

Πισρωου ντασπι νρεωνχηωι απεωσιτ

The Sounds of Old Bohairic

(A Short Phonological Outline)

Preface:

What follows represents the results of my attempt to study and analyze the phonemes of the Bohairic dialect of Coptic. In particular, the so-called "Old-Bohairic" pronunciation as opposed to that of current liturgical usage; the so-called "Greco-Bohairic".

I have attempted to construct a phonemic inventory of the language (i.e. a table of underlying sounds) and show how these phonemes are represented orthographically (i.e. how these sounds are written). I have also attempted to determine and analyze the phonetic rules of this dialect, and finally end with a sample of texts along with the phonetic transcription to illustrate Old Bohairic (OB) pronunciation.

The purpose of this short study is twofold – It was undertaken to better understand and learn the pronunciation of this particular variation of Bohairic Coptic and also, hopefully, as a tool in helping others wishing to pursue the same. As a result, I have attempted to keep the linguistic terminology to a minimum and where used, have tried to explain the terms. My goal was to make this outline accessible to as wide an audience as possible. During the course of this short study, I have noticed a marked lack of previous work done on this subject. Thus, it is quite possible this short outline may represent some "ground-breaking" work. If that is indeed the case, I hope it will be just the beginning of many other studies to follow.

I am greatly indebted to many in the Coptic community, most of whom I only know through various e-mails back and forth discussing the many questions I had, who have graciously offered their expertise, assistance and time in helping me to better understand this language. It is truly a testament to the endurance of this ancient tongue and, I would like to think, expresses the sincere hope of the present speakers to pass this knowledge on to the next generation. God willing, what has come to be known as the "oldest continuous spoken language in the world" will live on for generations to come.

Introduction:

When you speak a language, you are uttering a sequence of sounds made coherent by mutually agreed upon rules called grammar. Some of the sounds you say undergo changes depending on the sounds around them. What I have tried to do is take a closer look at the sounds of Coptic and formulate some general rules. For example, what are the true sounds of this language and do some of these sounds change depending on where they occur in a word? Are these changes predictable? If, so, can we create a set of rules which will allow us to predict how and when these sounds will change? Are there sounds which may have existed in the language which have died out and fallen together with other similar sounds? How are the sounds of this variation of Coptic correctly written?

These are all questions I have attempted to answer in this short study. But first, let's take a better look at the particular variation of Coptic I've attempted to study.

In the simplest terms, Coptic is the final stage of the Egyptian language. It is characterized by the fact that it contains a large amount of Greek loan words; a result of the Hellenization of Egypt, a process by which many aspects of Greek culture were introduced into Egypt, including the Greek language. The other distinguishing feature of Coptic is that it has come to be written in a variation of the Greek alphabet, save for several letters which come from the Demotic form of Egyptian hieroglyphics.

There were several regional differences of Coptic called dialects, very similar to what one finds in the modern world. The English of Yorkshire, for example, is not the same as the English of London, or the English of the deep American South or of New England, but it's still all considered English. The same holds true of Coptic; there are several variations or dialects, but they're all still Coptic/Egyptian. One of

these dialects is called Bohairic. It's not within the scope of this study to get into the development or history of this particular dialect; suffice it to say that Bohairic has come to be the dialect adopted by the Coptic Church for use in the Liturgy and Hymns.

Bohairic went about its own way and continued to develop naturally through the centuries as all languages do. In the 1800's, there was an attempt to make Coptic more closer to Modern Greek in pronunciation. Again, it's not within the scope of this study to go into the history of why this happened, but rather suffice it to say that this resulted in a "new" variation of Coptic which has come to be referred to as Greco-Bohairic (GB). This new, more or less, artificial pronunciation of the language was adopted by the Church and is now the variation currently in use by the majority of people for the Liturgy and Hymns.

The older pronunciation, known as Old-Bohairic (OB) however, is still used and taught, as this represents the language as it has naturally developed. The question as to whether or not the Greco-Bohairic variant can be considered part of the natural development of Bohairic, and the older pronunciation dropped in favor of this newer one, is the question of some heated debates and either position can be argued quite well. For the purpose of this study, I'm treating GB as a "variation" of Bohairic and thus, though I may refer to it for comparative purposes, is not part of this study per se.

Please note that the term OB here is used with a specific reference. In normal linguistic and historical context, Old Bohairic refers specifically to an early stage of the Bohairic dialect – most usually to the language as it was spoken and written in about the 4th century. I would suggest the term Traditional Bohairic (TB) rather than Old Bohairic be adopted to refer to this variation so as not to confuse it with the linguistic and historical context.

Part I – The Sounds of Old Bohairic

A) Basic Overview of Phonology

Before we examine the sounds of Old Bohairic, some basic understanding of the science of phonology is necessary. Therefore, what follows is a very brief, simple introduction to the linguistic field of phonology.

When Linguists look at a language, one of the tasks we must determine is what sounds exist in that language (often called the "Target Language", or just TL). A sound is called a "*phoneme*" in linguistics. One way to start is to take a look at published works. Granted, with Coptic, not much has been done, but enough so that a preliminary outline or list of sounds may be compiled. These sounds are written in what is called the International Phonetic Alphabet (or IPA for short). This is a mutually agreed upon system of writing the sounds of human language universally used by Linguists so that no matter what a person's native language may be, he/she will be able to "read" IPA. With the IPA, there is typically one symbol, or combination of symbols, for every possible sound in human language. As you'll note, IPA symbols are typically enclosed in slant brackets (/ /). Phonetic transcriptions are enclosed in square brackets ([]).

The "list" of sounds that occur in any one given language is arranged in a very systematic table or chart called a *phonemic inventory*. From left to right, we begin with sounds made with the two lips (called 'bilabials') and continue all the way back down the mouth to sounds made right at the voice box (glottal sounds).

From top to bottom we arrange the chart to start with sounds in which there is a complete blockage of the air flow out of the mouth (sounds called "stops", since the air flow is stopped completely) to sounds that simply flow out with either no or minimal blockage of the air flow (glides).

Finally we have the various sounds not blocked at all; these are the vowels, and they are arranged in a separate chart on which from the left to right indicate from the front to the back of the mouth. Top to bottom of the chart represents from high in the mouth to low in the mouth where these vowels are produced. For example, if you quickly repeat the "ee" sound in "meet" followed by the sound of 'a' in "father", one thing will become apparent, when you go from one sound to the next, your jaw will drop.

This is because the "ee" (IPA /i/) is pronounced high in the mouth while the "a" (IPA /a/) is pronounced low in the mouth. Now try the same /i/ in "meet" followed by the "oo" (IPA /u/) sound in "boot". Notice how the vowel in "meet" is way up front in the mouth and with the vowel sound in "boot" you're almost swallowing it – it's made in the back of the mouth. So we may describe vowels linguistically with two qualifications; height (high, mid, low) and where produced in the mouth (front, mid, back). There is a third distinction we must also take into account – whether or not the mouth is tensed when the sound is made, or lax. For example, as you'll see from the chart, /i/ and /I/ are both high front vowels. The only distinguishing feature is that /i/ is "tense", while /I/ is "lax". Another distinction made for vowels is whether or not the lips are rounded when producing the sound; /u/ is rounded while /i/ is not.

With consonants, there are two main types; obstruents – those in which there is some sort of blockage of the air flow, and resonants – those in which there is minimal blockage, if any at all. So we can describe a consonant sound in two ways as well; by **place** of articulation (*where* in the mouth it's produced) and **manner** of articulation (*how* it's produced). For example let's take the phoneme /m/. Its place of articulation is "bilabial" – the sound is made by the two lips. Its manner of articulation is "nasal", that is, the air flow is not at all blocked (so therefore it's also a resonant), but rather, the air flow is pushed through the nasal passage. So we may describe /m/ linguistically as being a bilabial nasal.

But it doesn't quite stop there! We have to also tell whether or not the vocal cords vibrate when the sound is being made, i.e. if the vocal cords vibrate, the sound is said to be "voiced". If the vocal cords do not vibrate, the sound is said to be "voiceless". So with /m/, we may now call it a "voiced bilabial nasal". If we want to clarify it further we can add "resonant" to the description as well, but that's more or less redundant. All vowel sounds are by their nature voiced, thus we do not need to specify this feature in descriptions of vowels.

OK – so, now that we have an idea of how the sounds of language are classified, certain generalities can now be made. Typically, obstruents will occur in pairs; that is, there will be a voiceless one and a voiced one. Where you find "evidence" of one, you'd also expect to find its counterpart. In other words, if a language contains the sound "p", it will most likely contain the sound "b", since the only difference between the two is that one is voiced, the other is not (both are bilabial stops - /p/ is a voiceless bilabial stop, /b/ is a voiced bilabial stop). This doesn't always happen, but it gives the Linguist something to work with in trying to determine the sounds of a given language.

Now, say we have a particular sound or phoneme, the phonemes that occur before and after it are said to be its "*phonemic environment*". It just so happens that oftentimes when phonemes occur in a particular phonemic environment, they will undergo some sort of change and be pronounced differently. This is where the concept of rules comes into play. One of the more difficult tasks of the Linguist/Phonetician is to try and determine if the language in question even exhibits this behavior, and if so, to formulate the rules which govern these changes. There appear to be a few of these we can apply to Bohairic Coptic. The main phoneme from which these variations come from is called the "*underlying phoneme*". The variation(s) of this underlying phoneme that occur in a said, specifically defined, phonetic environment are called "*allophones*".

Once we have our proposed phonemic inventory and maybe some rules that seem to apply to these phonemes, we need to test them out. This is usually done by enlisting the assistance of a native speaker who will typically read a text or specific words in order to see if what we've proposed for a list of sounds and rules actually works, or if we need to re-think some of these sounds and rules. The process continues until we're fairly sure we have everything well defined. Then we can draw up a final phonemic inventory and a set of rules which apply to these phonemes. With Coptic, in addition to printed material, I have used sound recordings of hymns and the accompanying texts to try and determine my basic sounds. For OB specifically, I have used older texts with transliterations as well as the knowledge of individuals who speak this variation and, as stated above, who have graciously given of their time to assist me in this project.

Lastly, we take a look at how these phonemes in our proposed inventory are written in the *orthography* (spelling system) of the language. A *grapheme* is how a certain phoneme is written in our Target Language's orthography, whether by a letter, symbol, or however the language is written.

