SYLLABICATION. It is common knowledge that the syllabication of a language is always closely related to its phonology. This appears at once in the definition of “syllable” given by the phonologist Grammont (1939, pp. 99-103): “A syllable is a sequence of increasing apertures followed by a sequence of decreasing apertures.” This occurs without the degree of aperture necessarily increasing to the point where the decrease begins or diminishing from this point to the end of the syllable; in both increase and decrease two phonemes of the same aperture may follow one another (cf. below). Grammont then added: “Moreover, a phoneme of given aperture may be followed by a phoneme of smaller aperture in the increasing part, and by one of greater aperture in the decreasing part. . . . There is no syllable without a vocalic point, and in phonology there is no syllable without a vowel. . . . This vowel always appears at the vocalic point, and. . . . when it is the only one, it is always the phoneme of maximum aperture in the syllable and the first the tension of which is decreasing. But it is not uncommon to find in phonetics, that is, in languages, syllables which have no vowel [such as] the French interjection psst!” Here s is increasing since some pronounce this word [psst] while the pronunciation [psst] never appears in French; the vocalic point of this word therefore lies between s and t, for “the vocalic point always appears at the transition from the last increasing phoneme to the first decreasing phoneme. . . . Every time the phoneme which has the largest aperture in the syllable is not a vowel, it does not become a vowel through its position, but it has the vocalic point beside it, and is itself now increasing, now decreasing.”

Grammont extended this principle even to the sonorants (= consonant[s] on the level of phonological function) /b/, /l/, /m/, /n/, and /r/, to which he refused to attribute any capacity for becoming vowels on the level of phonological function, and hence sonant (/β/, /l/, /m/, /n/, and /r/), according to the terminology of Kasser, following Dieth (1950, pp. 379-80). It will be noted that even in these definitions appear the data essential for solving the problems of Coptic syllabication.

In any discussion of a dead language like Coptic, which can only be known from written texts, to say that its syllabication is always closely related to its phonology is to make a gratuitous statement that leads to nothing if it is not admitted that the phonology can be determined with considerable clarity through the various orthographic systems (generally considered dialectal) of the texts in the dead language. This is admittedly a working hypothesis, but is still very widely accepted because it is much more probable and fruitful than the contrary hypothesis (Loprieno, 1982). It is therefore permissible to lay down here the principle that the syllabication of Coptic (or, rather, that of its various “dialects,” in the traditional sense of the term) is to be found in a rather close relationship with its orthography (or the various dialectal orthographic systems).

Before going further in the examination of Coptic syllabication, it is appropriate to recall that the normal phonology of a language is evidently that which governs the language in its most natural spoken utterance, hence in rapid speech. There are in any language two kinds of utterance (cf. Kasser, 1982a-b). Rapid speech is characterized by, among other things, the use of the glides (/j/ and /w/ in Coptic) and aleph (except in the idioms M, W, V, F4, and B, which have completely abandoned it). The syllabication that rapid speech entails is “tachysyllabication” (producing tachysyllables, siglum t/syl). Slow speech is characterized by, among other things, the abolition of the glides and aleph, the first being replaced respectively by /l/ and /u/, the second by an atomic vowel identical with the tonic vowel that precedes it; this speech is clearly artificial, but if it is not that of normal phonology, it has nevertheless contributed powerfully to the shaping of the orthography, the only surviving witness (unfortunately indirect) for tachysyllabic phonology. The syllabication that slow speech entails is “bradsyllabication” (producing bradsyllables, siglum br/syl).

Certainly the tachysyllables (the only ones truly interesting for phonology) ought to be the syllables of Coptic as a living language, in its most common use in ordinary “prose.” Since Coptology came into existence as a science, it has never been possible to make them the object of direct investigation, because Coptic has been too long since a dead language. Thus, the grammarians (e.g., Stern, 1880, p. 39; Till, 1955, pp. 49-50; Vergote, 1973-1983, Vol. Ia, p. 44) have reconstructed it, for want of anything better, on the basis of theoretical and analogous
reasoning (in some cases comparative), by taking into consideration the vocalic and consonantal phonemes (including eventual cryptophonemes), taking account of the graphemes not merely according to their graphic kind ("vowel" or "consonant" graphemes) but according to their phonological function (vocalic or consonantal) (Marouzeau, 1951, p. 209; Kasser, 1981c), and by observing their syllabic combinations in various living languages or in dead ones phonologically better known than Coptic.

