

# The *Thot Sign List* (TSL)

















































A digital repertoire of hieroglyphic signs

Stéphane Polis (F.R.S.-FNRS; ULiège)

Luc Desert (ULiège), Peter Dils (SAWL), Jorke Grotenhuis (ULiège),  
Ingelore Hafemann (BBAW), Vincent Razanajao (UBordeaux-Montaigne),  
Sebastian Richter (BBAW), Serge Rosmorduc (CNAM), Simon D. Schweitzer (BBAW),  
Daniel Werning (BBAW, HUBerlin) & Jean Winand (ULiège)

# Outline of the talk

















































- History of the project

 A18	 A22	 A40	 A40A	 A40B	 A41	 A42	 A42A
 A42B	 A42C	 A42D	 A43B	 A43E	 A43J	 A43L	 A44
 A45	 A45C	 A46	 A53	 A54	 A55	 A57B	 A301
 A311B	 C1	 C8	 C8A	 C11	 C12	 C12A	 C18
 C18A	 C18C	 C19	 C20	 C78A	 C78B	 C78C	 C78D
 C98	 C102A	 C118	 C121	 U13032	 NO CODE	 NO CODE	 NO CODE



# Outline of the talk

- History of the project
- Goal and data model

 A18	 A22	 A40	 A40A	 A40B	 A41	 A42	 A42A
 A42B	 A42C	 A42D	 A43B	 A43E	 A43J	 A43L	 A44
 A45	 A45C	 A46	 A53	 A54	 A55	 A57B	 A301
 A311B	 C1	 C8	 C8A	 C11	 C12	 C12A	 C18
 C18A	 C18C	 C19	 C20	 C78A	 C78B	 C78C	 C78D
 C98	 C102A	 C118	 C121	 U13032	 NO CODE	 NO CODE	 NO CODE

# Outline of the talk

- History of the project
- Goal and data model
- *TSL* goes online
  - Browsing and searching signs and functions
  - Exploring signs, classes and tokens
  - Navigating sources

# Outline of the talk

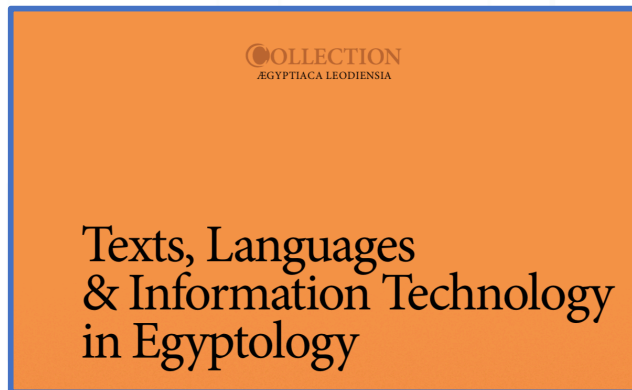
- History of the project
- Goal and data model
- *TSL* goes online
  - Browsing and searching signs and functions
  - Exploring signs, classes and tokens
  - Navigating sources
- Try it yourself!

# History of the project

2013–2019

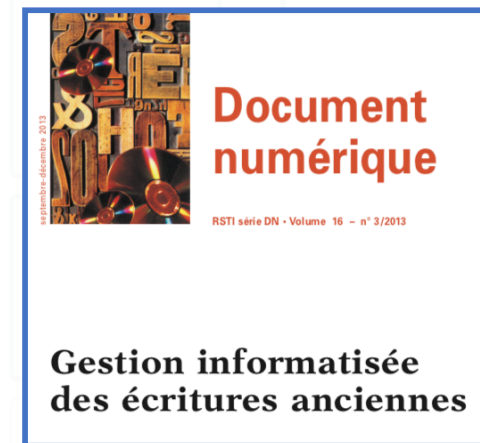
# History of the project

• 2013



The Manuel de Codage Encoding of Hieroglyphs  
Impedes Development of Corpora\*

Mark-Jan NEDERHOF  
University of St Andrews



**Dictionnaire hiéroglyphique, inventaire  
des hiéroglyphes et Unicode**

**Dimitri Meeks**

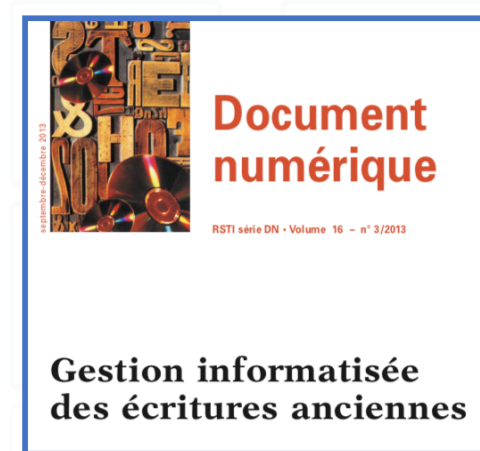
# History of the project

• 2013

**Réviser le codage de l'égyptien ancien**

**Vers un répertoire partagé des signes hiéroglyphiques**

**Stéphane Polis<sup>1</sup>, Serge Rosmorduc<sup>2</sup>**



# History of the project

- 2013
- 2015



**INTERNATIONAL CONGRESS  
OF EGYPTOLOGISTS XI**  
Florence, Italy 23 - 30 August 2015  
**MUSEO EGIZIO FIRENZE**  
**FLORENCE EGYPTIAN MUSEUM**

## St. Polis & S. Rosmorduc

A shared repository of hieroglyphic signs: The *Thot Sign List (TSL)*

# History of the project

- 2013
- 2015



28. January 2015, No. 03/2013

2015 Anneliese Maier Research Award winners announced

**Jean Winand**

**Mit Computerlinguistik zum ägyptischen Wörterbuch**

Der belgische Ägyptologe Jean Winand zählt zu den führenden Experten für die ägyptische Sprache. Mithilfe der Computerlinguistik begann er 2006 mit dem Ramses-Projekt die Arbeit an einer Textdatenbank, welche die jüngeren Phasen der ägyptische Sprachgeschichte abdeckt, und führte damit moderne linguistische Methoden in die Ägyptologie ein. Hoch angesehen ist Winand auch als Co-Autor einer mittelägyptischen Grammatik und für seine Arbeiten zu regionalen sprachlichen Unterschieden und zur Kodierung von Hieroglyphen. In Deutschland will Winand gemeinsam mit seinem Heidelberger Partner Joachim Friedrich Quack die Erkenntnisse aus seinem Ramses-Projekt mit Arbeiten aus Deutschland, wie der der Berliner Akademie der Wissenschaften an einem Thesaurus Linguae Aegyptiae, zusammenführen und ein umfassendes modernes Wörterbuch des Ägyptischen schaffen.

**Gastinstitut:** Universität Heidelberg, Ägyptologisches Institut

**Gastgeber:** Prof. Dr. Joachim-Friedrich Quack

**Prof. Dr. Jean Winand**

wurde 1962 in Belgien geboren. Er ist Professor an der Universität de Liège, sowie an der l'Université libre de Bruxelles, beides Belgien. Zudem ist er Mitglied in mehreren nationalen und internationalen Gremien der Ägyptologie. In seinen Arbeiten konzentriert er sich auf die Textanalyse und Lexikographie der ägyptischen Sprache und Schrift.



Foto: Université de Liège/  
Michel Houet



# History of the project

• 2013

• 2015

berlin-brandenburgische  
**AKADEMIE DER WISSENSCHAFTEN**



**LIÈGE**  
université

# History of the project

• 2013

• 2015–2016



## THOT - THESAURI & ONTOLOGY

for documenting Ancient Egyptian Resources

BETA

HOME THESAURI TEI INTERCHANGE FORMAT Search a concept...

Filter concepts in current language: UK DE FR ES

- \* Thot Collections
  - > \* Dates and dating systems
  - > \* Language
  - > \* Material
  - > \* Museums and private collection
  - > \* Scripts
  - > \* Technique of inscription
  - > \* Text content

### Thesauri

Using the definition set by the International Standard Organisation, thesauri are 'controlled and structured vocabulary in which concepts are represented by terms, organised so that relationships between concepts are made explicit, and preferred terms are accompanied by lead-in entries for synonyms or quasi-synonyms'. In Thot, each concept is represented by one or several terms expressed in Arabic, English, French and German, and identified by a unique identifier (the 'thot-number'). It should also be noted that a supplementary 'language' has been included, the so-called 'Thot-xml', in order to provide terms to be used as values of XML attributes in digital documents, such as TEI files.

### Thesauri covered by the project

As a first approach, the Thot project aims at compiling a wide range of thesauri relating to artifactual and textual metadata. This will consist in quite small thesauri made of a couple of terms, as well as rather big ones populated by several hundreds of concepts. Subject headings pertaining to general and abstract concepts will be included in a second stage.

# History of the project

- 2013
- 2015–2016






Accueil L'équipe Développements Web Design Publications Contacts Q

**Luc Desert**  
**Centre Informatique de Philosophie & Lettres**

Créé en 1983 à l'Université de Liège, le CIPL est une Unité Décentralisée d'Informatique (UDI). Son objectif général est de promouvoir et coordonner l'utilisation de l'informatique au sein de la Faculté de Philosophie et Lettres.

