

Deciphering Demotic Digitally

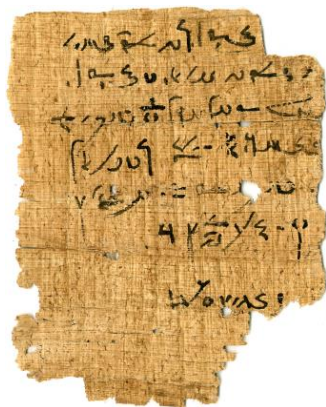
The Demotic Palaeographical Database Project – DPDP

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Egyptological Institute – University of Heidelberg



towards creating a Demotic palaeography...

PALAEOGRAPHICAL RESEARCH



DATE

PROVENANCE

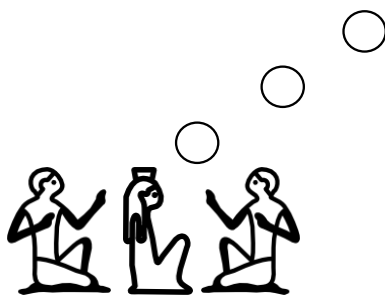
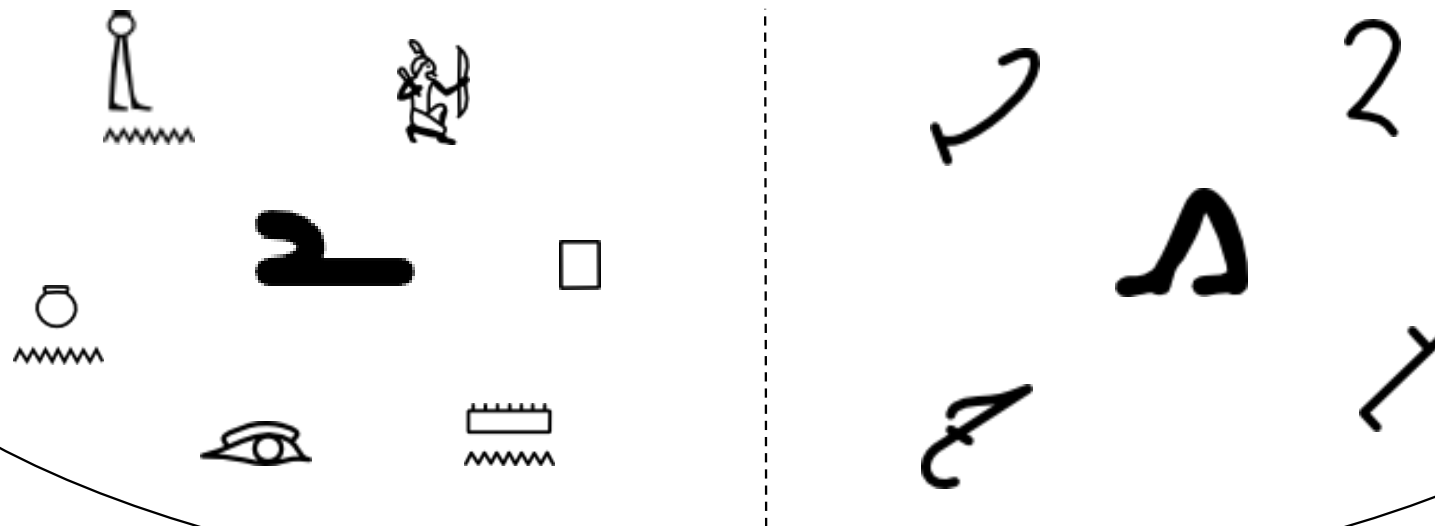
COMPOSITION OF FRAGMENTS

COMPARISON OF HANDS



One Demotic sign – many hieroglyphic predecessors. One hieroglyph – many Demotic representations.

DEMOTIC SCRIPT



Hieratic vs Demotic published palaeographies.

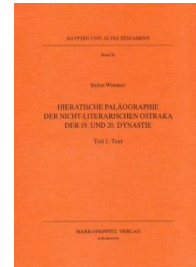
PALAEOGRAPHIES

HIERATIC

DEMOTIC



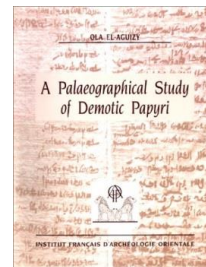
MÖLLER
1927-36



WIMMER
1995



VERHOEVEN
2001



EL-AGUIZY
1998



towards creating a Demotic palaeography...

WHAT WE WANT...

