CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

Part I

Phonemes and Phones

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

1. Coptic

Any study of ancient Egyptian phonology must be based on Coptic, because that is phonologically the most transparent stage of the language. Coptic is written in an alphabet derived from the Greek, with additional signs from Demotic primarily for sounds not present or not represented in Greek. It appears fully formed in the third century AD but has written antecedents at least six centuries earlier.[1] Coptic had six major dialects: Akhmimic (A), Bohairic (B), Fayumic (F), Lycopolitan (L, formerly Subakhmimic A_2, also known as Lyco-Diospolitan), Oxyrhynchite (or Mesokemic, M), and Saidic (S). These vary from one another grammatically in some respects, but mainly phonologically.

Graphemes

The graphemes found in texts from the six major Coptic dialects are the following, in the order of the Greek alphabet:

1 Most recently, Quack 2017. The antecedents are often termed "Old Coptic" (OC).

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

COPTIC	VAR/ALT	GREEK	COPTIC	VAR/ALT	GREEK
ⲁ	ⲉ	A	ⲣ	ⲗ	P
ⲃ	ⲟⲩ, ⲫ, ⲡ	B	ⲥ	ⲍ, ⲯ	Σ
ⲅ	ⲕ	Γ	ⲧ	ⲇ, ⲑ, ⲫ	T
ⲇ	ⲧ	Δ	ⲩ	ⲉ, ⲓ, ⲏ	Y
ⲉ	ⲁ, –	E	ⲫ	ⲡϩ; ⲡ; ⲡ (B)	Φ
ⲍ	ⲥ	Z	ⲭ	ⲕϩ; ⲕ; ⲕ (B)	X
ⲏ	ⲓ, ⲉ, ⲩ, ⲁ	H	ⲯ	ⲡⲥ	Ψ
ⲑ	ⲧϩ; ⲧ; ⲧ (B)	Θ	ⲱ	ⲟ	Ω
ⲓ	ⲉ	I	ϣ	ⲥ	
ⲕ	ⲅ, ⲃ, ⲭ	K	ⲫ	ⲃ, ⲟⲩ	
ⲗ	ⲣ	Λ	ϩ	ϩ, ϧ	
ⲙ	ⲛ	M	ϫ (A)	ϩ, ϣ	
ⲛ	ⲙ	N	ϧ (B)	ϩ, ϣ	
ⲝ	ⲕⲥ	Ξ	ⲭ	ⲧϣ, ⲃ	
ⲟ	ⲟⲩ	O	ⲃ	ⲭ; ⲭ (B)	
ⲡ	ⲃ, ⲫ	Π	ⲑ	ⲧⲓ	

The graphemes ⲅ, ⲇ, and ⲍ are used mainly in Greek loanwords, but ⲅ and ⲍ also occur as variants of ⲕ and ⲥ, respectively: e.g., ⲁⲛⲕ/ⲁⲛⲅ "I," ⲁⲛⲍⲏⲃⲉ/ⲁⲛⲥⲏⲃⲉ "schoolroom." The graphemes ⲝ, ⲫ, and ⲑ are monograms in all dialects, for ⲕⲥ, ⲡⲥ, and ⲧⲓ, respectively.

The graphemes ⲃ, ⲫ, and ⲭ are monographic for ⲧϩ, ⲡϩ, and ⲕϩ, respectively, in all dialects except Bohairic, where they replace ⲧ, ⲡ, and ⲕ, respectively, in certain words and phonetic environments: for example, B ⲫⲏⲟⲩⲓ vs. AM ⲡⲏⲟⲩⲉ, F ⲡⲏⲟⲩⲓ,

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

LS ⲡⲏⲩⲉ "heaven." Bohairic also has a similar alternation between its ⲥ and the ⲭ of other dialects: e.g., B ⲥⲛⲟⲩ vs. AFLS ⲭⲛⲟⲩ "ask."

