The Modern Pronunciation of Coptic in the Mass.—By J. Dyneley Prince, Ph.D., Professor in Columbia University, New York City.

THE name Copt (ΓΥΠΤΙΟC = Αἰγύπτιος, Arabic Qibt, pl. Aqbat, vulgar Qŭbăt) is restricted at the present day to the Eutychian or Monophysite sect which for centuries has formed the national Christian Church of Egypt. This population, which numbers approximately five hundred thousand, represents the most direct descendants of the ancient Egyptians, because for religious reasons the Copts have practically abstained from intermarriage with all alien elements. There is no ground whatever for the belief that the ancestors of these people were foreign immigrants who embraced Christianity after the Mohammedan conquest of Egypt in 640 A.D. At present the Copts are found in the greatest numbers in the towns of Negâdeh, Luxor, Esneh, Dendera, Girgeh, Tanta, Assiût and Akhmîm, where they are nearly all engaged in commerce of every description. In fact, they may be said to resemble in this respect the Armenians of Turkey and the Jewish communities of other lands.

The Coptic language has been dead as a spoken idiom since the end of the seventeenth century A. D. About 1680 A. D. the Dutch traveller Van Sleb mentioned as an extraordinary fact that he had met an aged man who was still able to speak The language must have perished as a vernacular, no doubt dying out very gradually, between the fifteenth and the seventeenth Christian centuries, because the Arabic historian Maqrîzî remarked in the fifteenth century that the Coptic women and children of Upper Egypt in his time spoke Coptic almost exclusively, although they also knew Greek perfectly. There can be no doubt, however, that Coptic had begun to take a secondary place even before the time of Maqrîzî, for, as early as 1393, Coptic manuscripts had marginal notes in Arabic, which seems to show that the latter language, even at that period, was recognized as the dominant idiom and had come into very general use.

Although the chief ancient dialects of Coptic were five in number, we have to reckon in the present treatise only with two, viz. the Sahidic and the Boheiric. The Upper Egyptian linguistic variations all succumbed before the powerful influence of the Sahidic idiom, which was at first spoken near Thebes and eventually was used as a vernacular from Minyeh to the Nubian border. In the same way the Boheiric, which was originally the language of the Western Delta, i. e. of Alexandria and its environs, soon became the tongue of all Lower Egypt. This dialect eventually displaced even its powerful rival, the Sahidic, and it remains to-day, all over Egypt, the idiom of the official church service-books, gospels, etc. The student of modern Coptic pronunciation, therefore, has to deal with Boheiric, but often only orthographically, for, as will be shown in the following article, the local peculiarities of utterance have by no means died out.

In this connection should be mentioned the truly excellent work of my friend, Mr. Claudius Labîb, professor in the Orthodox Patriarchal School in Cairo, who is an enthusiast in Coptic studies. He has actually succeeded in teaching a considerable number of young people of both sexes to use the Boheiric Coptic as a school vernacular, i. e., to understand lectures delivered in it by himself and others, especially Wahby Bey, the head-master of the school; and has enabled his pupils to converse with ease in Coptic on all ordinary subjects. Labib has accomplished this very largely by the establishment of a Coptic press, whence he has issued a number of text-books, the most important of which are his Coptic-Arabic dictionary' (the third volume is now in preparation), and a series of primers to teach the Arabic-speaking student to express himself in Coptic. Besides these, he is at present engaged in issuing a Coptic edition of the gospels as they are read in the churches. Since the great majority of modern Coptic priests are in no sense scholars and do not even make a pretence of mastering their religious language grammatically, but are content to read the mass and gospels ceremonially in a parrot-like fashion assisted by a parallel Arabic translation, the importance of Labib's efforts at education in this direction can hardly be overestimated. He cannot of course succeed, as he fondly hopes to do, in reviving a language which has been dead for centuries, any more than the enthusiastic Cornishmen who have just founded a society in England for the

¹ Dictionnaire Copte-Arabe par C. H. Labîb; two vols. Coptic-Arabic, Cairo, 1216, Year of the Martyrs.

revival of their ancient national tongue can ever have success. Labîb's work, however, can, and no doubt will, stimulate among his somewhat lethargic co-religionists, priests and laymen, a desire to obtain a real knowledge of the literature of their The present Orthodox Patriarch, Cyril the ancient tongue. Fifth, himself an excellent Coptic scholar and a most enlightened man, is doing all in his power to further the study of Coptic in every school in Egypt under the aegis of his church.