- UNRESTRICTED CORPUS
- DATA ACQUISITION DOWN TO WORD- AND SIGN LEVEL
- CONFIRMABILITY OF READINGS
- WORD ORTHOGRAPHY
- UPDATABILITY



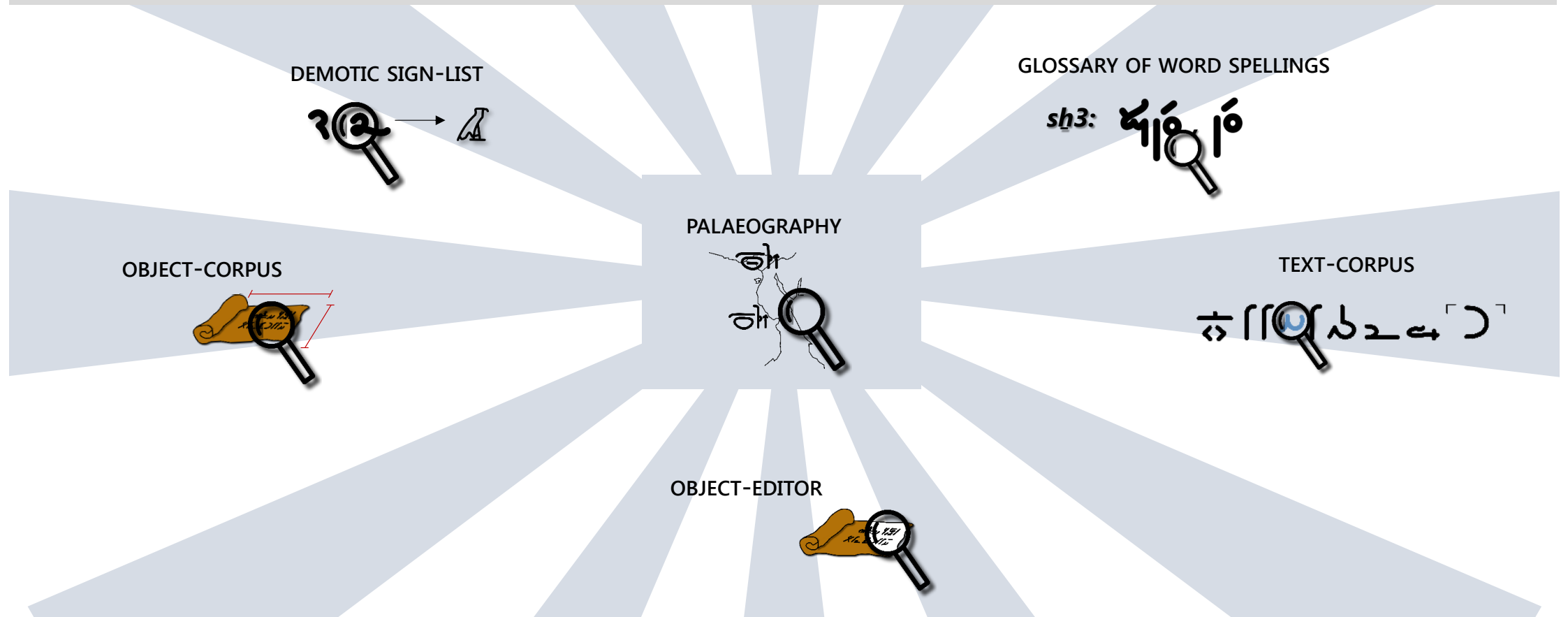
towards creating a Demotic palaeography...

WHAT WE ALSO WANT...

- EXTENSIVE SEARCH OPTIONS (DEMOTIC SIGNS, GRAMMAR, COMBINATIONS)
- DYNAMIC FILTERING (TIME, LOCATION, TEXTTYPE)
- BIG ENOUGH CORPUS WHILE SPECIAL FORMS
- RESEARCH OPTIONS: SINGLE TEXT vs CORPUS
- AUTOMATIC MATCHING OF SIGN-REPERTOIRES



analysis functions



decipher...

DEMOTIC SIGN-LIST



Look up signs , formal or phonetic equivalences and clusters of signs

manuelle Eingabe Eingabe per Bild Eingabe per Lautwert

Das könnte eines der folgenden Zeichen sein:

00:03,85

The image shows a video player interface. At the top, there are three radio buttons for input methods: 'manuelle Eingabe' (selected), 'Eingabe per Bild', and 'Eingabe per Lautwert'. Below this is a magnifying glass icon over a demotic sign. The main content area displays the text 'Das könnte eines der folgenden Zeichen sein:' followed by three demotic signs with arrows pointing to them. At the bottom, there is a video control bar with a play button, a progress bar, and a timestamp of 00:03,85.

review...

PAPYRUS-EDITOR



Look up image,
transcriptions and
transliteration



3.2.1. 3.2.1. 3.2.1.
2. 2. 2. 2. 2. 2.
+ 2. 2. 2. 2. 2. 2.
3. 3. 3. 3. 3. 3.
2. 2. 2. 2. 2. 2.
4. 4. 4. 4. 4. 4.
1. 1. 1. 1. 1. 1.
2. 2. 2. 2. 2. 2.

3.2.1. 3.2.1. 3.2.1.
2. 2. 2. 2. 2. 2.
+ 2. 2. 2. 2. 2. 2.
3. 3. 3. 3. 3. 3.
2. 2. 2. 2. 2. 2.
4. 4. 4. 4. 4. 4.
1. 1. 1. 1. 1. 1.
2. 2. 2. 2. 2. 2.

- (1) NN pⁱ ntī ḡd | tw-y ḡrj n nⁱ smⁿ n NN sⁱ
- (2) NN pⁱ ḡm-r'-mš' ḡj n kmy
- (3) ḡm NN sⁱ nⁱ nḡt-Hr pⁱ ḡm-r'-mš'
- (4) ḡj n kmy m-b'ḡ Mnḡ pⁱ nḡr' | ntī ḡw -f r ḡj |
- (5) šsp -n (n)-ḡr.t -tn mtī nb n ḡm-k | Hr
- (6) [...] | ntī ḡw -f r ḡn n-k pⁱ b'k |
- (7) [...] rdb n ḡtn 2 |

compare and classify...

