OTHER LANGUAGES

Benedict, Warren C. 1958. "Urartian Phonology and Morphology." Ph.D. dissertation, University of Michigan.

Bush, Frederic W. 1964. "A Grammar of the Hurrian Language." Ph.D. dissertation, Brandeis University.

Diakonoff, Igor M. 1971. *Hurrisch und Urartäisch,* trans. Karl Sdrembek. Munich: Kitzinger.

Figulla, Hugo H., and Otto Weber. 1919. *Keilschrifttexte aus Boghazköi,* vol. 3. Leipzig: Hinrichs.

Friedrich, Johannes. 1960. *Hethitisches Elementarbuch I: Kurzgefasste Grammatik,* 2nd ed. Heidelberg: Winter.

Goetze, Albrecht. 1933. *Die Annalen des Mursilis* (Mitteilungen der Vorderasiatisch-Aegyptische Gesellschaft 38). Leipzig: Hinrichs.

Güterbock, Hans Gustav, and Harry Hoffner, eds. 1980– . *The Hittite Dictionary of the Oriental Institute of the University of Chicago.* Chicago: Oriental Institute.

King, Leonard W., and Reginald Campbell Thompson. 1907. *The Sculptures and Inscriptions of Darius the Great on the Rock of Behistun in Persia.* London: British Museum.

König, Friedrich W. 1955. *Handbuch der chaldischen Inschriften* (Archiv für Orientforschung Beiheft 8). Osnabrück: Biblio-Verlag.

Paper, Herbert H. 1955. *The Phonology and Morphology of Royal Achaemenid Elamite.* Ann Arbor: University of Michigan Press.

Reiner, Erica. 1969. "The Elamite Language." In *Altkleinasiatische Sprachen* (Handbuch der Orientalistik, division 1, vol. 2), pp. 54–118. Leiden: Brill.

Rüster, Christel, and Erich Neu. 1989. *Hethitisches Zeichenlexikon.* Wiesbaden: Harrassowitz.

Saussure, Ferdinand de. 1879. *Mémoire sur le système primitif des voyelles dans les langues indo-européennes.* Leipzig: Teubner. Repr. Hildesheim: Olms, 1987.

Schroeder, Otto. 1915. *Die Tontafeln von El-Amarna* (Vorderasiatische Schriftdenkmäler 12). Leipzig: Hinrichs.

Stève, Marie-Joseph. 1992. *Syllabaire élamite: Histoire et paléographie.* Neufchatel and Paris: Recherches et Publications.

Sturtevant, Edgar. 1951. *A Comparative Grammar of the Hittite Language,* rev. ed. New Haven: Yale University Press.

Wilhelm, Gernot. 1992. "EA 24: A Letter in Hurrian about Marriage and Friendship." In *The Amarna Letters,* by William Moran, pp. 63–71. Baltimore: Johns Hopkins University Press.

SECTION 4

Egyptian Writing

ROBERT K. RITNER

The Egyptian script tradition is one of the world's longest, extending from the end of the fourth millennium B.C.E. to at least the tenth century C.E. During these four thousand years, four distinct but interrelated scripts were developed, often in complementary usage: Hieroglyphic, Hieratic, Demotic, and Coptic (see SECTION 22).

Hieroglyphic

Of these various scripts, none was as long-lived, or has so captured the public imagination (Iverson 1993), as Egyptian hieroglyphs. Indeed, hieroglyphs represent the fundamental Egyptian writing system, from which Hieratic, Demotic, and (to a lesser extent) Coptic are cursive derivatives. The common designation "Hieroglyphic" (from Greek τὰ ἱερογλυφικά *tà hierogluphiká* 'sacred carvings') was first applied by Clement of Alexandria (*Stromata* V.IV.20–21), while Herodotus termed the script τὰ ἱερά (γράμματα) *tà hierá (grámmata)* 'the sacred (letters)' (II.36). Such terminology corresponds to that of the native language, in which hieroglyphs were styled  *mdw-nṯr* 'god's-words', in recognition of the divine origin of writing, the invention of Thoth, the god of wisdom.

The Hieroglyphic script is pictographic in nature and was developed by the rebus principle at or just before the beginning of the First Dynasty (ca. 3100 B.C.E.) in close conjunction with a nascent artistic tradition. Bas-relief and accompanying text form an interdependent unit, in which depicted actions and individuals may be "read" as "ideograms" or "determinatives" for phonetically written names or titles. This representational character of Egyptian writing was continually exploited by scribes and theologians, resulting in the late misconception by outsiders that the script was purely "symbolic" and not phonetic. The development of writing in Egypt may be the result of "stimulus diffusion" by which Egypt gained the "notion of writing" through trade with Sumerians. However, it must be stressed that the Egyptian system is quite alien to the Sumerian and represents a distinctly local creation.