B] The Phonemes of Bohairic Coptic

What follows is a phonemic inventory of Bohairic Coptic (Traditional/Old Pronunciation). As you look at the chart, keep in mind that Linguists use IPA symbols for all the sounds. This is *not* a transliteration system and some of the symbols used will be new to most readers. This is the system of symbols Linguists would use to show OB pronunciation.

OB was found to have 23 consonantal phonemes and 8 vowel phonemes. There are also multiple diphthongs (a combination of two vowels) possible in OB as the vowels may be combined predominantly with /w/ (less so with /j/) to form these diphthongs. Consonants and Vowels may be illustrated by the following charts:

Consonants:

		bilabial	labio-dental	dental	alveolar	velar	glottal	
Stops	vl.			t		k	ʔ	
	v.	b		d		g		
Affricates	vl.			tʃ				Obstruants
	v.			dʒ				
Fricatives	vl.		f	s	ʃ	x	h	
	v.	β		z		ʁ		
Nasals		m		n		ŋ		
Liquids	trill			r				Resonants
	lateral			l				
Glides		w			j			

Vowels:

	Front	Mid	Back	
High	i		u	tense
	ɪ			lax
Mid	ɛ		o	tense
			ɔ	lax
Low	æ [†]	a		tense

OK, so you're probably thinking, those are cool symbols, but what on earth do they mean??!!

Let's go through each one. Where possible, I have used an example from English to illustrate the sound/symbol. But first, some quick definitions to help:

Bilabial – made with the two lips

Labio-dental – made with the bottom lip and upper teeth

Dental – made with the tongue against the teeth

Alveolar – made with the tongue against the hard part of the roof of the mouth

Velar – made with the tongue against the soft part of the roof of the mouth (called the “velum”)

Glottal – made with the vocal cords

Stops – complete blockage of air – the airflow is stopped while coming out of the mouth.

Affricates – sounds which begin as a stop and end in a fricative (see above and below).

Fricatives – sounds in which there is some blockage of the airflow, but not a complete blockage.

Nasals – sounds in which the airflow is diverted through the nasal passage rather than the mouth.

Liquids – A term from the 1960’s used to describe sounds which are trilled or pronounced with lateral airflow.

Glides – sounds which have really no blockage of airflow, but are not quite vowels – they are used as what are referred to as “on-glides” and “off-glides” to the vowel sounds.

C] Description of Phonemes

/b/ - A voiced bilabial stop. This is the 'b' in the English word "ball".

/t/ - A voiceless dental stop. This is the 't' in the English "stop". Notice when you say "stop" there's no puff of air like there is when you say "top". This puff of air is called "aspiration". The Coptic */t/* is non-aspirated!!

/d/ - A voiced dental stop. This is the 'd' in the English "dog".

/k/ - A voiceless velar stop. This is the 'k' sound (spelt 'c') in the English "scope". Like the */t/*, notice there's no aspiration like in "cope". The Coptic */k/* is non-aspirated!!

/ʔ/ - A voiceless glottal stop. This is a sound not written in English, but rather, is the 'pause' heard in between the sounds "uh-oh". For speakers of Arabic, it is something like the letter 'ain', but the pause in Coptic is not quite as strong and pronounced as it is in English and Arabic. It's more of a slight pause – almost not noticeable in some instances.

/tʃ/ - A voiceless alveolar affricate. This is the 'ch' sound in the English "church". The proper pronunciation in Coptic, however, is a bit lighter. About half way between the 'ch' of "church" and the 'ty' sound in the British English "tune".

/dʒ/ - A voiced alveolar affricate. This is the 'j' sound in the English "jump". As above, the proper pronunciation in Coptic is a bit lighter. About halfway between the 'j' of "jump" and the 'dy' sound in the British English "due".

/f/ - A voiceless labio-dental fricative. This is the 'f' sound in the English "fun".

- /s/ - A voiceless dental fricative. This is the 's' sound in the English "song".
- /ʃ/ - A voiceless alveolar fricative. This is the 'sh' sound in the English "ship".
- /x/ - A voiceless velar fricative. This sound does not occur in Standard English. It's the 'ch' sound in the German "Bach", or the Arabic letter "kha".
- /ɣ/ - A voiced velar fricative. This is the 'g' in the North German "sagen", or the "gamma" of Modern Greek. Same place and manner of articulation as /x/, but voiced! This is the Arabic letter "ghain."
- /h/ - A voiceless glottal fricative. This is the 'h' sound in the English "hot".
- /β/ - A voiced bilabial fricative. This sound does not occur in English or Arabic. It is the Spanish 'v' in "Havana". It's basically a 'v' made with the two lips instead of the lower lip and upper teeth like the English 'v'. In quick speech, this sound is almost, but not quite 'w' in "went". See comment below.
- /z/ - A voiced dental fricative. This is the 'z' sound in the English "zone".
- /m/ - A voiced bilabial nasal. This is the 'm' sound in the English "mop".
- /n/ - A voiced dental nasal. This is the 'n' sound in the English "not".
- /ŋ/ - A voiced velar nasal. This is the 'ng' sound in the English "sing". Note that it is NOT two sounds (i.e. sing-gur); it's a single sound, not two!
- /ɾ/ - A voiced dental liquid (trill). This sound does not exist in American English. It's the "trilled r" of many European languages. British English has this sound in some dialects.
- /l/ - A voiced dental liquid (lateral). This is the 'l' in the English "light", it is NOT the so-called "dark-l" of the English "ball".
- /w/ - A voiced bilabial glide. This is the 'w' of in the English "wind".
- /j/ - A voiced alveolar glide. This is the 'y' of the English "yell". Careful with this one; it's not the English 'j'!
- /i/ - A tense high front unrounded vowel. This is the 'ee' sound in the English "meet".
- /u/ - A tense high back rounded vowel. This is the 'oo' sound in the English "boot".
- /ɪ/ - A lax high front unrounded vowel. This is the 'i' sound of the English "pin".
- /e/ - A lax mid front unrounded vowel. This is the 'e' sound of the English "met".
- /o/ - A tense mid back rounded vowel. This is the 'oa' sound of the English "boat".
- /ɔ/ - A lax mid back rounded vowel. This is the 'o' sound of the English "not".
- /æ̯/ - A tense raised low front unrounded vowel. This is exactly halfway between the English 'a' in "bat" and the English 'e' in "met". It's neither sound, but rather right in the middle! For simplification, I will henceforth write it as /æ̯/; just keep in mind, that the sound is actually a bit higher in the mouth.
- /a/ - A low back unrounded vowel. This is the English 'a' in "father".

Concerning the phoneme /β/, I have included it as a phoneme of Bohairic Coptic, however, my data is not entirely conclusive. It is quite possible the phoneme may be replaced by two phonemes; /b/ and /w/. See the section on phonetic rules.

So, there we have it – the sounds of Old Bohairic. To quickly illustrate how they're used, let's take a short example.

This is the start of the Lord's Prayer in Bohairic: **Ⲭⲉ Ⲡⲉⲛⲓⲱⲧ ⲉⲧⲗⲉⲛ ⲛⲓⲫⲏⲱⲓ**.

In OB, it would be read as follows: /dʒæ bænjód ædxǽn nifáwɪ/.

The ' here shows the stressed syllable. So in a transliteration such as those that might be found in a hymn book, it might look something like "Ja Ban-yoad ad-khan ni-fawi".

For comparison, here's the same line in GB: /dʒé penjót etxén nifiwi /, or as you might recognize it; Je Penioat et-khen nifi-owi.

D] Suprasegmentals

In discussing phonology, we must also take a look at what are called the “*suprasegmentals*”. These are simply items such as stress, intonation, tone, and the like. What we need to do is determine if any of these are also phonemic, but first, we have to determine what type of language Coptic falls into.

As a brief background on this subject - there are three types of systems for indicating what is commonly called “accent” in language. They are: tone accent, pitch accent and stress accent. Tonal languages are those such as its most famous example; Chinese. Every syllable has a specific tone; if you change the tone, you change the meaning of the word. Pitch accent is sort of the “in-between” system. What's done here is that a specific syllable in a word will be said at a slightly higher pitch than the remaining syllables. They are also similar to stress accent languages but instead of stressing a specific syllable, you simply raise the pitch of your voice; change the pitch from one syllable to another in a word and you could also change its meaning. The best example of a pitch accent language is Japanese. Finally there is stress accent. What's done here is simply stressing a particular syllable in a word. The voice does not get raised, nor are there tones; simply stated, more emphasis is placed on a particular syllable. In some languages, if you change the stress on a word, you change its meaning – for example in Russian, there is a word written as “Му́ха” /muxa/. If you stress the first syllable, /múxa/, the word means “flour”, change the stress to the second syllable, /muxá/, and it means “fly (the insect)”. Some languages combine either pitch accent or tone accent with stress accent (you can not combine pitch accent with tone accent!). Swedish is perhaps one of the best examples of this; it combines stress accent with pitch accent. It's one of the things that give the language its distinctive “sing-song” quality.

Coptic is a stress accent language. In Coptic, however, stress does not appear to be phonemic – I have not been able to find a minimal pair (like the example of /muxa/ above) in which the only distinguishing feature is stress. Coptic is also a very highly compounding language, that is, it likes to add (predominantly) prefixes and (to a much lesser degree) suffixes to a “root” word. All of these prefixes are what are called “*proclitic*”, that is they are not stressed and they are “bound” to the root word (i.e., they can't really function as words on their own – they are “bound” to the root word and never occur alone).

For example in Lambdin's “Introduction to Sahidic Coptic”, he gives the example of the Sa'idic word **ⲬⲚⲧⲉⲠⲙⲏⲧⲁⲧⲧⲁⲕⲟ**. It may be broken up as follows: **ⲬⲚⲧⲉⲠⲙⲏⲧⲁⲧⲧⲁⲕⲟ**, “in his imperishability”. The “root” word is the final word “**ⲧⲁⲕⲟ**”. The stress in this particular word is on the final syllable.

So, how do we determine where the primary stress falls in a Coptic word??!!

