Digital Egyptology

Franziska Naether
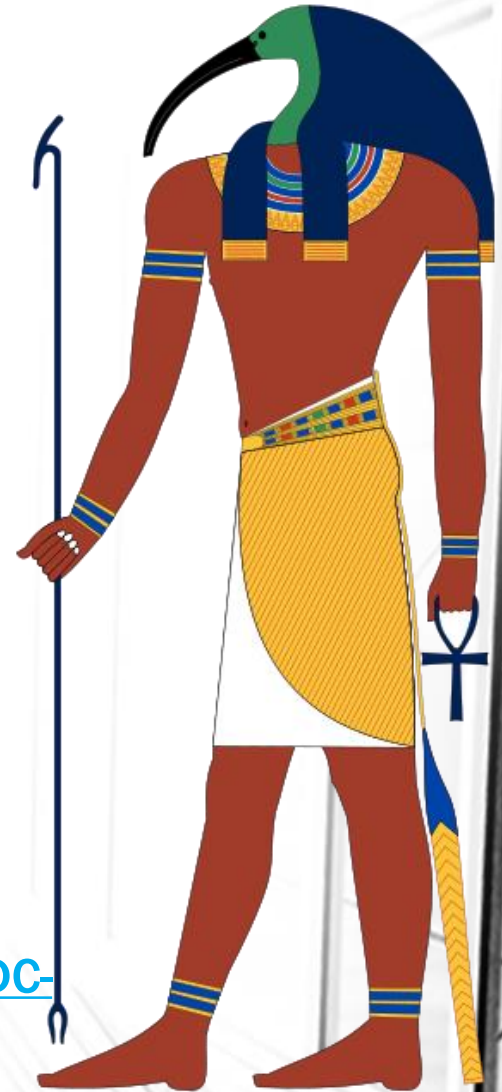
SynoikisisDC, spring/summer term 2017

1 June 2017

Agenda for today's session

- What is special on DH in Egyptology + Papyrology?

- Conventions: IANUS and ADS

- Egyptian Scripts with special emphasis on Demotic

- Hieroglyphs in Unicode

- How to write Hieroglyphs?

- How to find the sources?

- Thesaurus Linguae Aegyptiae

- Practical exercise

- Questions

- Se also: https://github.com/SunoikisisDC/SunoikisisDC-2016-2017/wiki/Digital-Egyptology

- YouTube link of this session: https://www.youtube.com/watch?v=rnT6So6jfr0

Thoth, Egyptian god of writing, magic, mathematics, Wikimedia Commons

Save your (Archaeological) Data!

https://archaeologydataservice.ac.uk/

https://www.ianus-fdz.de/

Short Introduction in Egyptian Languages and Scripts

Languages:
Early Egyptian (ca. 3300-2700 BC)
Old Egyptian (ca. 2700-2000 BC)
Middle Egyptian (ca. 2000-1300 BC)
Late Egyptian (ca. 1300-700 BC)
Demotic (ca. 700 BC-500 AD)
Coptic (ca. 100-1400 AD)