► DEVELOPPEMENTS   ► WEB DESIGN



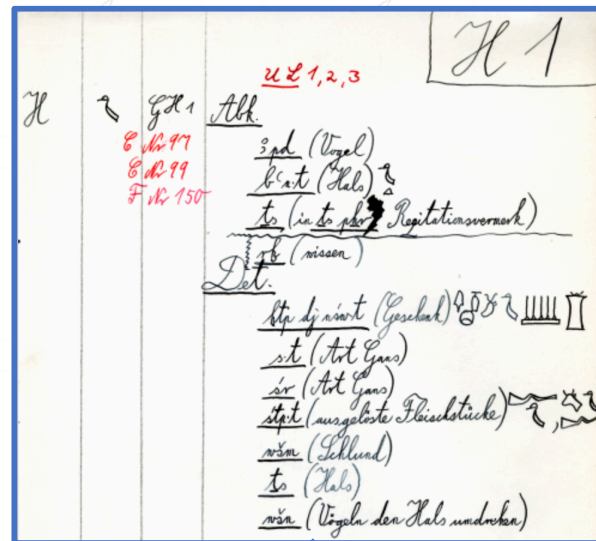
Thot Sign List    Home About Contact Register Hello, jgrotenhuis! Logout

Thot Sign List

Documents Sources Signs Tokens

# History of the project

- 2013
- 2015–2016
- 2016–2017

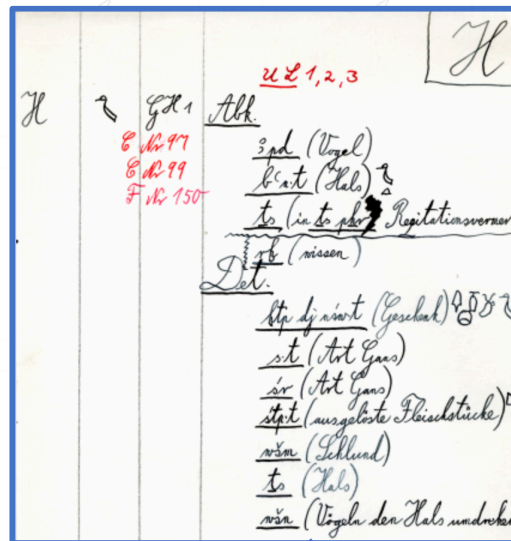


Thot Sign List

[Documents](#) [Sources](#) [Signs](#) [Tokens](#)

# History of the project

- 2013
- 2015–2016
- 2016–2017



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7 <Literatur>G 442</Literatur>
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14 <Literatur>Wb 3, 404 ff.</Literatur>
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## Thot Sign List

Documents

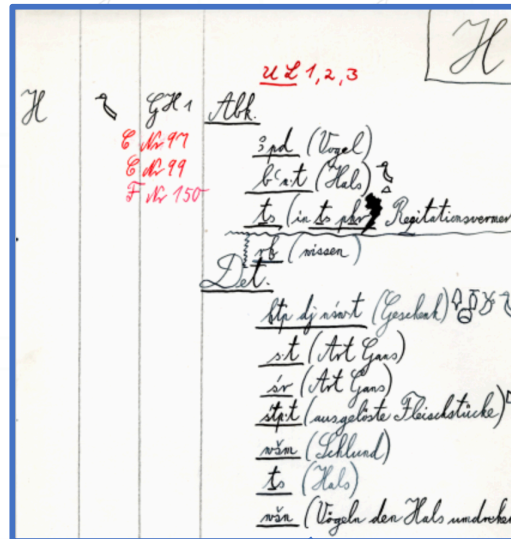
Sources

Signs

Tokens

# History of the project

- 2013
- 2015–2016
- 2016–2017



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Thot Sign List

LIÈGE université | berlin brandenburgische AKADEMIE DER WISSENSCHAFTEN | Sächsische Akademie der Wissenschaften zu Leipzig

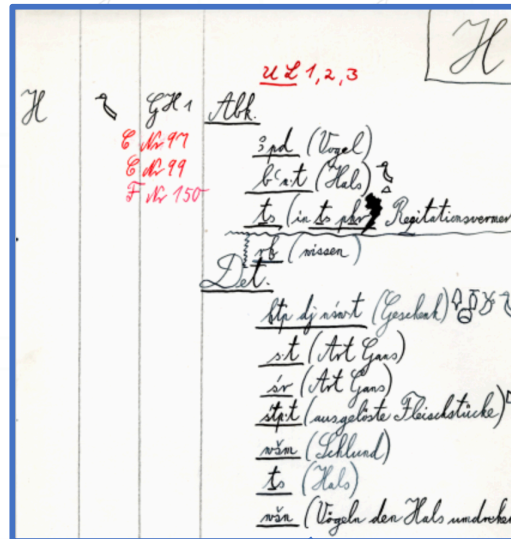
Home About Contact Register Hello, jgrotenhuis! Logout

Thot Sign List

Documents Sources Signs Tokens

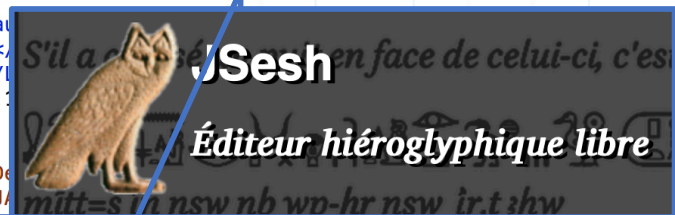
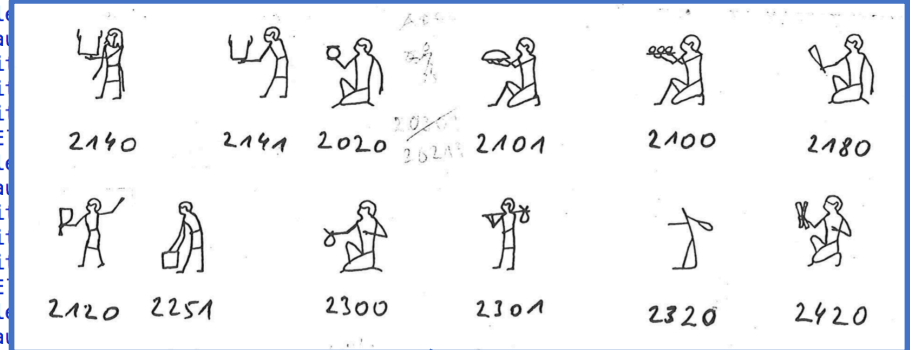
# History of the project

- 2013
- 2015–2016
- 2016–2017



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27 </Funktion>
28 <Funktion type="De
29 <Existenz type="J
    
