

Ancient Egyptian

Lecture 3

January 24, 2022

Admin

- Online teaching: slower, takes longer; reading comments/questions, delivery of lecture, sharing/unsharing documents, technological issues...
- Last 10-15 minutes for questionnaires. The due time is 1:30pm just in case of technical difficulties
- Quiz 1 next week
 - Multiple choice, true/false, blanks, one word answers, short answers
 - Randomly selected questions
 - You may use your course materials (lecture slides/textbook) but nothing else, though don't expect to have time to look everything up...
 - 20-30 minutes (You'll know for sure next week)

Phonograms vs. Morphograms

- All graphemes are phonographic or morphographic
- The (phonological/semantic) complements we have discussed are subcategories of these that are not actually pronounced!
 - So all of our semantic complements are morphograms

Notes on compounding and extension in cuneiform

- The slides on compounding and extension in L2 describe **processes** that were used to flesh out the cuneiform writing system during its creation
 - Compounding: *creation* of new graphemes through structural ligatures of existing graphemes
 - Extension: using existing graphemes in *new ways* (and thus creating new meanings or pronunciations for them)

Today...

■ Ancient Egyptian

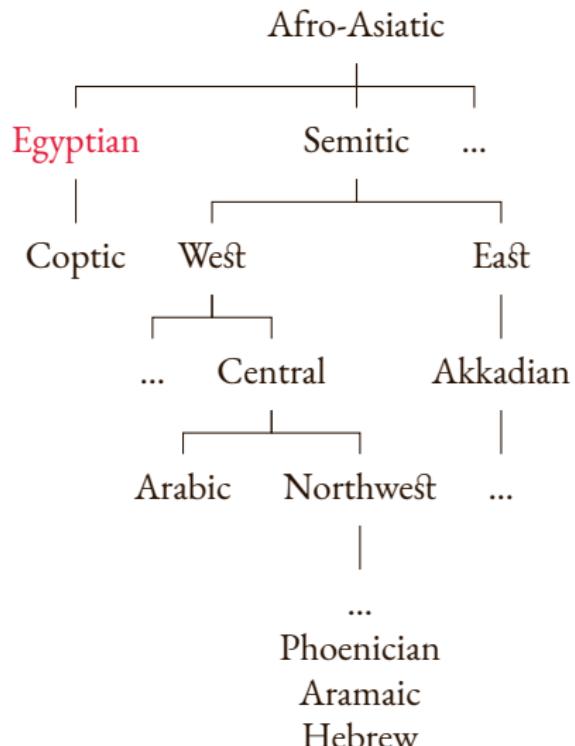
- Tomb tags & beginnings of writing
- Hieroglyphics & their structure
- Phonograms, morphograms, & semantic complements
- Hieratic, demotic, Coptic
- Decipherment