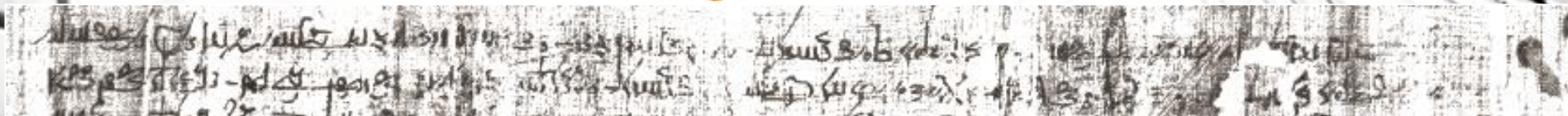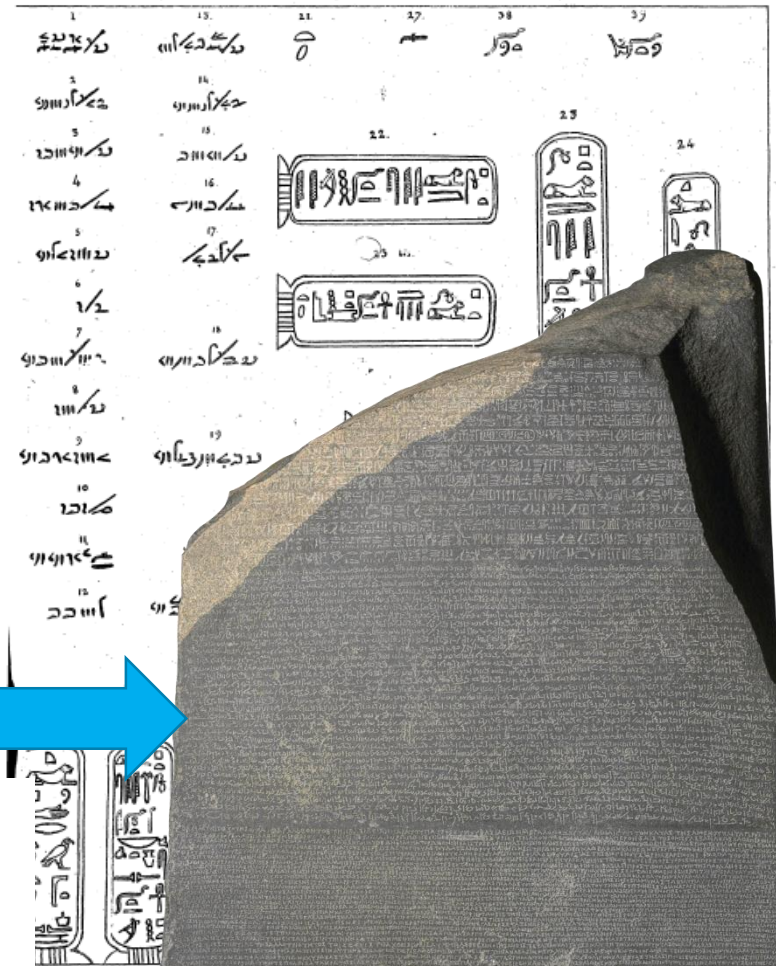**Scripts**:
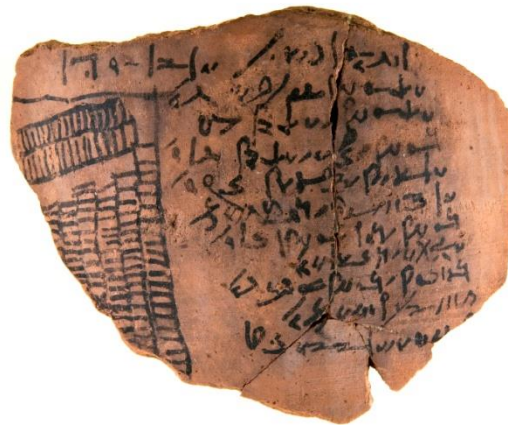Hieroglyphic
Ptolemaic
Hieratic
Abnormal Hieratic
Demotic
Coptic

4

What is Demotic?

- cursive script

- since Amasis (26th dynasty), youngest dated inscription is from 11 December 452/3; Old, Middle, Late

- Hdt. 2, 36 (γράμματα δημοτικά vs. ἱερά; ἐπιστολογραφική vs. ἱερογλυφική-ἱερατική, sḫ (n) šʿ.t (letter script)

Tools for Demotic

- Old dictionary: ERICHSEN, W., Demotisches Glossar, Kopenhagen 1954, PDF: https://histbest.ub.uni-leipzig.de/receive/UBLHistBestCBU_cbu_00000104

- New dictionary: JOHNSON, J.H. (ed.), Chicago Demotic Dictionary (CDD): https://oi.uchicago.edu/research/publications/demotic-dictionary-oriental-institute-university-chicago

- Grammar: JOHNSON, J.H., The Demotic Verbal System, SAOC 38, Chicago 1976; Second Printing with Corrections 2004: https://oi.uchicago.edu/research/publications/saoc/saoc-38-demotic-verbal-system