Hitherto it has been customary to regard the modern pronunciation of Coptic in the church services as being merely a slovenly corruption of the original utterances of the language, and consequently as being of little or no importance from a phonetic point of view. No idea could be more erroneous. In spite of the ignorance of the priesthood, they have for ceremonial reasons been at great pains to hand down the traditionally correct pronunciation of their religious language. Indeed, so different to the intonation of Arabic is the tone of the Coptic as uttered by the priests of to-day that no one can reasonably assert that Arabic has had any influence on the pronunciation of the church language. In short, we still have in the conventional utterances of the mass what seems to be a genuine echo of how the ancient language must have sounded both in Upper and in Lower Egypt; and this, too, in spite of the fact that the idiom of the church is orthographically Boheiric. There can be no doubt that in Upper Egypt the Boheiric is still uttered as if it were Sahidic, i. e. in accordance with the original Sahidic vocalization.

The following table of the various pronunciations of the names of the letters of the alphabet' will serve partially to illustrate this undoubted fact.

	$Cairo.^2$	Assiut.	Aby dos.	Luxor.	Assuan.
λ	Älfâ	Älfâ	Álfâ	Álfâ	Älfâ
В	Wîdâ	Wídâ	Wíttâ	Wîdâ	Vídâ
P	Ġámmä	Ġấmmä	Ġấmmä	Ġémmä	Ġámmä

¹ For a similar table of the pronunciations of the character-names in Upper Egypt only, see de Rochemonteix, La Prononciation du Copte dans la Haute Égypte, Mémoires de la Société linguistique de Paris, vii.

² The Cairo pronunciations here given were taken orally from Labíb. I could find no equivalents for many of the pronunciations given in Steindorff's Koptische Grammatik.

As will be seen from the above comparison, some latitude exists within the limits of the Sahidic district; a latitude which probably must not be set down to individual carelessness, but may perhaps be regarded as a relic of early dialectic variation, due, possibly, to incomplete assimilation to Sahidic of the primitive local idioms, or to differentiation of the Sahidic itself. Labîb informs me that certain similar variations are noticeable in the Delta. The modern pronunciation peculiar to the Fayyûm Oasis also differs from the Cairo style. Indeed, one has only to examine the speech of the Moslem fellâhîn within the borders of Upper Egypt alone, to understand that linguistic variation is a characteristic of the Nile life. Nor is the explanation of this phenomenon far to seek. The villages of the Nile have been until quite recently absolutely separated one from the other; the only means of communication having been the river-highway, chiefly used by the professional boatmen. The average fellah was, and, to a great extent, still is, chained to the soil, enjoying little or no intercourse with his brethren of even the nearest settlements. What more natural state of affairs then than the dialectic differentiation which exists very noticeably to-day in the Nile-land? The local conditions, which after all have changed very slightly in the course of centuries, were bound to produce the greatest variation, first in the early language, and subsequently in the idiom of the Arabian conquerors, which slowly but surely supplanted the native speech, but which, no doubt, at once took on just such differentiations as had characterised the earlier Coptic.

The following examples of differences in the modern pronunciation of the Boheiric Church-Coptic were collected by me at Cairo, the present centre of the Delta vocalization, and at Assuân, the southernmost town of the Sa'îd (Sahîd), or Upper Egypt, respectively. I have thought it best to analyze specimens of current texts, rather than to present comparisons of isolated words. The Assuân text was cantillated by a priest into a phonograph.

Gospel of St. John, chapter first:

Text.¹ ÞΕΝ ΤΑΡΧΗ ΝΕ ΠΟΑΧΙ ΠΕ ΟΥΟΖ ΠΙΟΑΧΙ ΝΑΥΧΗ
Cairo.² Hĕn ĕtắrchî nē ĕpsážî pē ûốḥ pîsážî näfkí
Assuān. Hän dîárchî män biságî bä wâiḥ bîságî nāfká

baten φt ογος νε ογνογτ πε πιςαχι. φαι hátěn Ĕvnôŭdî ûôḥ nē Ûnôŭdî pē pîsážî. Vấi hátän Ĕvnôudî ôuâḥ na Ôunâĭdî bā bîságî. Vấi

ENAQXH 1CXEN ZH ÞATAN Φ† ZWB NIBEN ΑΥΨΟΠΙ ēnäfkí ísžěn hî hátěn Evnôudî hōv nívěn ävšốpî ēnäfká ísgěn hâ hátän Evnôudî hōv níwän âûsốbî

φηστας φωπι. Νε πωνό πε ετε νόμτς ογος πωνό viếtāf šốpî. Νε ĕpốnh pē étē ĕnhîtf ûốh ĕpốnh viấtauf šốbî. Να ûốnh béda ba nîhádaf ôuấh ĕndé

νε φογωινι ὴνιρωνι πε. Ογος πιογωινι αφερογωινι nē ĕνûδιnî έπηιτόπι pē. Ūδḥ pîûδιnî äfĕrûδιnî δημι νιανάι ηι έπηιτόπι bä. Ουάḥ bäανάι ηι (wän) äfûδιnî

ΒΕΝ ΠΙΧΑΚΙ ΟΥΟΖ ΜΠΕ ΠΙΧΑΚΙ ΦΤΑΖΟΟ.

hěn pîkâkî ûốḥ émpē pîkákî ěštấhốf.
 hěn bîkákî ôuấḥ émbä pîkákî štấuhốf.