Ancient Egypt

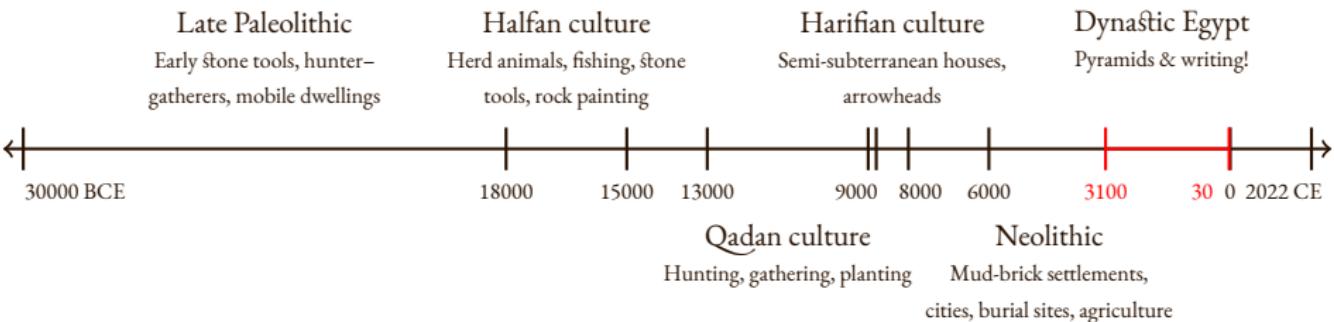
Ancient Egypt



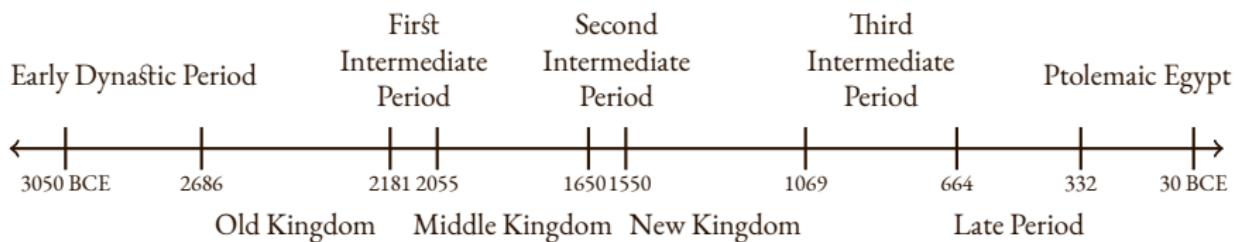
Languages ~~s~~ that used hieroglyphics



Timeline: Prehistoric Egypt



Timeline: Dynastic Egypt



Stages of Egyptian language

- Archaic Egyptian (*before ~2650BCE*)
 - Not considered a “stage”: inscriptions are too brief to allow linguistic analysis
- Old Egyptian (*~2686–2181BCE*)
 - Language of the Old Kingdom: first continuous texts
- Middle Egyptian (*~2055–1350BCE*)
 - Language of the Middle Kingdom, remaining in use as the standard literary language until the 4th century CE
- Late Egyptian (*~1069–700BCE*)
 - Language of the New Kingdom starting in the Amarna Period
- Demotic (*~700BCE–500CE*)
 - Written in a distinct script, derived from cursive hieroglyphics
- Coptic (*~100–1600CE*)
 - Written in an adaptation of Greek script; still used in the Coptic Church

Earliest Egyptian writing

- A tomb in Abydos, dated to ~3200BCE
- Some objects inside had inscriptions
 - Pottery jars and clay tags
 - Jars were largely smashed by looters
- Some of the symbols had been seen in earlier pottery art, but others were new
- The symbols have only been found in tombs in Abydos

Tags from Tomb U-j



Egyptian tags

- ~40 types of tags are known
- ~50 different glyphs
- Tags were drawn on larger grids, cut, painted black, and drilled with a hole
- Likely attached to grave goods
- Some have numerals, most have two glyphs



Types of glyphs

- People
- Mammals
- Birds
- Reptiles
- Scorpions
- Fish
- Plants
- Geographical features
- Temporal elements
- Manufactured objects (thrones, shrines)

Narmer Palette

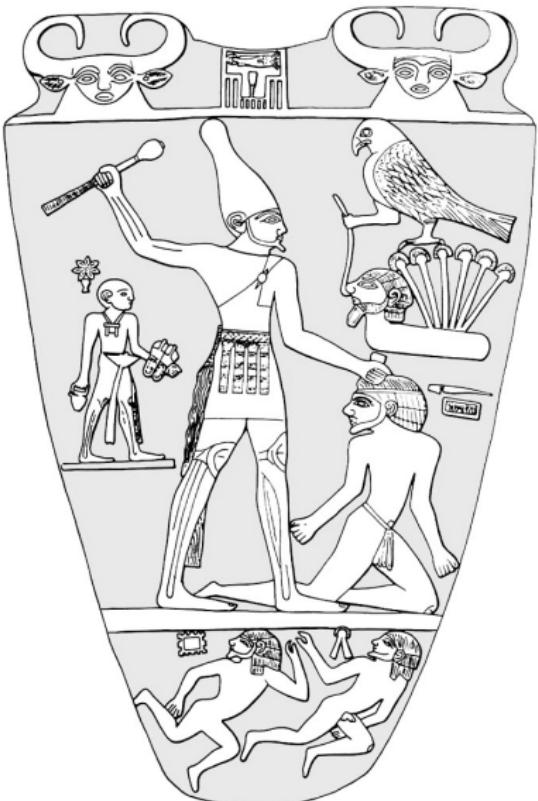
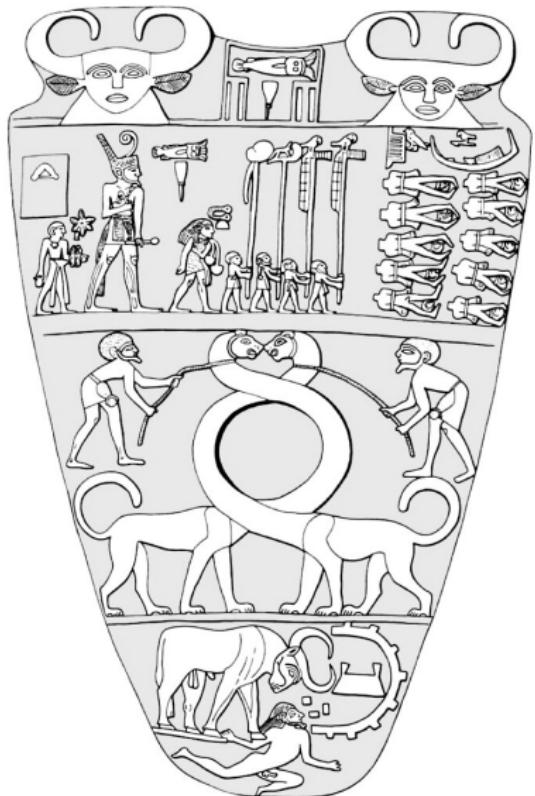
- Slate palette depicting King Narmer, discovered in 1898 in Nekhen (Hierakonpolis)
- One of the oldest appearances of hieroglyphics—around 3100 BCE!
- Narmer is thought to have unified or begun unifying Upper and Lower Egypt, as he bears insignia of both on this palette
 - Narmer:  (nr mr) (catfish chisel)
 - Narmer's name is written in hieroglyphics in several places on the tablet
 - Both sides, top, inside a  *serekh* ("façade")—a royal crest accenting the pharaoh's name



Narmer Palette reverse



Narmer Palette obverse



Origins of Egyptian writing

- There is some debate about whether Egyptian hieroglyphics were influenced by cuneiform or not
 - While it is clear that the two regions had economic connections, the writing systems are quite different in appearance and structure
 - The clearly picture-based nature of hieroglyphics also hearkens back to the origins of cuneiform from pictographic inscriptions
- However, it seems more likely that this is a case of *stimulus diffusion*—Egyptians borrowing only the *idea* of writing, but creating their own system