- Textbook: JOHNSON, J.H., Thus wrote ꜥOnchsheshonqy. An Introductory Grammar of Demotic, SAOC 45, Chicago 1991(2), 3rd revised edition, Chicago 2000 = https://oi.uchicago.edu/research/publications/saoc/saoc-45-thus-wrote-onchsheshonqy-introductory-grammar-demotic

- International Conference (ICDS, in September in Leipzig): http://www.gko.uni-leipzig.de/aegyptisches-museum/veranstaltungen/2017/13th-international-congress-for-demotic-studies-2017.html

- Demotic Summer Schools

Bi- and multilingual texts

- Greek & Demotic (code switching, text types existing in several languages)

- decrees

- magical texts (e.g. Papyri Graecae Magicae, PGM/PDM)

- letters, inscriptions, graffiti

- several text types from Medinet Madi / Narmouthis

- multilingual archives

- loanwords (DDGLC Project: http://research.uni-leipzig.de/ddglc/index.html)

Scribe in typical position (Brunner, Altägyptische Erziehung)

Unicode: Status quaestionis for Egyptian scripts II

- conventional way: betacode fonts for the transliteration of Egyptian (Transliteration.ttf, Umschrift.ttf etc.)

- I guess only 10-20% of Egyptologists are using it, basically „Graeco-Roman people"

- But: all characters are available in Unicode including the ideosyncratical Egyptological brackets!

    - recommendation: IFAO Grec Unicode, download keyboard at

      http://www.ifao.egnet.net/publications/publier/outils-ed/polices/

- Unicode: standard for Greek, Coptic, …

Unicode: Status quaestionis for Egyptian scripts I

- An ongoing challenge: to encode Hieroglyphic in Unicode because of the various ways of positioning signs

- there is a research group for this: http://hieroglyphseverywhere.blogspot.de/

- similar issues for Demotic, Hieratic, Abnormal Hieratic... but also other glyphs or scripts of the Maya

Conventional Hieroglyphic cluster forms

Tomb of Rekhmire (TT100).

Unicode: Status quaestionis for Egyptian scripts III

1071 hieroglyphs currently available in Unicode

Irregular Hieroglyphic cluster forms

Ongoing development:
http://hieroglyphseverywhere.blogspot.de/2016/08/informatique-et-egyptologie-cambridge.html (Meeting im Cambridge, summer 2016)

Report: A method for encoding Egyptian quadrats in Unicode

Andrew Glass, Ingelore Hafemann, Mark-Jan Nederhof, Stéphane Polis, Bob Richmond, Serge Rosmorduc, Simon Schweitzer
April 26th, 2017

- "The two principles that guided this effort to encode Egyptian quadrats are:

- • Structural completeness — Unicode encoded text in Egyptian Hieroglyphs must be able to faithfully render the structures inherent to the writing system

- • Feasibility — Rendering text must be possible using existing font technologies "

Here is an artificial left-to-right example to illustrate an extreme case:
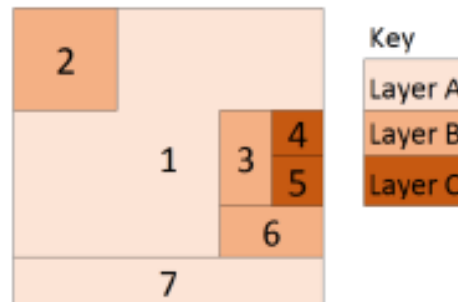
How to write Hieroglyphs?

JSesh, an Open Source Hieroglyphic Editor

- With JSesh!

- Open source software by Serge Rosmorduc: https://jsesh.qenherkhopeshef.org/

- download and tutorials: see videos on the website

- Course material (in German): https://www.ianus-fdz.de/datenportal/collections/view/2016-00005_DIP#collection-start (Kursbaustein 5)

Write and Group signs in JSesh

- type signs in a linear way (separated by a stroke -), by letter(s) in betacode or by the Gardiner sign list (example: nfr, oesophagus, Gardiner F35 (in „parts of mammals" and „tall narrow signs")

- group signs:

- one sign under the other sign: :

- one sign diagonally over the preceeding sign: & („Son of Ra", zA&ra)

- two signs next to each other: *

- two signs overlapping each other: ## („green", wAD##D)

- turn a sign: \R+angle (number)