¹ Standard text of the Coptic Gospels published by Labib and recognized by the Patriarch.

The following points should be observed in pronouncing the Coptic transliterations herein given: $\ddot{a}=\mathrm{Eng.}~a$ in 'hat'; $\dot{a}=\mathrm{Eng.}~a$ in 'father'; $\check{e}=\mathrm{Eng.}~e$ in 'met'; $\bar{e}=\mathrm{German}~\bar{e}$ in geh; $\check{i}=\mathrm{Eng.}~i$ in 'pin'; $\hat{i}=\mathrm{Eng.}~i$ in 'machine'; $\check{o}=\mathrm{Germ.}~o$ in 'voll'; $\bar{o}=\mathrm{Eng.}~o$ in 'bone'; $\hat{o}=\mathrm{Eng.}~aw$ in 'awful'; $\hat{u}=\mathrm{Eng.}~o$ in 'fool.' Of the consonants, $\check{e}=ch$ in 'church'; $ch=\mathrm{German}~ch$ in ich; d=th in 'this'; $g=\mathrm{always}~g$ in 'go'; $g=\mathrm{Arabic}~\dot{E}$; h=h in 'have'; $h=\mathrm{Arabic}~\mathrm{medial}~\dot{E}$; $h=\mathrm{German}~ch$ in ach (to be distinguished from ch, the sound in ich; $\check{s}=\mathrm{Eng.}~sh$; $t=\mathrm{Arabic}~\dot{E}$; th is always hard, as in 'thin'; $\check{z}=\mathrm{French}~j$. All other consonants are pronounced practically as in English. L has the light sound, never the thick palatal sound of Polish barred \check{t} . R is a gentle trill, rather than the rough Italian trill. Final r in Arabic is almost rs, e, g. $keb\hat{r}r^s$ 'big.'

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Extract from Steindorff's Koptische Grammatik, p. 1*:

Text.	Δγχ 000	с етве	Δπλ	Swb	XE	мпедх	ι–σολ
Cairo.	Ävgős	étvě	Âpâ	$H\bar{o}r$	žě	mpěfží	ĕgčől
Assuan.	Âûgốs	átwä	Âbâ	$H\bar{o}r$	gĕ	mbäfgấ	šŏl
G11G-2							0000 5

Sana	ογδε	мпедарк	ογλε	мпедсагоу	0γ Σ Ε
ēnḗḥ	ά₫ĕ	mpĕfôrk	ά₫ĕ	mpěfsấhû	ά₫ĕ
änấḥ	údä	mbäfôrk	ûdä	mbäfsấhû	âdä

мпершахе хфріс анагки.

mpěfšážě <u>h</u>ôris änángkî. mbäfšágě <u>h</u>ôris änágkî.

From a careful examination of the above specimens of modern Coptic pronunciation, and from the study of further data supplied by Labíb and other Coptic experts, the following phonetic laws seem patent.

A. The Vowels.

The vowels play a most important rôle in Coptic phonetics, as they must have done also in the ancient Egyptian. In fact, there can be little doubt that their original pronunciation in Coptic has had an important effect on the modern Egyptian Arabic vernacular, which differs so considerably from the Arabic idioms of other lands. It has been pointed out by Prätorius, among others, that the system of additional vowels which prevails to-day in the Egyptian Arabic is the result of Coptic influence. There is, indeed, every evidence to show that this is the case, although Prätorius¹ does not state the probable reason for it. It is not because Coptic ever had such a system of purely phonetic intercalary vocalization, as one might gather from his statements, but because the Coptic idiom was extremely rich in vowels,² particularly in final vowels, which gave the tendency to the subsequent

¹ ZDMG. lv. p. 146. For the intercalary vowels in Egyptian Arabic, cf. Spitta, Grammatik des Vulgärarabischen, p. 21; Vollers, Grammar of Modern Arabic, § 20.

