Bohairic phoneme by two Arabic phonemes (and, by consequence, two graphemes), namely  $t$  plus  $\xi$ , met with reluctance. Compare this to the use in modern Egypt of  $\xi$  to render Turkish  $\epsilon$  (which is  $\varsigma$  in the Turkish Latin alphabet; see Prokosch, 1983, p. 11). But somewhere the  $\epsilon$  articulation may have survived. Although both Petraeus (1659) and de Rochemonteix (1892) render  $\epsilon$  by  $\xi$  exclusively, Sobhy (1915, p. 18, and 1918, p. 52) heard  $[\epsilon]$  (though obviously not in  $\overline{\text{OC}}$ , which is  $\xi\text{ois}$ ). This could, however, be interpreted as a trait of the reformed pronunciation, which has the  $\epsilon$  sound (rendered  $t$  plus  $\xi$  in Arabic script), again with the exception of  $\overline{\text{OC}}$ .

It is assumed that  $\text{ⲉ}$  was pronounced as a voiced bilabial fricative,  $\beta$  (=  $\underline{b}$ ). This articulation was still noticed by de Rochemonteix in 1876–1877; Sobhy (1915 and 1918) noted that nonfinal  $\text{ⲉ}$  is pronounced as vocalic  $u$ , and never like the rounded  $w$  of Arabic. The evidence of the Arabic transcriptions is in agreement with this: initial  $\text{ⲉ}$  is rendered, not by  $w\ddot{a}w$  but rather by  $\text{alif plus } w\ddot{a}w$ , and once in the syllable-initial position hamza with kasra plus  $w\ddot{a}w$  ( $\text{ⲁⲙⲉⲱⲁⲗⲱⲱⲣⲧ}$ ,  $\text{ⲁⲙⲉⲱⲁⲗⲱⲱⲣⲧ}$ ): by indicating a short front vowel, the writer obviously hinted at a non-rounded articulation of the labial.

In the final position, however,  $\text{ⲉ}$  was not pronounced as a fricative (cf. Tuki, 1778, p. 3). This cannot be verified in the Apophthegmata transcription, as Arabic final  $w$  is realized as vocalic  $u$  in the pausal forms. But both in the transcriptions and in the records of traditional pronunciation, final  $\text{ⲉ}$  is rendered by the corresponding plosive (Arabic  $b$ ). It is not possible to say whether final  $\text{ⲉ}$  fully coalesced with final  $\phi$  or the former remained softer and/or unaspirated.

It is a very remarkable fact that at the time the Arabic transcription of the Galtier (1905) text was produced, Copto-Greek words were mostly pronounced according to rules similar to those of late koine and modern Greek.

In many words,  $\tau$  is rendered by the Arabic voiceless stops  $t$  or  $\text{ⲧ}$ . This indicates that it was not of soft

articulation, as it was in autochthonous Coptic words.

The voiced stops of Greek had developed into the corresponding fricatives in late antiquity:  $b > \beta$  ( $\underline{b}$ )  $> v$ ;  $d > \delta$  ( $\underline{d}$ ); and  $g$  before front vowels  $> \gamma$  ( $\underline{g}$ )  $> y$ , but otherwise  $> \gamma$  ( $\underline{g}$ ).

The relevant correspondences with Arabic signs can be explained by assuming a similar pronunciation of the Copto-Greek words (see especially for  $r$ ).

The aspirates of Greek had developed into the corresponding fricatives in late antiquity:  $p^h > \phi$  ( $\underline{p}$ )  $> f$ ;  $t^h > \theta$  ( $\underline{t}$ ); and  $k^h$  before front vowels  $> \varsigma$  ( $\underline{s}$ ), but otherwise  $> \chi$  ( $\underline{h}$ ).

For the Copto-Greek words in Bohairic, note especially that  $\phi$  was not rendered by Arabic  $b$ ;  $\theta$  was apt to render Arabic  $\text{ⲧ}$ ; and  $\chi$  was rendered by Arabic  $\xi$  (the sound value coming closest to  $\varsigma$  in Arabic) if preceding a front vowel, but otherwise by  $\text{ⲧ}$ .

One will be inclined to attribute the introduction of such "learned" usage to a rather late period of Coptic literacy—for example, a period of high philological interest, such as the thirteenth and fourteenth centuries. Note, however, that some of the misspellings in earlier Coptic (cf. Crum, 1939, pp. 48–49, 516, 540–41, 745) can hardly be explained otherwise than by assuming a tradition of "Neo-Greek" pronunciation. The question is, though, whether this pronunciation was applied to the Copto-Greek words in earlier times in the same matter-of-course way as in the Galtier (1905) text, for example.