- mirror a sign: \t+angle (number, e.g. 90, 180)

- write 3 signs in a half-size field: use brackets ()

JSesh: Further codes
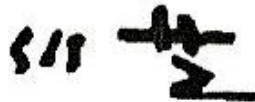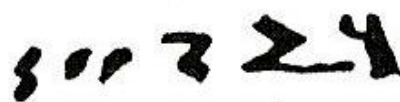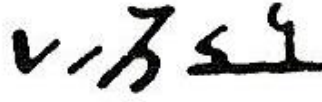
- hatching: with / and #

  - for a whole field: //

  - for a quarter of a field: /

  - for a vertical half of a field: v/

  - for a horizontal half of a field: h/

  - overlapping: # or #+1 or 2 or 3 or 4

- codes for cartouches

  - knot on the right: <-signs->

  - no knot, open on both sides: <0-signs-0>

  - no knot, closed on both sides: <1-signs-1>

  - knot on the left: <2-signs-1>

  - knots on both sides: <2-signs-2>

Export

- copy/paste into your word processor as graphic

- trial & error ☺

- save your work regularly

- save complex work in several files

- exercises available upon request

How to write Demotic, Hieratic, Meroitic...?

- there was a font for demotic

- there are a few betacode fonts with a small number of signs, so solution

- facsimile (usually based on photographs)

- old demotic: hieroglyphic transcription

O. Narm. I.127, line 1:		
OMM CXXIV, line 2:		
OMM 910, line 12:		

When P&S first published OMM 163 (=O. Narm. I.127), they read the word above as "sp". In a 2007 CdE article, P&M translate the word in the first line as sk, "to raise", or

How to find the Sources?

- metadata databases (Trismegistos, Papyrus-Portal)

- full-text databases , literary and documentary sources (Perseus Project, papyri.info, Thesauri)

- images et al. (museum databases)

Trismegistos (www.trismegistos.org)

SB 16 13044, Greek-Coptic tax receipt, 8th century
http://www.trismegistos.org/tm/detail.php?tm=39719, TM 39719

Papyri.info

- Example in Coptic: http://papyri.info/ddbdp/sb;16;13044

- SB 16 13044, Greek-Coptic tax receipt, 8th century

Thesaurus Linguae Aegyptiae (TLA)

- http://aaew.bbaw.de/tla/ (Login required)

Strukturen und Transformationen des
Wortschatzes der ägyptischen Sprache

BBAW

Thesaurus Linguae Aegyptiae (TLA)

- registration/login

- lemma list: Suche in der Liste der ägyptischen Wörter (Egyptian and Demotic), look for words in transliteration and/or translation

- browse by texts (example: P. Ebers)

  - see also the new digital presentation: https://papyrusebers.de/

- several analyses possible (attestations, combinations of two words, collocations/coocurrence, gravitation)

Thesaurus Linguae Aegyptiae
- ● Thesaurus Linguae Aegyptiae
- Leuven Online Index of Ptolemaic and Roman Hieroglyphic Texts, Katholieke Universiteit Leuven
- Projekt "Digital Heka", Universität Leipzig
- Strukturen und Transformationen des Wortschatzes der ägyptischen Sprache, Berlin-Brandenburgische Akademie der Wissenschaften
- Strukturen und Transformationen des Wortschatzes der ägyptischen Sprache, Sächsische Akademie der Wissenschaften zu Leipzig
- Totenbuchprojekt, Nordrhein-Westfälische Akademie der Wissenschaften
- Edfu-Projekt, Akademie der Wissenschaften zu Göttingen

Demotic Word List (to search for classifiers)

- http://www.dwl.aegyptologie.lmu.de/suche.php

Practical Exercise

- Find all the Ptolemaic sacerdotal decrees which bear the prase ḥ(n)ʿ sḫn nfr (Hieroglyphic, in Betacode Hna sxn nfr) / irm pꜣ sḫn nfr (Demotic, in Betacode pA sxn nfr) / ἀγαθὴ τύχη (Greek) and variants thereof!

ḥ(n)ꜥ sḫn nfr
irm pꜣ sḫn nfr
ἀγαθὴ τύχη
Good luck!

Questions?
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