PALAEOGRAPHY



Look up shapes of signs;
locate a scribal hand in
time and space

Zeichen: Umschrift: Quellen:

Eink.	Det.	I	II	γ	ϣ	ϣ	ϣ	w	h	h	h	sn	imn(t)	imn(t)
ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ	ⲧ
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

⏪ 00:04.19 ⏩

decipher and classify...

GLOSSARY OF SPELLINGS



Look up spellings of a word and find similar hands

Zeichen: Umschrift:

Teil Wortanfang Wortende Bild

1 Tafel

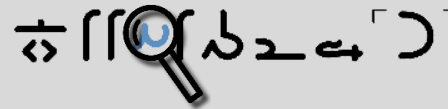
mtl zufrieden sein, zustimmen
(Verb)
.4 33.42 33

Navigation: 00:16,48

The screenshot shows a digital interface for a Demotic glossary. At the top, there are input fields for 'Zeichen' and 'Umschrift', and radio buttons for 'Teil', 'Wortanfang', 'Wortende', and 'Bild'. The main content area displays the Demotic word 'mtl' with its German translation 'zufrieden sein, zustimmen (Verb)' and a phonetic transcription '.4 33.42 33'. Below this, two images of papyrus fragments with Demotic script are shown. At the bottom, there is a video player interface with a play button, a progress bar, a timestamp of 00:16,48, and a speaker icon.

decipher and classify...

TEXT-CORPUS



Look up phrases
and find similar
constructions

Wortauswahl: s Suchbegriffe: dd p3

- s (ide)
- s (Mann, Person)
- s3 (Sohn)
- s3 (Schutz, Amulett, Hüter)
- sw-27 (Tag 27)
- swr (trinken)
- sp-2 (zweimal, doppelt)
- sym (sm-Kraut, Heu, Gras, Futter (siehe sm 727))
- sm (sm-Kraut, Heu, Gras, Futter (siehe sym 836))
- smy (Meldung, Klage)

Pap. Heid. inv. D 750 a
recto Kolumne I Ergänzung

[]

[NN p3 ntl dd]

"NN ist derjenige, der spricht"

Pap. Heid. inv. D 722
recto 1 1 - 2

ⲓⲃⲟⲙⲣⲓⲗⲉⲩⲓⲣⲓⲗⲁⲩⲁⲩ

Pa-mnh d Pa-tw p3 ntl dd n

"Pamenech, Sohn des Patu, ist derjenige, welcher spricht zu"

00:17,74

annotate and read...

PAPYRUS-EDITOR



papyri as digital editions

Abbildung: P. Heid. Inv. Dem. 750 a – © Institut für Papyrologie, Ruprecht-Karls-Universität Heidelberg. <http://zaw-papy.zaw.uni-heidelberg.de/fmi/xsl/Demotisch/home.xsl>

create glossaries and facsimiles

PAPYRUS-EDITOR



create facsimiles
and a glossary

The screenshot displays the Papyrus-Editor interface. On the left, a facsimile of a papyrus fragment is shown with a toolbar containing icons for zooming, panning, and other editing functions. Below the facsimile, a status bar indicates the current view: "→ Recto → Kolumne x+1 → Zeile 1". A "Transliteration:" field is also visible. The main area is a glossary table with the following entries:

Glossar
...	[unklar]		
	Recto, Kolonne x-1, Zeile 1:		
	Recto, Kolonne x-1, Zeile 2:		
wcb	Priester		
	Recto, Kolonne x-1, Zeile 1:		
wn	existieren		
	Recto, Kolonne x-1, Zeile 1:		
bw-iz-eww	[neg. Perf.] geben		
	Recto, Kolonne x-1, Zeile 2:		
n-iz=f	ihn; in ihm		
	Recto, Kolonne x-1, Zeile 1:		
u=f	ihm		
	Recto, Kolonne x-1, Zeile 1:		
	Recto, Kolonne x-1, Zeile 2:		
r	indem, wobei		
	Recto, Kolonne x-1, Zeile 2:		

On the right side, a panel titled "PDF-Datei exportieren" is open, showing the "Adobe Export PDF" options. It includes a file selection field with "Pap Florenz PSI..102 [713]-15.pdf" selected, a dropdown menu for "Konvertieren nach" set to "Microsoft Word (*.docx)", and a "Konvertieren" button. Below this, it indicates "Dateien in der Document Cloud speichern und freigeben".