Origins of Egyptian writing

- The first full sentences in Egyptian hieroglyphics appear very soon after the earliest inscriptions we've found
- Clay tokens (with clear grapheme precursors) were in use from 8000–3000 BCE; writing arose around 3200 BCE
- Egyptian tomb tags have been dated to 3400-3200 BCE
- Egypt shows cultural influences from Mesopotamia around 4000 BCE
 - Architectural style & decorative patterns
 - Cylinder seals in tombs
 - Representation of Priest-King with status symbols
- We don't see the same cultural influences of Egypt on Mesopotamia!

Hieroglyphics

Hieroglyphic script

- *Hieroglyphics*—“sacred carved letters” (Greek)
 - Ancient Greek: ιερογλυφικός *(hierogluphikós)*
 - ιερός *(hierós)* “sacred”
 - γλύφη *(glúphē)* “carved work”
 - Translation of Egyptian  *(mdw ntr)* “god’s words”
- No fixed number of hieroglyphs
 - Some graphemes remained in use throughout
 - Others fell into disuse, while new ones were invented
 - Technological innovations:
 - New Kingdom saw the invention of the chariot & *khopesh* (sickle-sword)
 - New hieroglyphs:   

Hieroglyphic script

- In use for over 3000 years
 - (Compare use of Latin: ~750 BCE – 1700 CE = less than 2500)
 - The Roman alphabet (almost) as we know it is ~2100 years old
- Over 6,000 different hieroglyphs have been documented
- However, most of these are from the Græco-Roman period (off the right edge of my timeline slide)
 - Number of hieroglyphs deliberately increased on temple walls
- Maximum of ~1000 used at any one time
 - Middle Egyptian period had ~700
- Relatively few actually occur frequently



Representations

- Hieroglyphics are fundamentally pictorial
 - This does not mean they are picture writing!
 - They clearly represent concrete objects at all time periods
- Hieroglyphs did not become more abstract, like cuneiform (and Chinese, as we will see)
 - Why do you think this is?

Represenattions

- Deeply linked to royalty and religion
 - Both of these are deeply traditional and conservative institutions
 - Writing was associated very much with the upper class
- Hieroglyphic inscriptions were mostly carved
 - Takes time and precision—no rush to simplify forms

Phonology

- What can hieroglyphics actually tell us about the phonology of Ancient Egyptian?
 - Only consonants are written!
 - Transliterations cannot reveal what the vowels were
- We can make educated guesses about consonant and vowel values
 - Reconstructions from Afro-Asiatic
 - Values in Coptic
 - How foreign loans were written
 - How other languages wrote Egyptian loans

Vowels today

- To make the words pronounceable, we can insert vowels, or read some consonants as vowels (based on Semitic traditions)
 - These don't reflect the actual vowels of Ancient Egyptian
 - Transliterations don't include them
- /a/ in the environment of ⟨ʒ⟩ /?/ or ⟨c⟩ /ʕ/
 - ⟨mʒt⟩: /maat/
- /i/ in the environment of ⟨j⟩/⟨i⟩ /j/ or ⟨y⟩ /j/
 - ⟨jzzj⟩: /isesi/
 - ⟨ppy⟩: /pepi/
- /u/ in the environment of ⟨w⟩ /w/
 - ⟨wnjs⟩: /unis/
- /e/ everywhere else
 - ⟨tnnt⟩: /tʃenenet/
 - ⟨shnht⟩: /sexen çet/

Transliteration conventions

- Egyptology has its own traditional transliteration scheme for Egyptian, which uses some unique symbols
- This was largely established in the 1950s by Sir Alan Gardiner, one of the most important Egyptologists of the 20th century
- A condensed version highlighting the less obvious correspondences:

$\langle \mathfrak{z} \rangle$	/?/	$\langle s \rangle$	/s/
$\langle \mathfrak{i} \rangle$	/j/	$\langle z \rangle$	/s/
$\langle \mathfrak{c} \rangle$	/ʃ/	$\langle \mathfrak{s} \rangle$	/s/
$\langle \mathfrak{h} \rangle$	/ħ/	$\langle k \rangle$	/k/
$\langle \mathfrak{h} \rangle$	/x/	$\langle \mathfrak{k} \rangle$	/q'/
$\langle \mathfrak{h} \rangle$	/ç/	$\langle t \rangle$	/t/
$\langle d \rangle$	/d/	$\langle \mathfrak{t} \rangle$	/tʃ/
$\langle \mathfrak{d} \rangle$	/dʒ/		

Directionality

- Writing direction varied
 - Could be written in columns or rows (\rightarrow or \leftarrow)
 - Columns became less common as time passed
- The orientation of the graphemes indicates the reading direction (most noticeable for living creatures)
 - People and animals face *towards* you as you read



$\langle \beta mw \rangle$ "mourners"