The bradyssyllables, as the result of artificial and abnormally slow enunciation, could be, among other things, the syllables of recited Coptic "poetry," but like the t/syl. they equally evade direct observation. But, above all, it seems probable that the br/syl. were those of the syllabication practiced by the scribes in their work, since bradyssyllabication (alongside other factors) to a large extent conditions the orthography; in fact, the creation and fixation of an orthography is of necessity accompanied by an intense effort of reflection and phonemic analysis, which goes hand in hand with an artificially slow articulation.

The majority of t/syl. phonemes could have remained identical br/syl. phonemes, but a minority of them was modified for this purpose. In fact, it seems (in Coptic and in various other languages, at least modern ones) that a glide can exist only in t/syl., and if it is necessary to pass to br/syl., one passes immediately and of necessity from the glide to the corresponding glideant (Kasser, 1981c, pp. 37–38): for example, *'wot/; father, t/syl. /jɔt/ (monosyllabic), but br/syl. /jɔt/ (disyllabic); *'tɔm, to eat, t/syl. /wɔm/ (monosyllabic), but br/syl. /jʊt/ (disyllabic); and aleph, which survives only in t/syl. and becomes an "aleph vowel" in br/syl., as in *'oon, being, t/syl. /ʊoʊp/ (monosyllabic), but br/syl. /ʊʊp/ (disyllabic). At the same time, since orthography and the signs it uses are strongly influenced by br/syl., one should not be astonished if the different varieties of the Coptic alphabet are found to correspond in principle only to the phonemes found in br/syl. and these alphabets (except for Π = /p/ in P) are found to lack the graphemes that might render the cryptophonemes, or phonemes that have disappeared in the transition t/syl. > br/syl.

One must now return to tachysyllabication, which alone is really important in phonology. In regard to the latter, it may be said that the way in which various Coptologists have considered it is, in general, somewhat variable, the various theses being supported by divergent arguments, none of which can be lightly set aside.

Some phonologists, perhaps moved more than others by a concern to facilitate comparison of Coptic (the latest form of Egyptian) with pharaonic Egyptian, according to Coptic orthography only a rather approximate indicative value. This relative imprecision affords them the appreciable advantage of, to some extent, "unifying" the Coptic language (as opposed to ancient Egyptian as it is known through its writings, a language also considered "one" and not divided dialectally in its literary form); they consider as phonologically insignificant certain phonological differences that belong to the domain of the various "dialects," in the traditional sense of the term (cf. Loprieno, 1982, p. 79: "The methodology applied can for example show that the phonological structure /sɔm/ is common Coptic, and that differences like S COPTH, B COPTH, and A COPTH are purely graphic variants"). Another by no means negligible advantage is that it brings Coptic phonology (thus neatly "unified") closer to pharaonic Egyptian (which is unified to the extent that hieroglyphs and the like allow one to know it).

Other phonologists tend to consider Coptic orthography as a much more precise criterion of phonological knowledge, which has, as a result, somewhat increased the distance established between Coptic phonology (thus conceived) and the phonology of pharaonic Egypt.

Hintze (1980, p. 58) had the great merit of attempting what may appear as a way of reconciling these divergent positions, by presenting his conception of a Coptic phonology on several levels, a phonology in some sense "stratified" (cf. Kasser, 1981b), the term "Coptic" being understood in a very wide sense, including also proto-Coptic and pre-Coptic. In this passage Hintze distinguished with great perspicacity the successive layers of Coptic phonology as they can be reconstructed on the basis of the traces they have left in the surface layer (the most recent layer, attested in the strict sense by the various Coptic "dialectal" orthographic systems) and on the basis of what is known of pharaonic Egyptian phonology; among those layers that may be called "underlying," it is evident that the highest (the most recent) will be the most similar to the surface layer, with its diversity of dialectal phonology, while at the deeper levels the dialectal phonological differences do not yet appear.