The distinguishing feature of the Hieroglyphic script is its consonontal basis. Unlike Sumerian, Egyptian pictograms are not syllabic, i.e. they neither write vowels nor indicate their presence. The contrary suggestion of a syllabic basis for Egyptian by the linguist Gelb (1963: 72–81) has found no Egyptological support (Schenkel 1984, cols. 717–18). The omission of vowels probably results from syllabic shifts such as

are characteristic of the related Semitic languages, in which grammatical inflection is indicated by internal vowel variation around generally invariable consonontal word roots. Egyptian writing thus provides word "skeletons" to which the reader would add the appropriate vowels, obvious from the context to native speakers.* Evidence from Coptic further indicates that Egyptian syllables with sonants often lacked vowels altogether. Special techniques for representing the unfamiliar syllabic character of foreign loanwords ("group writing") are discussed below.

Not all hieroglyphs represent consonants, however, for Egyptian is a "mixed system" in which certain signs convey sounds (*phonograms*) while others indicate meaning (*semograms*). Though there is a fairly consistent core of about 700 standard signs used to write the classical stage of the language (Middle Egyptian, Dynasties XI–XII, ca. 2000–1650), no strictures were placed on either the form or the number of signs. Despite the often conservative character of scribal schools, some signs were "updated" (Old Kingdom  > Middle Kingdom  'axe') and innovations were acknowledged with new signs (New Kingdom *wrry.t* 'chariot'). The generation of new hieroglyphs accelerates in the Late Period (Dynasties XXVI–XXX, 664–332), resulting in over 5,000 signs in the Greco-Roman eras (332 B.C.E. – ca. 400 C.E.).

The simplest element of the hieroglyphic repertoire is the "logogram" or "ideogram," by which a word is represented with a corresponding picture:  *rꜣ* 'sun',  *ḫbꜣ* 'mace',  *msḏr* 'ear',  *mnhd* 'scribal outfit'. Extended usage of this picture writing permits ideograms to stand for affiliated notions and actions: *hrw* 'day',  *ḥrp* 'govern',  *sḏm* 'hear', *sš* 'write'. Exclusively logographic writing is relatively rare in Egyptian, and, as in the examples above, instances of nouns are usually followed by a stroke () as a determinative. From the logograms derive all other hieroglyphs, whether semographic determinatives or phonograms. The association of individual pictures with characteristic sound values led to the use of such signs as purely phonetic elements, so that the sign  *ḥr* 'face' is used in writing the homophonous *ḥr* 'upon' and  *ḥr* 'be distant'.

Phonograms in Egyptian are divided into three categories on the basis of the number of consonants represented by the individual sign. The most basic of these are the 26 "alphabetic" or uniconsonontal signs (TABLE 4.1). Classical (Middle) Egyptian recognizes 24 consonants. An alternate sign for *y* () derives from the archaic dual ending, while that for *s* () originally indicated a lost consonant *z*, still distinguished in Old Egyptian. The phonemic structure of classical Egyptian probably represents the spoken dialect of the capital Memphis. Later dialectal spellings reveal the widespread existence of an *l*, conflated with *r* (less often *n*) in Middle Egyptian. The consonants  *ꜣ*,  *i*,  *y*, and *w* are weak, readily assimilated to preceding vowels, and frequently omitted in final position. The order of the Egyptian "alphabet" given

*Conventionally, the sound [ɛ] is inserted into words for convenience in pronunciation, but with no claim of accuracy or authenticity. In transcriptions of Egyptian, periods link gender and number affixes, tilted double hyphens link personal affixes, and hyphens link members of compound words.

TABLE 4.1: *Uniconsonantal or "Alphabetic" Hieroglyphs*

	ꜣ [ʔ]		ḥ [ħ]
	i affinity to *i*, otherwise [j]		ḫ [x]
	y usually word-final		ḫ perhaps [ç]
	y word-final		s variant of following, originally *z*
	ʿ [ʕ]		s
	w affinity to *u*, otherwise [w]		š [ʃ]
	b		q [q]
	p		k [k]
	f		g [g]
	m		t
	n may substitute for *l*		ṯ [ʧ]
	r may substitute for *l*		d
	h		ḏ [ʤ]

in TABLE 4.1 follows modern scholarly convention; native classification is known to begin with the letter *h*, but is not fully attested (Johnson 1994: 67–68).

Although Egyptians could thus compose purely alphabetic texts, and did attempt such experiments in the Late Period, preference was given to mixed writings that actually increase legibility (Davies 1987: 35). Thus the alphabetic *pr* is ambiguous as to meaning, while *pr* 'house' and *pr* 'go forth' are clear.