To paraphrase from Lambdin, the main stress in Coptic is on the final element of a compound, thus, stress in Coptic will always be on either the ultimate (final) or penultimate (next to last) syllable. The application of the following rules will enable one to correctly determine on which one of these two syllables primary stress falls in a Coptic word in all but the fewest cases. The rules must be applied in the order given:

- 1) The vowels μ , o , and ω are always stressed.
- 2) Final simple $-\bar{\alpha}$ and simple $-t$ are always stressed.
- 3) Final $-o\tau$ is stressed except:
 - a) When it is the suffixed form of the 3rd person plural
 - b) In a few particular words ($\mu\alpha\lambda o\tau$, $\sigma\mu o\tau o\tau$, and $\mu\alpha\sigma o\tau$).
- 4) Final $-\epsilon$ is unstressed except in some adjectives
- 5) A final syllable marked with the djinkim (supralinear stroke) is never stressed unless it is the only syllable in a word.

If the same vowel occurs in the ultimate and the penultimate, Coptic typically favors stress on the penultimate.

So, there we have it, how to determine where stress falls in Coptic.

Part II – The Orthography of Bohairic Coptic

Before moving on to phonological rules, we should take a look at Bohairic orthography, that is, how the phonemes listed above are written.

Writing in language came as sort of an afterthought; people were speaking long before they were ever writing. As a result of this, orthographic (writing) systems were designed by people who already knew how to speak the language! They were not designed for the foreigner to learn the language! Case in point is English – as many a foreigner can attest, it's just not written the way it's pronounced (or so it would seem).

To this extent, we are fortunate with Coptic. As a borrowed system of writing (the Egyptians borrowed it from the Greeks), rather than a naturally developed one, there was a conscious effort made to keep the letter to sound ratio at one to one, i.e. one sound for every letter, one letter for every sound. This, of course, doesn't always work – more so for vowels than for consonants and Coptic is no exception, though it has maintained this one to one relationship fairly well.

The easiest way to illustrate this is to take each phoneme as we have above, and assign it its orthographic representation.

You will notice that this is where OB seems to differ the most from GB. You have to sort of re-learn how to pronounce the Coptic letters. We'll look at the actual letters first and address each one below.

A] Consonants

/b/ - μ , ϕ , (B)

/t/ - θ

/d/ - τ , Δ

/k/ - κ, χ

/g/ - γ

/ŋ/ - V__V (Two vowels, typically identical but sometimes not – the glottal stop is between the two with the stress on the first vowel.)

/tʃ/ - τ

/dʒ/ - ζ

/f/ - φ

/s/ - σ

/ʃ/ - ψ, χ

/r/ - ρ

/x/ - χ, χ

/h/ - ε

/β/ - β

/z/ - ζ

/m/ - μ

/n/ - ν

/ŋ/ - γγ

/t/ - π

/l/ - λ

/w/ - ρ, ορ (written ρ after a vowel, written ορ before a vowel) (β)

/j/ - ι (followed by a vowel)

There are also the following letters which are combinations of the above phonemes:

/ks/ - Ⲛ

/bs/ - Ⲟ

/dI/ - ⲓ

B] Vowels

/i/ - Ⲉ (i)

/y/ - Ⲑ, ⲑ

/u/ - Ⲓ

/e/ - Ⲕ the "djinkim".

/o/ - Ⲗ

/ɔ/ - Ⲙ

/æʰ/ - Ⲛ, ⲛ

/a/ - Ⲟ

C] The Coptic Letters

Let's take a look at these letters one by one in alphabetical order.

Ⲟ – this has always been /a/. There is a tendency, probably due to Arabic influence, to pronounce it as /æʰ/, so that in both OB and GB, a word like ⲡⲁⲚⲟⲩⲧⲏⲣ, comes out as /pæʰotír/, but this is not correct. In OB and GB it's /a/, so /pasotír/ in GB and /basodæír/ in OB. See below in General Observations for further comment on this letter.

Ⲟ – when asked, many people will say this letter represents a sound that fluctuates between /v/ and /w/ and sometimes even /b/. This is a classic description of the sound /β/. Some will hear it as /v/, some will hear it as /w/ or even /b/ depending on its phonemic environment. The correct pronunciation of this letter in OB, however, is /β/ which is a bit tricky even for "native" speakers. My data is inconclusive as to whether or not this represents /β/, or whether or not it may be either /w/ or /b/. See the section on phonetic rules.

- ϣ – this letter has always been /g/ when found in a Coptic word, however, it's not a common sound to native Coptic words. It's typically found in Greek loan words where it receives the sound of /s/. Doubled, it is /ŋ/ this sound also being a Greek borrowing. See the rules below.
- Δ – this has always been /d/ and is a letter used almost exclusively in Greek loans.
- ϵ – this letter represents the sound /æʔ/. Notice this is one of the major distinctions between OB and GB, though see the comment below.
- ϛ – this letter represents the sound /z/. Occasionally, it will appear as a variant of c /s/ in some words which leads one to suspect that in early Bohairic, c /s/ was voiced to /z/ when it occurred in a voiced environment, but continued to be spelt as c.
- Ⲟ – this represents two sounds; /æ/ and /i/. For which one to use, see the rules section below.
- ϑ – this represents the sound /t/. At one time in very early Bohairic, it was the sound /tʰ/ (an aspirated 't'). It merged very early on with /t/, probably about the same time as ϣ became pronounced as /d/.
- Ⲛ – this represents the sound /i/. Many want to pronounce it as /i/, but this is not correct, with the exception of very few Greek loans. See comments below.
- κ – this has always been /k/.
- λ – this has always been /l/.
- μ – this has always been /m/.
- ⲛ – this has always been /n/.
- ϙ – this represents a combination of the two sounds /k/ and /s/. so /ks/. The combination is probably not native to Coptic words in word initial and word final position and occurs in native Coptic words in word medial position only.
- ⲟ – this represents the sound /ɔ/.
- Ⲡ – this represents the sound /b/ (from an earlier unaspirated /p/)
- ⲡ – this represents the sound /r/
- ϥ – this represents the sound /s/ - in a very few instances when next to the sound /n/, it is realized as /z/. See "z" above

ⲧ – this represents the sound /d/ (from an earlier unaspirated /t/). Occasionally in Greek proper nouns it receives the sound /t/.

Ⲩ – Alone, this represents the vowel sound /i/, however in the combination "ⲟⲨ" it represents the /u/ sound - if preceded or followed by a vowel the "ⲟⲨ" combination represents the /w/ glide.

This is the main diphthong maker in Coptic. When a vowel precedes "Ⲩ", both sounds combine to create a diphthong; the initial vowel receives its normal sound and is followed by a /w/ sound, so for example, the combination "ⲁⲨ" represents the diphthong /aw/, the same sound in the "ow" of "how", or "cow".

Ϥ – this represents the sound /b/, or /f/. At one time, this was an aspirated 'p' /p^h/. See the rules below.

Ϩ - this represents the sound /k/ in Coptic words. In Greek loans it has two values; /x/ and /ʃ/. For which one to use, see the rules section below. At one time it represented an aspirated 'k' /k^h/.

Ϩ – this represents a combination of the two sounds /b/ and /s/, so /bs/. It's found mainly in Greek loans, or can be used where Coptic has the combination of sounds /b/ and /s/. Notice the /b/ here is the Coptic letter 'pi'

ⲟ – this represents the sound /o/, though see the comment below.

Ϩ – this represents the sound /ʃ/.

Ϥ – this represents the sound /f/.

Ϩ – this represents the sound /x/.

Ϩ – this represents the sound /h/.

Ϩ – this represents the sound /dʒ/, though historically, in Bohairic, it represented the sound of /tj/, the 'ty' of British English "tune".

Ϩ – this represents the sound /tʃ/. Historically, in Bohairic, it represented the 'ty' sound as above, only aspirated (pronounced with an accompanying puff of air)

† – this represents a combination of the two sounds /d/ and /l/, so /dl/

' – this is the djinkim – not used in OB nearly as much as in GB. It represents the sound /ε/, but see the comment below.

D] A Few General Observations:

- I have noticed that many speakers will not really differentiate between OB and GB in the pronunciation of the letter ε. Many speakers tend to pronounce this as the 'e' in "met" /ɛ/ as is done in GB. I suspect this is due to their familiarity with GB and perhaps subconsciously they tend to revert to the GB pronunciation. In more careful speech, it should be realized as /æ/ - sometimes the difference is hard to notice.
- Also, with ω and o. Many people seem not to differentiate much between the two sounds, indeed, if at all. For many speakers, both are pronounced like /ɔ/. This tends to be also heard with the GB variant. Whether or not it's careless pronunciation on the part of the speakers is not known. It's quite possible the two vowel sounds are in the process of "leveling out" – a process (which occurs over time) by which two similar sounds eventually merge into one. Suffice it to say that care should be taken to distinguish two distinct vowel sounds. Note that in Modern Greek, the two sounds have fallen together as /ɔ/.
- The letter ι also displays a twofold pronunciation by many speakers. It should be /i/ in all positions, but it very frequently is pronounced as /i/ in open syllables and /ɪ/ in closed syllables. By open syllables, I mean when you divide the word into syllables, those which have the structure (C)V (optional Consonant(s) + Vowel) are said to be "open", those which have the structure (C)VC (optional Consonant(s) + Vowel + Consonant(s)) are said to be "closed".
- The letter α also seems to fluctuate between /a/ (the 'a' of "father") and /ɑ/, the long Arabic 'a' (in Ar. îrân the country name, Iran) – this is sort of like the 'aw' of the English "law". It tends to receive this pronunciation when stressed, however, I suspect this to be an influence from Arabic, since /a/ is lacking in Arabic. When stressed, either pronunciation can be used for α, but /a/ is more correct.
- As some of you will no doubt notice, a sort of quick "cheat sheet" for OB pronunciation of consonants is that the labial and dental voiceless stops, /p, t/, written in Coptic as π τ, are realized phonetically as their voiced counterparts /b, d/. Older aspirates, written as φ θ χ, become unaspirated and as a result are realized phonetically as /p, t, k/ - with φ however, the /p/ it falls together or levels out with π and both letters are realized phonetically as /b/. Also as a result, there is no /θ/sound in OB ('th' in the word "three"), nor is there a /p/ sound.
- The djinkim tends to have three basic sounds – it appears as if either one may be used. Since historically, however, it represented the letter ε, I should think the more historically correct pronunciation is /æ/. One also hears /ɛ/ and /ɪ/. All three sounds seems to be in free variation, that is, you can use either one without changing the meaning of the word or fear being misunderstood. The variation /ɛ/ seems to be the most commonly used, and the one I have adopted in the transcriptions.
- Also, let me just mention that β is frequently pronounced as /f/, rather than /tʃ/. I suspect that this may possibly be an influence from Arabic. It's correct pronunciation is /tʃ/. It's common to hear /bæʃɔis/ instead of /bætʃɔis/ for β̄ ο ι c.

