

# Egyptian Writing Systems and Grammar

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## 1 Introduction

### 1.1 Hieroglyphic writing

The best-known and most elaborate system of writing used by the pharaonic Egyptians is known as *hieroglyphic writing*, or *hieroglyphs*.<sup>1</sup> The word comes from the Greek ἱερογλυφικὰ γράμματα, “sacred writing”, which from Classical times has been used to render the Egyptian phrase *mdw.w-nṯr* “god’s words”.<sup>2</sup>

Hieroglyphs are attested as early as *c.* 3000 BCE. About 1000 were used in the Old Kingdom. This number diminishes to about 750 in the language of the Middle Kingdom, but was increased to several thousand during the Ptolemaic and Roman periods.<sup>3</sup>

Egyptian as written during the Middle Kingdom was used throughout the rest of the Pharaonic period, even into the Greco-Roman periods, for many formal and religious documents, and is thus referred to as *Classical Egyptian*. We will primarily concern ourselves with this form of the language.

### 1.2 Hieratic and Demotic writing




*Hieratic* is a cursive form of writing which evolved in a fairly natural fashion from the hieroglyphs. The hieratic glyphs originally resembled the hieroglyphs very strongly, but they became increasingly simplified over time. Hieratic gets its name (ἱερατικός, “priestly”) because it was used by the priests in Greco-Roman times to write on papyrus, but it can be traced all the way back to the Old Kingdom.

*Demotic* is an extremely simplified form of Egyptian writing, simplified much further even than hieratic, which first appears during the Twenty-Fifth Dynasty under the Nubian rulers. By the Ptolemaic period it was the common writing for everyday life, and this gave it its name (δημωτικός, “popular”).

## 2 Types of hieroglyphs

Hieroglyphs fall into two broad categories: (1) *phonetic* glyphs, which represent the sounds of words, and (2) *semantic* glyphs, which serve to mark the meaning of words. Some glyphs serve as both in different contexts, as we shall see.

### 2.1 Phonetic glyphs

The phonetic glyphs can be subdivided into *monoliterals*, *biliterals*, and *triliterals*, depending on how many different consonant or semivowel sounds the glyph represents. Some examples are the glyphs  *n* (monoliteral),  *ms* (biliteral), and  *nb* (triliteral).

<sup>1</sup>An all-too-common mistake is to refer to “hieroglyphics”, as in “Can you write hieroglyphics?” Strictly speaking, *hieroglyphic* is an adjective, meaning “pertaining to *hieroglyphs*” (which is a noun).

<sup>2</sup>Loprieno, Antonio. *Ancient Egyptian: A Linguistic Introduction*. Cambridge University Press, 1995, p. 11.

<sup>3</sup>*Ibid.*, p. 12.

You will notice that I said “consonant or semivowel” sounds, not vowels. Egyptian is notorious for not writing down its vowels (a fact which was played up in the movie *Stargate*, when it takes Daniel three-quarters of the film to figure out what the Egyptians are saying).

The absence of the vowels causes a few problems. First, we don’t get the pleasure of really *speaking* ancient Egyptian with any certainty, as contrasted with classical Greek or Latin, in which the old pronunciation is reasonably certain. Second, it greatly magnifies the importance of the determinative glyphs, explained below. Finally, it causes a lot of trouble when trying to work out subtle distinctions of tense and voice in a particular text. We have to make some assumptions and guesses based on context.

## 2.2 Monoliterals: the hieroglyphic “alphabet”

The accompanying table illustrates the *monoliteral phonograms*—that is, the glyphs used to represent a single phoneme, or sound. You can think of them as an “alphabet”, but they are not a true alphabet as they do not have a “correct order” (as far as has ever been discovered) and they are not the complete inventory of glyphs.