Directionality

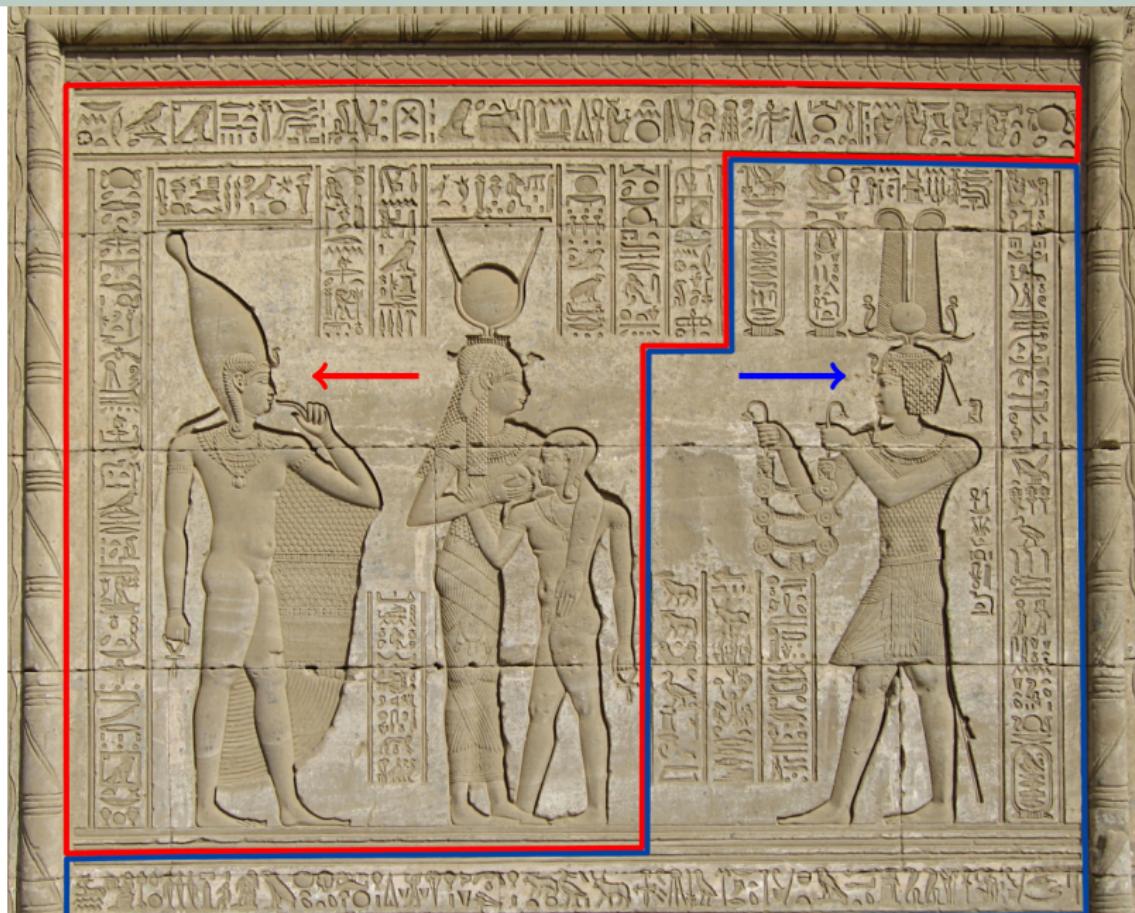
- Right-to-left rows were most common
- Left-to-right direction was used in certain contexts
 - Direction of graphemes matched direction of larger nearby figures!
 - Balance and symmetry was valued, and writing direction was also kept symmetrical
- Graphemes in columnar texts had left/right orientation too (chosen for symmetry)