the two essential substructures



DEMOTIC SIGN-LIST

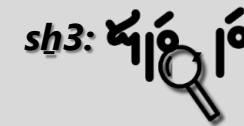


86	047	ⲁ, Ⲃ	ⲃ	Ⲅ	Logogramm
87	160	ⲅ, Ⲇ	ⲇ	Ⲉ	Mehrkonsonantenzeichen
88	115	ⲉ, Ⲋ, ⲋ, Ⲍ	ⲍ	Ⲏ	Logogramm
89	103	ⲏ	Ⲑ	ⲑ	enklitisches Zeichen [bei Namen]
90	771	Ⲓ	ⲓ	Ⲕ	enklitisches Zeichen
91	753	ⲕ	Ⲍ	ⲍ	Logogramm
92	752	Ⲏ	ⲏ	Ⲑ	Mehrkonsonantenzeichen
93	754	ⲏ	Ⲑ	ⲑ	Mehrkonsonantenzeichen
94	748	Ⲓ, ⲓ, Ⲕ	ⲕ, Ⲍ	ⲍ	Mehrkonsonantenzeichen, Determinativ [Ex]
95	526	ⲕ, Ⲍ	ⲍ	Ⲏ	Einkonsonantenzeichen [kommen iw-Gruppe]
96	104	ⲏ, Ⲑ	ⲑ	Ⲓ	Logogramm [Plural, Suffix, Qualitativ]

the two essential substructures



LIST OF WORD SPELLINGS



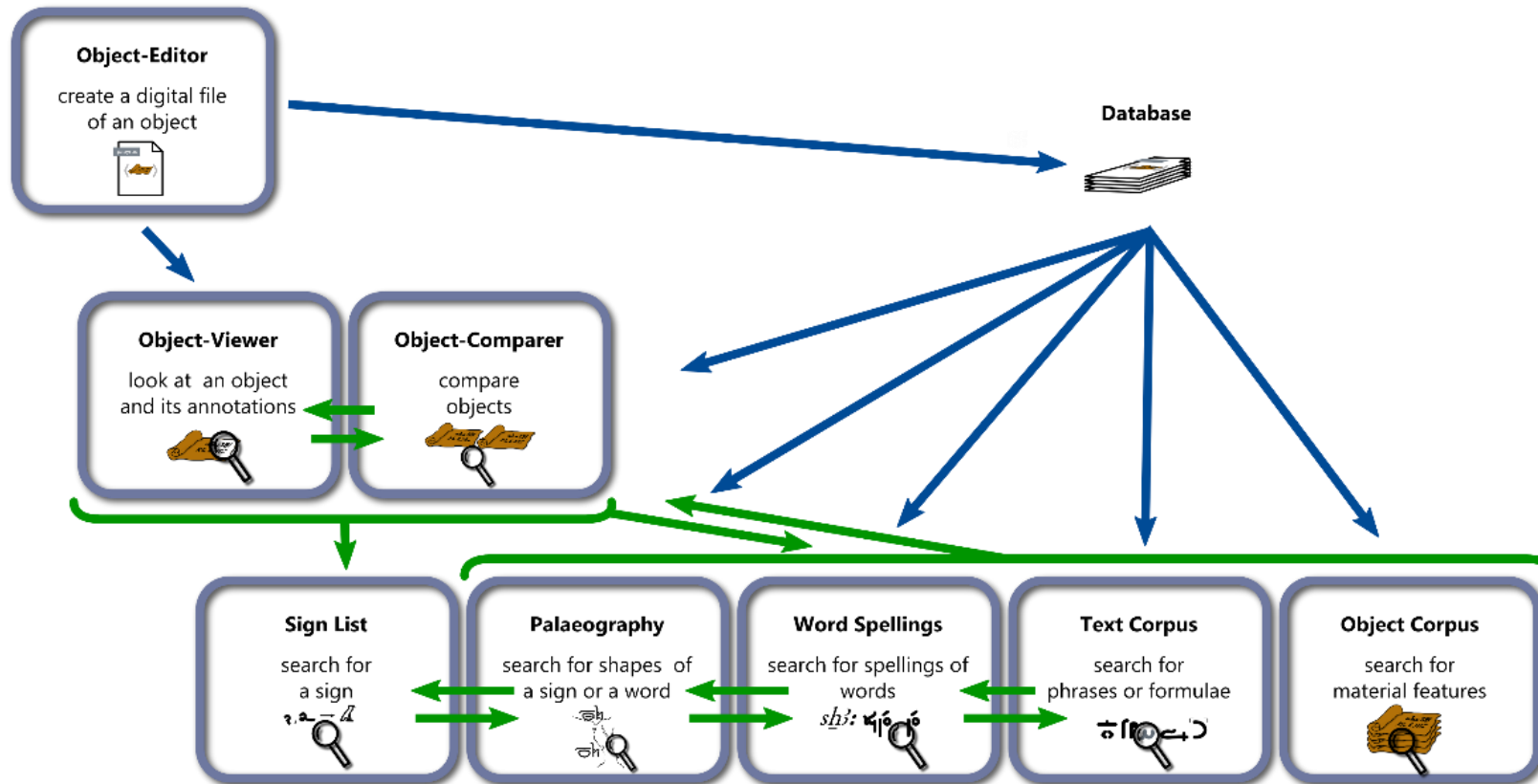
wpy.t	Fest, Feststimmung	Substantiv feminin	ⲉⲡⲓⲛⲓⲛⲓⲛⲓ
wn-n3.w	[Imperfekt]	Konverter Imperfekt	ⲓⲛⲓ
wn-n3y	[Imperfekt]	Konverter Imperfekt	ⲓⲛⲓⲛ
wb3	suchen, wünschen, verlangen, sich sehnen, lieben, [Inf.:] Wunsch, Verlangen	Verb	ⲙⲓⲛⲓⲛⲓⲛⲓⲛⲓ
Wsir	Osiris	Substantiv Goettername maskulin	ⲙⲓⲛⲓⲛⲓ
wb3	unversehrt sein, gedeihen, (transitiv) schützen, sichern	Verb	ⲙⲓⲛⲓⲛⲓⲛⲓ
b3k	Urkunde, Schriftstück	Substantiv maskulin	ⲙⲓⲛⲓⲛⲓ
bw-ir1	nicht können, damit nicht [Negation des Aorist]	Negation	ⲙⲓⲛⲓⲛⲓⲛⲓ