Table 1: Monoliteral hieroglyphs

SIGN	TRANSLIT.	EXAMPLE	SIGN	TRANSLIT.	EXAMPLE
	<i>ʃ</i>	(see below)		<i>h</i>	A <b>h</b> med
	<i>i</i>	(see below)		<i>b</i>	l <b>o</b> ch
	<i>y</i>	<b>y</b> ellow		<i>h</i>	<b>ich</b> (German)
	<i>'</i>	(see below)		<i>z, s</i>	z <b>e</b> bra, s <b>o</b> ap
	<i>w</i>	<b>w</b> ater		<i>s</i>	s <b>a</b> ve
	<i>b</i>	<b>b</b> ill		<i>s</i>	s <b>h</b> ip
	<i>p</i>	<b>p</b> ump		<i>k</i>	<b>Q</b> ur'an
	<i>f</i>	<b>f</b> ill		<i>g</i>	<b>g</b> um
	<i>m</i>	<b>m</b> an		<i>t</i>	<b>t</b> op
	<i>n</i>	<b>n</b> ame		<i>t</i>	<b>c</b> heese
	<i>r</i>	<b>r</b> un		<i>d</i>	<b>d</b> ance
	<i>h</i>	<b>h</b> appy		<i>d</i>	<b>j</b> ump

Most of the pure consonant sounds are pretty easy to understand, but a few (especially the semivowels) can be tricky.

- *ʃ* represents the soft breath when a word begins with a vowel. The English words *and* and *end* could both be transliterated *ʃnd*, since this indicates only that the word begins with some vowel.
- *i* has two different phonetic values. At the beginning of a word it is usually silent like *ʃ*:

𓂏 *imn* “Amun”. Elsewhere it is pronounced like the consonant *y* in “yellow”.<sup>4</sup> The glyph 𓂏 *y* is always pronounced as in “yellow”, but is not used as an initial letter except in the word 𓂏𓂏𓂏 *yh* “hey!”

- 𓂏 ‘ seems to be a glottal stop; that is, a sharp cutoff in breathing between two vowels. The simplest English analogy would be the sound in the middle of “Uh-oh!” That interjection could be written thus in Egyptian: 𓂏𓂏𓂏 *ʔ*.
- 𓂏 *w* can signify a vocalic “oo” sound, precisely like the end of the English word *flew*.
- 𓂏 represented *z* originally, which is a distinct sound from *s*, but by the time of the Middle Kingdom the two sounds had merged. The spelling of words still remained consistent in most cases, however, so you need to learn the correct glyph.
- And finally, what about the sound of the letter *l*? It developed comparatively late in the history of the language. In the Ptolemaic period it is represented by the glyph 𓂏 formerly used only for the biliteral *rw*, and in fact it was one of the glyphs in the names of Ptolemy, Cleopatra, and Alexander the Great which led to Champollion’s deciphering of the hieroglyphic script. But in classical Egyptian the sound really doesn’t show up on its own and can best be approximated with *rw*, not unlike the way Japanese represents the sound in the present day.

As Egyptian evolved, alternative glyphs appeared for several of the phonemes.<sup>5</sup> These are shown in the table as the second glyphs for *y*, *w*, *m*,<sup>6</sup> and *n*.

### 2.3 Biliterals and trilaterals

There are a great many biliteral and trilateral glyphs in Egyptian<sup>7</sup>. These represent combinations of two or three consonants. Some of the most commonly used are:

⊙	<i>mn</i>	𓂏	<i>kʔ</i>	𓂏	<i>ʔb</i>	𓂏	<i>sw</i>
𓂏	<i>wr</i>	𓂏	<i>pr</i>	𓂏	<i>ms</i>	𓂏	<i>hd</i>
𓂏	<i>wn</i>	𓂏	<i>km</i>	𓂏	<i>wp</i>	𓂏	<i>ʔn</i>
𓂏	<i>bt</i>	𓂏	<i>mi</i>	𓂏	<i>dd</i>	𓂏	<i>sk</i>
𓂏	<i>mwt</i>	𓂏	<i>ʔnb</i>	𓂏	<i>ntr</i>	𓂏	<i>nfr</i>
𓂏	<i>ʔhʔ</i>	𓂏	<i>sdm</i>	𓂏	<i>ndm</i>	𓂏	<i>bpr</i>

When biliterals and trilaterals are used in text, additional monoliterals called *phonetic complements* are often included to remind the reader of the value of the multiliteral glyph. The complements

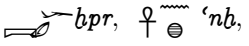
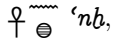

<sup>4</sup>Gardiner, Sir Alan. *Egyptian Grammar: Being an Introduction to the Study of Hieroglyphs*. Oxford University Press, 1957, p. 29.

<sup>5</sup>*Ibid.*, p. 27.