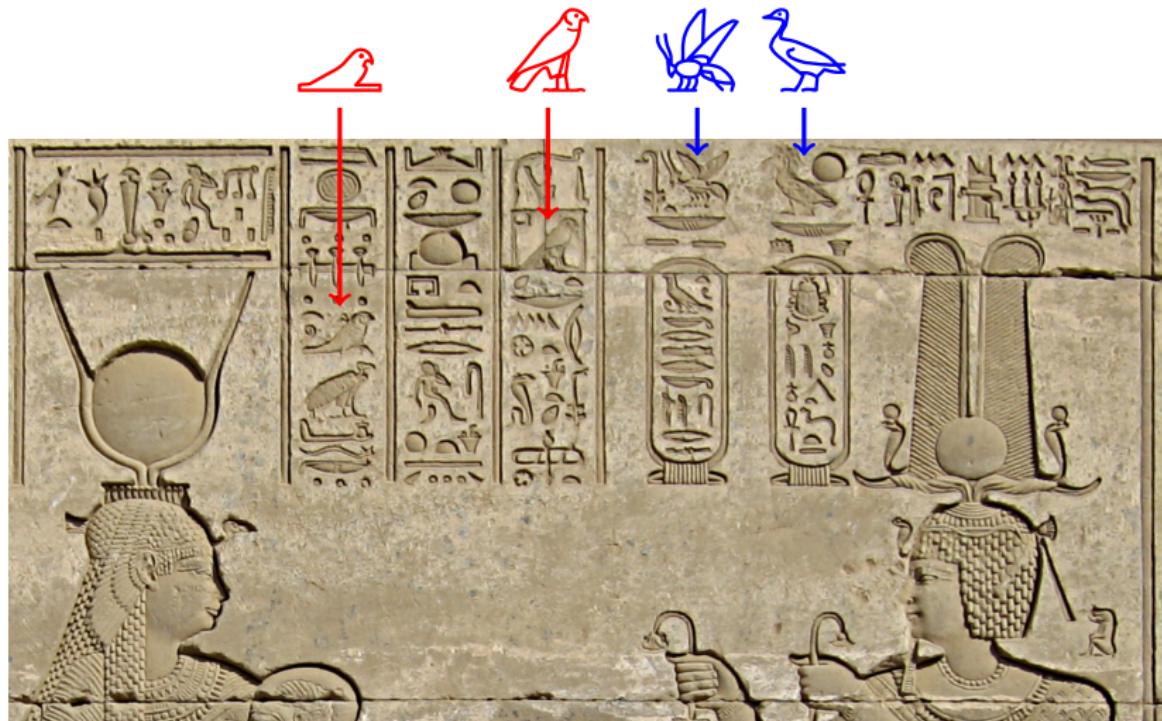
Dendera temple complex

- Let's look at an example from the back of the Dendera temple complex
- One of the best-preserved temple complexes in Egypt, with the Temple of Hathor as the main focal point









Phonographic writing

- **Phonograms** are graphemes that represent sounds
- Three “sizes” of phonograms in Egyptian hieroglyphics:
 - Monoconsonantal—one consonant
 - Biconsonantal—two consonants
 - Triconsonantal—three consonants
- (Sometimes these are also called uniliteral, biliteral, triliteral)

Monoconsonantal graphemes (text p104)

- Every consonant is usually said to correspond to a particular monoconsonantal grapheme
 - The 24 + 2 variants in the textbook are most common in texts
- There are a handful of other monoconsonantal phonograms in addition to these, which are less commonly used

	$\langle \beta \rangle$		$\langle n \rangle$		$\langle \check{s} \rangle$
	$\langle i \rangle$		$\langle r \rangle$		$\langle \check{k} \rangle$
	$\langle c \rangle$		$\langle h \rangle$		$\langle k \rangle$
	$\langle w \rangle$		$\langle \check{h} \rangle$		$\langle g \rangle$
	$\langle b \rangle$		$\langle \check{h} \rangle$		$\langle t \rangle$
	$\langle p \rangle$		$\langle \check{h} \rangle$		$\langle \check{t} \rangle$
	$\langle f \rangle$		$\langle s \rangle$		$\langle d \rangle$
	$\langle m \rangle$		$\langle \check{s} \rangle$		$\langle \check{d} \rangle$

Biconsonantal graphemes (text p106)

- Graphemes representing two consonants
- Largest group of phonograms, but still <100

	$\langle \text{hr} \rangle$		$\langle \text{ph} \rangle$		$\langle \text{wr} \rangle$
	$\langle \text{sr} \rangle$		$\langle \text{hn} \rangle$		$\langle \text{pʒ} \rangle$
	$\langle \text{hh} \rangle$		$\langle \text{ms} \rangle$		$\langle \text{mt} \rangle$
	$\langle \text{ir} \rangle$		$\langle \text{ni} \rangle$		$\langle \text{pk} \rangle$
	$\langle \text{kʒ} \rangle$		$\langle \text{mm} \rangle$		$\langle \text{šw} \rangle$
	$\langle \text{pd} \rangle$		$\langle \text{ʒh} \rangle$		$\langle \text{is} \rangle$
	$\langle \text{rw} \rangle$		$\langle \text{gm} \rangle$		$\langle \text{ib} \rangle$
	$\langle \text{ns} \rangle$		$\langle \text{ɔk̚} \rangle$		$\langle \text{wp} \rangle$

Triconsonantal graphemes (text p107)

- Graphemes representing three consonants
- 40-50 of these



⟨hpr⟩



⟨‘nh⟩



⟨t̪w⟩



⟨ntr⟩



⟨wsr⟩



⟨ssp⟩



⟨drd⟩



⟨whm⟩



⟨d̪sr⟩



⟨nds⟩



⟨by⟩



⟨ššt⟩

Phonological complements

- Phonological complements repeat phonological information
- Used to “reinforce” consonants in a bi- or triconsonantal grapheme
- Complements are usually monoconsonantal, and usually copy “adjacent” parts of the reinforced grapheme sequentially

 	$\langle \text{ʒw-w} \rangle$	/?aw/		$\langle \text{wr-r} \rangle$	/wur/		$\langle \text{ndm-m} \rangle$	/nedʒem/
	$\langle \text{mn-n} \rangle$	/men/		$\langle \text{hpr-r} \rangle$	/xuper/	 	$\langle \text{'nh-n-h} \rangle$	/ʃanx/
	$\langle \text{nfr-f-r} \rangle$	/nefer/	  	$\langle \text{h-p-hpr-r} \rangle$	/xuper/	 	$\langle \text{htp-t-p} \rangle$	/ħatep/

Morphographic writing

- A grapheme that represents a whole morpheme (word or suffix, regardless of phonological size) is a **morphogram**
- Also called *logograms* or *ideograms*
- Often marked by a vertical stroke ⟨|⟩ underneath or nearby
- Some graphemes are used exclusively as morphograms



“sun, light, time”



“house”



MORPHGRAM



“eat, drink, speak”



“small, weak, bad”



PLURAL

Semantic complements

- Called *determinatives* in Egyptology
- Give additional information about meaning, resolve ambiguities
- Placed at the end of words, not pronounced

	man, person		enemy, foreigner		wood, tree
	woman		eat, drink, speak		sun, light, time
	god, king		walk, run, motion		desert, foreign country
/	force, effort		small, bad, weak		writing, words, abstract

- The same grapheme may appear as a phonogram, morphogram, or a semantic complement in different contexts!