Part III: the conceptual and methodological background

**create a dynamic, comprehensive, efficient and interlinked digital tool
addressing palaeographical, orthographical, phraseological and material questions
which might concern a Demotist working on demotic papyri.**

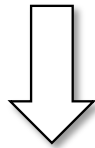
- conceptual framework of the project
- data handling
- methods of collecting and sharing information

the concept

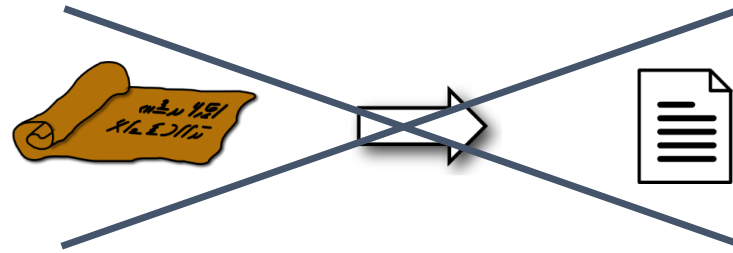


creating digital facsimiles of artefacts

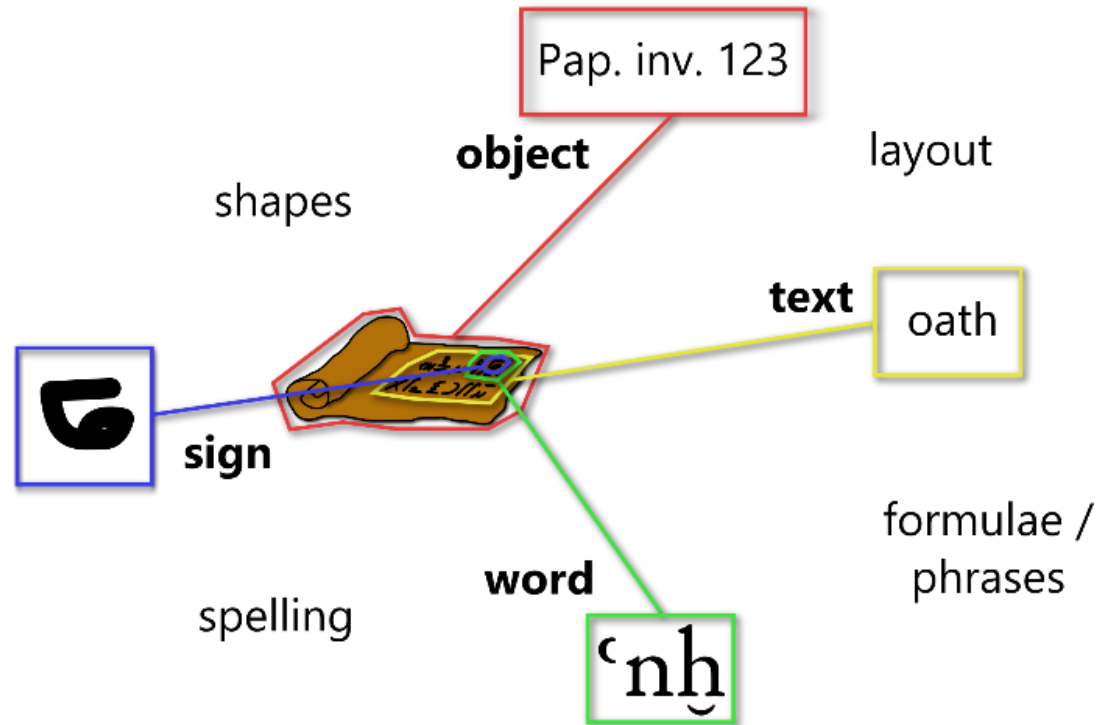