<sup>6</sup>Beware of this glyph 𓂏. There is another glyph which looks *just like it* or sometimes only a very little bit narrower 𓂏 throughout most of the language’s history, but it means the very different biliteral *gs*. How can you tell the difference? Well, when it acts as *gs* it usually has a phonetic complement (*see under* biliterals): 𓂏𓂏.


Occasionally it’s used as an ideogram (q.v.) 𓂏 and in that case it means *gs* “side, half”.




<sup>7</sup>In middle Egyptian there are more than 80 biliterals and 20 trilaterals.

represent the last sound in a biliteral, or the last sound or two in a trilateral:  *bpr*,  *nb*,  
 *sw*.

## 2.4 Semantic glyphs: Determinatives

The *determinatives* serve to clarify exactly what is meant by the preceding group of phonetic glyphs, and this is a feature that's particularly important given the lack of vowels in hieroglyphic writing.



For example, the consonants  *hnw* spell several different words: “rejoicing”, “neighbors”, and *hin*, a unit of liquid measure equal to about half a liter. These words are written with the same phonograms, but different determinatives:





GLYPHS	MEANING	DETERMINATIVE
	“rejoicing”	a man holding up his hands in a gesture of joyfulness
	“neighbors”	a man and woman over the three strokes which signify plurality
	“ <i>hin</i> -unit”	a jar for holding beer


Some of the most common determinative glyphs are:

	man		woman		child		deity
	water		settlement		foreign land		written
	combat		sail		tomb		stars

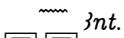
## 2.5 Ideograms

*Ideograms* are hieroglyphs which depict something directly and can stand more or less on their own. They often do duty as determinatives, but when used with the single-stroke glyph  they stand for concepts unto themselves. Thus the  itself is a determinative signifying “treat what precedes me ideographically”.

For example, the word  *sw* means “water”. But other words use the  glyph as a determinative, merely suggesting the general notion of “liquid”: for example,  *wʒw* “wave” and  *swri* “drink”.

Even the monoliterals are used as ideograms in a few basic words, such as  “mouth”.

## 3 Layout and grouping of hieroglyphs

Hieroglyphs can be roughly divided into “tall” and “short” signs, and into “narrow” and “wide” signs. When two or three short signs occur adjacently, they may be stacked together in one line of text, as you have already seen in some cases:  *nt*.

Hieroglyphs can be displayed in a row as you have seen throughout this article:



And they may run from right to left, as well as from left to right:



How can we tell which way to read them? Almost all<sup>8</sup> the figures of animals and people will be “looking” towards the beginning of the text, so we start from where they’re looking and move down the line.

READ THIS DIRECTION ...	FOR THIS HIEROGLYPHIC TEXT ...	BECAUSE THE FIGURES FACE THIS WAY
⇒		←
⇐		→

Or they may be displayed in columns:



## 4 Royal names

### 4.1 The royal titulary, Horus name, and the serekh

As you might expect, the names of kings and queens were treated specially in Egyptian texts. When the system was developed to its fullest, the pharaoh had five “names” by which he or she was known, each with its own standardized prefix. The relative importance of these varied over the course of pharaonic history. We will exemplify these names by the five names chosen by Thutmose III of the 18th Dynasty.

The first of these names is the *Horus name*, so-called because it represents the pharaoh as a manifestation of the god Horus and is prefixed with the god’s name. This name is specially enclosed in an enclosure called a *serekh*, from “banner”:



*hr k3-nbt b'-m-w3st*

“The Horus, Strong bull, arising in Thebes”

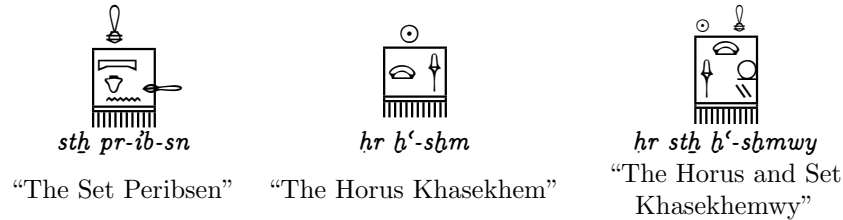
The lower part of the serekh gives the impression of a fringed banner in the simplified rendition seen above, but in the most elaborate representations, it depicts a wall with rectangular alcoves or gates<sup>9</sup>, which resembles the façade of fortresses built during the Archaic Period. The main rectangle of the serekh thus represents a fortress protecting the name of the pharaoh, and thus protecting the man himself.