OK – now that we have our sounds down pat and we can see how those sounds are represented, we have to ask ourselves; do any of these sounds change if they are found in a specific phonological environment? In other words, if a particular sound is found next to other certain sounds will it change the pronunciation of that particular sound?

The answer is, of course, yes. As I'm sure you noticed, some of our letters above can have two different pronunciations. These are where what are called phonological rules come into play. Phonological rules are rules which dictate that under a certain set of specific circumstances, a sound, or sounds, will undergo specific defined change(s).

Before we get into Phonological Rules, we need to take a brief look at Coptic from the perspective of the Historical Linguist. Historical Linguistics is the study of the history and development of languages. It's quite a fascinating field as the Historical Linguist studies how a particular language developed and changed over time!

It is not within the scope of this outline to delve deep into the history and development of the Coptic language – but some history of the phonological development of Coptic comes into play with our rules and why it is Coptic is the way it is. So, let's go back into time to the period which we can call very Late Egyptian and Early Coptic – there's a fine line between the two, but as you'll see, the changes that occurred in Coptic during this time frame have a direct impact on how Coptic, particularly Bohairic Coptic, is pronounced.

Part III – A Few Historical Developments of Bohairic Coptic

Dental, palatal, and velar voiced stops neutralized in the 1st century AD, thus the letters ⲗ ⲛ ⲣ only occur in Greek borrowings, and the later two *sounds* (/z, g/) do not occur in Coptic words.

What this means is that at a very early stage, the sounds /d, z, g/ merged with /t, s, k/. The /t/ subsequently became voiced to /d/ in OB, but is still represented orthographically as ⲧ.

Bohairic orthography conveys a traditional feature of Egyptian phonetics, namely aspirated stops which are written with the so-called *aspiratae* of Greek. Voiceless stops become aspirated when immediately preceding a tonic vowel (a vowel which carries the primary stress), semivowels and sonorants (including /β/).

So,

p, t, c, k > p^h, t^h, c^h, k^h / _{V, b, m, n, l, r, w, j}

or graphemically (using Coptic letters) -

ⲡ ⲧ Ⲭ ⲫ > (> = "become) Ⲥ ⲥ Ⲧ ⲧ in the environment of directly preceding a tonic vowel (i.e. one which receives the main stress), or Ⲗ ⲗ Ⲙ ⲙ Ⲏ ⲏ Ⲑ ⲑ Ⲓ (when ⲑⲒ and Ⲓ are used as glides (w, j)).

An interesting property is also displayed. /t,c,k/ representing the outcome of Egyptian voiced d /d/, ḏ, /j/, g /g/, and of uvular q /q/ are not aspirated when immediately preceding the tonic vowel: τλπ "horn", τωρῖ "hand", χῖωῖ "to find", κᾶϥ "bone". In pre-sonorant environments, the rule is upheld: ϑρεϥ, ϑβα "ten thousand", β̄ρηχι "dowry", χβοβ "to become cool".

The above phenomenon can be interpreted by assuming that in spite of the forward movement of their point of articulation in later Egyptian from palatal to dental, from velar to palatal, from uvular to velar, these three phonemes of earlier Egyptian preserved in fact in prevocalic position their ejective articulation down to Coptic:

ḏ = /j/ = [c'] > /d/ = [t']

g = /g/ = [k'] > /j/ = [c']

q = /q'/ > /g/ = [k']

This justifies the use of χ and the Greek tenues, rather than the mediae to indicate them in writing:

τ for /d/ = [t']

χ for /j/ = [c']

κ for /g/ = [k']

On the contrary, etymological t, t, and k (/t, c, k/) which were not ejective, but aspirated stops (t^h, c^h, k^h), maintained aspiration in the environments described above.

An indirect, but very cogent proof of their actual phonetic articulation as ejectives is offered by the fact that these phonemes behave phonologically as if a sequence of "stop + glottal stop" such as "πωπ" 'the account' π (def. art.) + ωπ (lexeme) – we do not see *ψωπ – because /p/ here does not immediately precede the stressed vowel /o:/, but rather the first *consonant* of the lexeme; i.e. the /ʔ/: pwp = /pʔo:p/.

Indirect evidence of the ejective character of voiceless stops in Bohairic is also provided by a late medieval Arabic version of the Apophthegmata Patrum in Coptic script.

While in Arabic transcriptions of Coptic words voiced /d/ and pharyngealized voiced /ḏ/ are used as a rule to indicate τ, as in τεντωρε > Ar. dandara (city of Dendera) – meaning τ was neither articulated like Arabic /t/ which was aspirated, nor like Arabic /ṭ/ which was pharyngealized. τ and κ are used in this text to render Arabic /t/ and /q/ and also ϑ and ϥ, for Arabic /t/ and /k/. Since the feature [+ASP] is neutralized in final positions, it is not surprising that at the end of a word Arabic /t/ is sometimes rendered by Coptic τ and Arabic /k/ by Coptic κ.

On the other hand, the letter Δ /d/ = [d], which appears in Greek loans, is used in this text to transliterate Arabic /d/.

This seems to point to the fact that the letter τ, at least in a number of cases, stood for a phoneme exhibiting a specific phonetic feature in addition to [VL] + [-ASP]: both diachronically and synchronically, glottalization appears here to be the most likely candidate.

We should probably posit for the entire Coptic domain (though graphemically mirrored only in Bohairic) the presence of three stops in the dental, prepalatal and velar region:

Voiceless Series	p, t, c, k	characterized by optional aspiration.
Voiced Series	b, d, g	limited to Greek loans (with the exception of 'b').
Ejective Series	t', c', k' /d, j, g/	never exhibited aspiration and therefore resisted a merging with the corresponding voiceless phonemes.

Graphemically:

Voiceless	Greek tenues	π, τ, κ, χ
	or by aspiritae	ϕ, θ, χ, ϛ in stressed prevocalic or presonorant environment.
Voiced	Greek mediae	β, Δ, γ
Ejective		limited to Egyptian vocabulary by tenues τ, χ, κ but this time without Bohairic change to the corresponding aspiritae in stressed prevocalic or presonorant environment.

Essentially what the above offers is "proof", from a Linguistic point of view, as to why OB will articulate these particular letters as voiced stops, rather than voiceless as in GB – it's because etymologically/historically they come from voiceless ejective stop consonants, that is, voiceless stops which are accompanied by a glottal stop. Though this is where they come from historically in an older form of Egyptian, they are realized phonetically in Bohairic (OB) as voiced stops.

Concerning /c, c^h/ - remember I had mentioned that historically, the letter χ represented the sound of 't' in the word "tune" in British English pronunciation. Thus it is grouped together with other stop consonants when this rule applies. The IPA symbol for the "ty" sound is /c/.

This phonetic rule proves that Ϟ' /c^h/ represents in Bohairic the aspirated variety of χ /c/, and the value of Ϟ' in Bohairic differs from its function in all other Coptic traditions, where it indicates /j/ (the 'ky' sound of the English "cue"), a sound absent in Bohairic where it merged with χ /c/.

The above process also accounts for the convention of writing the letters ϕ and θ in front of the aforementioned sounds/letters. This is why the definite article in Bohairic has three forms instead of just two, as in Sa'idic, for each gender.

Let me elaborate a bit on this feature since it's one of the things that make Bohairic, Bohairic.

First, as was previously mentioned, Bohairic is just one of several dialects of Coptic. But what, you may ask, makes a variety of a particular language a dialect as opposed to say, just a regional accent? This is a very tricky question, but typically what sets a particular variety of a language off from another – enough for the varieties in question to be considered dialects of a single language (rather than simple regional accents like we have here in the US), is that there will usually be some feature that will be unique to that variety which developed independently from all others. That feature or features is usually something which can be traced all the way back to the common ancestor of both varieties.

Anyone who has taken a look at Sa'idic Coptic will at once notice that there are some definite differences in the way words are spelt. Sa'idic, for example, uses the combination 'ei', where Bohairic has simply 'i'. In many instances where Sa'idic has 'o', Bohairic has 'w', etc.

Another feature which makes variations of a language dialects is grammar. Sa'idic grammar, though very similar, is not quite the same as Bohairic. There are some grammatical features of one that simply would not work in the other, or at best, sound very odd or awkward.

So, we have phonological differences and grammatical differences. It's these two main features which set variations of a given language apart enough to be called dialects.

The interesting thing is that that Bohairic has a phonological feature in which we can see a little of the history and development of the language and how it veered away from other variations to eventually become a dialect in its own right. This feature is the development of the voiceless stop consonants.

Bohairic is unique in that it had four sets of voiceless stop consonants (other dialects just had three); each set consisted of an aspirated voiceless stop and its non-aspirated twin. In Bohairic, these sounds were /p, t, c, k/ and /p^h, t^h, c^h, k^h/. OK, a few new IPA symbols here; let me explain them.

The IPA /c/ is basically the 'ty' sound discussed earlier – the 'ty' sound in the British English "tune" (tyoon); it's a very light 'ch' sound. That slight 'y' sound is called "*palatalization*" and phonemes to which this happens to are said to be "*palatalized*". The superscripted 'h' (^h) represents aspiration, that is, the sound is made with an accompanying puff of air. For example, the 't' of "Tom" is aspirated while the 't' of "stop" is not.

In Bohairic Coptic, these sounds were represented by the letters π, τ, ϣ, κ and φ, θ, ϸ, and ϣ respectively.

In other dialects of Coptic, cheema (ϸ), represented the sound of 'ky' (spelt 'c') in the English word "cute" (the IPA symbol for this is /tʃ/). How do we know then that it was pronounced different in Bohairic? Well, Bohairic has a phonological rule, as briefly outlined above, which states that voiceless stops will become aspirated when immediately preceding either a vowel carrying the main stress, the two glides (/w/ and /j/) – represented by 'w' and 'i' when adjacent to a vowel, and the sounds /b, l, m, n, r/. This is actually a traditional feature of Egyptian phonetics. So we can take a look at a few examples and see where the rule comes into play and see where we have proof that in Bohairic cheema represented the /c^h/ sound.