² Some Arabic dialects, for example the Moroccan, are vowel-poor, but others, again, have intermediate vowels, like the Egyptian. There can be no doubt, however, that intercalary vowels are more prominent in Egyptian than in any other Arabic idiom.

Arabic-speaking Egyptians to insert, without reference to grammar, a helping, or furtive, vowel in their present vernacular, whenever a combination of too many consonants should occur. This peculiarity is seen in such Arabic phrases as the following: běssi li 'it is enough for me'; bargi niswān 'ladies' shawls'; šuġli mīn dī 'whose work is this?', etc.

- 1. Long and short **A** are represented in both Boheiric and Sahidic by a and ä, respectively; thus **CAX1** = B. sažī, S. sagī 'word'; **APXH** = B. and S. ärchī (Greek) 'beginning.' The diphthong **AY** = av in B. (cf. Mod. Gk. av = af') and at in S.; e. g. **AYWWII** = B. avšōpī, S. aūšōbī 'they have been.' It should be noted, moreover, that **AA** was used according to Stern' to represent Arabic ε in the words **AλAANCAPOT** 'sublimate.' The ε is rapidly disappearing in the present Egyptian Arabic, especially in Upper Egypt, and it may be expected that in the course of a century it will have vanished altogether. In Stern's document **A** appears frequently as the equivalent of the Arabic vowel e in the article, i. e. **Aλ** = **J** el.
- 2. **E**, which = Boheiric ē, appears generally in Sahidic as ä; thus, ben = B. hēn, S. hān; etc. It should be observed that n appears in B. as ēn, but in S. as ni; cf. nbhtq = B. ĕnhītf, S. nīhādāf 'in it.' When, however, it is followed by a second n, this is not the case; e. g. nnipomi = B. and S. ĕnnīrômī. In the same way n = ĕm in both pronunciations, mπe = B. ĕmpē, S. ĕmbā. It is curious to note that eptwb, the measure of quantity, has become ārdēb in the Arabic vernacular of Egypt. The combination πe ete = B. pē ētē becomes by elision bēdā in Sahidic. In B. the diphthong ey is invariably pronounced ev, following the analogy of the

¹ Stern, Ztschr. d. ägyptischen Sprache, xxiii. (1885, pp. 104–120), has published a highly interesting fragment of a Coptic treatise on alchemy, in which many Arabic terms denoting metals and chemicals are transliterated in Coptic characters, showing the pronunciation of Arabic in Upper Egypt at quite an early date (not fixed). It is, however, according to Stern, the oldest exact transcription of Semitic sounds.

Neo-Hellenic, whereas it still retains in S. its probable original force êû, pronounced as a true diphthong. A relic of this usage is still seen in the Egyptian Arabic word το δῶπε 'a barn, store-house', from which we find the denominative stem δαμωτη 'to store up.' According to Stern, op. cit., the e-vowel appears for Arabic Alif in the word ΧΕΝΟΥΝ 'brazier' - کانون 'This of course represents the flat pronunciation of the Alif, ä, so common in modern Syria and Egypt.

- 3. The vowel H differs strangely in Northern and Southern Egypt. The Upper Egyptian vocalization gives it the value d in all native words; thus, NAQXH = B. näfki, S. näfkd 'it was'; NHTQ = B. ĕnhitf, S. nīhādāf 'in it', etc., but retains the i-value in the Greek ANAPKH = S. änägki (B. änängki). The diphthong Hγ is pronounced iv in Lower Egypt and âd, like Aγ, in Upper Egypt. The vowel H is found in Stern, op. cit., representing the Arabic i-vowel; cf. ACCEPNHZ = 'icit., representing the Arabic i-vowel; cf. ACCEPNHZ 'icit.' 'arsenic.' The modern Egyptian Arabic word merisi 'southwind' shows the common Boheiric pronunciation.
- 4. The vowel $\mathbf{1}$ is usually pronounced in both sections as i and i. I find only the variation $\Pi \mathbf{10} \gamma \omega \mathbf{1N1} = \mathbf{B}$. piuoini, \mathbf{S} . bauwaini, which difference is probably due more to the vagary of the Assuân cantillator than to actual vocalic differentiation.
- 5. The vowel O, long and short, appears in three forms, viz. as δ (= Eng. aw), $\bar{\delta}$, and δ , in both dialects; cf. $\dot{\Phi}\uparrow^{-1}=B$. $\check{E}vn\delta^u d\hat{\imath}$, S. $Vn\delta^u d\hat{\imath}$ 'God'; $\Theta \Theta \Pi = B$. $\check{s}\bar{\delta}p\hat{\imath}$, S. $\check{s}\bar{\delta}b\hat{\imath}$ 'to be'; $EBO\lambda = B$. $\check{e}v\check{\delta}l$, S. $\check{a}w\check{\delta}l$, 'out of.' It is curious that Coptic ΘONT appears in modern Egyptian Arabic as $\check{s}ant$ 'acacia.' The diphthong $O\gamma$ is pronounced in Lower Egypt \hat{u} (as $O\gamma OC = \hat{u}\delta\hat{h}$ 'and') except in a few words, as $\check{E}vn\delta^u d\hat{\imath}$, S. $\check{E}vn\delta^u d\hat{\imath}$ 'God', but generally in S. δ^u , as $\delta^u d\hat{h}$ 'and.' Short δ also seems to appear in S. as \hat{a} in $\delta^u d\hat{h}$ 'and', but this may be a freak due to cantillation. The Sahidic pronunciation $w\check{a}\check{\imath}h$ for this word undoubtedly arises from musical causes. It is interesting to observe that MONH 'harbour' has become Minye (place-name)