The graphemes ϩ and ϧ exist in Akhmimic and Bohairic, respectively; they are replaced by ϩ or ⲯ in other dialects: e.g., A ϩⲉ, B ϧⲉ, F ϩⲓ, LMS ϩⲉ "manner" and A ϩⲱⲡⲉ, BF ⲯⲱⲡⲓ, LS ⲯⲱⲡⲉ, M ⲯⲟⲡⲉ "become."

In some dialects, the grapheme ⲓ is also spelled ⲉⲓ, as well as ⲓ̈ before or after a vowel: e.g., AL ⲓⲛⲉ, BF ⲓⲛⲓ, AMS ⲉⲓⲛⲉ "bring"; AFM ⲡⲉⲓ̈, B ⲫⲁⲓ, L ⲡⲉⲉⲓ, S ⲡⲁⲓ̈ "this." The grapheme ⲩ is used primarily in ⲟⲩ, representing [u] and [w], and after vowels: ⲁⲩ/ⲁⲟⲩ, ⲉⲩ/ⲉⲟⲩ, ⲏⲩ/ⲏⲟⲩ, ⲟⲟⲩ, and ⲱⲩ/ⲱⲟⲩ; it occurs by itself either in Greek loan words or as a variant of ⲉ, ⲏ, or ⲓ: e.g., F ⲧⲉⲃⲛⲏ ~ ⲧⲩⲃⲛⲏ "animal."

A graphemic feature of most Coptic dialects is a supraliteral stroke (e.g., ⲙ̄) or, in Bohairic, a dot or acute accent (e.g., ⲙ̇/ⲙ̀). Both are used in some manuscripts to mark a grapheme that represents a syllabic consonant or a separate syllable: for example, B ⲛ̇ⲑⲟⲕ, S ⲛ̀ⲧⲟⲕ "you." In some cases, the supraliteral mark varies with ⲉ both within and across dialects: e.g., A ϩⲛ̄, B ϧⲉⲛ, F ϩⲉⲛ, FLMS ϩⲛ̄ "in."

Phones

The phonetic value of Coptic graphemes can be deduced from both the Greek graphemes on which they are based and from language-internal instances of alternation and variation.

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

For the former, it is clear that Coptic graphemes do not always represent the values they had for Greek speakers in the era when Coptic is first attested, but rather those of the Greek language some six centuries earlier.[4] The phonetic value of some Greek graphemes changed between the Classical age (fifth and fourth centuries BC) and the Koine period (third century BC to third century AD), and the Coptic values are for the most part those of the older language:[5]

Greek Grapheme	Classical Value	Koine Value	Coptic Grapheme	Coptic Value
Γ	[g]	[ɣ]	ⲅ	[k]
Δ	[d]	[ð]	ⲇ	[t]
Η	[ɛː]	[ɪ, i]	ⲏ	[ɛ, e]
Θ	[tʰ]	[θ]	ⲑ	[tɦ], [tʰ]
Φ	[pʰ]	[ɸ, f]	ⲫ	[pɦ], [pʰ]
Χ	[kʰ]	[x]	ⲭ	[kɦ], [kʰ]

These correspondences agree with the earliest evidence for Egyptian words and texts written in the Greek alphabet during the Ptolemaic Period, and they argue for the preservation of that scribal tradition even as the pronunciation of Greek itself evolved.

4 Satzinger 2003.

5 Allen 1987, 12–32, 62–79; Horrocks 2010, 117–20. This study uses the symbols of the International Phonetic Alphabet, between square brackets, to indicate pronunciation, with the exception that post-syllabic ′ is used to mark stress: e.g., ⲙ̄ⲧⲟⲛ [m-tɔn′].