```



Navigation bar for the Thot Sign List project. It includes logos for LIÈGE université, berlin-brandenburgische AKADEMIE DER WISSENSCHAFTEN, and Sächsische Akademie der Wissenschaften zu Leipzig. Navigation links include Home, About, Contact, Register, Hello, jgrotenhuis!, and Logout.




Below the navigation bar is a "Thot Sign List" menu with four buttons: Documents, Sources, Signs, and Tokens.




# History of the project

- 2013
- 2015–2016
- 2016–2017
- 2016–2019



Thot Sign List    Home About Contact Register Hello, spolis! Logout

Sign Id : TSL1\_7039 Token Id : TSL\_3\_22769 US7036f140.svg  Meeks category : J Creator : **kgrotenhuis** Editor : **kgrotenhuis** Hidden  [Edit](#)

[Description](#) [Functions](#) [Tokens](#) [Codes](#) [Classes](#) [Editor Comment](#)


[New function](#)

	Function ID	Function Type	Function subType	Phonetic Value	Semantic Value	Use
<a href="#">Edit</a> <a href="#">Delete</a>	6264	classifier			coil (of a snake)	regular

Function Creator : **kgrotenhuis** Editor :

Comment  
[Lemma](#)

Tokens

New Token	Token ID	Source ID	Jsech code
<a href="#">Delete</a>	<b>21966</b>	<b>1813</b>	

Bibliography  
[New](#)



# History of the project

- 2013
- 2015–2016
- 2016–2017
- 2016–2019



# History of the project

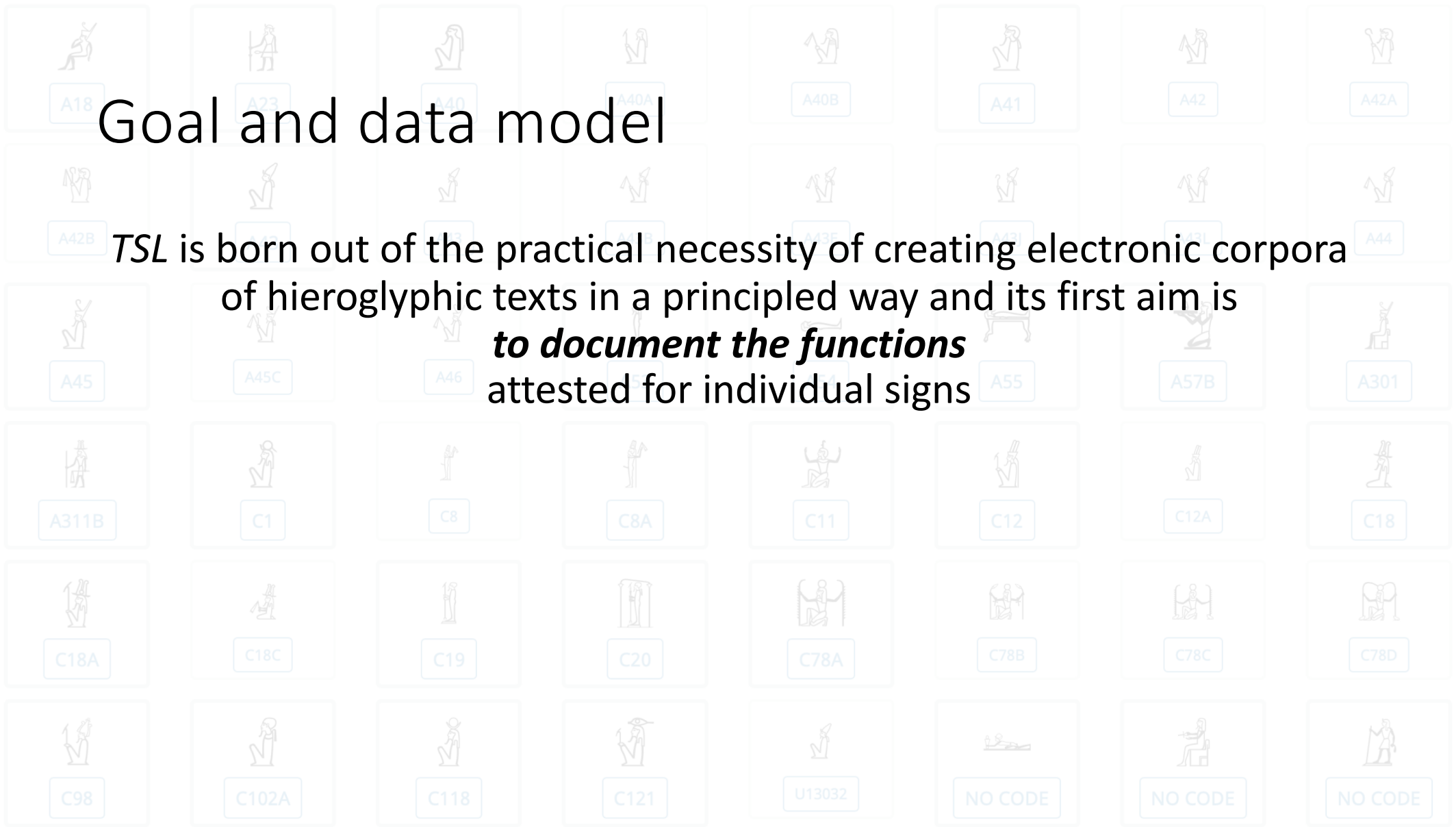
- 2013
- 2015–2016
- 2016–2017
- 2016–2019
- Today

The screenshot shows the homepage of the Thot Sign List website. At the top left is the logo 'Thot Sign List' with a bird icon. To its right is a navigation menu with links for 'Home', 'Browse', 'Search', 'About', and 'Contact'. Further right are links for 'Register' and 'Login'. The main content area features a large blue banner with the text 'THOT SIGN LIST' and the logo. Below the banner are three buttons: 'Browse', 'Search', and 'About'. Under each button is a descriptive text: 'Browse the list of Signs', 'Search the list of Signs', and 'Information about the project'. At the bottom, there is a footer with the copyright notice '© 2019 - Thot Sign List', the logo for 'LIÈGE université', the logo for 'berlin-brandenburgische AKADEMIE DER WISSENSCHAFTEN', and a link for 'Legals'.