¹ Abbreviation for φΝογ[†].

in Arabic, exhibiting practically an umlaut. The word NOO 'greatness, size,' has become nuš in Egyptian Arabic; cf. kěbîr zê ěn-nuš 'big as a monster.' This is a common expression. The word means to the modern Egyptian some sort of a great animal inhabiting the mountains! In the word λλχλρροοπε (Stern) we find OO for Arabic u; 'siliqua.' The diphthong OO is a short ö in both dialects, as λγχοος = B. avgŏs, S. augŏs 'they say.' In Cairo, in the combination εξοογ, the first O becomes u under the influence of the following diphthong ou; thus, ēhū-ū 'day.'

- 6. The vowel Υ appears chiefly in diphthongs, as $\lambda \gamma$, $\epsilon \gamma$, $\mu \gamma$, and $\epsilon \gamma$, all of which have been discussed above. The Greek word $\epsilon \gamma \chi \mu$ 'soul,' however, is pronounced psiki.
- 7. The long **O** appears in both pronunciations as ō; cf. εωβ = B. and S. $h\bar{o}v$ 'work'; λγωωπι = B. ανδορί, S. ααδοδί 'they were,' etc. In the Sahidic example given above, however, **Πιογωινι** becomes bααναινί, no doubt under the influence of the cantillation; cf. B. ριαοινί and B. αρεναοινί = S. αραοινί, precisely the same vocalic combination. Stern gives the vowel **O** as representing Arabic α; thus ελλωμ = halαν 'cheese'; **ΤωΒι** = Arabic Tαb, the fifth Coptic month.

B. The Consonants.

- 2. Γ occurs chiefly in Greek words as in ANAPKH = S. änä $\dot{g}ki$. The latter pronunciation, $\dot{g}=$ Arabic \dot{g} , is quite in

accordance with Neo-Hellenic usage for pure Γ , i. e. when it is not in juxtaposition with K. Sometimes Coptic Γ is used for K, as in $AN\Gamma = ANK$ 'I.'

- 3. Δ , like Γ , generally occurs in Greek loan-words, although it appears in a few native words, as $\Delta ENO\gamma$ 'now'; $\Delta 1\Delta O\gamma$ 'contention,' etc. It is pronounced d in B. and d, like T, in S.; ef. $O\gamma\Delta E = B$. $ad\tilde{e}$, S. $ad\tilde{a}$.
- 4. Z also is a distinctly Hellenic consonant. It is pronounced like English z in both systems.
- 5. Θ is pronounced th in Cairo, but t in Upper Egypt; thus, **ΕθΝΗΟ** $\Upsilon = B$. ĕthntū, S. ätnūū 'future.' This consonant in S. is merely a combination consonant for T_c , as $\Theta E = T_c E$ 'the manner,' pronounced $t\bar{e}$. It occurs in Stern as the equivalent of E; cf. E0 cf. E1 cf. E3 cf. E4 cf. E5 cf. E6 cf. E7 cf. E8 cf. E9 cf.
- 6. K is pronounced identically in both dialects. It represents in Stern; thus, αλκιν القين 'hammering'; αλκαροορε 'bottle.' This is curious, because is either omitted entirely in pronunciation, as in Cairo and the vicinity, قبطى 'ibṭi 'Copt' = qibṭi, or else it is pronounced as g, especially in Upper Egypt; thus, mā gidirtiš 'I could not.' Its representation in Stern by K seems to show that at the time when this Fragment was written, in had its true value, i. e. q, in the Arabic of Egypt; cf. Būlāq = Πελακ. Coptic K represents Ancient Egyptian k and q (Steindorff, Kopt. Gr., p. 18, n. 10).
- 7. Λ is uttered identically in both dialects and corresponds to the light Egyptian Arabic l. Stern, however, notes that λ represents Arabic r once, viz. in the word $\lambda \omega \omega h \lambda c = l \omega h \lambda c$.
 - 8. M and N also differ in no way from and ...
- 9. Z, on the other hand, is a ligature consonant for KC, especially in Sahidic. It appears chiefly in Greek words.
- 10. Π is pronounced p in Cairo Boheiric, probably owing to Neo-Hellenic influence, but universally b in Sahidic; thus, $\mathbf{M}\Pi\mathbf{E}\mathbf{q}\mathbf{x}\mathbf{1} = \mathbf{B}$. $mp\check{e}f\check{z}i$, S. $mb\ddot{a}fgi$ 'he does not say.' Note that Π is B. $\check{e}p$, but S. bi, as in $\Pi\mathbf{C}\mathbf{A}\mathbf{x}\mathbf{1} = \mathbf{B}$. $\check{e}ps\check{a}\check{z}i$, S. $bis\check{a}gi$. Labib states, however, that this consonant is heard in the Fayyûm