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

Greek words that appear in Coptic texts, however, generally reflect contemporary Koine phonology, clearly indicating that the Greek characters used for Coptic sounds in the third century did not derive from contemporary Greek: for example,

Greek	Classical Value	Koine Value	Greek Example	Coptic Rendering		
AI	[ai]	[ɛ]	δίκαιος	ⲇⲓⲕⲉⲟⲥ	[ti′-kɛ-ɔs]	“just”
B	[b]	[β, v]	βλάπτειν	ⲫⲗⲁⲡⲧⲉⲓ	[ϕlap′-ti]	“hinder”
H	[ɛ:]	[ɪ, i]	ἐπιστήμη	ⲉⲡⲓⲥⲧⲏⲙⲉⲓ	[ɛ-pis-ti′-mi]	“prudence”
OI	[ɔi]	[ɪ, i]	ἑτοῖμος	ϩⲉⲧⲉⲓⲙⲟⲥ	[ħɛ-ti′-mɔs]	“ready”
Y	[y]	[ɪ, i]	πύλη	ⲡⲓⲗⲓ	[pi′-li]	“gate”
X	[k^h]	[x]	χαρακτήρ	ϧⲁⲣⲁⲕⲧⲏⲣ	[xa-rak-ter′]	“mark”

Of vowels, ⲉ is the most common, as well as the most common Coptic grapheme. Its correspondence with Koine [ɛ], as in ⲇⲓⲕⲉⲟⲥ for δίκαιος, indicates that it had a similar value in Coptic. Its use as a variant of the signs for a syllabic consonant, however, point to a realization closer to [ə]: e.g., S ⲙ̄ⲧⲟⲛ ~ ⲉⲙⲧⲟⲛ “rest” [m-tɔn′] ~ [əm-tɔn′]. Its value may therefore have encompassed, and lain between, mid-central [ɛ] and [ə], with realization probably conditioned by both dialect and phonological environment. ⲉ also occurs as a variant of ⲁ, both within and across dialects – for example, S ϫⲁⲥⲧⲟ, M ϫⲉⲥⲧⲟ “exalt him” (Matt. 23:12). This suggests a phonetic value for ⲁ close to that of ⲉ, probably back central [a] ~ [æ]. Coptic ⲏ was likely pronounced [ɪ/i] in Greek loanwords, and this may account for its occasional variance with ⲓ in Coptic

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

words – e.g., S ⲛⲏⲃⲉ ~ ⲛⲓⲃⲉ "swim" – but it also varies with ⲉ and ⲁ – e.g., S ⲣⲁⲧ ~ ⲣⲉⲧ ~ ⲣⲏⲧ "foot" – and was therefore most likely close in value to those vowels in native words, probably ranging between [ɛ] and [e]. The other vowels correspond to their Greek counterparts in loanwords and presumably had similar phonetic realizations: ⲓ [ɪ/i], ⲟ [ɔ], ⲟⲩ [u], and ⲱ [o].

The consonants represented by Greek letters correspond pretty much to their pre-Hellenic ancestors. ⲅ, ⲇ, and ⲍ were probably pronounced like ⲕ, ⲧ, and ⲥ, respectively, judging from their variance with those graphemes in Coptic words. ⲃ alternates with ⲡ and varies with ϥ and ⲟⲩ: A ⲟⲩⲁⲁⲃⲉ, B ⲟⲩⲁⲃ, FLS ⲟⲩⲁⲁⲃ, M ⲟⲩⲉⲃ "pure" and A ⲟⲩⲁⲡ, S ⲟⲩⲟⲡ "become pure"; S ⲱⲃⲧ ~ ⲱϥⲧ "goose"; B ⲟⲩⲓⲥⲓ ~ ⲃⲓⲥⲓ, S ⲟⲩⲉⲓⲥⲉ ~ ⲃⲓⲥⲉ "saw." The alternation suggests a phonetic realization not only as a stop ([b] → [p]) but also as a bilabial fricative [β], which explains its variance with ⲟⲩ. Variation with ϥ suggests that the latter may also have been bilabial, distinguished from ⲃ by voicing. Thus, ⲃ → [b]/[p]/[β] and ϥ → [ɸ].

The values of the other graphemes derived from Demotic can also be deduced from variances and correspondents: ⲯ [ʃ] (Arabic أشمون *ašmūn* from ⲯⲙⲟⲩⲛ "Hermopolis"), ⲋ [ħ] (ⲋⲉⲃⲣⲱⲛ for חֶבְרוֹן *ḥebrōn* "Hebron"), ⲭ [tʲ] (F ⲭⲟⲩⲓⲁ, B ⲧⲯⲟⲩⲓⲉ "dry" – [tʲ] ~ [tʃ]), ⲫ [kʲ] (S ⲫⲁⲫⲁⲣⲉⲛ from Greek φακιάριον "turban"[6] – [kia] → [kʲa]).