<sup>8</sup>The exceptions are glyphs whose meaning requires them to face the other way, such as the determinative in “to go backwards”. But these make up a very, very small portion of the glyphs.


<sup>9</sup>Not entirely unlike the colonnaded walkways of Carnegie Mellon’s University Center and Purnell Center.

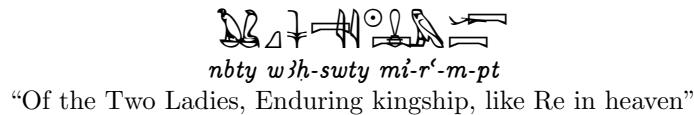
During the early period of Egyptian history, the Horus name is the most important name of the pharaoh, used on monuments almost exclusively (recall that the man for whom the Step Pyramid was built was *Horus Netjerykhet*). Many of the early pharaohs are known only by their Horus names. The importance of the Horus name declines later, particularly in the New Kingdom, and it is largely supplanted by the prenomen and nomen (see below).<sup>10</sup>


The dynastic troubles of the late 2nd Dynasty are revealed in the names used by the pharaohs of the time. Here we see how the Set Peribsen was succeeded by the Horus Khasekhem (“Appearance of Power”), who later changed his title to the Horus and Set Khasekhemwy (“Appearance of Two Powers”).

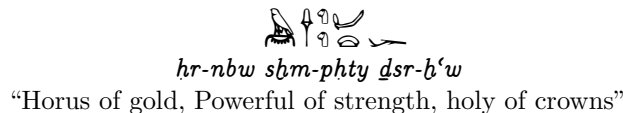


## 4.2 The *Nebty* and Golden Horus names

The second and third names are of lesser importance than the other three, and were not written in any special enclosures, though they had standard prefixes. The second name is called the *Nebty* name because it is prefixed with  *nbty* “the two ladies”. The ladies in question are Nekhbet, the vulture goddess of Nekhen, the old capital of Upper Egypt, and Wadjet, the cobra goddess of Pe, that of Lower Egypt. Gardiner<sup>11</sup> suggests that the founder of the 1st Dynasty was the first pharaoh to assume a *Nebty* name, to commemorate the union of the Two Lands.



The third name is the *Golden Horus* name, which begins  *hr-nbw* “Horus of gold”. The meaning of this name is uncertain. In Greek times it was interpreted as recognizing the pharaoh as triumphant over his enemies, but the phrases used are not always of a military or aggressive nature.




## 4.3 Cartouches: the prenomen and nomen

The last two royal names are the *prenomen* and the *nomen*. By the New Kingdom, the prenomen had become the most prominent name for official usage, displacing the Horus name. Formal letters from foreigners during the New Kingdom usually address the pharaoh by the prenomen.<sup>12</sup> The nomen, meanwhile, is often the name we most commonly refer to the pharaoh by in modern times, because it is the pharaoh’s “personal name”; that is, it had been the pharaoh’s name before he or she became the sovereign. This is much like the name of the Pope in the present day: the world refers to him as Benedict XVI, but his best friends probably still think of him as Josef Ratzinger.


<sup>10</sup>It remains third in importance, however; as an example, the lower end of Tutankhamen’s celebrated “cartouche box” bears his prenomen, nomen, and Horus names together.


<sup>11</sup>*Ibid.*, p. 73.


<sup>12</sup>Recall the Hittite letters referring to King Tut, “Nebkheperure”, as *Nibhuruiya*.




The prefix for the prenomen is  *n-sw-bit*, “of the reed and the bee”. This set of glyphs is a “shorthand” for the words *swt*, the reed plant, and *bit*, the honeybee, which symbolized Upper and Lower Egypt, respectively.<sup>13</sup> Most prenomen before the 11th Dynasty, and *all* of them from then onward, include the name of the sun god Re. Combined with the prefix of the name, the prenomen is seen as representing the pharaoh as Re’s vicegerent on earth as ruler of all Egypt.