churches as pure b, which, indeed, must have been its primitive value in Coptic. We have only to compare the Egyptian Arabic loan-words; Būlāq = ΠΕλλΚ 'island'; birbe 'ruin' = ΠΕΡΠΕ 'temple'; elbaq 'land sown with beans' = ΠΑΚΕ, etc. The consonant Π also represents the Arabic ب in Stern; thus, λλπογρλτ = 1.00 'filings'; λωωιπε 'lim,' etc. It is curious that the name of Π in Assuân is Vi, with a strong medial aspirate. I was unable, however, to hear this sound in any word, although it may exist.

- 11. P is identical in both dialects and seems to correspond to the Egyptian Arabic; i. e. it is a very gentle trill rather than the rough Italian trill.
- 12. C, identical in both pronunciations, has the value of Arabic ω; thus, ΠΙΟΑΧΊ = Β. pisāži, S. bīsāgī 'the word.' It was, however, used in Stern's Fragment to represent Arabic), ω, and ω; thus, a), representing j: ACCEPNΗ = ''arsenic'; AλαΝΚΑΡΟΤ ''a sort of gum'; b), representing ω: ΑλΜΟΥΚΑΑΤ ''s sublimate' (note that ω appears once representing Šai, as in sanṭ = ΨΟΝΤ ''acacia'); c), representing ω: CIQ = ''. και in sanṭ = ΨΟΝΤ ''acacia'); c), representing ω: CIQ = ''. και in sanṭ = ΨΟΝΤ '''.
- 13. T is pronounced t in the hellenizing Cairene style; thus,

 ΠΕΕΤΕ = Β. pē ētē, but S. bēdā. Its primitive Upper Egyptian

 value preceding a vowel, however, was d. Thus for TAPXH

 we find Cairo ĕtärchī, but S. dīārchī 'the beginning'; אברים ב B. ĕnhītf, S. nīhādāf 'in it.' In the word ΑΤΟΕΝΟΥ = Β.

 ätčēnāf, S. ātšānāyāf 'without him,' we find it pronounced as

 t before the following δ. In Stern it also represents the final in Αλχιπριτ = الكبريت 'sulphur'; ΑλΑΑΝΚΑΡΟΤ = العنزوت 'gum', etc.; but usually stands for Δ, as in ΤΑΠΕΡΙ = 'creat'; λλεΑΤΙΤ = 'creat'; λλεΑΤΙΤ | 'cron,' etc. T also represents

 Arabic , as in ΑΠΙΑΤ = 'white.'
- 14. Φ is always v; thus, Φ HETAq = B. ví $\check{e}t$ $\check{a}f$, S. ví $\check{a}t$ $\check{a}f$ 'he who.'