6 Girgis 1967–1968, 58.

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

In most dialects, ⲫ ⲑ ⲭ are monograms for ⲡϩ ⲧϩ ⲕϩ, respectively; AFLS ⲡϩⲱⲃ and M ⲡϩⲟⲃ "the (ⲡ) thing (ϩⲱⲃ/ϩⲟⲃ)," for example, can also be spelled ⲫⲱⲃ/ⲫⲟⲃ. In Bohairic, however, they represent, like their Greek ancestors, the aspirated counterparts of ⲡ ⲧ ⲕ, respectively. Aspiration occurs before a stressed vowel and before a sonant (ⲃ ⲗ ⲙ ⲛ ⲣ) or ⲟⲩ and ⲓ/ⲉⲓ preceding a stressed vowel:[7] e.g., ⲫⲁⲓ [pʰai] "this one" vs. ⲡⲁⲓⲣⲱⲙⲓ [pai-ɾoʹ-mi] "this man," ⲭⲃⲱϣ [kʰβoʃ] "you loosen" vs. ⲕⲥⲱϥ [ksoɸ] "you defile." Similarly, in Bohairic ϭ is [tʰʲ], the aspirated counterpart of ϫ [tʲ]: e.g., B ϭⲓⲥⲓ "exalt" (ALMS ϫⲓⲥⲉ, F ϫⲓⲥⲓ). Its phonetic value in that dialect can also be gauged from variants such as ⲙⲟⲣϭⲛⲁⲩϩ ~ ⲙⲟⲣϣⲛⲁϩ [mɔrʹ-tʰʲnawħ] ~ [mɔrʹ-šnaħ] "scapular" ([tʰʲ] lenited to [ʃ]) and ϭⲱⲛⲧ ~ ϫⲱⲛⲧ [tʰʲoʹ-nt] ~ [tʲoʹ-nt] "try" ([tʰʲ] deaspirated to [tʲ]).

The alternation of ⲫ ↔ ⲡ is environmentally conditioned and therefore reflects a single phoneme, but the other alternants are phonemic: B ⲑⲱⲣⲓ "willow" vs. ⲧⲱⲣⲓ "handle," ϫⲣⲱⲙ "fire" vs. ⲕⲣⲱⲙ "safflower," ϭⲟ "plant" vs. ϫⲟ "hunchback." The phonemic status of the aspirates is reflected in their preservation where environmental aspiration is not required: e.g., ϭⲓⲥⲓ [tʰʲiʹ-si] "exalt" and ϭⲉⲥⲫⲛⲟⲩⲧ [tʰʲɛs-pʰnuʹ-ti] "exalt God."

7 Shisha-Halevy 1991, 54. In turn, therefore, aspiration was perhaps neutralized in other environments, similar to [tʰ] ~ [t] in American English: e.g., *hat* [hætʰ] vs. *hatter* [hætʹ-ɹ].

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

Aspiration is not visible in the other dialects: for example, B ⲑⲱⲣⲓ vs. S ⲧⲱⲣϩ "willow," B ϫⲣⲱⲙ vs. F ⲕⲗⲱⲙ and S ⲕⲣⲱⲙ, B ⲟⲓⲥⲓ vs. ALMS ϫⲓⲥϩ and F ϫⲓⲥⲓ. Whether this reflects an absence of aspirates in these dialects or merely a graphemic neutrality (i.e., AFLMS ⲧ representing both [t] and [tʰ]) is not self-evident. The fact that these dialects use graphemes derived from the unaspirated graphemes of (Classical) Greek (κ, π, and τ) might suggest the former. Arabic renderings of Coptic words, however, sometimes show a correspondence between [t] and *ṭ*, on the one hand, and [tʰ] and *t*, on the other: e.g., A ⲧⲱⲃϩ, B ⲧⲱⲃⲓ, S ⲧⲱⲱⲃϩ/ⲧⲱⲃϩ "brick" ≙ Arabic طوبة *ṭūba*; B ⲑⲁⲕ, S ⲧⲁⲕ "spit" ≙ تف *taff*.[8] This may or may not reflect the influence of Bohairic,[9] but it is also visible in place-names from non-Bohairic areas: e.g., S ⲥⲓⲟⲟⲩⲧ "Asyut" ≙ أسيوط *asyūṭ*.[10]