The largest category of Egyptian phonograms comprises the biliterals, or combinations of two consonants. About eighty common biliterals are used, and several have more than one possible sound value. The full inventory is shown in TABLE 4.2. Whether or not alternative readings are possible, biliterals are usually accompanied by alphabetic signs acting as *phonetic complements*: $^{b}bꜣ^{ꜣ}$, mr^{mr}, $ꜣb^{b}$. More than one biliteral may have the same phonetic value, but in practice biliterals are rarely interchangeable for the choice of biliteral is typically dependent upon word root.

The remaining phonographic category includes the approximately seventy triliterals, or signs comprising three consonants; they are given in TABLE 4.3. Since many Egyptian words are based on triliteral roots, the distinction between triliteral and logogram is often blurred (Gardiner 1957: 45). As with biliterals, triliterals may be accompanied by alphabetic phonetic complements which serve to specify the reading of a pictogram with more than one signification: *wꜣs* 'scepter'; $ḏꜣm^{m}$ 'electrum'. More often, the phonetic elements are redundant and optional: or *ʿnḫ*$^{(nḫ)}$ 'life'. Phonetically redundant elements nonetheless function calligraphically, facilitating the arrangement of signs within invisible square spaces or "quadrants."

TABLE 4.2: *Biliteral Hieroglyphs*

	-ꜣ	*-i*	*-ꜥ*	*-w*	*-b*	*-p*	*-m*	*-n*
ꜣ-				ꜣw	ꜣb			
i-				iw			im	in
ꜥ-	ꜥꜣ							
w-	wꜣ		wꜥ			wp		wn wn
b-	bꜣ							
p-	pꜣ							
m-	mꜣ	mi mi		mw				mn
n-				nw nw	nb		nm	nn
r-				rw				
ḥ-	ḥꜣ			ḥw			ḥm	ḥn
ḫ-	ḫꜣ		ḫꜥ	ḫw				
ḥ-	ḥꜣ							ḫn ḫn
s-	sꜣ sꜣ			sw				sn
š-	šꜣ			šw				šn
q-								
k-	kꜣ					kp	km	
g-							gm	
t-	tꜣ	tꜣ					tm	
ṯ-	ṯꜣ							
ḏ-	ḏꜣ			ḏw				

Completing the inventory of hieroglyphic signs are the "semographic" determinatives, which are placed after the phonetic elements and add precision to a word's meaning (TABLE 4.4). Determinatives are often the only distinguishing features among homonyms. Thus, the concluding "book-roll" determinative characterizes the word *sš* 'writing' in contrast to *sš* 'scribe', determined with a seated man. While some determinatives are specific to individual words (in *nḫḫw* 'flail'), most are generic indicators of a word's nature (*taxograms*). The number of commonly used generic determinatives is quite large, indicating, for example, specific fields of action, classifications, and materials (Gardiner 1957: 31–33). Words often have more than one determinative to add clarity or nuance, e.g. *gsˢ* 'anoint' with JUG and FORCE determinatives. Some determinatives provide further, extra-linguistic, information. Thus by the addition of STICK, CRUCIBLE, or SLAB to the writing of *ḥḏ.t* 'box/chest', the reader would be informed of its composition in wood, metal, or stone. Determinatives are a most significant aid to legibility, being readily identifiable word dividers.

TABLE 4.2 *(continued)*

	-r	*-ḥ*	*-s*	*-q*	*-k*	*-t*	*-d*	*-ḏ*
ꜣ-								
i-	ir		is					
ꜥ-				ꜥq				ꜥḏ
w-	wr							wḏ
b-		bḥ						
p-	pr	pḥ						
m-	mr mr	mḥ	ms			mt mt		
n-		nḥ	ns					nḏ
r-								
ḥ-	ḥr		ḥs					ḥḏ
ḫ-						ḫt		
ḥ-	ḫr							
s-					sk	st		
š-			šs				šd	
q-							qd	
k-								
g-			gs					
t-								
ṯ-								
ḏ-	ḏr						ḏd	