- - 16. Ψ is a ligature consonant = ps, as $\theta = th$.
- 17. O is pronounced \check{s} in both dialects; thus, OOΠ1 = B. $\check{s}\bar{o}p\hat{i}$, S. $\check{s}\bar{o}b\hat{i}$. In OTazoq the O is pronounced in B. with a prosthetic vowel; thus, $\check{e}\check{s}t\hat{a}h\bar{o}f$, but S. $\check{s}t\hat{a}^{\mu}h\bar{o}f$. This, of course, is due to the juxtaposition of the following t. Stern gives O = \check{s} , as $\grave{A}\textcircled{O}$ OH \grave{A} AC = \check{l} I imitalization, etc.
- 18. $\mathbf{q} = f$ in Upper and Lower Egypt; $\mathbf{NAqXH} = \mathbf{B}$. nafka, \mathbf{S} . nafka. In Stern, only the word $\mathbf{Clq} = \mathbf{z}$ shows $\mathbf{q} = \mathbf{z}$, which is elsewhere represented by \mathbf{B} , q. v.
- 19. **b** = h in Cairo and Assuân; thus, **ben** = B. hēn, S. hän 'in'; **baten** = B. hātēn, S. hātān 'apud, juxta.' In some parts of the Delta it is pronounced k', i. e. k followed by a slight rough breathing (cf. Rochemonteix, in Mémoires de la Société Linguistique de Paris, vii., p. 273).
- 20. Z is now pronounced in both dialects exactly like the Arabic medial z = h; thus, $0 \gamma 0 z = B$. $u \delta h$, S. $o^u d h$ 'and.' For $z \lambda 1$, B. has $\tilde{e}h l \tilde{l}$ and S. $d h l \tilde{l}$, with prosthetic \tilde{e} and d respectively. Hori = z appears also in MCAz = $\tilde{e}msdh$ = modern Egyptian Arabic timsdh 'crocodile'; but in Stern it also represents \tilde{z} , as in ACCEPNHZ = 'crocodile' arsenic,' and \tilde{z} : AWWAZEP1 = 'soot.'
- 21. X is by far the most interesting of all the Coptic consonants. Roughly speaking it is equivalent to Arabic \mathcal{E} , which, however, has two distinct pronunciations between Cairo and Assuân. Arabic \mathcal{E} appears in Cairo and the Delta generally as g hard, but its palatalization becomes more and more evident as one journeys southward; thus at Assiût we hear \mathcal{E} as \widehat{gy} , at

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Luxor as dy, and at Assuân practically as dsy. Thus, the word 'camel' is uttered gemel, gyemel, dyemel, and dsyemel, respectively, at the places just mentioned. In the Soudan, Arabic = is plain j (= $j \in m \in l$), as is the case among some of the Syrian Bedawin. Nowhere in Egypt or the Soudan, so far as I know, is the pronunciation ž heard, which is the regular usage in the Syrian towns (عبل = žěměl). The Coptic X does not, however, correspond exactly to the Egyptian Arabic 7. Thus, in Cairo \mathbf{x} is pronounced hard g before the vowels a, o, u; thus, $\lambda \gamma x o c = \ddot{a} v g \dot{\delta} s$ 'they say'; but before the vowels e, i it invariably appears strongly palatalized as ž, a sound unknown in Egyptian Arabic; thus, XE = B. žě 'that'; MITEQXI = mpěfží 'he does not say,' etc. In Assuân, on the other hand, I heard \mathbf{x} as g in every position; thus, $\mathbf{\lambda} \mathbf{\gamma} \mathbf{x} \mathbf{o} \mathbf{o} \mathbf{c} = du g \ddot{o} s$, $\mathbf{x} \mathbf{c} =$ $g\bar{e}$, MTEQXI = $mb\ddot{a}fgi$, etc. In a number of other places in Upper Egypt, however, \mathbf{x} is pronounced dy (cf. the list of the consonantal names above, according to which even at Assuan the consonant is named Dyandya, but I heard it distinctly pronounced hard g). Here again we meet with an element of uncertainty, because the g pronunciation of τ is regarded everywhere in Egypt as the elegant usage, and is accordingly imitated by educated speakers even in Upper Egypt. It is highly probable, therefore, that the priest who cantillated for me may have purposely given to \mathbf{x} the g-sound, which is apparently unnatural at Assuân.

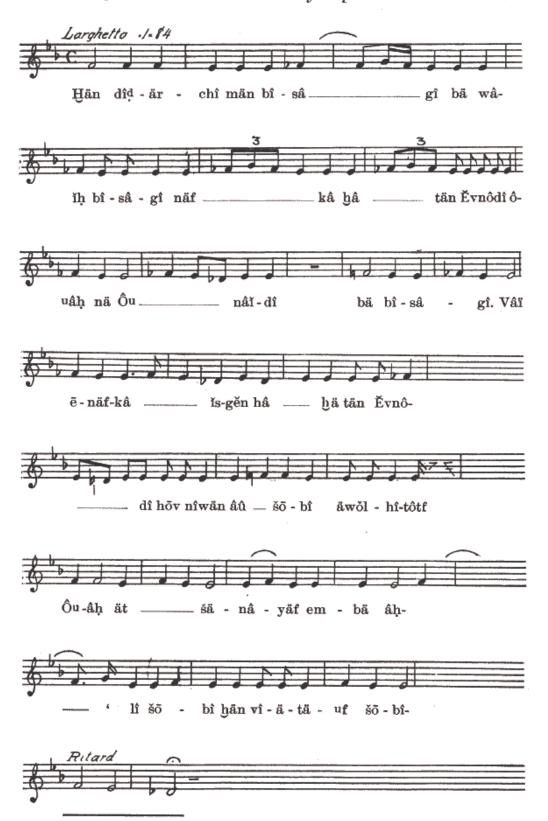
This entire subject is extremely difficult and is deeply involved in the question as to the origin of the g-pronunciation of Egyptian. Did the first Arabic-speaking conquerors of Egypt utter the as g or as j? It is true that g for is generally regarded as the primitive pronunciation of the consonant in the early Arabic. It is also true that is still pronounced g in some parts of Arabia. According to Wetzstein (ZDMG. xxii., pp. 163-4) the Aneza pronounce as hard g formed in the front of the palate, a sound which in some other tribes has developed into y at the beginning of words and has been palatalized into dsy at the end of words. This undoubtedly shows, then, that