PHONOTACTICS

Coptic words have a single nodal stress around which everything else is reduced as much as is possible phonetically: e.g., S ϩⲟⲉⲓⲛⲉ [ħɔi′-nɛ] "some" + ⲣⲱⲙⲉ [ɾo′-mɛ] "man" + ϯⲙⲉ [ti′-mɛ] "village" → ϩⲉⲛⲣⲙϯⲙⲉ [ħɛn-rm-ti′-mɛ] "villagers." In

8 Bishai 1964, 46.

9 The prevalence of Bohairic in the north at the time of the Arab conquest has also been called into question: Kahle 1954, 249–52.

10 B ⲥⲓⲱⲟⲩⲧ. The association of Arabic *ṭ* with unaspirated [t] is also visible in Greek Πτολεμαίος "Ptolemy" ≙ Arabic بطليموس *baṭlaimūs*. Cf. also Bishai 1964, 41: "The velarization of ⲧ is normal owing to its unaspirated nature."

© in this web service Cambridge University Press & Assessment www.cambridge.org

CAMBRIDGE
Cambridge University Press & Assessment
978-1-108-70730-5 — Ancient Egyptian Phonology
James P. Allen
Excerpt
More Information

native words, the vowels ⲟ, ⲱ, and usually ϩ carry primary stress; the other vowels can be stressed or not: e.g., SB ⲁⲛⲁϣ [a-naʃ′] "oath," SBF ⲉⲛⲉϩ [ɛ-nɛħ′] "eternity," BF ⲓⲛⲓ [i′-ni] "bring," ABFLMS ⲟⲩⲛⲟⲩ [u-nu′] "hour."

A basic distinction in Coptic words is between stressed syllables that end in a vowel (open) and those that end in a consonant (closed). These have an effect on vowel quality for the following pairs:

CLOSED	OPEN	EXAMPLES
ⲁ/ⲟ	ⲱ	AFL ϲⲁⲛ, BS ϲⲟⲛ "brother" vs. ALS ϲⲱⲛⲉ, BF ϲⲱⲛⲓ "sister": [san/sɔn] vs. [so′-nɛ/so′-ni]
ⲉ/ⲁ	ϩ	AFLM ϩⲣⲉⲕ, BS ϩⲣⲁⲕ "your (ms) face" vs. ABFLMS ϩⲣⲏⲧⲛ̄ "your (pl) face": [ħrɛk/ħrak] vs. [ħre′-tn̩]
ⲉ/ⲁ	ⲓ	AFLM ϫⲉⲥⲧⲟⲩ, S ϫⲁⲥⲧⲟⲩ "exalt them" vs. ALMS ϫⲓϲⲉ, F ϫⲓϲⲓ "exalt": [tʲɛs′-tu/tʲas′-tu] vs. [tʲi′-sɛ/tʲi′-si]

These alternants have traditionally been described as "short" (ⲁ ⲉ ⲟ) and "long" (ϩ ⲓ ⲱ) vowels.[11] In Oxyrhynchite, however, the first alternation usually does not occur, while the second and third do: M ϲⲟⲛ "brother" vs. M ϲⲟⲛⲉ "sister." This indicates a difference in vowel quality rather than length: probably lax (−T) ⲁ ⲉ ⲟ versus tense (+T) ϩ ⲓ ⲱ. The

11 The classic study is Edgerton 1947 (published before the description of Oxyrhynchite).

© in this web service Cambridge University Press & Assessment www.cambridge.org