/?ad/ ⟨ʒ.d.CROCODILE⟩ “to be angry, attack; anger”	/?ad/ ⟨ʒ.d.MOTION⟩ “to quiver”	/men/ ⟨mn.n⟩ “to be firm”	/men/ ⟨mn.n.BAD⟩ “to be ill”	/men/ ⟨mn.n.BAD.MAN⟩ “sick man”

Transliteration conventions, cont'd

- Graphemes may have different uses or meanings, and many graphemes do not have a phonological value
- Because the system is so complex, and there are so many graphemes, we face problems in identifying all graphemes and doing good transliteration!
- In addition to a Roman transliteration, Sir Alan Gardiner also created groupings of all of the hieroglyphics
 - 26 categories, labelled with letters of the alphabet
 - Signs within these categories were numbered
- The codes assigned to the different hieroglyphics have become standard in Egyptology

Gardiner Sign List

- A. Man & his occupations
- B. Woman & her occupations
- C. Anthropomorphic deities
- D. Parts of the human body
- E. Mammals
- F. Parts of mammals
- G. Birds
- H. Parts of birds
- I. Amphibious animals & reptiles
- K. Fish & parts of fish
- L. Invertebrates & lesser animals
- M. Trees & plants
- N. Sky, earth, water
- O. Buildings & parts of buildings
- P. Ships & parts of ships
- Q. Domestic & funerary furniture
- R. Temple furniture & sacred emblems
- S. Crowns, dress, staves, etc.
- T. Warfare, hunting, & butchery
- U. Agriculture, crafts, & professions
- V. Rope, fibre, baskets, bags, etc.
- W. Vessels of stone & earthenware
- X. Loaves & cakes
- Y. Writings, games, & music
- Z. Strokes
- AA. Unclassified

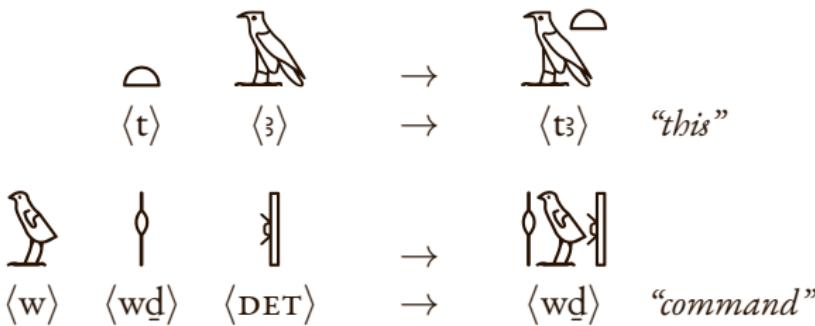
Directionality revisited

- Ordering of graphemes is not strictly linear!
 - Graphemes can be stacked or nested to be more aesthetically pleasing and evenly spaced
 - When two hieroglyphs are stacked, top one is usually read first



Directionality revisited

- Sometimes graphemes can even be written in the “wrong” order for aesthetic reasons
 - Bird hieroglyphs often switched in order to fit better



Other Egyptian scripts

Writing on papyrus

- Not all Egyptian writings were carved in stone—that would not be practical for day-to-day uses!
- Hieroglyphics were commonly written on papyrus
 - Usually religious documents
 - Funerary texts—spells to help the spirit of the person in the afterlife
- Priests developed **hieratic** from around 2600 BCE (Old Kingdom!)
 - A cursive script for notetaking and records
 - Written right to left (default text direction)
- Became increasingly stylized and abstract over time

Written hieroglyphics



Weighing of the heart against the feather of Ma'at, from the Book of the Dead

Written hieroglyphics

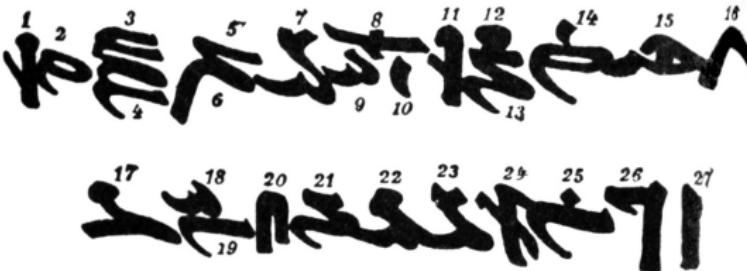


Weighing of the heart against the feather of Ma'at, from the Book of the Dead

Hieratic



Edwin Smith Papyrus, ca. 1600 BCE. Oldest known surgical text on trauma (48 cases of fractures, wounds, dislocations, tumours).