TABLE 4.3: *Triliteral Hieroglyphs*

	ꜣbw		bi ꜣ		sbq
	i ꜣm		bit		spr
	i ʿb		pds		sm ꜣ
	iw ʿ		m ꜣ ʿ		smn
	iwn		mnw		sḫm
	ib ꜣ		msn		sḫm
	imi		mḏḥ		sšm
	isw		nni		sšm
	idn		nḫb		sšr
	idr		nṯr		stp
	ʿwt		nḏm		sṯ ꜣ
	ʿb ꜣ		rwd, rwḏ		sḏb
	ʿpr		ḥfn		sḏm
	ʿnḫ		ḥry		šbn
	ʿrq		ḥtm		šmʿ
	ʿḥʿ		ḫbs		šnʿ
	ʿš ꜣ		ḫpr		šsp
	w ꜣḥ		ḫnt		šsm
	w ꜣs		ḫnt		qmi
	w ꜣḏ		ḫrw		k ꜣp
	wʿr		ḫsf		kf ꜣ
	wbn		ḫ ꜣr		gḥs
	wḥm		ḫnm		tyw
	wsr		s ꜣḥ		tpy
	wsḫ		si ꜣ		ṯm ꜣ
	wsḫ		sin		dšr
	wšm		sw ꜣ		ḏʿm
	b ꜣs		swn		ḏb ꜣ
	bi ꜣ		sb ꜣ		ḏbʿ

Despite the variety of signs and potential combinations, words are rarely written in all possible combinations. Though never rigidly standardized, the spelling of individual words regularly crystallizes around a core of specific sign combinations. As elsewhere in the ancient Near East, scribes learned to write by memorizing word

TABLE 4.4: *Generic Determinatives*[a]

	man, person		tree
	woman		plant, flower
	people		vine, fruit, garden
	child, young		wood, tree
	old man, old, lean upon		corn
	official, man in authority		grain
	exalted person, the dead		sky, above
	god, king		sun, light, time
or	king		night, darkness
	god, king		star
or	goddess, queen		fire, heat, cook
	high, rejoice, support		air, wind, sail
	praise, supplicate		stone
	force, effort		copper, bronze
	eat, drink, speak, think, feel		sand, minerals, pellets
	lift, carry		water, liquid, related actions
	weary, weak		sheet of water
	enemy, foreigner		irrigated land
	enemy, death		land (later often replaces)
or	lie down, death, bury		road, travel, position
	mummy, likeness, shape		desert, foreign country
	head, nod, throttle		foreign (country or person)
	hair, mourn, forlorn		town, village, Egypt
	eye, see, actions of eye		house, building
	actions or conditions of eye		door, open
[b]	nose, smell, joy, contempt		box, coffin
	ear, states or activities of ear		shrine, palanquin, mat
	tooth, actions of teeth		boat, ship, navigation
[c]	force, effort		sacred bark
	substitute for in hieratic[d]		clothe, linen
	offer, present		bind, document
	arm, bend arm, cease		rope, actions with cord or rope

TABLE 4.4: *Generic Determinatives*[a] (Continued)

	envelop, embrace		knife, cut
	phallus, beget, urinate		hoe, cultivate, hack up
	leg, foot, actions of foot		break, divide, cross
	walk, run		cup
	move backwards		vessel, anoint
	limb, flesh		pot, vessel, beverages
	tumors, odors, disease		bread, cake
	bodily discharges	or	loaf, cake, offering
and	cattle		festival
	savage, Typhonian	[f]	book, writing, abstract
	skin, mammal		royal name, king
	bird, insect		one; the object depicted
	small, bad, weak	[g]	several, plural
	fish		substitute for hard-to-draw signs[h]
	snake, worm		

a. After Gardiner 1957: 31–33. Listed in the conceptual order used for hieroglyphs in modern lists.
b. Less accurately .
c. Interchangeable with .
d. Less often in hieroglyphic.
e. Less accurately .
f. Also vertically , older form .
g. Also .
h. Mostly hieratic.

groups, and this communal practice resulted in a high degree of consistency and clarity.

Hieroglyphic texts are composed in either vertical columns or horizontal lines. With few exceptions ("retrograde"), the direction of reading is toward the face of human or animal pictograms, i.e. the signs are turned toward the beginning of the inscription. Vertical columns are read from top to bottom, while horizontal texts may be oriented either from right to left or left to right. In practice, a distinct preference is shown for right-to-left orientation. Reversal of this norm is usually based on an artistic desire for symmetry (flanking inscriptions on doorways, etc.), or to coordinate the text with a represented figure facing left (Fischer 1977, cols. 1192–93). Artistic considerations may also dictate a rearrangement of the expected sequence of signs, so that tall thin signs typically precede birds: for *ꜣḫ.t* (never **ḫꜣ.t*) 'field'. Honorific transposition is accorded to terms of exceptional prestige in written sequences, with divine and royal terms written first though pronounced in inverted order: *mdw-nṯr*, written <nṯr-mdw> (< 'flag' + 'word') 'god's-words' (cf. English *$1,000*). "Orthograms" (calligrams) and ligatures represent additional artistic and theological influence on the script. Calligraphic "filler strokes" eliminate blank spaces in textual arrangement. The use of ligatured "composite signs" increases with time, either for harmonious arrangement (= *m* + ; = *š* + COME in *šm* 'go') or for "magical" considerations due to the representational nature of the signs (; see Ritner 1993: 163–67).