Note that the informants of de Rochemonteix (1892) were not very consistent in the use of  $r$ ,  $\Delta$ , and  $\chi$  in Copto-Greek words, sometimes pronouncing them in the "Coptic" way, namely  $\underline{g}$  ( $< g?$ ), even when preceding back vowels;  $\underline{d}$  instead of  $\underline{d}$ ;  $k$  instead of  $\underline{h}$  or  $\varsigma$ .

Present-day liturgical recitation follows the rules of a reformed pronunciation. It is mirrored in the Arabic transcriptions that have replaced the Coptic characters in the popular *khulagis*. The values attributed to the Coptic signs appear systematic and uniform, making transcription almost a transliteration. Consonants are more or less rendered according to the Neo-Greek values.  $\text{ⲭ}$  is  $\underline{g}$  (spelled  $\overline{\text{ⲭ}}$ ) before front vowels  $i$  and  $e$ , but otherwise  $g$  (spelled  $\overline{\text{ⲭ}}$ ). Other values have been mentioned above. A conspicuous feature is the mechanical rendering of the *djinkim* by hamza:  $\text{ⲉⲃⲣⲏⲓ}$ , 'e'ehri;  $\text{ⲱⲉⲛⲓⲙⲟⲧ}$ , šep'ehmōt, and so on.

These modern innovations represent the greatest break in the history of Coptic pronunciation. But



TABLE 2.

ΑΡΙΤΕΝ	ἸΕΜΠΩΛ	ἸΧΟC	ῶΕΝ ΟΥΘΕΠ ῶΜΟΤ
1. *arīden	ənəmbšā	əndšós	ḥen ušebəhmôt
2. aridān	enembša	engos	ḥan ušabehmot
3. aritēn	'en'empšā	'engōs	ḥen 'ušep'ehmôt
ΔΕ ΠΕΝΙΩΤ	ΕΤῶΕΝ ΝΙΦΗΟΥΙ	ΜΑΡΕΤΟΥΒΟ	
1. dšebeniôt	ethen nip <sup>h</sup> ēui	marefdubó	
2. ḡa baniôt	adḥan nifāui	marafdūo	
3. ḡe penyôt	'ethen nifi'ui	mareftuvô	
ἸΧΕ ΠΕΚΡΑΝ	ΜΑΡΕCΙ	ἸΧΕ ΤΕΚΜΕΤΟΥΡΟ	
1. əndše bek <sup>h</sup> rān	maresī	əndše dek <sup>h</sup> meduró	
2. enḡa bakrān	marasī	enḡa dakmadūro	
3. 'enḡe pekrān	mares'ī	'enḡe tekmet'urô	
ΠΕΤΕΝΑΚ	ΜΑΡΕΦΩΠΙ	ἸΜΦΡΗΤ	
1. bedehnák <sup>h</sup>	marefšóbi	əmp <sup>h</sup> rēi	
2. bedehnak	marafšóbi	emebrādi	
3. petehnāk	marefšôpi	'emefrīti	
ῶΕΝ ΤΦΕ	ΝΕΜ ῶΙΧΕΝ	ΠΙΚΑῶΙ	
1. ḥen tp <sup>h</sup> é	nem hidšen	bikāhi etc.	
2. ḥan etba	nem hiḡan	ebkahi etc.	
3. ḥen 'etfi	nem hiḡēn	pi kāhi etc.	

whereas present-day liturgical recitation would perhaps not be comprehensible to the ears of a medieval Copt, this would certainly not be true of traditional recitation even as it was heard in this century. Although it cannot be denied that changes had occurred—because of the influence of Arabic and internal development—the ancient tradition had been preserved in an astonishing measure. An example (Table 2) will serve best to clarify this.

The first line of the example is a reconstruction of what the beginning of the Lord's Prayer may have sounded like in classical times. But note that the phonetic rendering is quite imprecise. Voiceless stops [b, d] are meant by *b* and *d*; what is written *f* is thought to be a bilabial fricative [ɸ]; short *e* and *o* are open vowels [ɛ, ɔ]; *ē* was rather an *ae* sound (or perhaps even *æ*; cf. Vycichl, 1936).

The second line renders Sobhy's (1915, p. 19) record in the conventions used here (*š* for *sh*, etc.). An Upper Egyptian pronunciation ḡ has been assumed for *x*.

The third line is a rendering of modern church recitation as it is transcribed in Arabic script in the popular *khulagis*.

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