Relying on this attractive conception of a Coptic phonology on several levels, one may, among other things, present side by side (without the opposition synonymous with exclusion) a "superficial syllabication" (siglum syl/sup.), corresponding to the superfi-
cial phonology, and an "underlying syllabication" (siglum syl/und.), corresponding to the underlying phonology. On numerous points these two types of syllabication are in complete accord. Elsewhere, however, they diverge. On the one hand, in syl/sup., autosyllabic ɾ, ɾ, ɾ, and f (generally marked with a stroke—or in the case of h and n, with a diacritic or some other sign—as ɾ, or ɾ, or ɾ, etc., or ɾ, etc.) or ɾ, ɾ, ɾ, and f capable of forming the apex of a syllable (by themselves as sonants, according to Polotsky, 1933, p. 126 [probably]; Dieth, 1950, pp. 379–80; and Kasser, 1981c; or through their vocalic point, according to Grammont, 1939, pp. 99–103) have the phonological value v (vowel). But the phonemes rendered by these graphemes are assimilated to voiced c (consonants) preceded by /a/, and hence have the value ve (vowel plus consonant, respectively /aə/, /aɪ/, /aɪ/, /aʊ/, /aʊ/) in syl/und. (Vergote, 1973–1983, Vol. 1a, pp. 45–46). Vergote gave to this vocalic point, in the absence of a vowel grapheme, the same phonological value as atomic ɾ = /a/; for example, ɾ (in ɾ[T], artabe) syl/sup. v /ɾ/, syl/und. ve /aɾ; ɾɪɾɪti, the worm, syl/sup. cvcc /pɾɪɾɪti/, syl/und. cvcc /pɾɪɾɪti/.

On the other hand, in syl/sup., it is permissible to think that certain groups of consonants cannot, in the absence of v, properly speaking form a syllable together (at least in tachysyllabication, although they have probably acquired this capacity in bradysyllabication); according as these c are together increasing or decreasing, they will be attached to the following or preceding v to form a syllable. (It is here understood that a c certainly increasing followed by one certainly decreasing could form a syllable with a vocalic point not marked by a vowel grapheme, cf. Grammont, 1939, p. 102, and below; this case is practically always improbable in syl/und.—bradysyllabication excluded—comparison of the different "dialectal" orthographies being of no use in this matter, since, with equal lexemes, the same phoneme may well be increasing in one idiom but decreasing in another—this inversion of aperture being precisely one of the criteria for possible distinction between the dialects, such as /m/ decreasing in S skl<s, to hear, increasing in A <skl<s.> But these groups of c most often form a syllable (syl/und.) in underlying syllabication (as also in bradysyllabication; cf. above), because etymology or interdiallectal comparison (some other idiom having a vowel grapheme there) invites one to consider the first of these c as increasing and the following as decreasing, so that there is a vocalic point there that in syl/und. will be marked by /a/ even in the absence of any vowel grapheme (cf. above with reference to Vergote, 1973–1983, Vol. 1a, pp. 30–32) in the orthography: for example, cvcc /sɔtʃp/, disyllabic syl/und. cv cvcc /sɔː tʃp/.

All that precedes is based on the principle according to which a syllable cannot exist without an apex around which the elements of the syllable gather. On the one hand, this apex may be its phoneme of strongest sonority; on the other, the syllable (then called a "syllable of junction"; Kasser, 1982a, n. 7 and 26) may regroup, disregarding the limits of the lexemes, various graphemes and phonemes that belong to several different "words" (semantemes and morphemes), such as oyəšə dəmə, a sigh, semantically oy xə dəmə, but syllabically rather t/syl. oyə xa dəmə /wa ša hom/.

