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# *Scripta Manent*: a CIDOC CRM Semiotic Reading of Ancient Texts

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# General Goals

- Knowledge of the past is entrusted to direct and indirect sources the past has bequeathed to us
- Written documents occupy a prominent place
  - Primary source
  - “First hand” knowledge
  - Unique place of information on past events
  - Papyrology, Paleography, Codicology, Epigraphy ... Archaeology
- To evaluate existing standards, tools and technologies for digital management of textual entities
- To propose the use of ontologies and conceptual models to capture and represent the depth and complexity of the ancient texts world

## “CIDOC CRM and Epigraphy: a Hermeneutic Challenge”

- Presented at TPDFL Poznan and CRM SIG Crete (2015)
- To evaluate existing standards, tools and technologies for digital management of epigraphic entities
- To propose the use of semantic tools to model the entities of the epigraphic world
- CRMepi extension



# A multiform and complex class of documents

- What is an “Ancient Text”?
  - A “document” bearing a text (!!)
  - Special relationship between the text and its support
  - **Uniqueness of the text** -> Product of manual work rather than a mechanised process (as in modern printing)
  - Even in case of texts written by same person on identical media and with an identical technique the resulting copies are never identical
    - Codices produced by scribes in Middle Age monasteries
    - Our hand- writing is never completely identical with itself
  - Mechanised process in antiquity: coins, medal stamps, seals
    - Close relation between text and support still important



# The meaning of “text”

- **Physical manifestation**
  - A set of physical features shown on a given support through the use of specific techniques
  - Scribbled with ink, painted, engraved etc.
- **Abstract dimension**
  - Set of concepts represented by the same physical features
- **“Writing”**
  - A sophisticated human technology allowing the encoding of a text in a specific language through a series of **signs** specifically selected for this purpose

# The meaning of "text"

- "*Circuit de la parole*" (Ferdinand de Saussure)
- **Encoding + Transmitting** -> Writer
- **Reading + Decoding** -> Reader -> **Interpretation**
- Remains unbroken as long as the code remains shared by the sender and the receiver or is otherwise recovered by

# Ancient Texts Interpretation

- Operated by an editor distant in time and space from the writer
- Each reading is necessarily interpretative
- Dependent on the decoding
- Understanding of the code acquired by indirect knowledge
- Each variant of the reading has to be considered as a different semiotic decoding of a text

- A physical feature occurring on a given support and intentionally created by humans to convey a message can appear as
  - a non-glottographic feature, a figurative decoration even when it has the value of an icon or symbol (e.g., the sign of the cross in Christian inscriptions), but also a sign of pure semiographic, 'language-independent' systems of writing, used to codify the meaning only;
  - a glottographic feature, not necessary codifying a linguistic expression, since a sign can be used with other purposes, e.g., decoratively as with the use of **A** and **Ω** signs in the Christian tradition symbolising the beginning and end
- We consider a text as a **"semiotic feature"**, a number of signs physically traced on a support and intended to encode a linguistic expression
- Only in this case we speak of written communication



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Texts and interpretation

# Glyphs and Graphemes

- Concrete expression or the physical features the writer has traced codifying the corresponding linguistic expression and the reader understands by decoding
- **Glyphs** that are physically traced on the support are the material manifestation of **graphemes**
  - Abstract units with distinctive values in a given writing system
  - In an alphabetic system these units are essentially the letters of the alphabet in question
- Every person has his own unique manner of writing
  - Possibility of recognising a specific 'hand' in the text
  - Important for manuscripts and papyri, helpful to date the text or to understand its history