Goal and data model

# Goal and data model

















































*TSL* is born out of the practical necessity of creating electronic corpora of hieroglyphic texts in a principled way and its first aim is ***to document the functions*** attested for individual signs



# Goal and data model

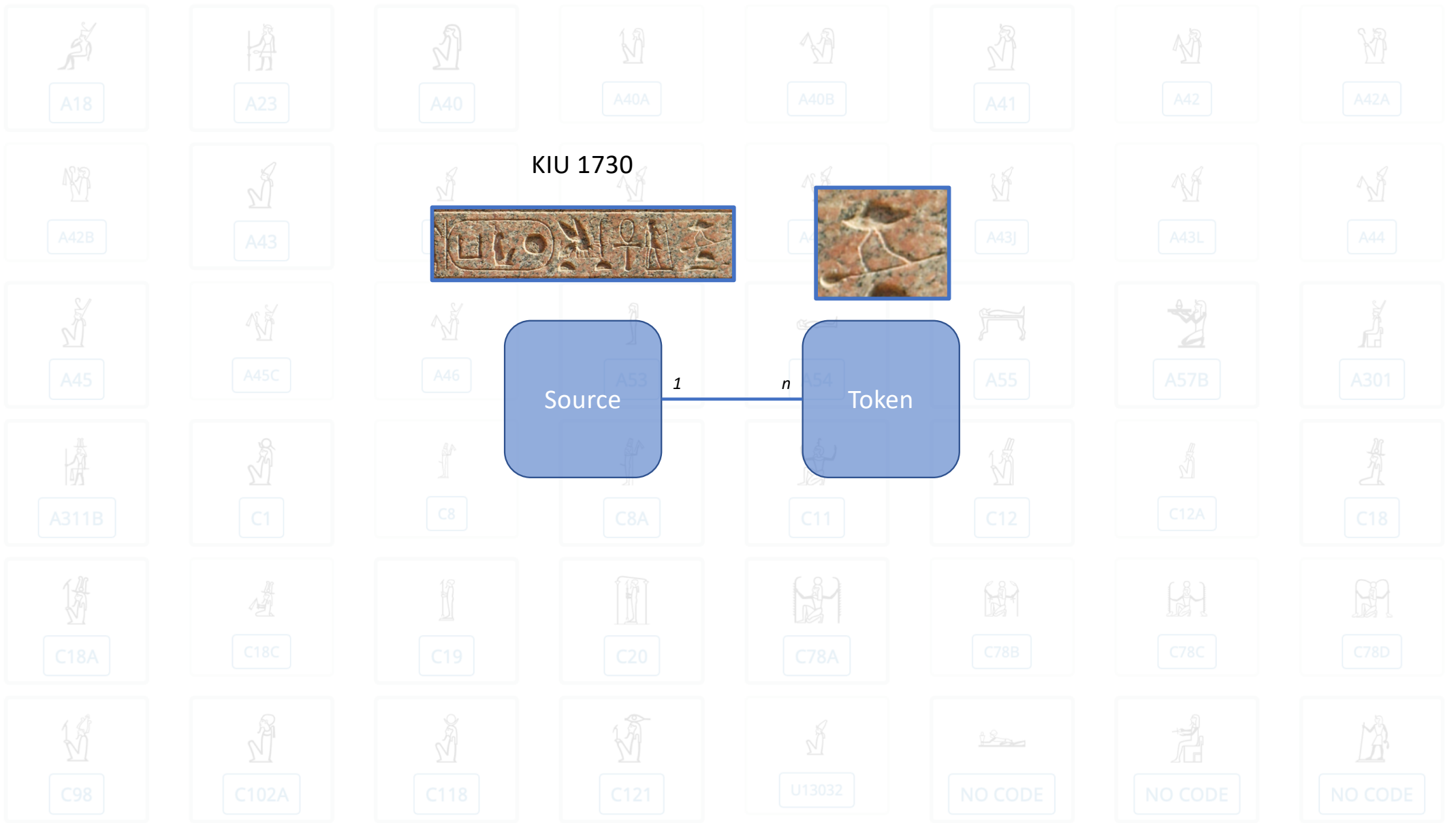
*TSL* is born out of the practical necessity of creating electronic corpora of hieroglyphic texts in a principled way and its first aim is ***to document the functions*** attested for individual signs

- References to ancient sources
- Description of the iconic features
- Structured repertoire

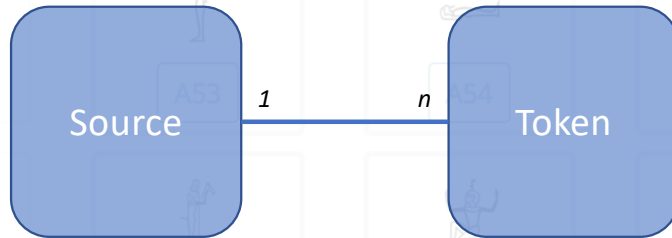
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 A42B	 A43	 A43	 A43B	 A43C	 A43J	 A43L	 A44
 A45	 A45C	 A46	 A53	 A54	 A55	 A57B	 A301
 A311B	 C1	 C8	 C8A	 C11	 C12	 C12A	 C18
 C18A	 C18C	 C19	 C20	 C78A	 C78B	 C78C	 C78D
 C98	 C102A	 C118	 C121	 U13032	 NO CODE	 NO CODE	 NO CODE

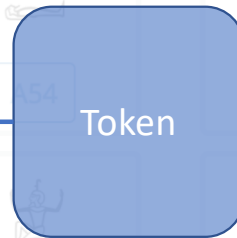
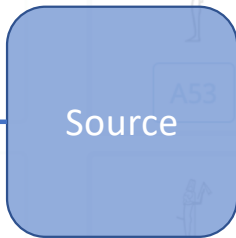


Token



KIU 1730





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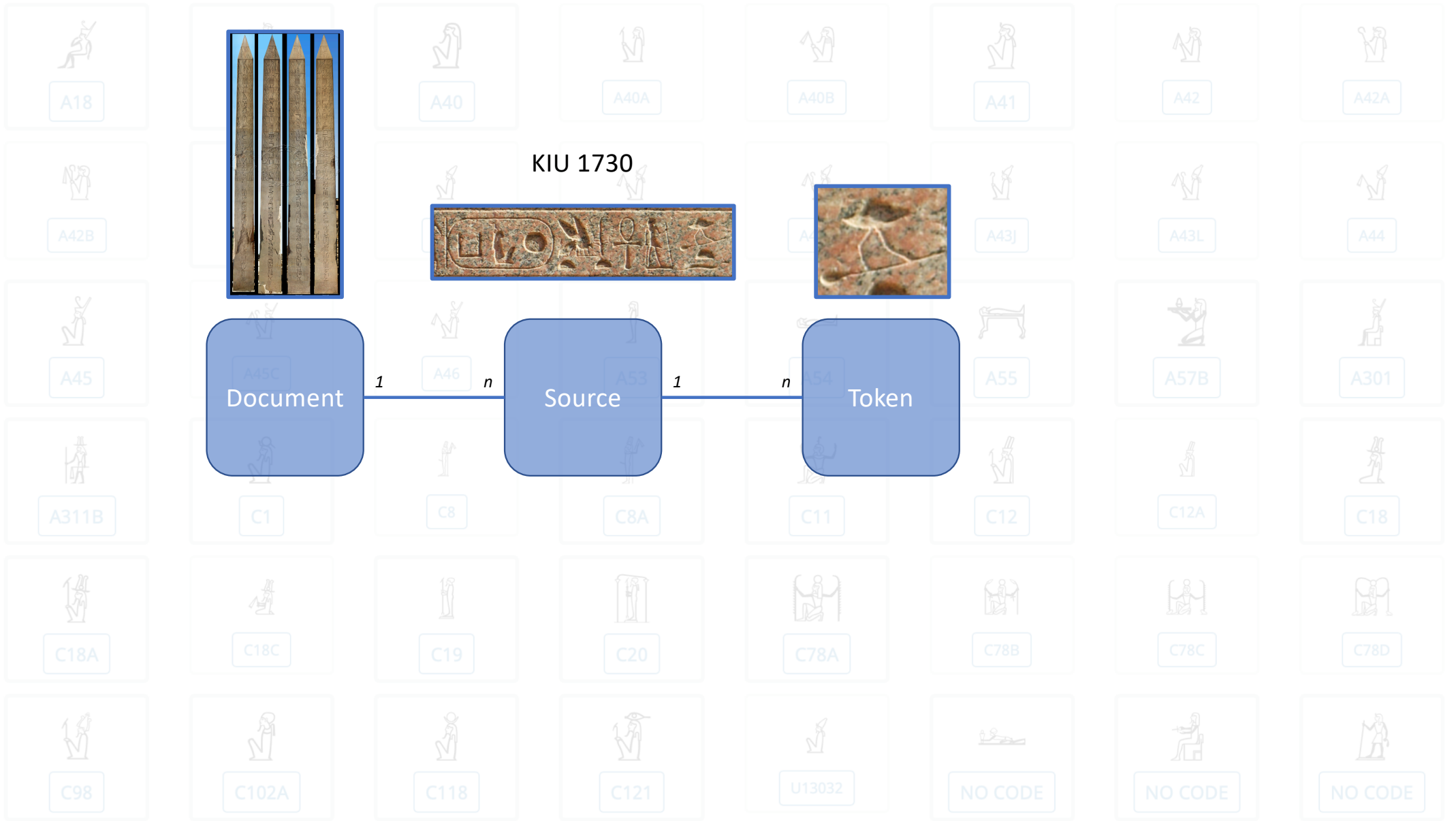
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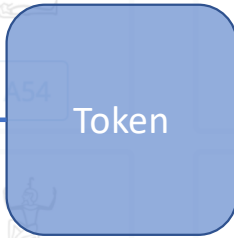
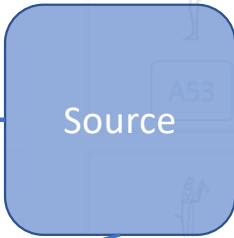
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Token

KIU 1730







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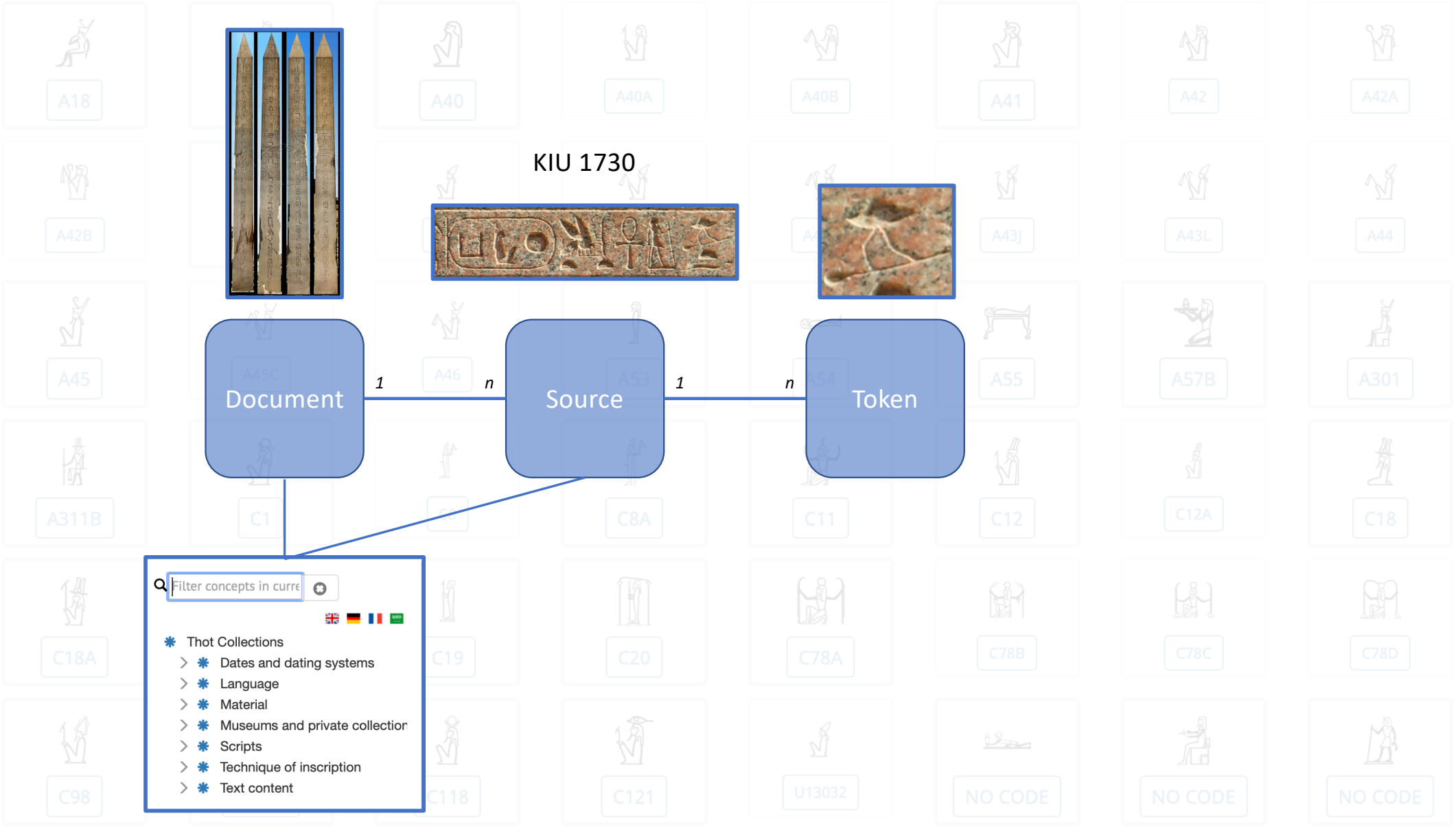
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Filter concepts in curre

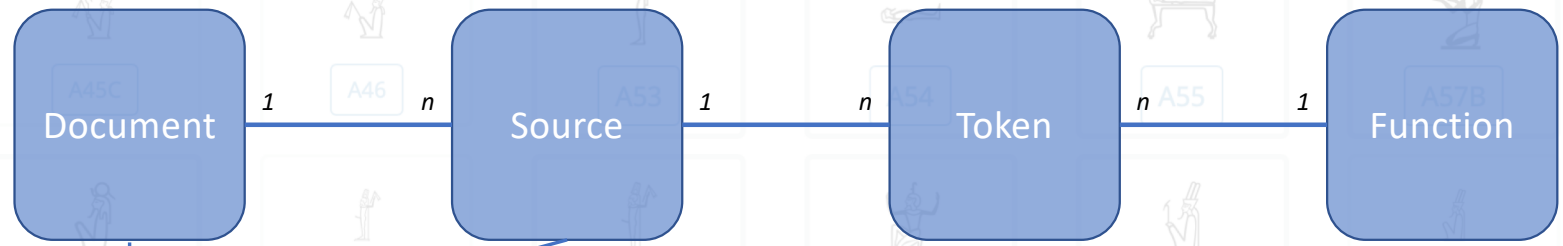


- \* Thot Collections
  - > \* Dates and dating systems
  - > \* Language
  - > \* Material
  - > \* Museums and private collection
  - > \* Scripts
  - > \* Technique of inscription
  - > \* Text content



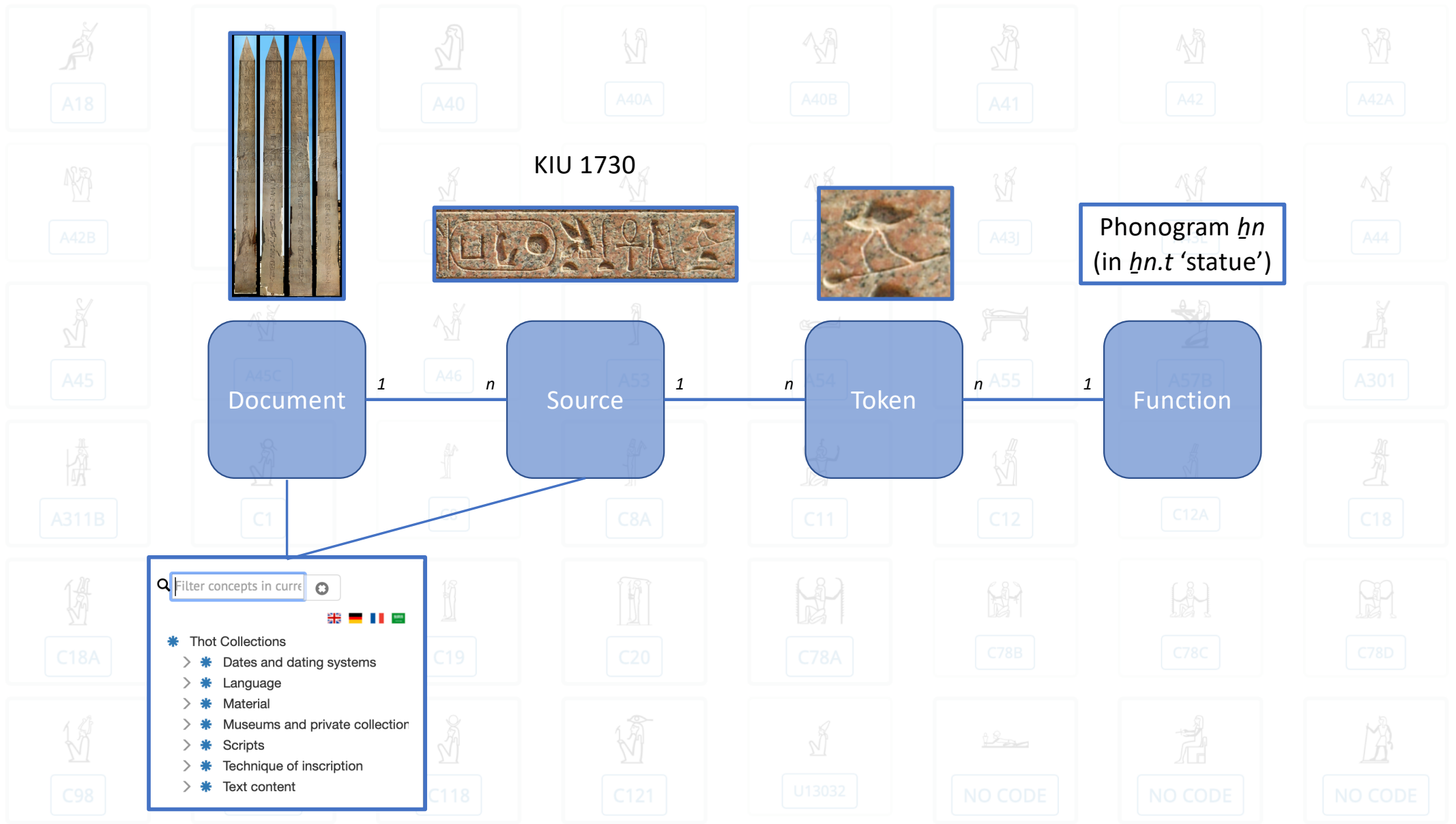


Phonogram *hn*  
(in *hn.t* 'statue')