A particular subset of hieroglyphic writing is the so-called "group writing" by which foreign names and terms are rendered in combinations of biliterals and sign groupings, as in *'Ihi* not **'Iꜣhwiw* (Gardiner 1957: 52). This system was termed a syllabic orthography by Albright (1934), and despite initial opposition this interpretation is now dominant (Iverson 1993: 34–36; Schenkel 1985). Though the system was in common usage only in the Middle and New Kingdoms, a Demotic text of Persian date uses similar principles for transcribing not isolated words, but an extensive manuscript composed in Aramaic (Steiner and Nims 1985: 65–68).

Of great importance for the later history of hieroglyphs are the occasional cryptographic writings, in which common signs or modified variants represent atypical phonetic values on the basis of visual puns, acrophony, or other reasons. Such writings occur rarely even in the Old Kingdom, but become common in royal funerary texts of the New Kingdom, where they are often accompanied by a parallel, normal "translation." Many of these individual spellings and values survive into the Greco-Roman eras, when the application of traditional cryptographic principles led to the formation of thousands of new signs and the misperception by outsiders that the script was purely symbolic.

Hieratic

Like the Hieroglyphic script of which it is a direct cursive equivalent, Hieratic ("priestly") received its name from Clement of Alexandria, in whose time its use was restricted to religious compositions. Native terminology does not distinguish Hieratic from hieroglyphs. Both forms were invented and developed almost simultaneously, with Hieratic being but a linear simplification of the complex hieroglyphs. Hieratic, however, is written exclusively from right to left. As Hieroglyphic served as a monumental script, Hieratic was designed for more rapid and often less exalted purposes on ostraca (see FIGURE 3) and papyrus: dockets, accounts, and letters. Only rarely was late Hieratic engraved on stone. Developing Hieratic produced a variety of distinctive writing styles, with the mundane "business hand" displaying increased use of ligatures, while elaborate calligraphic flourishes characterize the "book hand" later used for literary and religious compositions. Literary Hieratic may include punctuation in the form of "verse points." Regional variations are also notable, so that by the Twenty-fifth Dynasty the chancery styles of the south (Abnormal Hieratic) and north (Demotic) were no longer mutually legible. With Demotic accorded royal preference

TABLE 4.5: *Demotic Uniconsonantal "Alphabetic" Signs*

2 or ?	ʾ	or	ḥ
	i		ḫ
	e		ẖ
	y	or	h
or	ʿ	, , , or	s
or	w	or	š
or	b		q
or	p		k
	f		g
or	m		t
or	n		ṯ
or	r		ṯ
	l	or	ḏ
	h		

in the Twenty-sixth Dynasty, only calligraphic Hieratic survived as a traditional script for religious texts.

Demotic

Designated "Demotic" ('popular') by Herodotus, the script was termed *sš-š ʿ.t* "letter writing" in the native language, and thus "Epistological" by Clement. As noted, Demotic derives from the "business hand" of the Delta and was in continuous use from the seventh century B.C.E. to the fifth century C.E. Though ultimately descended from hieroglyphs, Demotic is characterized by numerous abbreviated writings and ligatured word groupings, making identifications with precise hieroglyphic renderings difficult or impossible. Thus the common ligature may derive historically from a variety of phonetic combinations: ʿ and ʿ, ʿ and *n*, *r* and *n*, *t* and *n*, etc. Within Demotic orthography, such ligatures acquire almost independent status as "logograms" used to represent words, with specific readings indicated by accompanying phonetic complements or other visual markers. Demotic still retains "alphabetic" signs, however (shown in TABLE 4.5), and purely "alphabetic" spellings are common for loanwords. Like Hieratic, Demotic is read only from right to left. Unlike Hieratic, however, Demotic was regularly inscribed on stone from the Ptolemaic Period onward, the most famous example being the Rosetta Stone used in the decipherment of the Egyptian scripts.

With the demise of Demotic, Egyptian scripts survived only vestigially in Coptic as a means for writing the Egyptian language. However, Egyptian writing had a dominant influence on both the Meroitic and Proto-Sinaitic scripts, and through the latter, Egyptian may serve as the direct ancestor of the contemporary Latin alphabet.