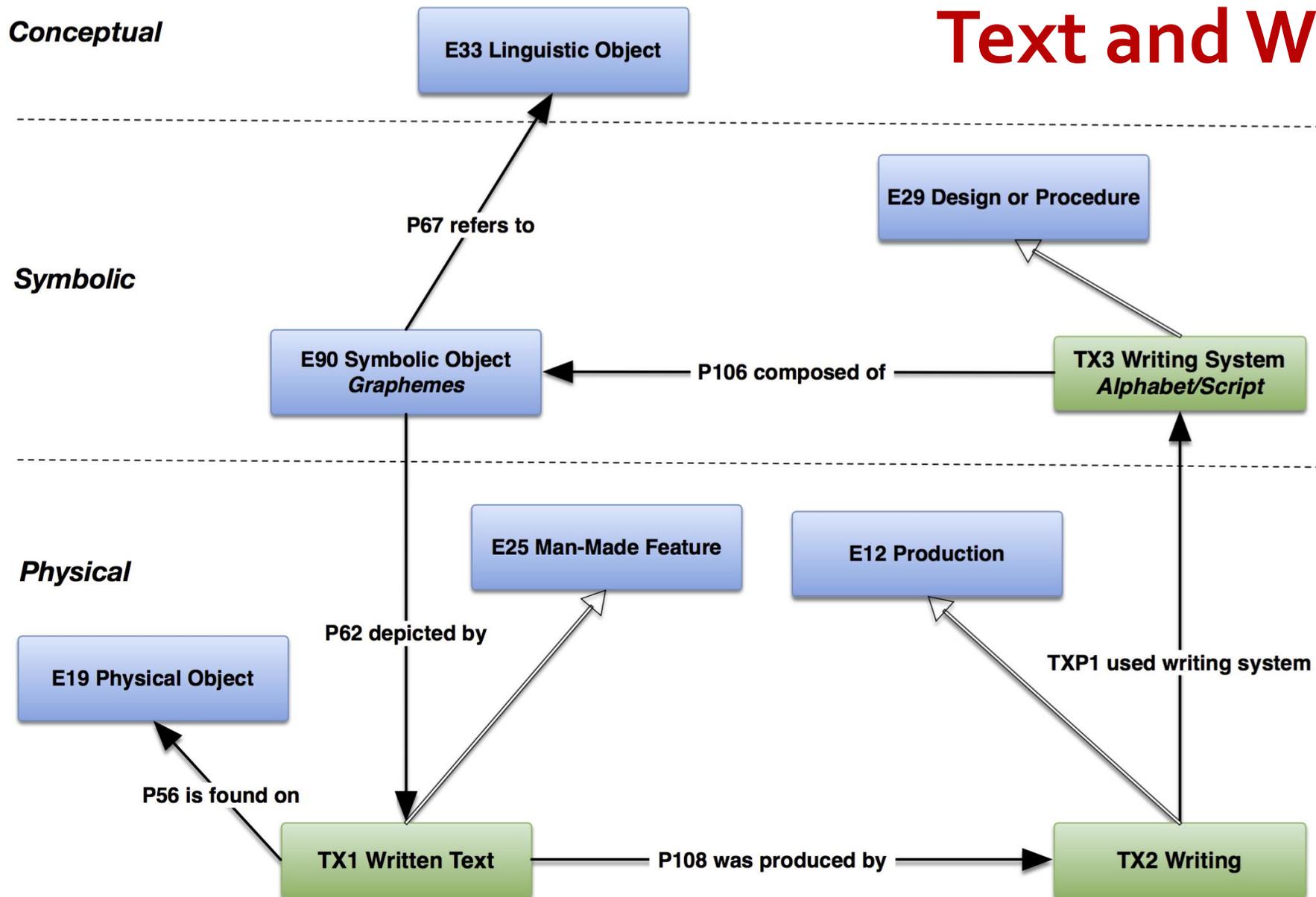
# Written Text and Writing Event

- **TX1 Written Text.** Subclass of *E25 Man-Made Feature* intended to describe a particular feature (i.e., 'set of glyphs') created (i.e., written) on various kinds of support, having semiotic significance and the declared purpose of conveying a specific message towards a given recipient or group of recipients
- **TX2 Writing.** Subclass of *E12 Production* indicating the activity of creating textual entities using various techniques (painting, sculpture, etc.) and by means of specific tools on a given physical carrier in a non-mechanical way

# Writing Systems

- **TX<sub>3</sub> Writing System.** Subclass of *E<sub>29</sub> Design or Procedure*, refers to a conventional system (e.g., the Greek alphabet) consisting of a set of characters (graphemes, *Ego*) used to codify a natural language. A writing system can be used to notate different natural languages, by means of specific rules in the combination and phonological value assignment of the chosen graphemes. It is used to produce a *TX<sub>1</sub> Written Text* through a *TX<sub>2</sub> Writing event*