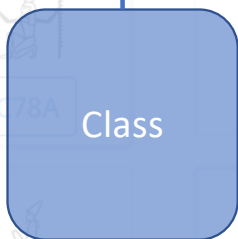
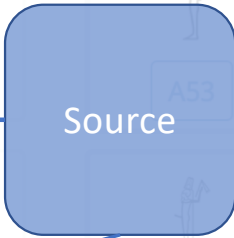
Q Filter concepts in curre

- \* Thot Collections
  - > \* Dates and dating systems
  - > \* Language
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  - > \* Scripts
  - > \* Technique of inscription
  - > \* Text content





Phonogram *hn*  
(in *hn.t* 'statue')



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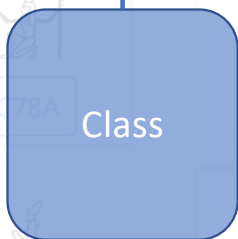
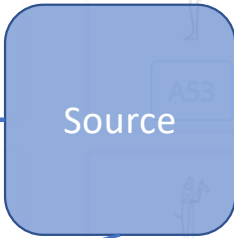
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  - > \* Technique of inscription
  - > \* Text content





Phonogram *hn*  
(in *hn.t* 'statue')



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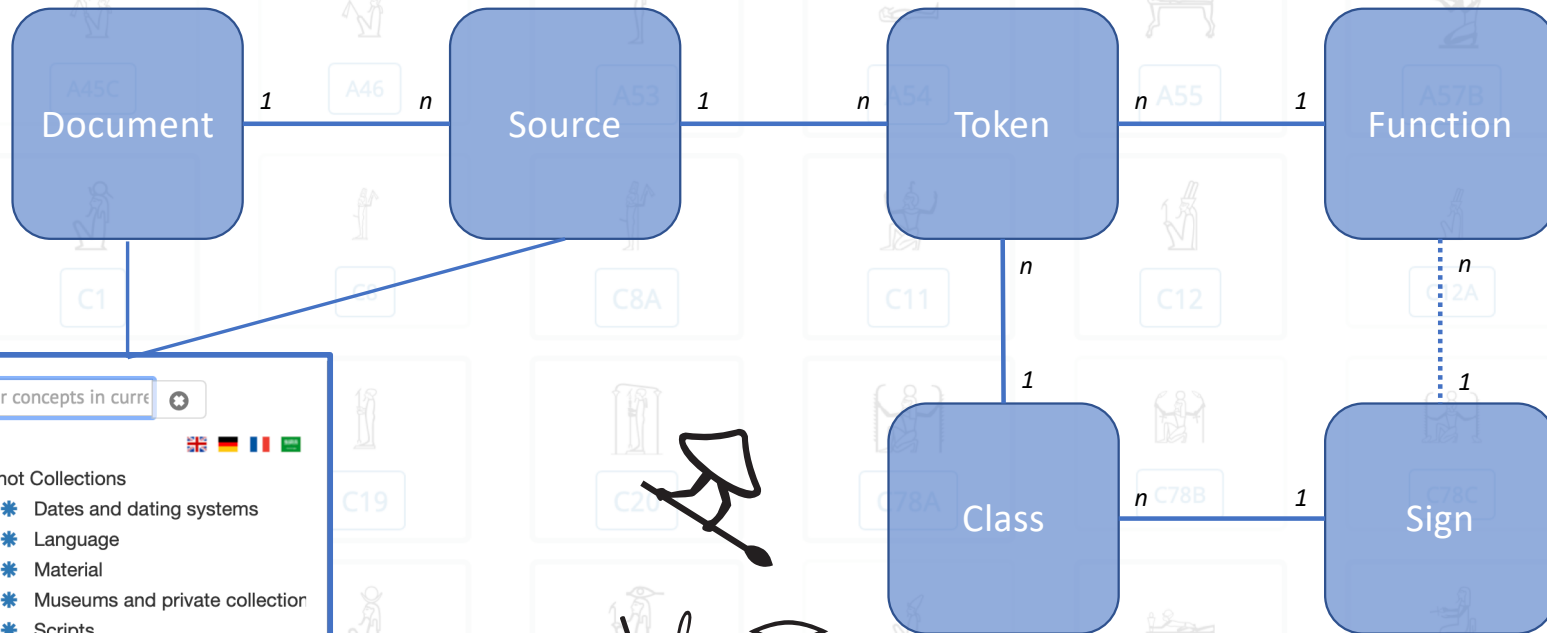
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Phonogram *hn*  
(in *hn.t* 'statue')



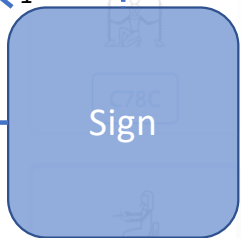
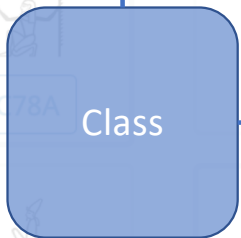
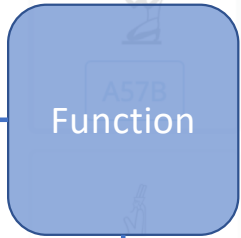
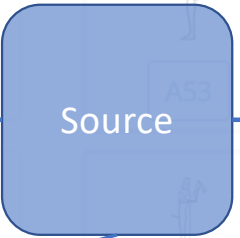
Q Filter concepts in curre

\* Thot Collections  
 > \* Dates and dating systems  
 > \* Language  
 > \* Material  
 > \* Museums and private collection  
 > \* Scripts  
 > \* Technique of inscription  
 > \* Text content





Phonogram *hn*  
(in *hn.t* 'statue')



Filter concepts in current

- \* Thot Collections
  - > \* Dates and dating systems
  - > \* Language
  - > \* Material
  - > \* Museums and private collection
  - > \* Scripts
  - > \* Technique of inscription
  - > \* Text content

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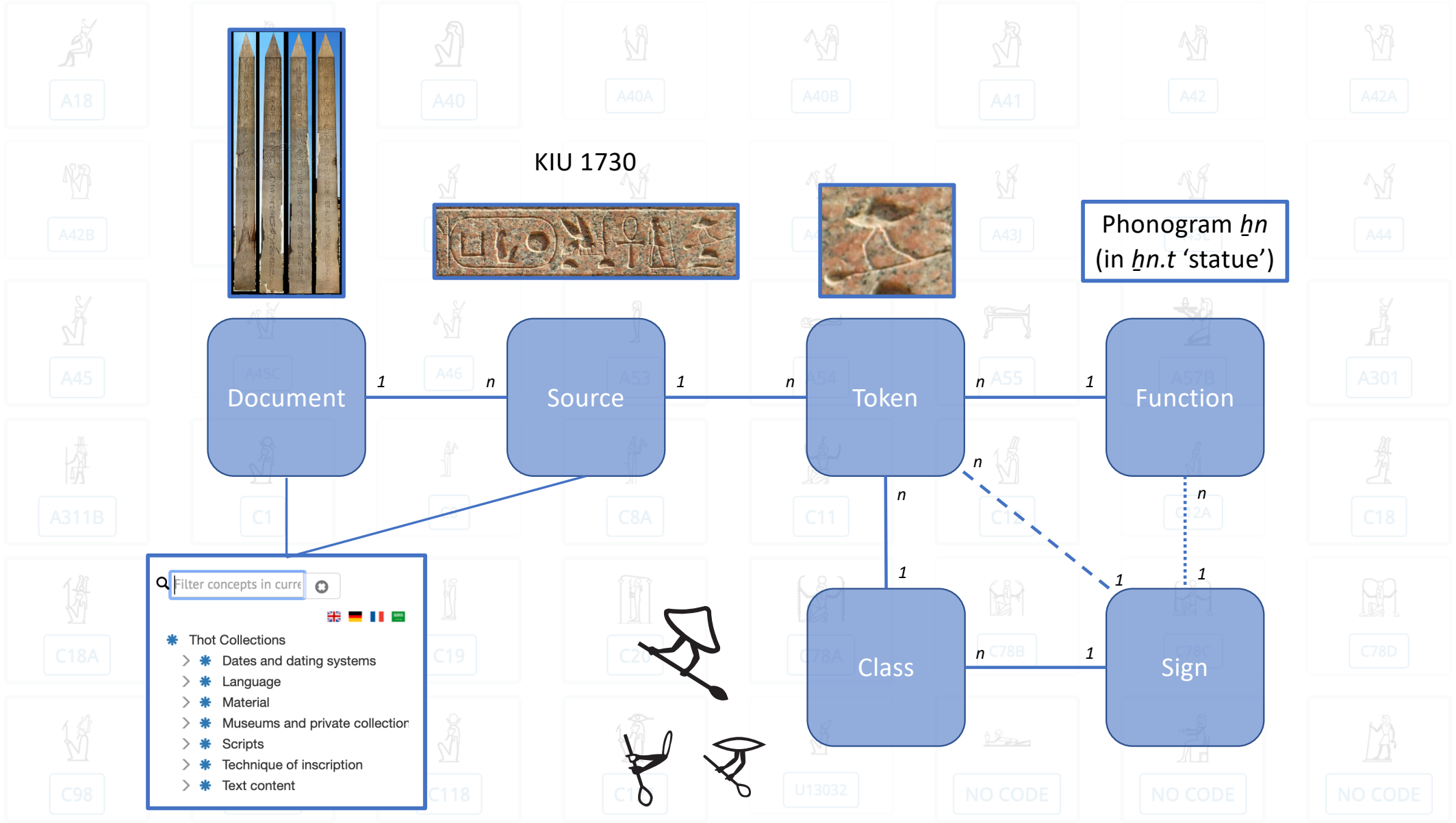
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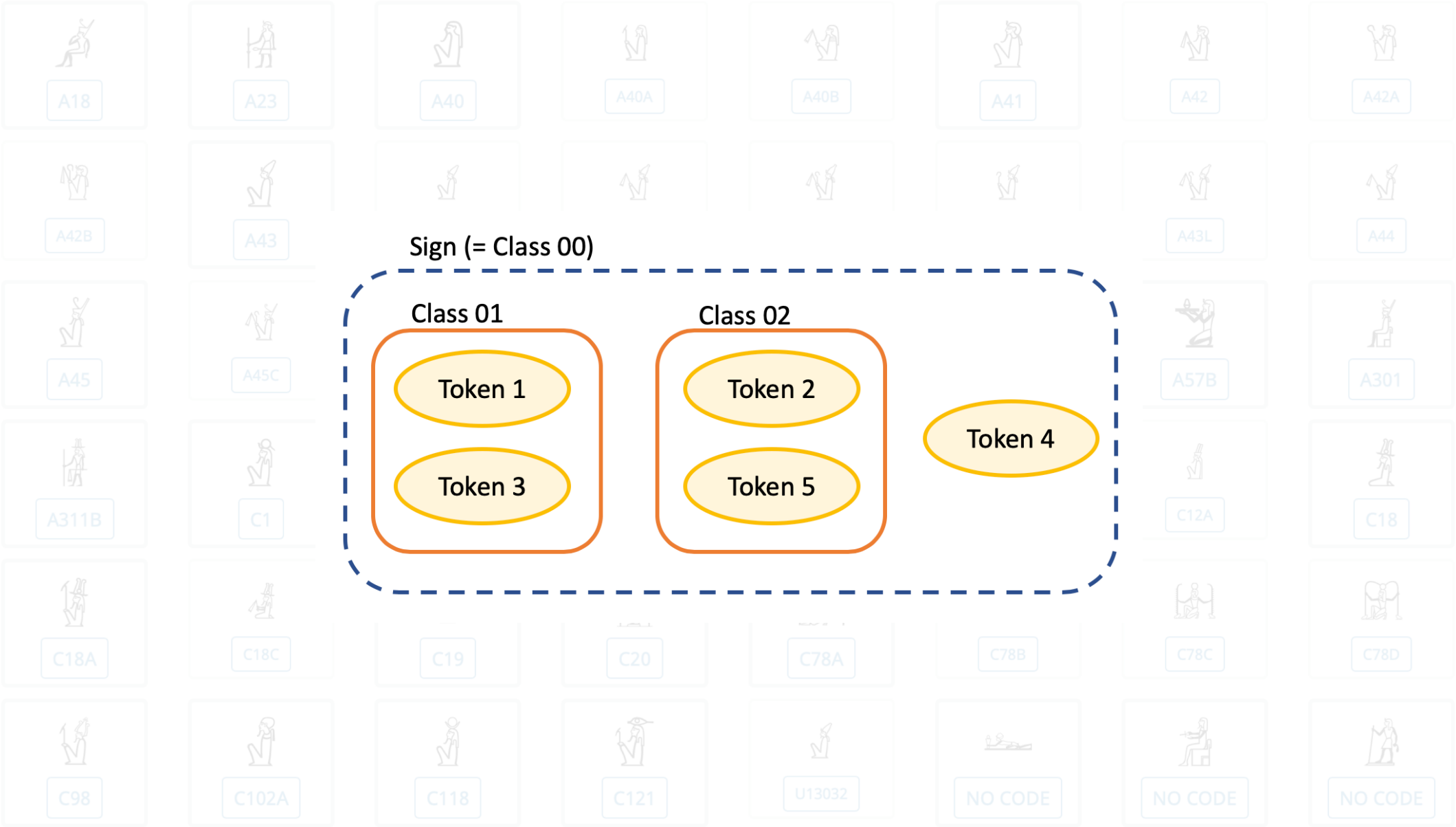
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# *TSL* goes online

Version 1.0



# TSL goes Online

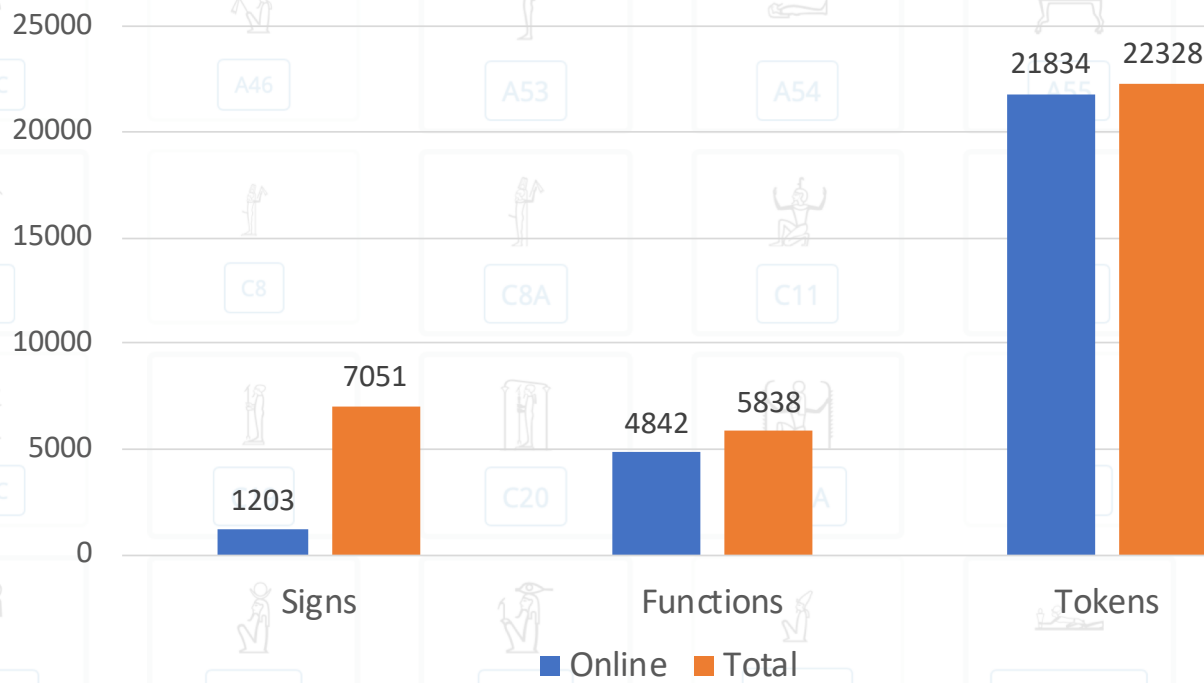
- TSL is Gardiner ready

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 C18A	 C18C	 C19	 C20	 C78A	 C78B	 C78C	 C78D
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# TSL goes Online