None will dispute that the apex of the syllable may be a v = vowel grapheme (which is by far the most common case in Coptic, as in most other languages). In Coptic again it will be noted that this role of v may be played fairly often by a sonant (= v, according to Polotsky, 1933, p. 126, Dieth, 1950, pp. 379–80, Kasser, 1981c; = decreasing [voiced] c, having then beside it or in front of it the vocalic point that serves as v, according to Grammont, 1939, pp. 99–103, Vergote, 1973–1983, Vol. 1a, pp. 31–32, 45–46). Opinions are most at variance when the presumed apex of the syllable, assumed to be formed solely of consonantal graphemes, is not a voiced c but a fricative or, worse still, an occlusive. Polotsky (1933, p. 128) seemed to admit the possibility that these voiceless c (sometimes even voiceless stops) may play the role of sonants: "In and for itself it is a peculiarity of Coptic that in atomic and especially posttonic syllables it admits simply any consonant as the apex of the syllable." (Dieth, 1950, pp. 379–80, did not exclude this in theory, although he limited to the extreme the realization of such an eventualitiy: "Practically excluded are the poorest in sound"—i.e., the stops.) Vergote (1973–1983, Vol. 1a), following Grammont (1939), arrived at almost the same conclusion, although he placed the apex of the syllable not on the fricative or stop but on the vocalic point, which phonologically (though not graphically) exists alongside them. However that may be, the admission of this possibility ought not to be widely opened except in syl/und. and should not be a motive for unduly limiting, or even eliminating, the possibility of having two successive c at the beginning and/or end of a syllable in syl/sup. (Steindorff, 1951, p. 36, excluded it, however, at the end of a syllable).
Those who consider Coptic orthography as a relatively and sufficiently precise criterion for phonological knowledge will naturally tend to admit in syll/ sup. the minimum of possible cases of syllables called "surdisonant" (cf. Kasser, 1981c, p. 43) or even practically to exclude them. In this respect, they will be able to draw support, in all cases partially, from Stern (1880, p. 39). whose statement, however, seems ambiguous: "The syllable [in Coptic] is either open, ending in a vowel or diphthong, or closed by one or more consonants. Where it ends in two or three consonants, pronunciation is sometimes facilitated by the insertion of an e without signification, a shwa mobile, although this is usually left unwritten, as in Coptic, presumably pronounced sopef. A syllable may begin with one or more consonants; but later pronunciation usually prefixes an e to the opening double consonant, and this is sometimes also written, e.g.,... otopko for otopko.... Beginning with three consonants, as in expect : copen (- to rest) is an abnormality." From this passage it clearly emerges that for Stern there are syllables beginning or ending in cc or ccc, even if the latter are rare and indeed exceptional, and even if the difficulty of pronouncing them soon gave birth to a tendency to divide them into several syllables less awkward to pronounce by adding an e (or phonetically a kind of [a], which did not appear in writing) as the apex of a supplementary syllable (a relief syllable, one might say); such a tendency is phonetic and not phonological in origin, and is realized phonologically only at a second, logical stage.

In what follows (in the main, after Vergote, 1973–1983, Vol. 1a, an excellent work of synthesis) the Coptic syllable will be presented as a late-Egyptian syllable, under its various forms. It will be seen that some types of Coptic syllables are identical in syll/ sup. and in syll/und. The presentation of other types will have to mark clearly the distinction between what is syll/sup. and what (in strict conformity with the principles of Vergote, ibid., pp. 45–46) is syll/und. The list of types of syllables that is found in Vergote will even be extended to make room for some of the most complex syll/ sup. (and nearly always not syll/und.) types (also admitted by Stern, 1880, p. 39; cf. above).

In comparing pharaonic Egyptian syllabication with that of its last avatar, Coptic, one may establish obvious constants, but one is nonetheless struck by significant differences, the result of the evolution and profound transformation of the language. It is admitted (Vergote, 1973–1983, Vol. 1a, p. 53) that only the following syllables existed in Egyptian prior to Coptic: 1a ʊ, 1b ʊ; 2a ʊ ʊ, 2b ʊ ʊ; 3a ʊ, 3b ʊ; 4a ʊ ʊ, 4b ʊ ʊ (c = consonantal phoneme, v = vowel phoneme; " long," short; " tonic accent"). "According to the theories of Sethne, only types 3a, 4a, 4b, and perhaps 2b in its later conception exist in the most ancient form of Egyptian" (ibid., Vol. 1b, p. 53). In this pattern, as can be seen, only the tonic v in an open syllable are long; all the rest are short. On the other hand, it will be noted, there is no syllable beginning or ending in several consonants.

The rules for the formation of the syllable in Coptic are clearly rather different. The example φσφτ /phnsít/, the way, clearly monosyllabic, cvcc (in which Bohairic /ph/ is one phoneme, not two, i.e., aspirated /p/), already shows that the Coptic syllable may very well (and probably not only in B but also in the other idioms) have several consonants at the beginning and/or end.