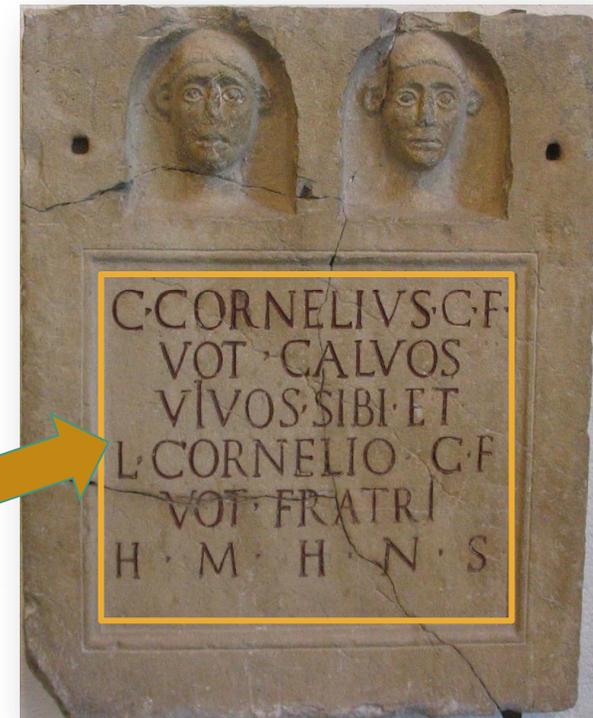
# Text and Writing



# Writing Field

- **TX4 Writing Field.** Subclass of *E25 Man-Made Feature*, usually understood as the surface or portion of the physical carrier reserved, delimited and arranged for the purpose of accommodating a written text, to highlight and isolate it from the other parts of the object to which it belongs, to enhance and guarantee its readability
- Fundamental in Epigraphy (*Epigraphic field*)
- Distinction between area(s) containing written text and empty parts of the support (margins, *intercolumnia*, etc.)
- Significant for the definition of styles and periods of the document