- TSL is Gardiner ready

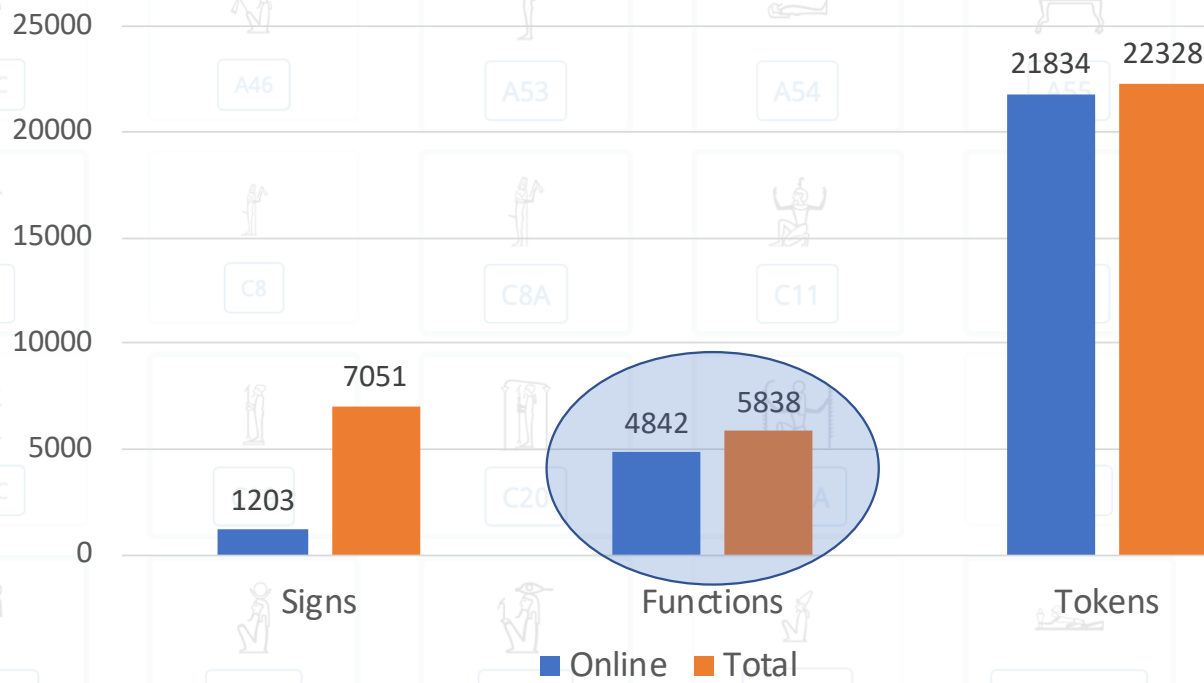
Data in TSL



# TSL goes Online

- TSL is Gardiner ready

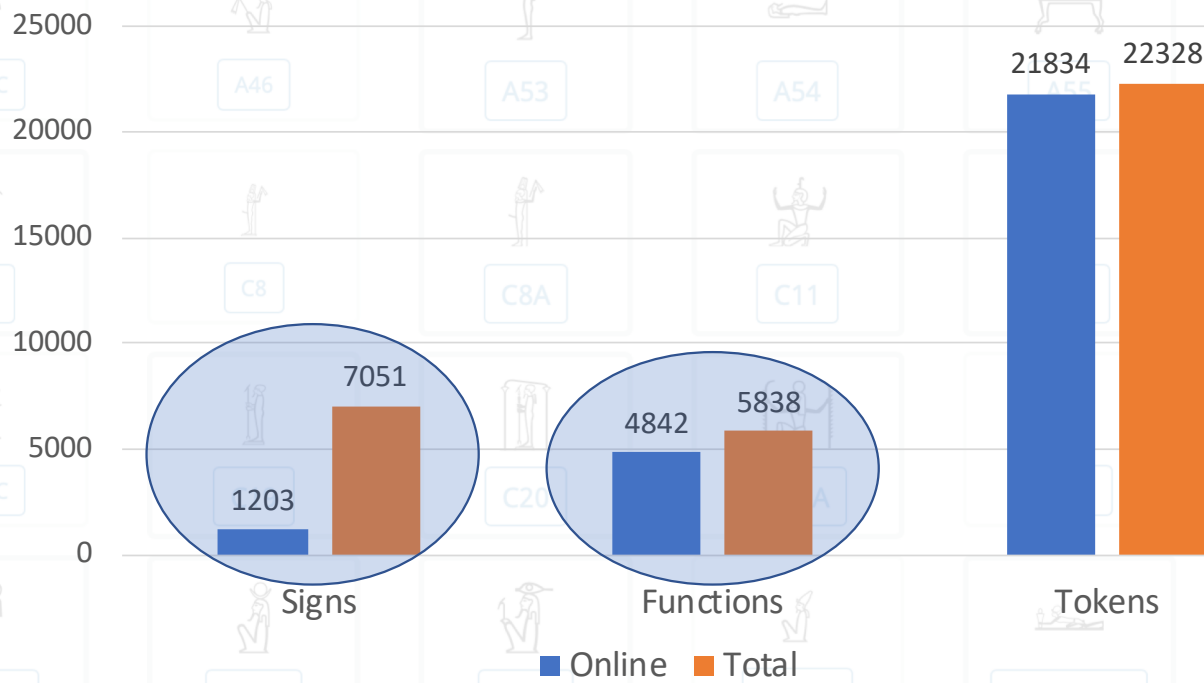
Data in TSL



# TSL goes Online

- TSL is Gardiner ready

Data in TSL





Thot Sign List

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[Register](#) [Login](#)

# THOT SIGN LIST



[Browse](#)

Browse the list of Signs

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[Legals](#)

C98

C102A

C118

C121

U13032

NO CODE

NO CODE

NO CODE

# Signs

Filter: Loafs and cakes.

low narrow

First Next 1 Previous Last



X1



X2



X2D



X3



X6



X7



NO CODE



A18



A42B



A45



A311B



C18A



C98



A42A



A44



A301



C1



C8



C8A



C11



C12



C12A



C18



C18C



C19



C20



C78A



C78B



C78C



C78D



C102A



C118



C121



U13032



NO CODE



NO CODE



NO CODE

# Signs

Filter: Loafs and cakes.

low narrow

First Next 1 Previous Last



X1



X2



X2D



X3



X6



X7



NO CODE



A7



A7A



A18



A42A



A42B



A44



A45



A301



A311B



C1



C8



C12



C12A



C18



C18A



C18C



C19



A7



A7A



C78B



C78C



C78D



C98



C102A



C118



C121



U13032



NO CODE



NO CODE



NO CODE

# Signs

Filter: Loafs and cakes.

low narrow

First Next 1 Previous Last



X1



X2



X2D



X3



X6



X7



NO CODE



A35



A35E



A36

## Functions




Type	Phonetic value	Semantic value
classifier	—	building
logogram	<i>qd</i>	to build



Search >

AND	Function Type	=		
	Function Type	=	logogram	-
AND	Semantic Value	contains	to appear	-
AND	Tag	=	hill	-

Reset Search

TSL1_4231		<b>N28</b>	A hill with a halo of sun rays behind it.	Sky, earth, water.
TSL1_4231		<b>N28A</b>	A hill with a halo of sun rays behind it.	Sky, earth, water.
TSL1_4231		<b>N28B</b>	A hill with a wavy halo of sun rays behind it.	Sky, earth, water.

Grid of icons and labels:

- A18
- A42B
- A45
- A311B
- C18A
- C98
- C102A
- C118
- C121
- U13032
- NO CODE
- NO CODE
- NO CODE
- A42A
- A44
- A301