In the New Kingdom, if only one name is written, it is usually the prenomen, and if a second is included, it is the nomen. In rare cases, generally items for personal use, this is reversed. An example is the splendid container from Tutankhamen’s tomb which features the king’s nomen in large multicolored jeweled glyphs on the lid.

The prefix for the nomen is  *s3-r* “son of Re”, which describes the pharaoh in a personal relationship with the deity, appropriate for the birth name.


The prenomen and nomen were always written inside a loop called a *cartouche*, from the French for an ornamental inscribed tablet. The Egyptians called the cartouche  *snw*, which comes from a verb meaning “to encircle”.<sup>14</sup>

  
*n-sw-bit mn-hpr-r' s3-r' dhwtj-ms nfr-hpr*  
 “Of South and North, Menkheperre [‘Ra’s form endures’],  
 son of Re, Djehutymose [‘Thoth is born’], beautiful of forms”

Note that the glyph for the sun god Re is written first in the throne name Menkheperre, despite the god’s name being last in the word. This is called *honorific anticipation* and can be found in some other places in the language, such as the phrase  *hm-ntr* “prophet, high priest”, literally “slave of god”. We know from the grammar of similar phrases that the word  *hm* “slave” comes before the words identifying the master; it is only with  *ntr* “god” that the phrase is written backwards, to put the god before the slave. There are instances in which the god’s name *does* come first grammatically, such as in Thutmose’s personal name, *dhwtjms* “Thoth [Djehuty] is born”.



Also, we notice that the title “beautiful of forms” has been included inside the cartouche. This will not be found in every instance of Thutmose III’s cartouche, but it is used frequently enough to be effectively part of the name. The inclusion of a title in the nomen became more prevalent in the New Kingdom than in previous periods, and became quite repetitive. For example, every pharaoh of the 20th Dynasty used  *mry-imn* “beloved of Amun” in his nomen except for Rameses IV, and he used  *stp-n-imn* “chosen of Amun” instead!

As another example of both honorific anticipation and a title being added to the nomen, consider Tutankhamen’s final cartouche, which is most frequently written:

  
*twt-nh-imn hk3-iwn-sm'w*  
 “Tutankhamen, ruler of Thebes”<sup>15</sup>

<sup>13</sup>Why exactly these symbols had these associations is still unclear, but the Rosetta Stone translates *n-sw-bit* with the Greek βασιλευς τῶν τε ἄνω καὶ τῶν κάτω χωρῶν, “King of the Upper and the Lower Land”, so we’re pretty comfortable with the meaning even though we don’t know the reasoning behind it.

<sup>14</sup>*Ibid.*, p. 74.

<sup>15</sup>Thebes was sometimes called  *iwnw-sm'w* “*iwnw* of Upper Egypt”, to emphasize it as the successor to  *iwnw*, better known as Heliopolis, as the source and center of Egyptian civilization.

## 5 Egyptian Grammar

Egyptian grammar, like that of any other language, is complex and cannot possibly have justice done to it in one week of a three-unit course. However, here are a few “tidbits.”

### 5.1 Suffix Pronouns

The *suffix pronouns* have a variety of handy uses:

















- They can serve as possessives, like our adjectives “my”, “his”, etc.:  *pr.f* “his house”.
- They work with prepositions, like our object pronouns:  *n.i* “to me”.
- They serve as the subjects of verbs, like our subject pronouns:  *dd.k* “you say”.

Table 2: Suffix Pronouns

PERSON	GENDER	GLYPHS	TRANS.	ENGLISH
1st Sing.	both		<i>i</i>	“I, me, my”
2nd Sing.	masc.		<i>k</i>	“you, your”
”	fem.		<i>t</i>	”
3rd Sing.	masc.		<i>f</i>	“he, him, his”
”	fem.		<i>s</i>	“she, her”
1st Plur.	both		<i>n</i>	“we, us, our”
2nd Plur.	both		<i>tn</i>	“you, your”
3rd Plur.	both		<i>sn</i>	“they, them, their”
1st Dual	both		<i>ny</i>	“we two, us two, our”
2nd Dual	both		<i>tny</i>	“you two, your”
3rd Dual	both		<i>sny</i>	“they two, them two, their”


### 5.2 The verb *iw* “to be”


You wouldn’t expect “to be” to be a very regular verb. Well, the complexity in Egyptian is not so much how to conjugate it as when to use it. The verb  *iw*, along with the suffix pronouns, is generally the simplest way to say “to be”:

 *iw.n m pr.f* “we are in his house”

Or:



 *iw r' m pt* “the sun is in the sky”

But it's important to notice that including the verb *iw* seems to make it much more of an important pronouncement. If one were to say “the sun is in the sky” as a simple statement, like answering if it's day or night, or what the weather is like, one would usually say simply  *r' m pt* “sun in sky”.