HIERATIC SELECTION

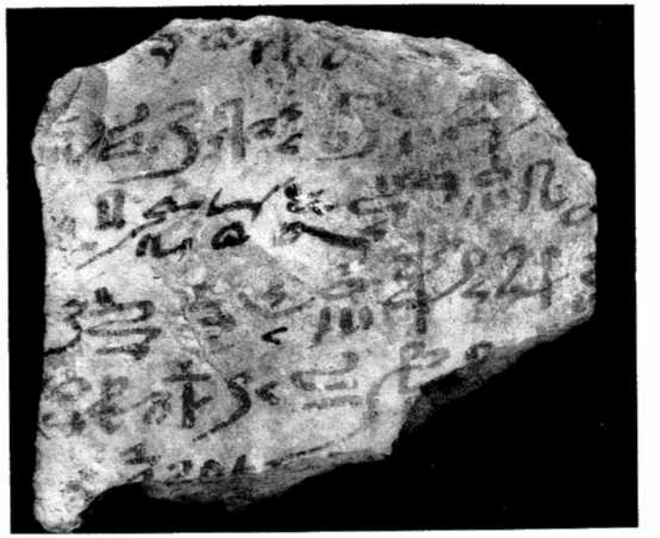


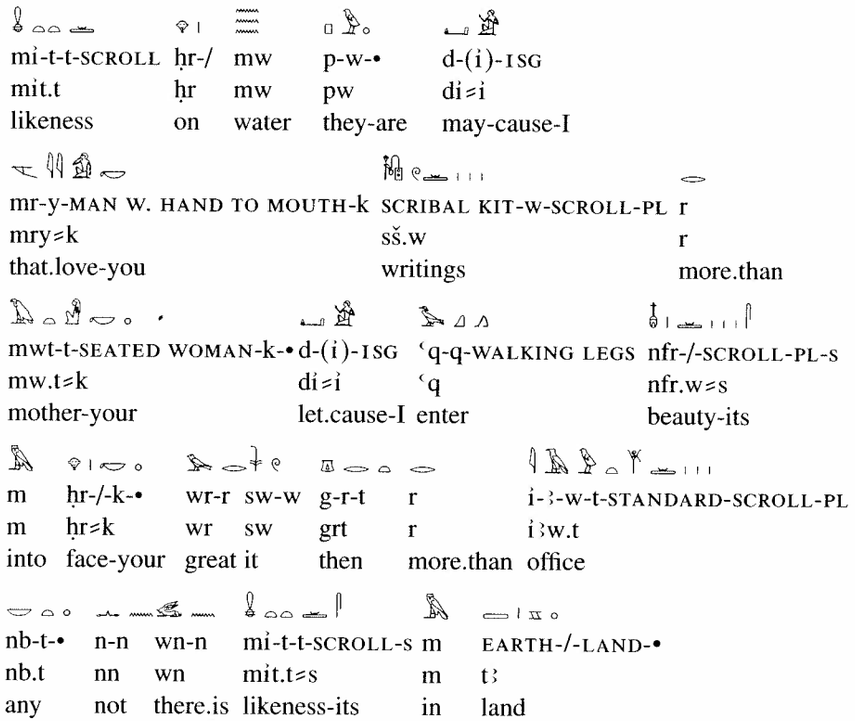
FIGURE 3. Ostracon bearing part of the following text (Oriental Institute Museum 25329; photo courtesy of The Oriental Institute of The University of Chicago).

HIEROGLYPHIC TRANSCRIPTION

1. *Hieroglyphs:*				
2. *Explanation:*	d-d-k	HEART-/-k	m-sꜣ-/	SCRIBAL KIT-W-SCROLL-PL-•
3. *Transcription:*	dd=k	ib=k	m-sꜣ	sš.w
4. *Gloss:*	set-you	heart-your	after	writings

1.				
2. d-g-ꜣ-EYE-n-1SG	n-ḥm-m-w-SCROLL-MAN W. STICK	ḥr-/	bꜣ-k-w-SCROLL-PL-•	
3. dgꜣ.n=y	nḥm.w	ḥr	bꜣk.w	
4. since-have-seen-I	those-saved	concerning	work-their	

1.					
2. m-(ʿ)-k-y-SCROLL	n-n	wn-n	m ḥꜣ-ꜣ-w	SCRIBAL KIT-W-SCROLL-PL-•	
3. mk	nn	wn	m ḥꜣw	sš.w	
4. behold	not	there.is	in excess.of	writings	



1. mi-t-t-SCROLL ḥr-/ mw p-w-• d-(i)-1SG
2. mit.t ḥr mw pw di=i
3. likeness on water they-are may-cause-I

1. mr-y-MAN W. HAND TO MOUTH-k SCRIBAL KIT-W-SCROLL-PL r
2. mry=k sš.w r
3. that.love-you writings more.than

1. mwt-t-SEATED WOMAN-k-• d-(i)-1SG ʿq-q-WALKING LEGS nfr-/-SCROLL-PL-s
2. mw.t=k di=i ʿq nfr.w=s
3. mother-your let.cause-I enter beauty-its