- C18
- C78D
- NO CODE



TSL\_1\_2177

Description: Two arms, holding an oar, in a rowing motion, below a cover. >

Category: *Parts Of The Human Body.*

Basic Form: full quadrat

Tag: arms, oar

Type: composite

Components

TSL\_1\_5126\_0 ↓

Codes >

Gardiner D33

Hieroglyphica D33

Jshesh D33

Unicode U13099



Bibliography ▾

Credits ▾

Functions Classes Tokens Cite as

Classifier (1 function(s))

Phonetic value	Semantic value	Use
—	movement by boat	regular ▾

Logogram (1 function(s))

Phonetic value	Semantic value	Use
hnj	to row, to convey by water	regular ▾

Phonemogram (1 function(s))

Phonetic value	Semantic value	Use
hn	—	regular ▾

## Logogram (1 function(s))

Phonetic value	Semantic value	Use
<i>hnj</i>	to row, to convey by water	regular <span style="float: right;">➤</span>

### Tokens

Token	Source	Date
 <a href="#">view source</a>	 <i>hnj jw(=j) hn.n(=j) wr.t hr z pf</i> Row! And I rowed powerfully, said this man.	Menkauhor Kaiuhor
 <a href="#">view source</a>	 <i>hn sw mw.t=f</i> Row him, his mother!	Unas_Wenis
 <a href="#">view source</a>	 <i>hn sw jm.yw 3h.t sqd sw jm.yw qbh.w</i> the ones in the horizon will row him, the ones in the cool waters will sail him	Unas_Wenis
 <a href="#">view source</a>	 <i>hsf w jz.t=k n.t j.hm.w-sk.w jr hn.t=k</i> As your crew of Imperishable Stars should not be barred from rowing you, [...]	Nemtiemsaf I Merenre I
 <a href="#">view source</a>	 <i>nm p.t hn° s3h hn dw3.t hn° wsjr</i> [...] who travels the sky with Orion and rows the Duat with Osiris.	Nemtiemsaf I Merenre I
 <a href="#">view source</a>	 <i>hft d(3)w hm n ntr pn šps r jr.t hn.t=f m jp.t=f rs.(y)t</i> when the majesty of this noble god proceeds to do his water procession in his southern inner room,	Tuthmosis III (complete reign)

Bibliography ▼

Credits ▼

A18

A42B

A45

A311B

C18A

C98

A42A

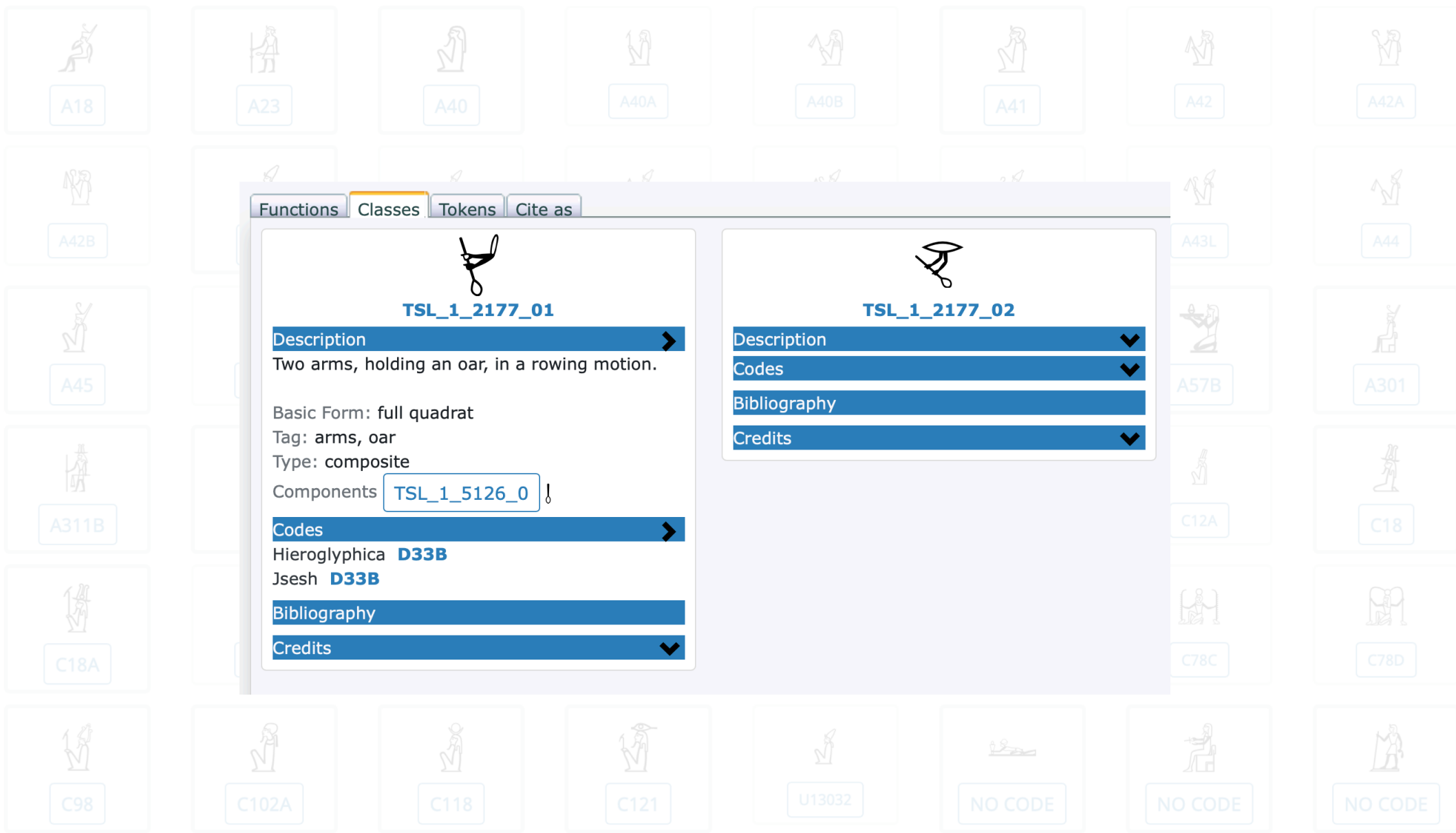
A44

A301


C18

C78D

NO CODE



Functions **Classes** Tokens Cite as



**TSL\_1\_2177\_01**

**Description** ▶

Two arms, holding an oar, in a rowing motion.