And when the predicate is a noun (like “a scribe”) instead of a prepositional phrase (like “in his house” or “in the sky”), things are even more complicated: you have to include what is called the “*m* of predication”:



 *iw.k m ss* “you are [like] a scribe”

Similar to the *m* of predication is the “*r* of futurity”! In this case, instead of the preposition “like”, the *r* is the preposition “towards” and suggests what the person is becoming, as in the following line from *The Story of Sinuhe*, when the king is giving the orders for his gifts to Sinuhe:

 *iw.f r smr* “he shall be a companion”, lit. “he is towards a companion”.

It should be indicative that of the thirty-three lessons in Gardiner's *Egyptian Grammar*, the bulk of eight of them, and bits of numerous others, are dedicated to the various different situations in which one would use “to be” and how to do it correctly.




### 5.3 The word “Pharaoh” and other kingly terms

The most common word for “king” in Egyptian is  *nsw*<sup>16</sup>, but we find the phrase  *pr-'3* “Great House” in the old Kingdom appearing in phrases like *smr pr-'3*, “companion of the great house”, used to describe a courtier of the palace. The Greeks rendered this word as Φαραώ “Pharaoh”, and we've been stuck with it ever since.

Interestingly, the first pharaoh to be definitely referred to as *pr-'3* himself, in much the same way as when reporters say things like “The White House today announced ...” when they mean “The President, or someone on his staff, announced ...”, was none other than Akhenaten; a letter exists addressed to him, in the form:

 *pr-'3 'nb wd3 snb nb* “Pharaoh (life prosperity and health), the lord”

From that point forward, “Pharaoh” is used as a noun (“Pharaoh said,” etc.), but not yet as a title; beginning with the Sheshonqs in the Twenty-Second Dynasty, it is actually used as a title: *pr-'3 ssnk* “Pharaoh Sheshonq”.<sup>17</sup>

The king is also often referred to by the phrase  *hm.f* “his Majesty”, or refers to himself as  or  *hm.i* “my Majesty”. The proper translation of *hm* is unclear, though an identically written word means “slave”; it's possible that in this context it means “service” or some such concept: “his [Majesty's] service” or the like.

### 5.4 “Life, prosperity, health!”

It's fitting to close with a remark about the phrase used above in that address to Akhenaten. It is used as a token of respect after many instances of the name of a king, even if done several times

<sup>16</sup>Why this word is transliterated *nsw* instead of *swtn*, as it looks, is because it is an abbreviation of a longer phrase (as found in the royal titles) and, as Gardiner says, “It is as unnecessary—to take an extreme instance—for the beginner to know why ... as it would be for a learner of English to know why the word pronounced *plow* is now written ‘plough.’” (Gardiner, *op. cit.*, p. 50.)

<sup>17</sup>*Ibid.*, p. 75.

in rapid succession, in much the same way that a devout Muslim will say “peace be upon him” after every instance of the name of Muhammad or one of the other prophets, or as Shi‘as do for the Imams. The phrase is so often used that it is one of the most common abbreviations in Egyptian.

𓆎 short for 𓆎 𓄐 𓆡 𓄏 𓄃 𓄁 𓄃 𓄐 ‘*nb wdꜣ snb*’ “life, prosperity, health”

As an example, here’s the text describing where to find the tomb of Amenhotep I:

“The eternal horizon of king Djeserkare, l.p.h.!, son of Re, Amenhotep, l.p.h.!, which measures 120 cubits down from its superstructure called Pa’aka, north of the temple of Amenhotep, l.p.h.!, of the Garden.”<sup>18</sup>

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<sup>18</sup>In Egyptological texts it is not uncommon to find “life, prosperity, health” written simply “l.p.h.”