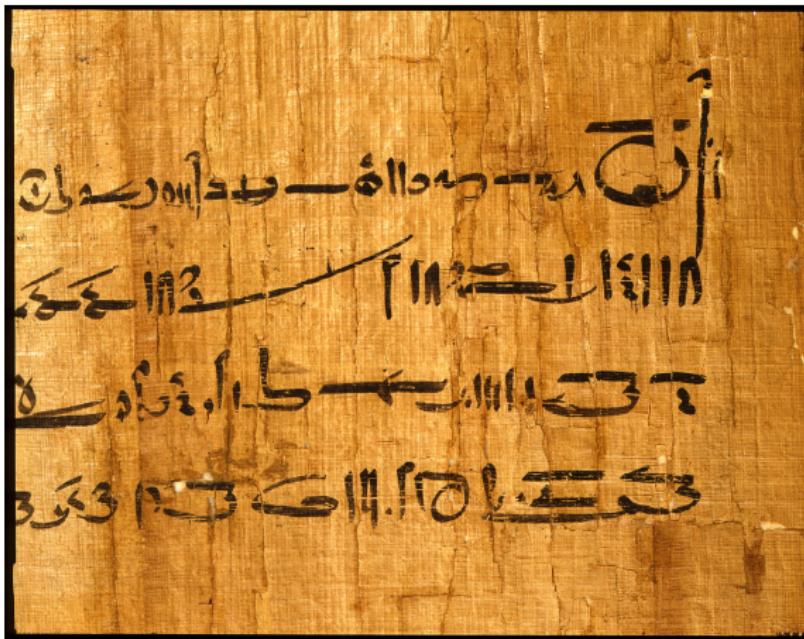


- | | | | |
|-----|---|-----|------------------------------|
| 1. | a reed | 11. | see No. 1 |
| 2. | a mouth | 12. | a knee bone (?) |
| 3. | a hare | 13. | see No. 2. |
| 4. | the wavy surface
of water | 14. | a roll of papyrus
tied up |
| 5. | see No. 4 | 15. | an eye |
| 6. | a kind of vessel | 16. | see No. 6 |
| 7. | an owl | 17. | a goose |
| 8. | a bolt of a door | 18. | see No. 9 |
| 9. | a seated figure
of a man | 19. | see No. 4 |
| 10. | a stroke written
to make the word
symmetrical | 20. | a chair back |
| | | 21. | a sickle |

Demotic

- Demotic was a cursive script that rose in popularity around 600 BCE
- Also read right to left
- Replaced hieratic for everyday writing—personal and administrative documents
- Derived from hieratic, but little visible relation to hieroglyphics

Demotic



Detail of early marriage contract, ca. 365 BCE. Details husband's holdings and their distribution to any children borne to him by his wife Peset, or to her in case of divorce.



$\langle M9 \rangle$



Hieratic

Demotic



⟨A2⟩

ප්‍ර ඩ ප ය

Hieratic

Demotic



⟨A12⟩



÷ 2

Hieratic

Demotic



⟨A13⟩

A stylized black mark consisting of two curved, hook-like strokes meeting at a point.

A stylized black mark consisting of three curved, hook-like strokes meeting at a point.

A red mark consisting of a short horizontal stroke ending in a long, thin, upward-pointing tail.

A red mark consisting of a short horizontal stroke ending in a thick, downward-pointing hook.

A red mark consisting of a short horizontal stroke ending in a thick, downward-pointing hook.

Hieratic

Demotic



⟨E23⟩

A row of ancient Egyptian script. From left to right, there are four black Hieratic characters, followed by a red Demotic character.

Hieratic

Demotic

Coptic

- The last stage of written Egyptian is **Coptic**
- Around the 1st century CE, Egyptian adapted the Greek alphabet, with some additional letters derived from demotic
- In use until around the 17th century, and remains as the liturgical language & writing system of the Coptic Church
- We'll talk more about Coptic in the alphabets lecture!



Decipherment

Early efforts

- Before 1824, no success in (accurately) reading Egyptian
- Kircher (1643, 1652, 1654)
 - Most famous Egyptologist of his day
 - Hieroglyphics: “this language hitherto unknown in Europe, in which there are as many pictures as letters, as many riddles as sounds, in short as many mazes to be escaped from as mountains to be climbed”
 - *Oedipus Aegyptiacus* (1654)
 - Ancient Egyptian was the language spoken by Adam and Eve
 - Hieroglyphs were occult symbols that could not be translated by words



ATHANASIUS KIRCHER ET SOCIETATE LEV
OF DIPVS AEGYPTIACVS
AD FERDINANDVM III CASAREM SEMPER AVGSTVM

Early efforts

- Joseph de Guignes (1764)
 - Eminent Sinologist
 - Tried to find parallels between Chinese characters and hieroglyphics
 - Proposed that China was an Egyptian colony
- M. le Comte de Pahlin (1812)
 - Chinese and Egyptian characters had same origin and meaning
 - If the Psalms of David were translated into Chinese, and those characters converted back to their “ancient forms”, it would reproduce the inscriptions on Egyptian papyri
- And many others!