<u>Sa'idic</u>	<u>Bohairic</u>	
ⲡⲣⲏ	Ⲫⲣⲏ	"the sun"
ⲧⲁⲓ	Ⲫⲁⲓ	"this (f)"
ⲭⲐⲎⲢ	ⲪⲱⲎⲢ	"lord"
ⲕⲟⲩⲁⲗⲗⲏ	ⲭⲟⲩⲁⲗⲗⲏ	"you are holy"

Here we can clearly see with the third example that Ⲫ in Bohairic does not represent a /j/ sound (the 'ky' sound), but rather is the aspirated counterpart of ⲭ.

What eventually happened to Bohairic is that the voiceless stops started to be pronounced as voiced stops and leaving a sort of "empty space" or "gap" where the voiceless ones had been. This "gap" was subsequently "filled" by the aspirated voiceless stops which started to lose their aspiration and become pronounced as simple voiceless stops.

To step back a moment, we have to think of *sounds* here, not necessarily how those sounds were written. In Linguistics, this is another reason why we use the IPA; if you think of all these changes and how they were written you're liable to get extremely confused!

So the end result was that Bohairic lost its voiceless aspirated stops, but still had its voiced and voiceless stops; they just now came from different places – the voiced ones came from former voiceless ones and the voiceless ones came from former voiceless aspirated ones. This phenomena is quite common in the history and development of languages and is called, simply, a "*sound shift*".

Again, how the sounds were written is sort of irrelevant – it's the actual sounds were concerned about.

So because Bohairic kept this rule about voiceless aspirated stops before certain sounds, it resulted in some major changes to this "variation" of Coptic which differentiated it from others thus helping to enable it to develop into a separate dialect of the Coptic language.

Specifically with janja and cheema, they originally represented the sounds /c/ and /c^h/, i.e. the 'ty' sound, unaspirated and aspirated respectively. When janja started to become its voiced counterpart (a 'dy' sound like the 'd' in British English "due" (dyoo)) along with the rest of the voiceless stops, cheema lost its aspiration (just like the other aspirated voiceless stops) and started being pronounced as /c/ (just like janja used to be pronounced before it became voiced). The result was two sounds; one new one, the 'dy' sound, and one that had existed (/c/), but now came from a new source (the loss of the aspirated set of voiceless stops).

This pronunciation of these two letters, ⲭ and Ⲫ, as /d^j/ and /c/ was an intermediary change. The two sounds finally changed from being "*palatalized*" to becoming or developing into full *affricates*, though still pronounced a bit lighter than their English equivalents of 'j' and 'ch' in "judge" and "church" respectively.

This may seem like quite a lengthy explanation of just two simple sounds and their development in Bohairic, but it is because of this historical significance, i.e. that this development was unique to Bohairic, that makes the study of the development of the two sounds relevant. This is the sort of thing that Historical Linguists look at; the history and development of language.

Part IV - Phonological Rules

In this section, we're going to look at some of the rules which govern the sounds of Bohairic. As you will see, knowing where the primary stress falls in a word is very important when it comes to some of these rules.

As I mentioned, some Coptic letters can receive more than one sound – the question of course, is how to determine which sound to use for a particular letter.

There are five letters this happens to; Ⲗ, Ⲟ, Ⲛ, Ⲙ, and Ⲙ. Let's take each one individually and see what happens; as you'll see, the rules are not all that complicated:

Ⲟ - In a stressed syllable (including, of course, monosyllabic words), it receives the sound of /æ/, otherwise it's /i/. Thus we can say that /i/ is the *underlying phoneme* and /æ/ the *allophone* since it is a variation of /i/ which occurs in a specific, defined environment. The two sounds are also in what's called *complementary distribution*; where one sound is, the other isn't.

Ⲛ - In Greek proper names, it's /r/, in Greek loans it's /g/ though it seems to be in somewhat free variation with /r/. If it's doubled, it's /ŋ/. Remember that neither the sound or the *grapheme* (i.e. orthographic representation – letter) occur in native Coptic words!

Ⲙ - In Coptic words, it's /k/, in Greek words, we have two possibilities; /ʃ/ and /x/; choosing which one is fairly simple; before front vowels (/i/, /ɪ/, and /æ/), it's /ʃ/, otherwise it's /x/. The front vowels written in Coptic are Ⲟ, Ⲛ, Ⲛ – notice the djinkim (/ɛ/) doesn't come into play here. By the way, this two-way variation also exists in Modern Greek, but with a slightly different sound than /ʃ/.

Ⲙ - The rule for this one is a bit more complex. In order to pronounce it correctly, you have to know where the main stress is in the word (see page 8). The rule is, if it occurs directly preceding a vowel carrying the main stress in the word, and that vowel is not a low vowel (can't be /æ/ or /a/), it's pronounced as /f/, otherwise it's /b/. If, however, /æ/ comes from a stressed Ⲟ, /f/ is allowed. This rule also allows /f/ to be either /f/ or its palatized variation /fʲ/, which in Coptic is spelt with Ⲙ + vowel.

Ⲗ - As previously mentioned, my data concerning wida is very inconclusive. If in fact the grapheme represents the phoneme /β/, there really is no rule for it. Because of the unique pronunciation of this letter, depending on the phonemic environment, it will be simply heard or perceived to be either /b/ or /w/. Its actual sound is /β/ which is sort of somewhere in between the two. If, however, the actual phones represented by wida are /w/ and /b/, what I have noticed seems to be the following: directly preceding a *voiced consonant*, it's /b/, elsewhere it's /w/. Thus, in this case, /w/ is our underlying phoneme, /b/ is the allophone. I have chosen to represent the grapheme wida with the phoneme /β/, since I suspect this may be what it actually represents/represented. I would further suggest, since the phoneme /β/ does not exist in Arabic, what was historically /β/, has been "replaced" by the nearest Arabic sounds of /w/ and /b/. This may also account for the difficulty in "native speakers" to be able to define a rule for the variations. There is also strong evidence to suggest wida was originally /β/.

These are the main rules affecting how the letters are pronounced in OB. There are a few other rules which affect how words are written.

As many of you know, particularly in the writing of the definite article ("the"), Coptic uses ϕ and θ before certain letters, those being /b, l, m, n, r, j, w/, rather than the expected π and τ respectively. This accounts for forms like ϖΝΟΥ† and ϖΙΩΤ. With the first word, it's just a case of the ϕ before the ν. With the second, keep in mind that the 't' here is actually the glide /j/, since it's followed by a vowel, so the word without the article is /jot/, not /i-ot/!

The letters concerned are the so-called "blemner" consonants (blemner is a word formed from the letters themselves) and the two glides, /j/ and /w/. This spelling convention occurs internally in words as well. For example, we see the word "εθουαβ", rather than "ετουαβ". The reason for this change is historical and is briefly addressed in Part III, under number 2.

Geminates:

This is just a fancy name for double consonants which are the same letter, for example, the λ's in the word "αλλα". In Coptic, if there are two of the same consonants together in a word, they must both be pronounced. This results in a longer sound. In English, we do not recognize double consonants, but many languages do. The closest thing we have in English is when a word ends in the same consonant the next word begins with. For example, a "black ace" is not the same thing as a "black case". Notice that in the second example, the /k/ sound is a lot longer than in the first. Coptic does the same thing. The IPA convention for indicating a long sound is to place a colon after it, so in the word "αυουοτ", we would show that phonetically as /εm:od/. Just remember that two of the same consonants must be held longer – each one must be pronounced. This is a very common error for English speaking students in learning other languages!

In Greek loans, double consonants used to be held twice as long, like in Coptic, but I'm told the modern convention is to ignore the doubling. For accuracy and consistency, I would suggest trying to keep the pronunciation of doubled consonants in Greek words as well.

Double consonants, however, do not appear to be that common in Coptic and, in fact, the most frequently found "doubles" are 'm' and 'n'.

Vowel Reduction:

Though this really isn't a rule in Coptic – as we'll see it's already been done for us, I thought this would be a good place to address the issue.

In many languages, if a vowel does not occur in a stressed syllable, it gets reduced. That is, it does not receive its full sound, but rather comes out like something which is very obscured. Very frequently, this reduced vowel becomes the so-called "schwa-sound" (indicated in IPA by the symbol /ə/). For example, in English, the last syllable of the word "sofa" has the schwa-sound. Reduced vowels in Coptic receive the /ε/ sound and are represented by the djenkim.

The origin of this convention goes back to the days when papyrus, velum or paper were materials very scarce and very costly. It was one of the scribe's tasks to conserve as much of this precious commodity as possible. Thus, almost every square inch of the manuscript was used. In writing, one way to conserve paper space was not to use spaces between words – you ended up fitting a lot more text in. This is also where abbreviations started coming into play, particularly for words which were commonly or frequently used.

Many older languages were written without spaces between words and without punctuation (except the period) and are typically full of abbreviations; Coptic was no exception.

The same held true for a vowel sound which became reduced – there was no need to write it since it really never received its full pronunciation anyway, thus again, to conserve paper space, the djinkim started to be used to indicate this reduced vowel. In Sa'idic, this is indicated by what's called a "*supralinear stroke*", that is, a line written over the letter(s) as opposed to the grave accent (`) used in Bohairic. There is some new evidence that seems to suggest that the use of the superlinear stroke to abbreviate the names of things considered "holy" goes back to Late Egyptian when scribes frequently abbreviated the names of the old Egyptian gods and frequently employed the superlinear stroke to indicate the abbreviation. So, this may have been nothing new to the Egyptian scribes and it's possible its usage was extended to include reduced vowels.

What's curious is that, in some instances, other related words that use the same root appear where the vowel is spelt out and there is no djinkim. It gives us a clue as to what the original word looked/sounded like. I want to say that most examples of this occur in verb forms.

Finally, It must also be noted that the djenkim is much more frequently used in GB than in OB mainly due to how GB has to be pronounced. Many of these are really not necessary in OB and thus, when reading a text using OB pronunciation, can be ignored. The question then is, when do I know when to pronounce it or ignore it? Unfortunately, there's really no simple answer – you just have to start reading the text in OB and you'll see that you don't always need the djenkim to make the word pronounceable.