Some authors (according to Vergote, ibid., Vol. 1b) seem to have admitted that a Coptic syllable, like a pharaonic syllable, ought always to begin with a consonant (Steindorff, 1951, p. 36, and Till, 1955, p. 46, however, expressed themselves on this subject in nuanced fashion). The result would be that despite appearances (i.e., orthography) lexemes such as on, to count, and ἐπόμ, burden, would in reality begin phonologically with /ph/, hence with a c (unvoiced laryngeal stop); thus */'oph/ and */'aipó/, respectively. Vergote contested this interpretation, because of "the way in which, for example, the article is joined to the substantive in... μῆ, the house." He added, "The presence of the decreasing laryngeal oblique is always marked by the doubled vowel, and one does not see why it could not be noted in an increasing position." Certainly there is nothing to prevent one thinking that in principle it could be, but that people were not prompted to mark the presence of */ph/ in that position, where its presence did not produce the "echo effect" in bradyssyllabication (cf. below). However that may be, it seems reasonable to admit with Vergote that in Coptic there are syllables beginning with a v (which apparently pharaonic Egyptian did not have).

Here, then, is the list of the types of Coptic syllables (cf. above). On the left are placed the tonic syllables, and on the right, the atonic. Each type is illustrated by a few examples; unless otherwise identified, they are chosen from S: the part of the "word" that is not involved in the example is placed between parentheses; - or - above vowels indicates respectively their brevity or length, and marks the tonic accent. It will be noted that long v can only be found in tonic syllables (open or closed), while short
v, which may also be found in tonic syllables (open or closed), are the only ones that can appear in atonic syllables (open or closed).

Beyond point 9, for practical purposes, the only cases to be found (more and more rare because increasingly difficult to articulate) belong to syl/sup. (to the almost complete exclusion of syl/und.), and present conglomerations of four c or (at any rate in theory) even more, to the point at which one may ask if their difficult phonological structure was all-

ways truly realized in phonetics and if the speaker did not often readily have recourse to the “relief” /a/, not written in orthography, of which Stern (1880, p. 39) spoke: for example, cccv: syl/sup. ωξιο /γερά/ monosyllabic, to be able to be victorious (but syl/und. disyllabic /ας γέρα/); ccev: syl/sup. ωξιο /γερά/ monosyllabic, be able to be victorious (but syl/und. disyllabic /ας γέρα/); cccv: syl/sup. οξίω /στόρ/ monosyllabic, to be able to tremble (but syl/und. disyllabic /ας στόρ/); ccev: οξίατι /στράθυ/,
travalluity; cc: yl/sup. /sk6(t!)/ mono-

syllabic, be able to choose it (but yl/und. trisyllabic
/55 sot /pa/); c: yl/sup. /sk6(t!)/, cf. above; cc: yl/sup. /sk6(t!)/ mono-
syllabic, to load it (but yl/und. disyllabic /6 t pa/); and even cc: yl/sup.
/pa/ /ts/ syllabic, he turns aside (but yl/und. at least disyllabic /f6a s b/). One can, however,
find similar homosyllabic conglomorations of conso-
ants in modern languages too (e.g., German (du)
ha list, you hold, monosyllabic /f6l/s/, ccocc; or
French [from English] script, monosyllabic /skpr/,
ccvcc). One may also, in a more general fashion, describe
the Coptic syllable (in yl/sup. above all, but often
also in yl/und.) by resorting to the idea of a phone-
ic link increasing or decreasing as a whole, and
hence taking account not only of the aperture,
increasing or decreasing, but also of the global in-
crease in the degree of sonority of the phonemes up
to the apex of the syllable and the general decrease
in this degree from the apex to the end of the sylla-
ble, it being understood that it is a matter of tachy-
syllabication (cf. above) and that this increase or
dercrease, uninterrupted as a whole, may be irregu-
lar, since two phonemes of the same sonority or resonance may follow one another in the increase or
dercrease or a less-voiced or less-resonant phoneme
may follow a more-voiced one in the increase and a
more-voiced or more-resonant phoneme follow a
less-resonant one in the decrease (in each case with
appropriate aperture; cf. Grammont, 1939, pp. 100-
101). Phonemes may be classified, as is well known, in
increasing order of sonority (cf. Dieth, 1950, p. 166;
Nagel, 1965, p. 76; Kasser, 1981c, p. 3) from the
unvoiced occlusives to the unvoiced fricatives, then
the sonorants (otherwise called voiced consonants),
the glides (or voiced fricatives, Vergote, 1973–1983,
Vol. 1a, pp. 13, 18), the sonants, the glidsants, and
the nonglidal vowels, of which /a/ is finally the
most strongly voiced phoneme (see PHONOLOGY). On
the other hand, if no syllable can exist without a
syllabic apex, which is its most strongly voiced pho-
neme (Dieth, 1950, pp. 377–79; the syllable may
naturally have only one phoneme and hence com-
prise only its “apex” or “top” without “slopes” that
lead the speaker to it in voiced increase or after
which the speaker comes down again in voiced de-
crease), it is equally evident that no syllable can
have more than one syllable apex. (Two successive
v, nonglidal or sonant, cannot exist together in the
same syllable, and, separated by a hiatus, they are
automatically assigned to two different syllables, e.g.,