digitisation of texts



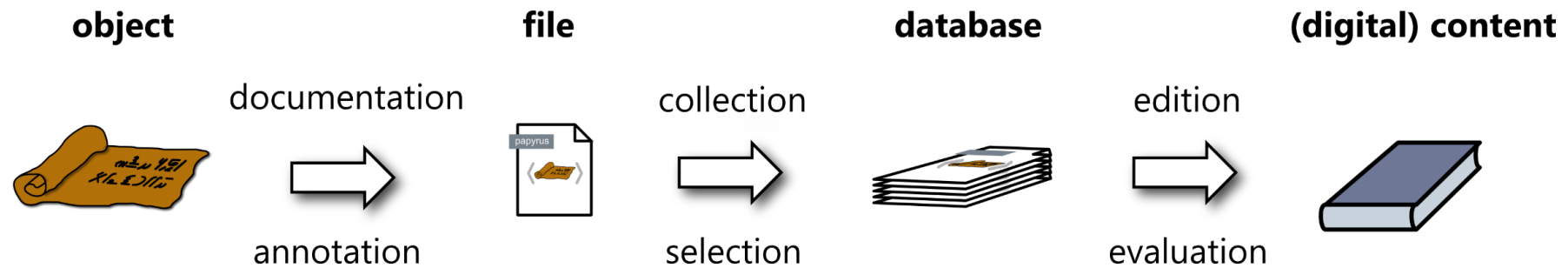
digitisation of objects



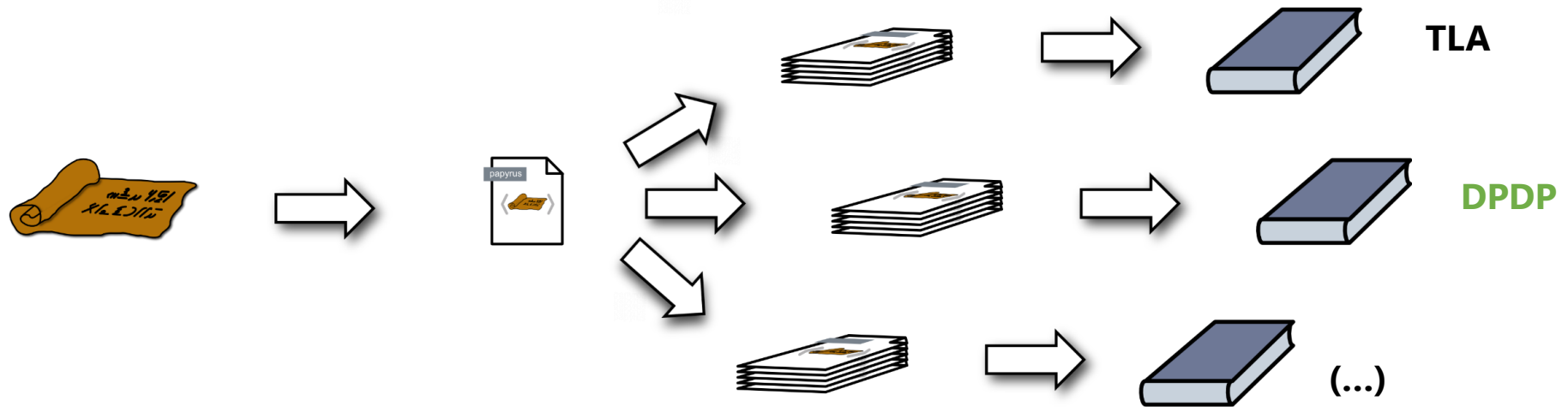
data annotation



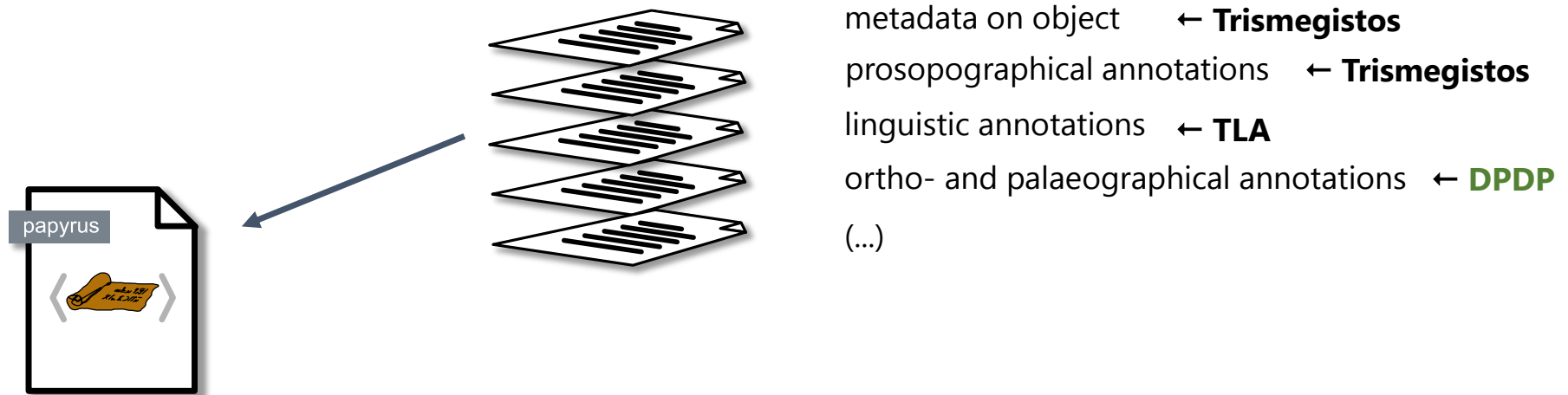
collecting and analysing data



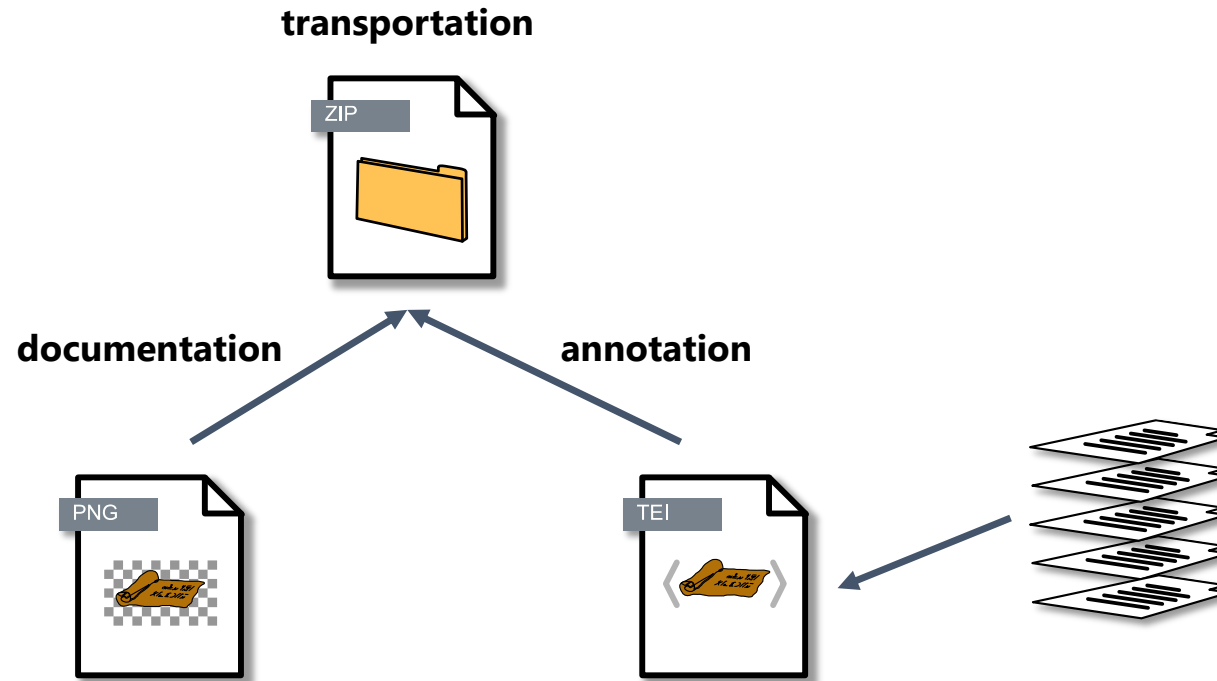