1. m ḥr-/-k-• wr-r sw-w g-r-t r i-ỉ-w-t-STANDARD-SCROLL-PL
2. m ḥr=k wr sw grt r ỉ.w.t
3. into face-your great it then more.than office

1. nb-t-• n-n wn-n mi-t-t-SCROLL-s m EARTH-/-LAND-•
2. nb.t nn wn mit.t=s m t
3. any not there.is likeness-its in land

'Set your thoughts just on writings, for I have seen people saved by their labor. Behold, there is nothing greater than writings. They are like a boat on water. Let me cause you to love writing more than your mother. Let me usher its beauty into your sight. For it is greater than any office. There is nothing like it on earth.' —*From the Teaching of Dua-khety, IIa–IIId (Helck 1970: 19–21, 29–29).*

The Meroitic Script

N. B. MILLET

The script used by the ancient Meroites, or inhabitants of the ancient empire of Meroë in the Sudan, was apparently devised in the third century B.C.E. and remained in use until after the fall of that empire in the first half of the fourth century C.E. There is some evidence to suggest that it was employed to write the Nubian languages of the successor kingdoms that grew up amidst the ruins of the old imperial power, although no actual texts have survived. It was finally displaced by the coming of Christianity to the Nubian Nile and the adoption of the Coptic alphabet in the sixth century.

TABLE 4.6: *The Meroitic Script*

Hieroglyph	*Cursive*	*Transliteration*	*Hieroglyph*	*Cursive*	*Transliteration*
		initial a			l
		e	,		ḫ
		o			ẖ
		i			se
		y			s
		w			k
		b			q
		p			t
		m			te
		n			to
		ne			d
,		r			word divider

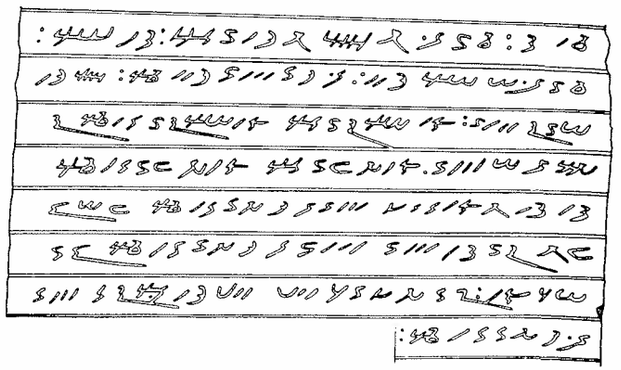
The Meroitic script existed in two variants, a "cursive" or linear version for general use, and a pictorial "hieroglyphic" lapidary style for monumental purposes on temple walls and other royal monuments. This duality reflects the age-old Egyptian scribal traditions, from which both forms of the Meroitic script had in fact been derived by their inventors.

The individual characters of the hieroglyphic variant are simply pictorial substitutions for those of the cursive system, most of the forms being explainable as drawn directly from the Egyptian hieroglyphic system which the Meroites had themselves been using for hundreds of years. The signs of the parallel cursive script are also generally traceable to Egyptian Demotic (cursive) prototypes.

Meroitic writing is written from right to left and occasionally, in the case of hieroglyphic, in columns for decorative effect. The system is essentially alphabetic and makes use of a word divider with varying degrees of regularity. There are fifteen consonantal signs and three vowel signs, besides a sign to indicate the presence of the initial vowel *a*. For reasons not understood, but possibly having to do with the existence of dialect differences, the devisers of the system created four further characters to express the syllables *ne*, *se*, *te*, and *to*. Absence of a written vowel after a consonant implied the vowel *a*. Certain syllable-closing consonants such as *s* and *n* were not necessarily noted. In the cursive variant, the sign for the vowel *i* is usually written in ligature with the preceding consonant.

The phonetic values of the signs of the script were ascertained in 1910 by the English Egyptologist F. Ll. Griffith (see SECTION 9); but since no true bilinguals have ever come to light, and no surviving related languages have been identified, the language itself remains in the main undeciphered. Place and personal names, a few divine names, and a mere handful of words can be identified with any certainty.