\[ \text{IIA}: \text{pace } (\text{pa } \text{h} \text{a}) /, \text{my existence; here one must, of}
\]
course, understand two authentic v, and not, for
example, a tonic v followed by the second element
of a vocalic gmination in writing, which is phono-
logically a c: */\)

One may therefore say, broadly speaking, that
there are four categories of syllables in Coptic, plus
five subcategories:

I. The single phoneme syllable, the single pho-
neme of which is at the same time its apex, such as
\[ \text{A } /a/ \text{ in } (\text{A} \text{n} \text{o} \text{m}) /\text{A } f \text{b} \text{k} /, \text{crow.}
\]

IIa. The regularly increasing syllable, consisting
only of an increasing phonemic link of which each
phoneme is more strongly voiced than the previous
one and hence a syllable in which the last and most
strongly voiced phoneme is the apex, such as
\[ \text{nco } /\text{ps} \text{a}/ \text{ in } \text{nco } (\text{Te}) /\text{ps} \text{a}(\text{a}) /, \text{the arrow. (The presence}
\]
of another syllabic apex, for preference a vocal
grapheme v, immediately before the increasing
chain does not attract to itself the first c of the
chain, since Coptic has no aversion to open sylla-
bles.)

IIb. The irregularly increasing syllable, consisting
of a phonemic link that is increasing as a whole but
of which each phoneme is not more strongly voiced
than the preceding one (this irregularity does not
however interrupt the total voiced increase or inver-
t the aperture and split the syllable), such as
\[ \text{mto } /\text{tp} \text{a}/ \text{ in } (\text{e}) \text{mto} /\text{e} /\text{tp} \text{a} /, \text{burden; c} \text{op} (\text{no}) /\text{ss}(\text{na}) /, \text{she}
\]
she sees; or even \[ \text{c} \text{po} (\text{Te}) /\text{sk} \text{a}(\text{a}) /, \text{she turns.}
\]

IIIa. The regularly decreasing syllable, consisting
of a decreasing phonemic link of which each pho-
neme is less voiced than the previous one and hence
a syllable in which the first phoneme, the most
strongly voiced, is the apex, as in \[ \text{om} /\text{bms} /, \text{immerse. (The presence of another syllabic apex, for}
\]
preference a vowel grapheme v, immediately after
what would seem at first to be a decreasing link,
deprives it by syllabic annexation of its last c, since
Coptic has a distinct aversion to syllables beginning
with a v; hence omcoy, to immerse them, /\text{om } \text{sa} /,
and not */\text{bms }\text{a} /.

IIIB. The irregularly decreasing syllable, consist-
ing of a phonemic link that is decreasing as a whole
but in which each phoneme is not less strongly
voiced than the previous one (this irregularity does
not, however, interrupt the overall decrease or inver-
t the aperture and split the syllable), as in \[ \text{at} \text{n } /\text{otp} /, \text{to load; omc } /\text{oss} /, \text{read it; or even omc } /\text{ot} /
\]
to weave.

IVA. The regularly increasing and decreasing sylla-
ble, composed of a regularly increasing phonemic
link (cf. IIa) articulated (by the apex phoneme) with

\[ \text{IIA}: (\text{pa } \text{h} \text{a}) /, \text{my existence; here one must, of}
\]
course, understand two authentic v, and not, for
example, a tonic v followed by the second element
of a vocalic gmination in writing, which is phono-
logically a c: */\)
a regularly decreasing link (cf. IIIa), such as κορέ /psóint/ monosyllabic, the wool (same final handicap as in IIIa).