The following instances of differentiation between Cairo and Assuân in the text of John i. l ff. are interesting: B. $n\bar{e} = S$. $m\ddot{a}n$ (Greek $\mu\acute{e}v$); B. $\check{e}p\bar{o}n\dot{p} = S$. $u\ddot{o}n\dot{p}$ (with the indefinite article); B. $u\acute{o}h$ $\check{e}p\bar{o}n\dot{p}$ $n\bar{e}$ $\check{e}vu\acute{o}ini=S$. $o"a\dot{h}$ $\check{e}nd\bar{e}$ $\bar{o}nh\check{i}$ viuvdini; B. $\ddot{a}f\check{e}rd\ddot{o}ini=S$. $\ddot{a}fu\acute{o}ini$. These variations, with one exception, are probably not due especially to vagaries of cantillation, but arise from slightly differing texts. The printed versions of the Coptic Scriptures in Egypt are not entirely in agreement with respect to minor points. Indeed, one of Labîb's chief objects is to establish by means of his new press a standard edition of the Scriptures. The exception noted above is S. $\bar{o}nh\check{i}$, which plainly shows an enclitic helping vowel, quite after the modern Egyptian Arabic style. This I cannot regard as a Coptic peculiarity (see above). The intercalated d in $di^{d}archi$ is evidently an attempt to avoid a hiatus in cantillation.

The tone or air to which the Assuân priest sang his verses is very interesting both from the musical and from the textual point of view. In order to illustrate its singular character, a few bars of it are given herewith. So far as I am aware, this is the first specimen of Coptic cantillation published in this country.

It will be noticed that the air begins on the dominant, proceeding almost immediately to the sub-dominant, and then modulating between the sub-dominant and the flatted dominant! This is a distinctly Oriental peculiarity. In the tenth bar the singer begins a new musical phrase by reverting to the natural dominant. It should be observed—and this is very strange—that the ninth bar, which is a pause after the word Oundidi 'God' (musical pronunciation for Ounoudi), does not end, but interrupts a sense phrase; thus, o'ah na O'andidi ba bisagi means 'and God was the word.' This can only be explained by the supposition that the pause was purposely introduced in order to attract attention to the words ba bisagi 'he was the word.' The entire chant modulates solely between fnatural and d-flat, i. e., it touches only three notes, being even more limited in its musical range than the ordinary vernacular Arabic songs, which usually have a scope of at least five notes. The chant is sung without instrumental accompaniment.

It is not the purpose of this article to treat of the very considerable influence of Coptic on the sentence construction and



vocabulary of the present Egyptian Arabic vernacular. This, together with the highly interesting subject of the Coptic phonetic treatment of Greek loan-words, must be left to another paper. It will readily be seen that the study of modern Coptic phonology is of great importance both for the Egyptologist and for the general philologist; for the Egyptologist, because only through Coptic can any knowledge of the vocalization of ancient Egyptian be arrived at, and for the general philologist, because we have in the present system of Coptic pronunciation what apparently practically corresponds to a phonographic echo of a long dead speech. Perhaps the closest modern parallel is the ceremonial use of Old Slavonic in the Slavic churches.

The present article is merely an attempt to illustrate the main characteristics of the church Coptic as it is uttered in Egypt to-day. The writer has felt himself chiefly hindered by the scantiness of the data which he was able to collect, as well as by the frequent untrustworthiness of Oriental information. In every case, however, where his Coptic instructor seemed uncertain, the statements have been either omitted or given tentatively. It is much to be hoped that the writer's efforts in this direction will be followed by further investigations on the part of European and American scholars.