SAMPLE OF MEROITIC



: oq irrtew : iros : ileqeniyentew : sow←

iwolekiret ilekiret : eykerqiy iwoqeyemt

beletenosos iwoleḫdet ileḫdet : eyertidk

iwoledmtey eyosek enḫprḫ iwoledmtey

: iwoledmtey ekiteqes silbda : etirep

1. *Transliteration:* wos : wetneyineqeli : sori : wetrri
2. *Gloss:* O Isis [epithet] O Osiris [epithet]

1. qo : tmeye-qowi yiqrekye : terikeli
2. The noble Tameye-the.noble.one.it.is (of) Yiqarekaye begotten

1. terikelowi kditreye : tedḫeli tedḫelowi
2. begotten.he.was (of) Kaditareye born born.he.was

1. sosoneteleb yetmdelowi ḫrpḫne kesoye
2. (to) *sosonete*-officers related.he.was; (to) the.city.governor Keshoye

1. yetmdelowi perite : adblis seqetike yetmdelowi :
2. related.he.was (to) the.agent of.the.*adb* Seqetike related.he.was

'O … Isis! O … Osiris! Here lies the noble Tameye; Yiqarekaye was his father, Kaditareye was his mother; he was related to *sosonete*-officers, to the city governor Keshoye, and to the *adb* agent Seqetike.'

—*Opening lines of a sandstone tombstone from Qasr Ibrim in Lower Nubia, ca. 300 B.C.E. (Mills 1982: 69).*

Bibliography

EGYPTIAN

Albright, William F. 1934. *The Vocalization of the Egyptian Syllabic Orthography* (American Oriental Series 5). New Haven: American Oriental Society (repr. Millwood, N.Y.: Kraus Reprints, 1974).

Davies, W. V. 1987. *Egyptian Hieroglyphs* (Reading the Past). Berkeley and Los Angeles: University of California Press; London: British Museum.

Fischer, Henry G. 1977. "Hieroglyphen" [in English]. *Lexikon der Ägyptologie,* vol. 2, cols. 1189–99.

Gardiner, Sir Alan. 1957. *Egyptian Grammar,* 3rd ed. Oxford: Griffith Institute.

Gelb, I. J. 1963. *A Study of Writing,* 2nd ed. Chicago: University of Chicago Press.

Helck, Wolfgang. 1970. *Die Lehre des Dw3-Ḫtjj.* Wiesbaden: Harrassowitz.

Helck, Wolfgang, Eberhard Otto, and Wolfhart Westendorf, eds. 1975–89. *Lexikon der Ägyptologie.* 7 vols. Wiesbaden: Harrassowitz.

Iverson, Erik. 1993. *The Myth of Egypt and Its Hieroglyphs.* Princeton, N.J.: Princeton University Press (1st ed. Copenhagen, 1961).

Johnson, Janet H. 1994. "Ancient Egyptian Linguistics." In "Linguistics in the Ancient Near East," ed. Erica Reiner, pp. 63–76. In *History of Linguistics,* ed. Giulio C. Lepschy, vol. 1, *The Eastern Traditions of Linguistics,* pp. 61–96. London: Longman (original Italian publication, 1990).

Lüddeckens, Erich. 1974. "Demotisch." *Lexikon der Ägyptologie,* vol. 1, cols. 1052–56.

Osing, Jürgen. 1980. "Lautsystem." *Lexikon der Ägyptologie,* vol. 3, cols. 944–49.

Ritner, Robert K. 1993. *The Mechanics of Ancient Egyptian Magical Practice* (Studies in Ancient Oriental Civilization 54). Chicago: Oriental Institute.

Satzinger, Helmut. 1977. "Hieratisch." *Lexikon der Ägyptologie,* vol. 2, cols. 1187–89.

Schenkel, Wolfgang. 1984. "Schrift." *Lexikon der Ägyptologie,* vol. 5, cols. 713–35.

———. 1985. "Syllabische Schreibung." *Lexikon der Ägyptologie,* vol. 6, cols. 114–22.

Steiner, Richard C., and Charles F. Nims. 1985. "Ashurbanipal and Shamash-Shum-Ukin: A Tale of Two Brothers from the Aramaic Text in Demotic Script." *Revue Biblique* 82: 60–81.

MEROITIC

Griffith, Francis Ll. 1911. *Karanog: The Meroitic Inscriptions of Shablul and Karanog.* Philadelphia: University Museum.

———. 1912. *Meroitic Inscriptions II.* London: Egypt Exploration Fund.

Hintze, Fritz. 1974. "Some Problems of Meroitic Philology." In *Studies in Ancient Languages of the Sudan,* ed. Abdelgadir Mahmoud Abdalla, pp. 73–78. Khartoum: Khartoum University Press.

Mills, A. J. 1982. *Cemeteries of Qasr Ibrim* (Excavation Memoir 51). London: Egypt Exploration Society.

Priese, Karl-Heinz. 1973. "Zur Entstehung der Meroitischen Schrift." In *Sudan in Altertum* (Meroitica 1), ed. Fritz Hintze, pp. 273–306. Berlin: Akademie-Verlag.