Word Final Devoicing Assimilation:

Another feature which is really not a rule, but comes into play with Coptic as well as many other languages, is a natural process called *word final devoicing*. Simply stated, this is the phenomena by which a normally voiced sound (specifically an obstruant) becomes voiceless at the end of a word.

For example, let's take the word "three", ⲱⲟⲙⲧ. In OB, from what has been discussed thus far, this should be pronounced /ʃɔ̃md/. However, since the /d/ occurs at the end of a word, if the word is either pronounced separately, OR if it is followed by another word which begins with a *voiceless* sound, it is actually pronounced as a /t/.

In other words, the voiced sound becomes pronounced as its voiceless counterpart. Obviously, this can only happen if the sound in fact has a voiceless counterpart. As we've seen from our charts above, this would only apply to the sounds /d, dʒ, g, ɣ, and z/ where they would become /t, tʃ, k, x, and s/. With the pairs g/k and z/s, these only happen in Greek words since the native Coptic lexicon has no words ending in either /z/ or /g/.

Keep in mind too that we're dealing with the *sound* here, not necessarily the way that sound is represented orthographically (i.e. how it's spelt).

When we have the sounds /d, dʒ, g, ɣ, and z/ at the end of a word and the next word begins with a voiced sound, these five sounds remain voiced – there's no change.

In careful speech, voiceless sounds at the ends of words do not typically become voiced if the next word begins with a voiced sound, however, in fast casual speech, this is often the case!

Keep in mind that what I have just explained is a natural process – it tends to happen naturally in human speech and the speaker is completely unaware of it. I just bring it up as a point of careful speech – i.e. it is correct to say, for example, /ʃɔ̃mt/ rather than /ʃɔ̃md/ depending on the circumstances – specifically, the phonetic environment of that word final sound. It's really nothing to consciously think about, just keep in mind that it does happen and is a part of natural language process. Also note that word final devoicing

works across lexical boundaries; that it, it's a rule which crosses word boundaries, since the beginning sound of the next word determines how the last sound of the preceding word is to be pronounced.

OK, as far as I have been able to tell, the above represents the main phonological rules affecting Bohairic Coptic. Without examining the changes that took place very early on in the language, which would be interesting for the Historical Linguist, but which really have no bearing on the current language per se, this seems to be all I can come up with for the moment. There may very well be many more rules, but analysis is rather difficult with a minimal amount of spoken and written data available.

Also please keep in mind that many of these rules are not ones you'd likely find in a grammar book – they're rules which are part of the natural language process and, as many have said to me, a native speaker doesn't have a specific rule in his/her head that he/she was taught and memorized telling him/her to pronounce, for example, the 't' in "water" as a sort of 'r' sound (more specifically as a 'flap'), and to pronounce but not actually release the 't' in words like "pat" and "bat"; he/she just knows to do this – these are "unlearned rules" which every native speaker naturally learns in the course of learning how to speak his/her native tongue. For the Linguist, however, we want to know why it is that these sounds are pronounced in such a way and formulate rules (if indeed there are any) to show us how and when to use a particular pronunciation. They are, of course, also important for a student of the language to know how to properly pronounce the target language.

Part V – A Word on Greek Loans

I would like to add a brief comment about Greek loans in Coptic. There have been some questions asked as to whether or not Greek loans should be pronounced as in Greek, rather than Coptic.

When one language borrows words from another, it makes those words its own – in other words, any loans borrowed into Coptic "become" Coptic words and are treated as if they always existed in the language. As such, they are pronounced as if they were "native" Coptic words rather than words of foreign origin.

In English we have borrowed many words from Arabic; *alcohol*, *algebra*, *alchemy*, just to name but a few. Though these words come to English via Arabic, we don't pronounce them as in Arabic; we pronounce them as if they've always been English words. The same holds true for Greek words in Coptic.

In normal conversational Coptic, Greek loans really don't present any problems. The question arises, however, as what to do with hymns that were entirely borrowed from the Greek?

This presents a bit of a unique situation with OB as Greek loans were not typically borrowed into the Coptic tradition until the mid 1800's along with the introduction of the Greco-Bohairic variant of pronunciation. Hymns borrowed from the Greek Tradition are to be pronounced as they are in Modern Ecclesiastical Greek which is, as far as pronunciation is concerned, virtually identical to Modern Greek. Ecclesiastical Greek represents a very Late Koine, almost Early Modern Greek pronunciation. Entire hymns in Greek are borrowed as just that; a hymn – it's akin to learning a song in a foreign language and trying to render it "as the natives do."

For a further discussion on Greek loans in Coptic I refer you to my study "A Brief Overview of Greek Loans in Coptic" also available on this site as a download.

Part VI – Text Specimens

In this last section, we're going to take a look at a few Coptic texts and their transliteration into Old Bohairic pronunciation based on all the above data.

The first text I have chosen is one I had been working on when I first learned that there was such a thing as GB and OB. The second is one you may be more familiar with – the Pater Noster/Lord's Prayer.

The text appears first in Coptic orthography, followed by a phonetic transcription and finally, by a normalized transliteration.

The text is Acts II:1-8. This text is read in the accompanying sound file. I read it first in Greco-Bohairic as it would normally be read, then I read it slowly in Old Bohairic. The reason it's read slow is for the listener to get a clear idea of Old Bohairic pronunciation.

Here's how the text looks in Coptic – the spacing looks a bit odd, but it prints out perfectly:

VI – A] Coptic Text

2:1 Οτοϑ εταϑχωκ εβολ ηνε πιεϑουϑ ητε ϣπεντηκοστη
ναϑουητ τηρου πε ϑι ουα.

2:2 Ηουϑοϣ ϑεν ουϑοϣ αϑωπι ηνε ουϑμη εβολ ϑεν τφε
αϑρηϣ ηουϑουϑ ενινη αμοϑ ηϑουϑ ουτοϑ αϑμοϑ απινη
τηρηϑ εναϑεμϑι ηϑητηϑ.

2:3 Οτοϑ αουτοϑουϑ ερωϑ αϑρηϣ ηϑανηλαϑ ηϑρωμ ενφηϑ.
Οτοϑ αϑεμϑι εϑεν φοϑαι φοϑαι αμωϑ.

2:4 Οτοϑ αϑμοϑ τηρου εβολ ϑεν ουπινα εϑουαβ. Οτοϑ
αϑουαϑτοτοϑ εϑαϑι ηϑανκελαϑ. Κατα ϑρηϣ εταϑϣ ηωϑ
ηνε πιπινα εϑροτεροϑω.

2:5 Πε ονον θανονον δε εγγοπ θεν ιλ̄η̄ι. θανρωμῑ νιοτ̄δαι.
Ενερωτ̄ εβολ̄ θεν̄ ωλωλ̄ νιβεν̄ ετσαπεσχητ̄ ν̄τ̄φε.

2:6 Ετασσωπῑ δε̄ η̄χε̄ ταῑσῑ. Ανωοντ̄ η̄χε̄ νιμηω̄ οτοθ̄
αγ̄ωθορτερ̄. Χε̄ ναρ̄ε̄ φογαῑ φογαῑ σωτεμ̄ ερωον̄ ετσαχῑ
θεν̄ τογασπῑ.

2:7 Παντωμ̄τ̄ δε̄ τηρον̄ πε̄ ενερωφ̄ηρῑ ενχω̄ ῡμοσ̄. Χε̄ ογχῑ
ναῑ τηρον̄ ετσαχῑ θανσαλῑλεος̄ αν̄ νε̄?

2:8 Πωσ̄ αν̄ον̄ τενσωτεμ̄ φογαῑ φογαῑ ῡμον̄ θεν̄ τενασπῑ
εταγ̄σ̄φον̄ η̄ζητ̄σ̄.

OK – I am working on the assumption that most, if not all, readers will be familiar with the GB pronunciation of the text - so let's take a look at how this would be pronounced in OB. What follows are three transcriptions. The first is a phonetic transcription using the OB variation, the second is the same text in the GB variation for comparison. The last is an OB transliteration as you might see it transliterated in a hymn book.

VI-B] Transcriptions

Primary stress will be shown by use of the accent mark ('). The syllable with the accented vowel is where the stress falls on the word. The stress in the following texts has been determined by using the rules set forth by Lambdin and paraphrased on page 8. Again, phonetic transcriptions are usually enclosed in square brackets [].

Old Bohairic

- 1) [wóh ædafdʒók æβól endzæ biʔæhów endæ dɪbændikɔsdæ nawtwæd dæru bæ hí umá]
- 2) [enuhódi xæn uhódi asfóbi endzæ usmæ æβól xæn edbæ emebraédi enutæw æwini em:óf endzóns wóh afmóh embini dærf ænawhæmsi enxædf]
- 3) [wóh aw:ónhu ærów emebraédi enhanlås enekróm æwbæf. wóh awhæmsi ædzæn ebwáj ebwáj em:ów]
- 4) [wóh awmóh dæru æβól xæn uʔæbnæwmá æfwáβ. wóh aw:ahdódu æsádʒi enhankælås. kadá ebraédi ædafdí nów endzæ biʔæbnæwmá ætrwæruʔó]
- 5) [næ wón hanwón dæ æwʃób xæn jersalæm. hanrómi enjudáj. æwærhódi æβól xæn eʃlól níβæn ædsabæsæd enedbæ]
- 6) [ædasfóbi dæ endzæ dajsmí. awtówdi endzæ nimæf wóh awʃtórdær. dzæ náræ ebwáj ebwáj sódæm ærów æwsádʒi xæn duʔásbi]
- 7) [nawdómd dæ dæru bæ æwærefæri æwdʒó em:ós. dzæ ukí náj dæru ædsádʒi hanʔalilæʔós án næ]
- 8) [bós anón dænsódam ebwáj ebwáj emón xæn dænásbi ædawdzfón enxæds]

Some of the "e's" here (representing the djinkim) could actually be eliminated in fast speech.

To illustrate the differences between GB and OB pronunciation, the following is the phonetic transcription for the GB variation. This was done to offer the reader a better comparison between the two variations and to reiterate the point that GB and OB are not dialects of Coptic in and of themselves – they are simply variations of pronunciation of the Bohairic dialect of Coptic. The "θ" here is the IPA symbol for the "th" in "three".