Basic Form: full quadrat  
 Tag: arms, oar  
 Type: composite  
 Components  ↓

**Codes** ▶

Hieroglyphica **D33B**  
 Jsesh **D33B**

**Bibliography**

**Credits** ▼



**TSL\_1\_2177\_02**

**Description** ▼









**Codes** ▼









**Bibliography**

**Credits** ▼




Functions Classes Tokens Cite as

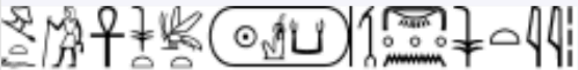
	TSL_3_9725	
	TSL_3_19099	
	TSL_3_22301	
	TSL_3_22401	
	TSL_3_19592	01
	TSL_3_9740	02
	TSL_3_19092	02
	TSL_3_19635	02

	TSL_3_16210	
	TSL_3_19117	
	TSL_3_22302	
	TSL_3_9739	01
	TSL_3_19639	01
	TSL_3_18622	02
	TSL_3_19587	02
	TSL_3_21385	02



  
TSL\_3\_22302

Function Type	Phonetic value	Use
phonemogram	<i>hn</i>	regular



*hn.t(y)=f<sup>c</sup>nh<sup>c</sup> nswt bj.ty m3<sup>c</sup>.t-k3-r<sup>c</sup> d<sup>c</sup>m n ns.yt*  
His living statue, the king of upper and lower Egypt, Maatkare, the electrum of kingship,

[View Source](#)



<http://www.cfeetk.cnrs.fr/archives/?n=62830>

*Photograph from the Karnak Project: CNRS, USR 3172 - CFEETK / UMR 5140 - ASM supported by the CNRS and the LabEx Archimede ANR-11-LABX-0032-01, Programme Investissement d'Avenir. All photographs © CNRS-CFEETK*

Transcription :

Transliteration : *ḥn.t(y)=f ḥ nswt bj.ty m3̄c.t-k3̄-rḥ ḏm n ns.yt*

Translation : His living statue, the king of upper and lower Egypt, Maatkare, the electrum of kingship,

Comment : Note that the =f suffix pronoun is actually written before the classifier of Xn.ty. Note that the A23A is a placeholder for a statue form of that sign.

#### Metadata

Provenance : [Central Group](#) Temple of Karnak, colonnade of Thutmose I, north obelisk

Location in document : Soubassement, south side, line 5.

Date : [Hatshepsut Maatkare](#)

Object type : [Obelisk](#)

material : [granite](#)

Script : [Hieroglyphs](#)

technique of inscription : [sunk relief](#)

Language : [Égyptien de tradition](#)

Text content : [Royal text](#)

Source Code : KIU 1730, line 5

#### Bibliography

#### Credits

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