data sharing



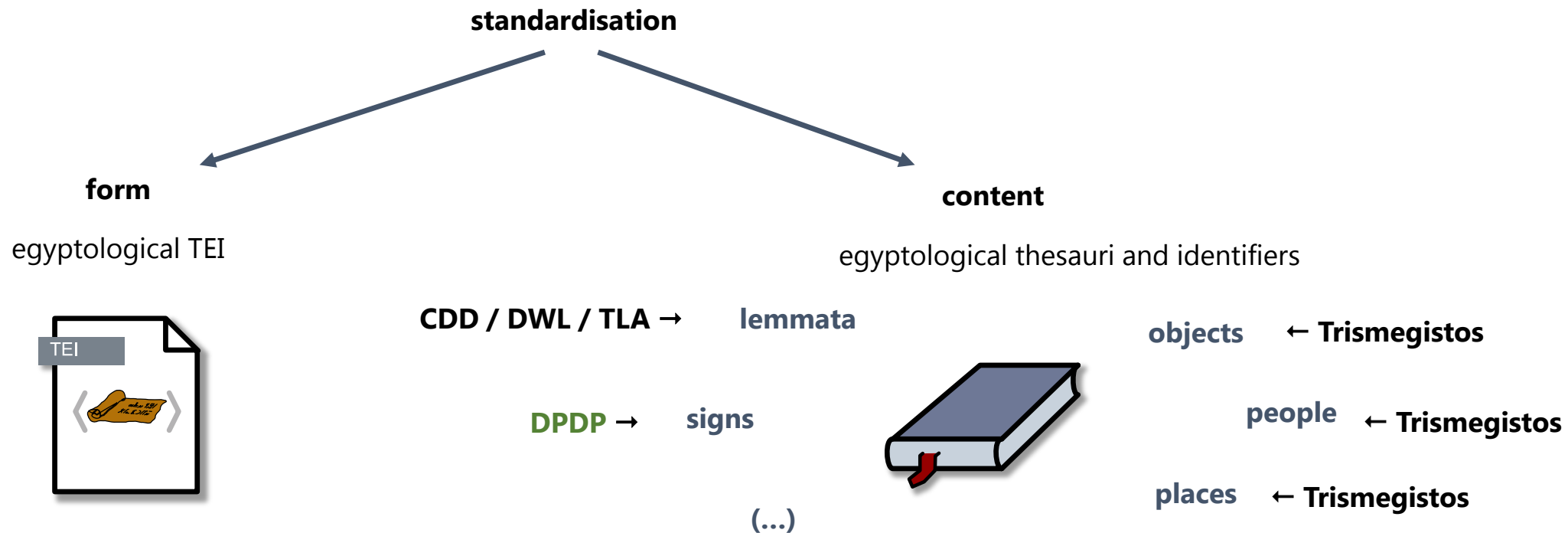
data enrichment



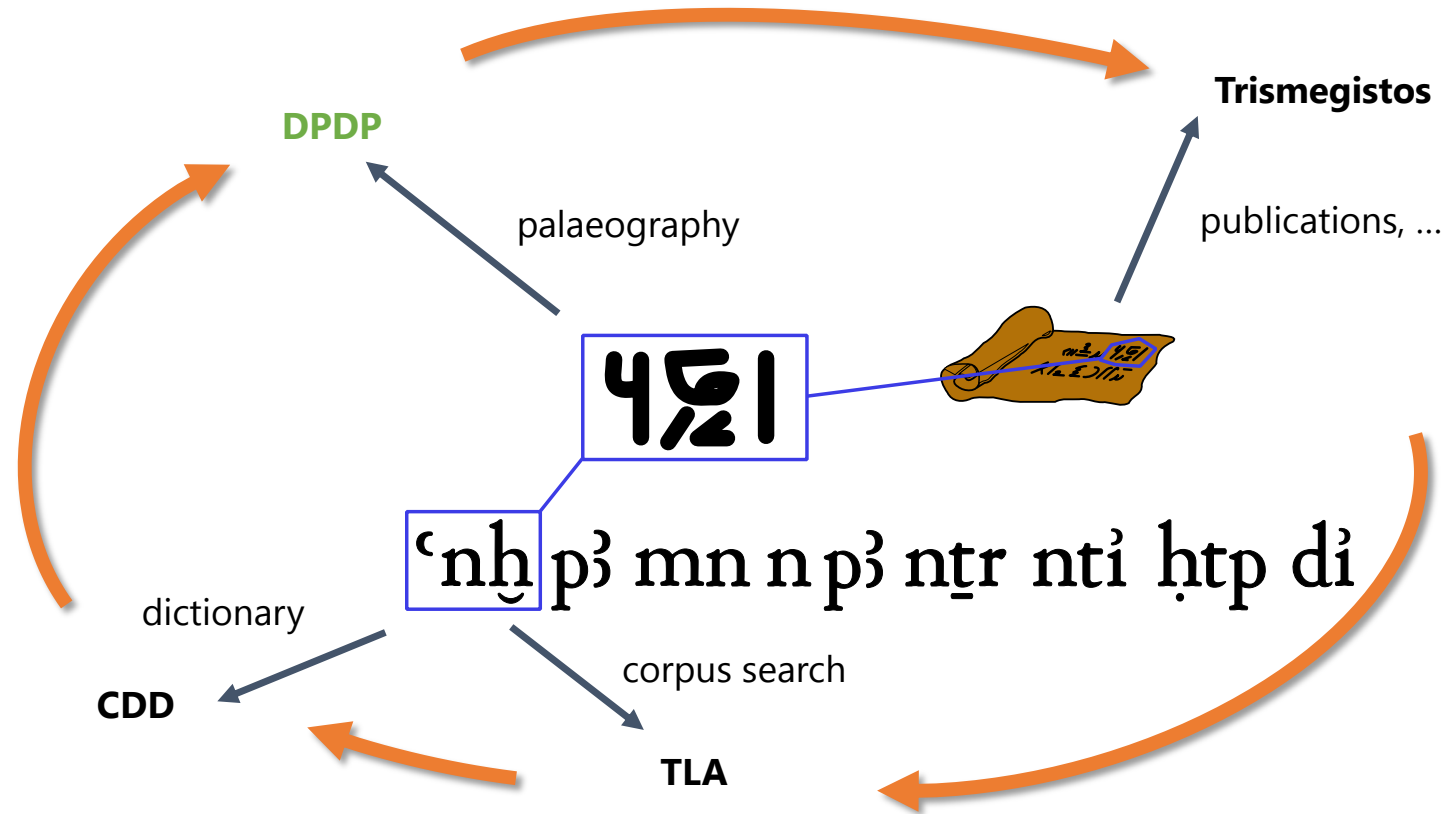
one file to rule them all



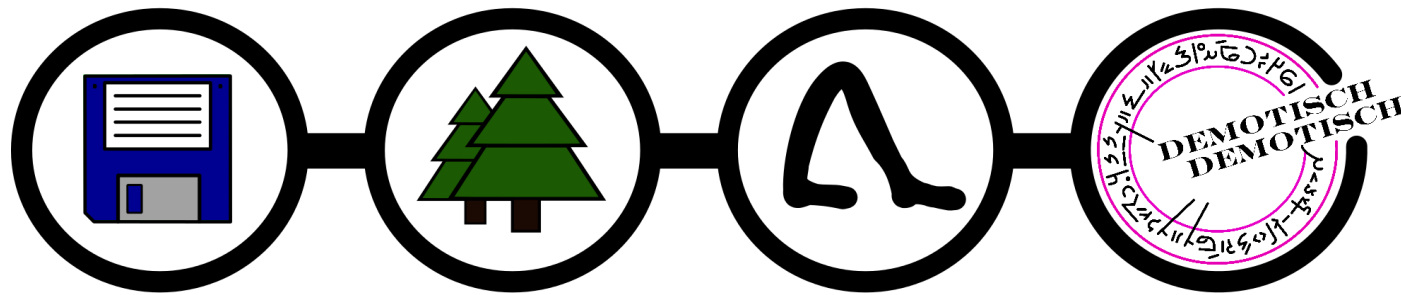
data normalisation



data interlinking



Thank you!



save the forest. go digital.