Greco-Bohairic

- 1) [wóh etafgók evól endzé piʔehóʔu enté tipentikostí navθuʔít tíru pé hí umá]
- 2) [enuhóti xén uhóti asʃópi endzé uʔesmí evól xén etfé emefríti enuθíw eviní em:óf engóns wóh afmóh empiní tírf enavhemsí enxítʃ]
- 3) [wóh avuwónhu erów emefríti enhanlás enekróm evʃíʃ. wóh avhemsí edzén efwáj efwáj em:ów]
- 4) [wóh avmóh tíru evól xén uʔepnevamá efwáb. wóh avuʔahtótu esádzi enhankelás. katá efríti etaʃí nóʔu endzé piʔepnevamá eθruʔeruʔó]
- 5) [né wón hanwón dé evʃóp xén jerusalím. hanrómi enjudáj. everhóti evól xén eʃlól níven etsapesít enetfé]
- 6) [etasʃópi dé endzé tajsmí. avθóʔuti endzé nimíʃ wóh aveʃθórter. dzé náre efwáj efwáj sótem eróʔu evsádzi xén tuʔáspi]
- 7) [navtómt dé tíru pé evereʃfiri evgó em:ós. dzé ukí náj tíru etsádzi hanʔalileʔós án né]
- 8) [pós anón tensótem efwáj efwáj emón xén tenáspi etavegfón enxíts]

The following represents the same text as one might find it transliterated in a hymn book. If OB were to be used in hymn-type books, some conventions would have to be adopted to indicate OB pronunciation. I have used the following conventions, though I do not necessarily suggest that they ever be formally adopted; they just happen to work here:

ô = /o/ - what is typically written as 'oa' in current books.

æ - /æ/ - I use this to distinguish between the two 'a' sounds.

w = /w/, /β/ - I use this in diphthongs as well – something you don't get in GB.

I believe the rest of the letters are as they would normally appear in current books.

- 1) Woh ædafjôk æwol enjæ bi-æho-ou
endæ dibændikosdæ nau-twæd dærou bæ
hi ouma.
- 2) Enouhodi qæn ouhodi as-shôbi enjæ
ous-mæ æwol qæn edbæ emebrædi enou-tæw
æw-ini emmof enjons woh afmoh embini
dærf ænaw-hæmsi enqædf.
- 3) Woh au-wonhou ærô-ou emebrædi
enhanlas enekrôm æw-bæsh. Woh au-hæmsi
æjæen e-bou-ai e-bou-ai emmô-ou.
- 4) Woh au-moh dærou æwol qæn
ou-æbnæwma æ-fou-aw. Woh au-wah-dodou æsaji
en-han-kælas. Kada e-bræ-di æ-daf-di nô-ou
enjæ bi-æbnæwma ætrou-ærou-ô.
- 5) Næ won han-won dæ æw-shôb qæn
i-e-rousalæm. Han-rômi en-iou-da-i. Æw-ær-hodi æwol
qæn eshlôl niwæen æd-sa-bææd en-ed-bæ.
- 6) Ædas-shôbi dæ enjæ dais-mi. Aw-tô-oudi
enjæ nimæsh woh awsh-tor-dæ. Jæ
naræ e-bou-ai e-bou-ai sôdæm ærô-ou æw-saji
qæn dou-asbi.
- 7) Naw-dômd dæ dærou bæ æw-ær-esh-færi
æwjô emmos. Jæ ouki nai dærou æd-saji
han-ga-li-læ-os an næ?
- 8) Bôs anon dæn-sôdæm e-bou-ai e-bou-ai
emmon qæn dæn-asbi ædawj-fon en-qæds.

Again, as with the phonetic transcription on the previous pages, some of the "e's" here could be eliminated in fast speech, thus not really need to be written.

Regarding the concept and debate on establishing a standardized Romanization for Coptic, I refer the reader to my study "*MIT Revised – Towards a Standard Romanization/Transliteration of Coptic*" also available as an internet download. The above is not representative of my proposed Revised MIT.

I hadn't originally planned on including this, but for comparison's sake, though not within the scope of this outline to analyze in any great detail, the following is the first verse of the above passage in Sa'idic. I have included two phonetic transcriptions; one according to Lambdin in his "Introduction to Sa'idic Coptic", the other, the pronunciation of Sa'idic as it's read today. This later pronunciation seems to incorporate features specific to Sa'idic, but also features one finds in OB. Specifically, the voicing of the stop consonants /p/ and /t/ to /b/ and /d/ respectively, the pronunciation of Coptic 'ε' as /æ/ and 'β' as /β/.

The Sai'dic version is thus:

Acts II:1 - Ἡτερεμχωκ δε εβολ ν̄βι περοογ ἠπεντηκοστη νεγωοοπ τηρογ πε ει νετερην.

The phonetic transcription according to Lambdin is:

[enterefd'ók de enól enjí pehóʔu entpentekosté næwʃóʔop téru pe hi neweréw]

Note: /e/ here is the 'e' in Latin/Italian "bene".

The phonetic transcription applying the "mix" is:

[endæræfd'ók də æβól enjí bæhóʔu endbændikosté næwʃóʔob déru bæ hi næwæréw]

I would call Lambdin's pronunciation as being more "classical" while the later pronunciation perhaps more "modern", if I may use the term.

As you can see, the Sa'idic is indeed different from the Bohairic version both in vocabulary and pronunciation. For a longer sample of Sa'idic, I refer the reader to the Lord's Prayer as it is read in Sa'idic by coptichymns.net member Atthoowi available on this site. He uses the later pronunciation shown above for Sa'idic.

The second text I chose is one that many readers I suspect will be much more familiar with – the Lord's Prayer. Again, to illustrate the differences between GB and OB pronunciation, I have given phonetic transcriptions for both GB and OB.

Here's the text everyone's familiar with:

Χε Πενιωτ ετδεν νιφνωι: μαρεϋτοϋβο ν̄χε πεκραν: μαρε̄σῑ ν̄χε τεκμετοϋρο:
πετεϋνακ μαρεϋϋωπῑ ῡφρητ̄ δ̄εν̄ τ̄φε̄ νεμ̄ ριχεν̄ πικαϋι: πενωικ̄ ν̄τε ραϋτ̄ μηιϋ
ναν̄ ῡφοοϋ: οτοϋ χᾱ νηετερον̄ ναν̄ ε̄βολ: ῡφρητ̄ ρων̄ ν̄τενχω̄ ε̄βολ̄ ννηε̄τε̄ οτον̄
ν̄ταν̄ ε̄ροοϋ οτοϋ̄ ῡπερεντεν̄ ε̄δοϋν̄ ε̄πιραϋμοϋ̄ αλλᾱ ναϋμεν̄ ε̄βολ̄ ρᾱ πιπετρωοϋ.
δ̄εν̄ Πῑχριστοϋ̄ Ιη̄σοϋϋ̄ Πεν̄δοιϋ: χε̄ θωκ̄ τε̄ τ̄μετοϋρο̄ νεμ̄ τ̄χομ̄ νεμ̄ πιωοϋ̄ ϋᾱ
ε̄νεϋ̄ λ̄μην̄.

OK – here's how it sounds in GB – the version you all know:

[dʒé penjót etxén nifwi. mareftuvó endzé pekrán. mareʔesí endzé tekmeturó. petehnák
mareʃjóri emefrítí xén etfé ném hídzén pikáhi. penójk enté rásti mí:f nán emfóʔu. wóh ká
niʔeterón nán evól. emefrítí hón entenkó evól n:iʔéte wón entán eróʔu wóh emperénten
exún epirasmós al:á náhmen evól há pipethóʔu. xén piʔexristós i:sús pentjós. dʒé θók té
timeturó ném tigóm ném pióʔu [á enéh amín]

Now here's the same in OB for comparison:

[dʒæ bænjód ædxæn nifæwi. maræfduβó endzæ bækrán. maræsí endzæ dækmæduró.
bædæhnák maræʃjóbɪ emebrædi xæn eɔbæ næm hídzæn bikáhi. bænoj̄k endæ rásdi mæj̄f
nán emfów. wóh ká niʔædærón nán æβól. emebrædi hón endænkó æβól n:iʔædæ wón
endán erów wóh embærændæn æxún æbirasmós al:á náhmæn æβól há bɪbædhów. xæn
bixrisdós i:sús bæntjós. dʒæ tók dæ dimæduró næm didzóm næm biów [á ænæh amæn]

As you can see, the difference is very noticeable in some words while other are exactly the same in both variations. Notice also that the stress in each word does not change, it's the same for both, though with OB, this may change the pronunciation of some of the sounds (see the section on rules).

You can hear the difference between the two on the sound file. There is also a sound file available on the coptic hymns.net site. It was recorded by one of the members and he offers this prayer in GB, OB and Sa'idic!

Summary and Conclusions

When I first began my initial research, I had expected to find more or less a very simple, straightforward "substitution" of sounds. That is, where GB pronounced a particular letter one way, OB would pronounce it a different way; a more or less one-to-one substitution.

Only after a more in-depth look at OB did I realize it wasn't going to be all that simple! Thus, I decided first to try and construct a phonemic inventory for OB, realizing that at some point I was probably going to have to play around with some phonetic rules. After constructing the phonemic inventory, I had to determine which of these graphemes were phonetically realized by two or more phonemes. Once I determined the graphemes and all phonemes they represented, it was time to play with rules and analyze texts and hymns (anything spoken, chanted or written showing OB pronunciation). I had to posit what I thought was the underlying phoneme and then posit what I thought would be the rule to determine the allophone of my underlying phoneme. With some, it was fairly easy since the rules are fairly standard and well known for Coptic (the variations for chi and gamma, for example). These just needed to be addressed from a more linguistic point of view. As for the remaining three; eeta, phi, and wida, the situation was a bit more involved. I had to look and see if the stress in words in any way determined how a particular grapheme was to be pronounced. Eeta was perhaps the easiest to determine. I observed that if it received the primary stress in a word, it was always realized phonetically as /æ/, in all other positions it seemed to be /i/. In looking at this, I could not find any instances where an unstressed eeta was pronounced as /æ/. I therefore concluded that this was indeed the rule governing this particular grapheme. With phi, the situation was a bit more complex – I had to re-think my rule several times. I was actually surprised that it even had this variation since I would have thought it simply assimilated to pi and, like pi, became voiced to /b/ in all positions. I had originally thought it had to do with its phonemic environment, however, this was not to be the case. After further analysis, I was able to determine that it was both stress and position in a word which determined the allophone /f/. I had the hardest time with wida. As you can see from the outline, my data is still inconclusive as I'm not entirely convinced there are actually two phonemes involved here. Historical data and the description typically given of the sound, point to a single phoneme which, depending on its phonemic environment will determine how that sound is perceived by someone not used to hearing it. The same can be said of many languages containing this sound. Ewe, an African language, also has this sound and the name of the language can actually be found as Ewe, Eve, and Ebe! If there are two phonemes for wida, it appears the rule is as I have it.