**IVb, IVc, and IVd.** The irregularly increasing and decreasing syllable, composed respectively of an irregularly increasing link combined with a regularly decreasing one, a regularly increasing link combined with an irregularly decreasing one, and an irregularly increasing link combined with an irregularly decreasing one, such as πεφτο /stóbb/, the prayer; κορίς /sárks/, the flesh; κοριτσί /ssótt/, to be able to choose; and κορίτσι /psóint/, he splits.

As can be seen, the problems posed by Coptic syllabication are very complex, and those who have dealt with them are far from being at one. No doubt the last word has not yet been spoken on this matter.

**BIBLIOGRAPHY**


VOCABULARY, AFRICAN CONTACTS WITH AUTOCHTHONOUS COPTIC

There were doubtlessly close contacts between Egyptian or Coptic and the neighboring African languages. The latter have almost entirely disappeared in Egypt, and the three languages still spoken there are of relatively recent date: (1) Berber, the language subfamily of the Berbers of Siwa Oasis in the west, near the Libyan border, who settled there in the Middle Ages, though the people of the oasis itself were Berber-speaking from the oldest times; (2) Nubian, the tongue of the Nubians in the Nile Valley from Aswan southward, who penetrated there after the fall of the Meroitic empire, probably in the fourth century A.D.; and (3) Bedawiyeh, the language of the Beja of the Eastern Desert, between the Nile Valley and the Red Sea, approximately south of the desert road from Qift to Qoseir, who seem to be the oldest inhabitants of their territory, though they are mentioned farther south in an inscription of Ezana, king of Ethiopia (fourth century A.D.).

Berber

In all these cases, one must distinguish between Hamito-Semitic words and loanwords. Hamito-Semitic are the words for "tongue" (Arabic ʿifān, Egyptian ʿifān (B) and Sahidic (S) ʿi, Berber ʿif, and Chadic ʿi in Mubi) and "to die" (Arabic māta, yanmā : mawt, Egyptian mwāt = S HOY : HOYT, Berber emmet, Chadic mwāt in Hausa). Berber shares several words with Egyptian that are not Hamito-Semitic, such as uššen, jackal (Shilha in Morocco, Kabyle in Algeria); mwāt = B S ūyanna; abīna, date (fruit) (Ghadames in Libya), Egyptian bni = B bn, S b; also S koyk, fruit of the dum palm (Hyphaene thebaica), corresponds to Tuareg a-kikā. A Berber loanword of the Libyan period (Twentieth-second Dynasty) is B S mopt, beard, Berber tawart (Shilha of Morocco), with variants, in almost every dialect.

Bedawiyeh

In Bedawiyeh, the language of the Beja in the Eastern Desert, the horse is called ḫādy (plural, ḫādy). This word derives from Egyptian ḫr, yoke of oxen, later pronounced ḥl = B ṣhō, S Ǧt. Yet ḫādy does not derive from ḫr or ḥl but from a third form, ḫy (probably pronounced *ḫādy), not found in Coptic dialects.

Bedawiyeh san, brother, looks like B, S con. In spite of the similarity, the words are of different origin. This can be seen from the different derivations. Coptic has B ěn, sister, and the plural B ěn hoy, brothers, while the Cushitic languages have different forms: Bedawiyeh kwa, sister, and in Dembea ūn, in Khamīr ūn, in Bilīn dan, brothers.

Mehōl, to treat medically, is probably of Coptic or Egyptian origin; compare P Ṽōmā, to heal, apparently an emphatic verbal noun (*mahātāw or similar).

Nubian

Nubian is not a Hamito-Semitic language. In the Middle Ages there were several Christian kingdoms in Nubia and the old-Nubian texts contain a certain number of Coptic and Greek loanwords, such as Ṽēha, temple: B Ṽēhe, S Ṽhē; ḏīr, wine: S, B ḏīr, probably *dērō or similar; and Ṽēkā, pray, with which compare B, S Ṽēkā, to pray, and Bedawiyeh sītēl, pray, prayer. In modern Nubian one finds adūr, winter = the month Hathor or, more exactly its