Breakthrough

- During Napoleon's campaign in Egypt and Syria (1798–1801), there was a breakthrough discovery
- On July 15, 1799, a French lieutenant northeast of Rosetta (modern-day Rashid) spotted a slab with three inscriptions
- Originally thought to be hieroglyphics, Syriac, and Greek
- The following year, Jean-Joseph Marcel, a French linguist, recognized the middle text as demotic (rarely used in inscriptions)
- In March 1801, French forces (transporting with them antiquities including the stone) were defeated by the British, and after some dispute the stone was turned to British hands
- Has been on display at the British Museum almost continuously since 1802

Ancient Egypt

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Hieroglyphics

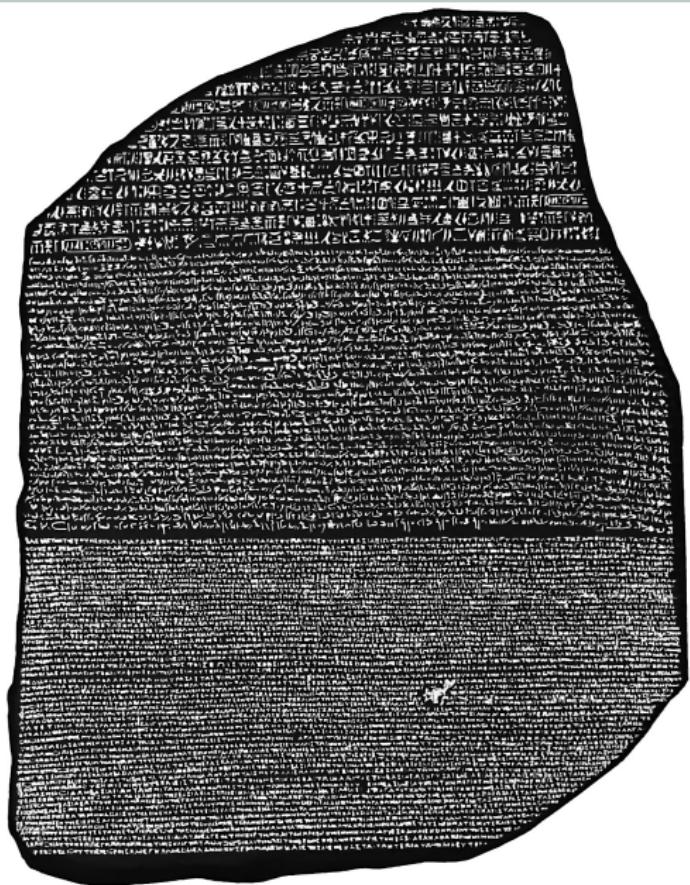
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Other Egyptian scripts

oooooooooooo

Decipherment

○○○●○○○○○



Ancient Greek

Δέλτιον της Αιγαίου θάλασσας

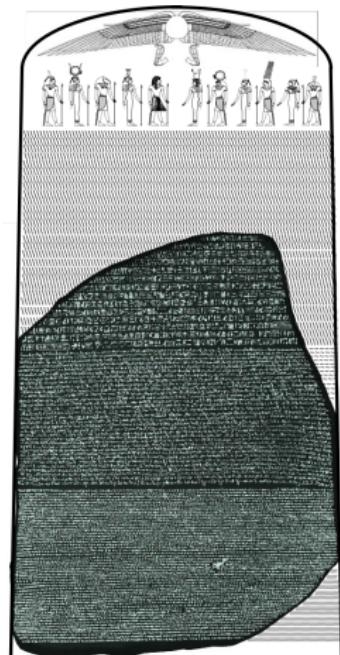
Hieroglyphics

Hieroglyphics

Demotic

Rosetta Stone

- Part of a larger stèle
- Did not originate in Rosetta (a port city) but further inland
- Erected in 196 BCE after the coronation of King Ptolemy V
- The text is known as the third Memphis Decree
 - Ptolemy V gave money to the priesthood and funded infrastructure
 - The priesthood honoured him with a statue in every temple
 - A trilingual copy of the decree should accompany each statue



Decipherment of the Rosetta Stone

- Joseph de Guignes
 - Despite thinking China was an Egyptian colony
 - Figured out determiners and cartouches
- Jørgen Zoëga (1755–1809)
 - Some hieroglyphs represent sounds, cartouches surround royal names
- Silvestre de Sacy (1758–1838)
 - Identified proper names in demotic inscription
- Johan David Åkerblad (1763–1819)
 - de Sacy's student; worked out 16 demotic consonants (but got others wrong)
- Thomas Young (1773–1829)
 - Translated the demotic inscription
- **Overall message:** decipherment built on the efforts of many people over decades of work!

Crucial cartouches



Decipherment of the Rosetta Stone

- Jean-François Champollion
 - de Sacy's student
 - Published a translation of the hieroglyphic inscription of the Rosetta Stone, as well as the Philæ obelisk
 - Discovery of Philæ obelisk in 1822: had names *ptolemaios* and *kleopatra* in the Greek inscription, and the corresponding cartouches in the hieroglyphic inscription
 - He knew the names of rulers were in cartouches, and focused on reading names



A little out of place...



Let's see how we did...

- Champollion knew both names had an ⟨l⟩ and a ⟨p⟩
- Ptolemy: 
- Cleopatra: 

□ △ ⚡ ≈ = ⌂ ⚡
 ⟨p t w rw m i s⟩

△ ⚡ I ⚡ □ ⚡ ≈ < ⚡ △ 0
 ⟨k rw i w p 3 d r 3 FEM GODDESS⟩

Readings & Next Time

- Remember! Next week is Quiz 1!
 - From 12–6pm (Lecture takes place from 10am–12pm)
 - Any textbook or lecture content so far!
 - *Lectures:* Intro, Cuneiform, Ancient Egyptian
 - *Chapters:* 1, 2, 5, & 6

Readings & Next Time

- Make sure you have read Chapter 6 of the textbook
- Read Chapter 7 for the lecture...