Traditional/Old Bohairic doesn't seem to like bilabial voiceless stops – in all instances, the grapheme (whether pi, or phi) is phonetically realized as /b/.

The vowel sounds are a bit surprising as well. I would have thought that Traditional/Old Bohairic, like Sa'idic, would have preserved the historical pronunciation of eeta (/e/ - the Italian/Church Latin 'e' in "bene"). This phone however seems to have been lowered in Bohairic; /e/ is a mid front tense vowel, /æ/ is a low-mid front vowel. I have already mentioned the seemingly lack of differentiation between the two 'o' sounds – again, I'm not sure if this is just carelessness on the part of the speakers or if, like modern Greek, the two sounds have, over time, more or less fallen together. It could also be a carryover from Greco Bohairic as well.

Overall, I suspect that Arabic has influenced Bohairic to a degree. The most noticeable influence being the pronunciation of alfa where it is frequently realized as /æ/ or /a/, rather than /a/. The pronunciation of wida as two phonemes may also be an influence from Arabic. To what degree Arabic intonation has affected Coptic is not known. Both languages, together with Hebrew, Syriac and others, are Middle Eastern, thus it is quite possible the influence of Arabic intonation on Coptic may in fact be minimal.

Also regarding the vowels and foreign influences, it can be argued that there are two ways of approaching the situation, the situation being concerning the pronunciation of the letter ι and the letter α. Do we want to describe Coptic (specifically OB) as it "should be", or as it actually "is" spoken by modern speakers. If we approach it from the way it should be, then ι and α should be pronounced as /i/ and /a/ in all positions. If, however, we want to look at it as it is actually spoken, we have to posit two new rules; namely that if the letter ι occurs in an open syllable, it is to be pronounced as /i/, if in a closed syllable, as /i/. With α the rule is, if it receives primary stress in a word, it's /a/, otherwise it's /a/. Both sets of phonemes are in complimentary distribution and I suppose it could be argued that /i/ and /a/ are in free variation with /i/ and /a/ respectively; you can, in fact, use either one without changing the meaning of the word or being misunderstood. It's simply a matter of personal preference. In this outline, I have chosen to represent the two letters as /i/ and /a/ in all positions.

One must also consider the possible influence on the entire Egyptian language by Greek, an Indo-European language. It is known that with the introduction of Greek via the Hellenization of Egypt, that Egyptian borrowed some grammatical and syntactic features from Greek. It's hard to know if Greek intonation played any part in the development of Bohairic Coptic (Traditional/Old) as it's known today.

As a completely non-linguistic observation, as an "outsider", so to speak, the overall "sound" of OB to my ears is more reminiscent of Hebrew than Arabic. Arabic can sound somewhat guttural, Coptic, like Hebrew, just doesn't have the same sound.

I would like to see a more in-depth study of how Arabic and Greek may (or may not) have influenced Coptic.

Most of the Coptic I have heard has been chanted. As a result, it's difficult at times to try and determine how strictly correct stress in Coptic is adhered to. I have often been told that stress is not all that important in chanting. While I agree to a degree – when a language is sung, oftentimes the rules of stress can be bent a little and stress in general when singing is not always all that noticeable – Coptic does, like all languages, have a very definite stress. I have observed in the spoken language that stress seems to be fairly definite according to the rules outlined and paraphrased by Lambdin.

A bit more on Greek loans – most people living in Egypt during the "Coptic Period" (or perhaps I should say "Hellenistic Period") would have been familiar with Greek. Greek words, therefore, were in all likelihood pronounced as in Greek – Coptic borrows Greek words quite faithfully to Greek Koine pronunciation (early Koine) – it's the *stress* that's different. Presumably, those who were familiar enough with Greek pronounced the loans with correct Greek word stress; those who weren't, probably pronounced them with Coptic word stress. For example, the word "agios" in Greek has the primary stress on the first syllable (AH-gee-os), Coptic would put it on the last (ah-gee-OS). It is quite possible a person's social status may have been determined (as in Anglo-Norman England with all the Norman-French loans) by the way they pronounced the loans; the upper class, being more educated, would pronounce according to "correct" Greek; lower classes as though native Coptic words. Hymns are another story. Since these were borrowed in their entirety, they would have (and still are) pronounced according to correct Greek stress. Most Greek hymns, though very old, were borrowed into the Coptic tradition only within the past 150 years or so, therefore, they are chanted according to the pronunciation and word stress of Modern Ecclesiastical Greek (late Koine).

Appendix

It is my hope that after going through this short outline, the reader will gain a better understanding of the sound system of Bohairic Coptic and of Old Bohairic pronunciation. For this to fully work however, the reader must practice this variant of Bohairic and try applying it to his/her prior knowledge of the Coptic language. Most of you reading this are more familiar with Coptic hymns and Liturgy than I can ever hope to be, so take this knowledge with you on your journey through this language and experience the richness of this ancient tongue. You will find, as I have, that OB tends to flow more readily and naturally than its GB counterpart as it represents the language as it should truly be spoken and enjoyed. That having just been said, I have nothing against the GB variant, it's simply much more Greek sounding than Egyptian.

As a final note, I wish to reiterate that it must be kept in mind that the above outline is a "consolidation", so to speak, of my notes in an attempt to learn Old Bohairic pronunciation myself – therefore – I welcome ANY additions or corrections to any of the above!! As a student of Coptic myself, I'd like the data to be as accurate as possible. If you have any comments, corrections, additions, etc., please e-mail me at the address below or send me a 'pm' on the coptic hymns.net site.

Please feel free to pass this outline on to those who may not have access to the internet – I would, however, ask that this publication not be mass copied or mass produced/distributed without consent of the author. This publication shall not be distributed/sold/copied for profit.

If enough additional data is collected, there may appear an updated version of this outline, or at the very least an Addendum. I have also given thought to producing a similar outline for the Greco-Bohairic variant of Bohairic Coptic which would in all likelihood appear as an addition /continuation to this outline as to avoid duplication of items already presented. Finally as a third and final part, there remains the possibility of doing a comparative phonology of both variants.

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> **BONUS PAGE**

The following page is what I like to call a "cheat sheet" for Old Bohairic – it summarizes the pronunciation, phonetic rules and stress rules as described in this outline all on one page. It fits well in a plastic page protector and is very portable :-) Enjoy!

OLD BOHAIRIC "CHEAT SHEET"

I] Quick Pronunciation Guide

α - /a/	ϙ - /s/
β - /β/ or as /w/, /b/ - see rules	τ - /d/
γ - /g/, /x/, /ŋ/ (see rules)	ϣ - /t/, but οϣ - /u/. if preceded or followed by a vowel the "οϣ" - /w/
Δ - /d/	Φ - /b/, /f/ (see rules)
ε - /æ/	ϫ - /k/, /x/, /ʃ/ (see rules)
ζ - /z/	ψ - /bs/
Η - /æ/, /i/ (see rules)	ω - /o/
θ - /t/	ϣ - /ʃ/
ι - /i/, (/j/ if adjacent to a vowel)	ϙ - /f/
κ - /k/	ϛ - /x/
λ - /l/	ϣ - /h/
μ - /m/	ϛ - /dʒ/
ν - /n/	ϙ - /tʃ/
ξ - /ks/	† - /dI/
ο - /ɔ/	' - /ε/
π - /b/	
ρ - /r/	

II] Phonetic Rules

Η - In a stressed syllable /æ/, otherwise it's /i/.

Σ - In Greek proper names, it's /s/, in Greek loans it's /g/. If it's doubled, it's /ŋ/.

ϫ - In Coptic words, it's /k/, in Greek words, before front vowels (η, ι, ε), it's /ʃ/, otherwise it's /x/.

Φ - If it occurs directly preceding a vowel carrying the primary stress, and the vowel is not /a/ or /æ/, it's /f/, otherwise /b/. If the /æ/ comes from a stressed Η, it's /f/.

Β - Either as /β/ in all positions or if directly preceding a voiced consonant, it's /b/, otherwise /w/.

III] Stress Rules (Remember: Stress in Coptic will always occur on either the last or next to last syllable)

- 1) The vowels Η, ο, and ω are always stressed.
- 2) Final simple -α and simple -ι are always stressed.
- 3) Final -οϣ is stressed except:
 - a) When it is the suffixed form of the 3rd person plural
 - b) In a few particular words (παζοϣ, σποτοϣ, and πασοϣ).
- 4) Final -ε is unstressed except in some adjectives
- 5) Final syllable with djinkim is never stressed unless it's the only syllable in the word.

SHORT BIBLIOGRAPHY

Lambdin, Thomas O. – *Introduction to Sahidic Coptic*, Mercer University Press, Macon, GA, 1983

Till, Walter C. – *Koptische Grammatik (Saidischer Dialekt)*, 4th ed., Verlag Enzyklopädie, Leipzig

Gardiner, Alan (Sir) – *Egyptian Grammar*, 3rd ed., Griffith Institute, Ashmolean Museum, Oxford, 1978

Aboseif, Anthony (editor) – *Coptic Hymns*, St. Antonius Coptic Orthodox Church, Hayward, CA, 2000

Ⲛⲓⲁⲗⲁⲙⲟⲧⲓⲁ ⲉⲑⲟⲣⲁⲃ / *The Holy Psalmody* – St. Mary and St. Antonios Coptic Orthodox Church, Ridgewood, NY

Loprieno, Antonio – *Ancient Egyptian – a linguistic approach* – Cambridge University Press – 1995

Fry, Edmund – *Pantographia*, London, 1799

Szelog, Michael – *A Brief Overview of Greek Loans in Coptic* – 2004 – Internet document available at coptichymns.net

Szelog, Michael – *MIT Revised – Towards a Standardized Romanization/Transliteration of Coptic* – 2004 – Internet document available at coptichymns.net

Coptic hymns.net

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