Epigraphic Field



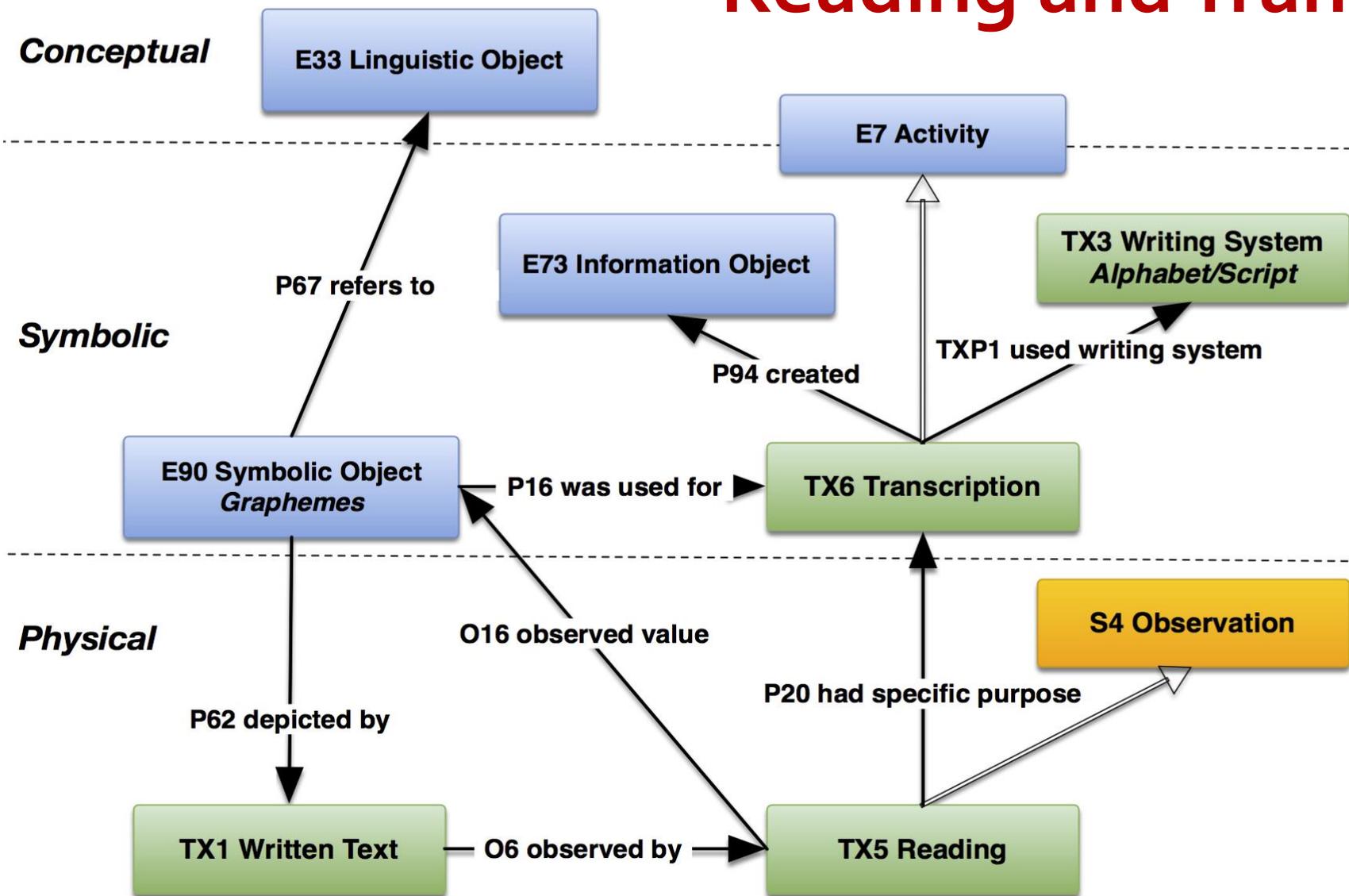
# Reading Event

- **TX5 Reading.** Subclass of the CRMsci *S4 Observation* class, referring to the scientific autoptic examination of the document and constituting the first action required in preparation for its study. It consists of an accurate analysis of the surface and the signs and prescribes the use of specific tools and procedures, to establishing as faithfully as possible the exact value of each sign drawn on the physical feature

# Transcription Event

- **TX6 Transcription.** Subclass of *E7 Activity*, referring to the activity of re-writing the text conducted by an editor. This operation, in some cases, involves a writing system (*TX3*) different from that of the original text (e.g., Latin characters to render a Coptic text); this results in a re-encoding of the text itself and, from a linguistic point of view, it is indicated more properly as a 'transliteration', because it implies a 1 : 1 relation between the signs of the two writing systems

# Reading and Transcription



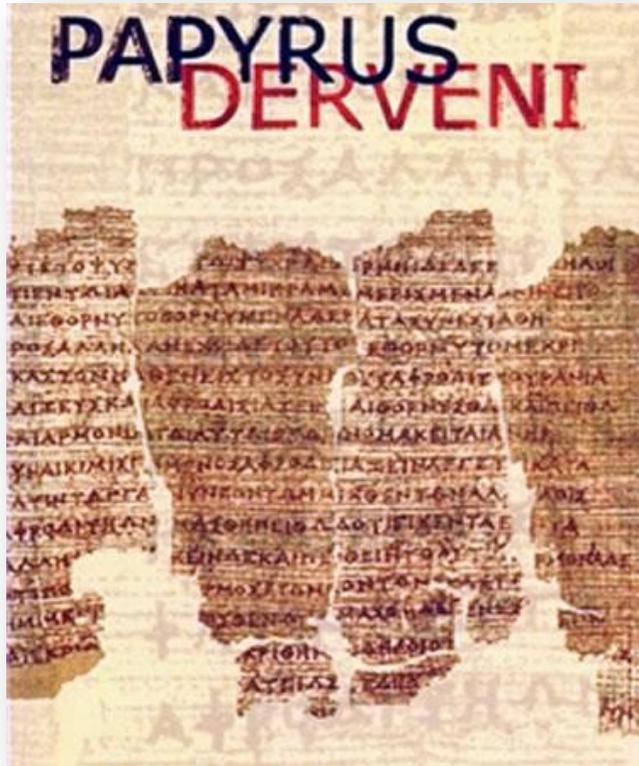
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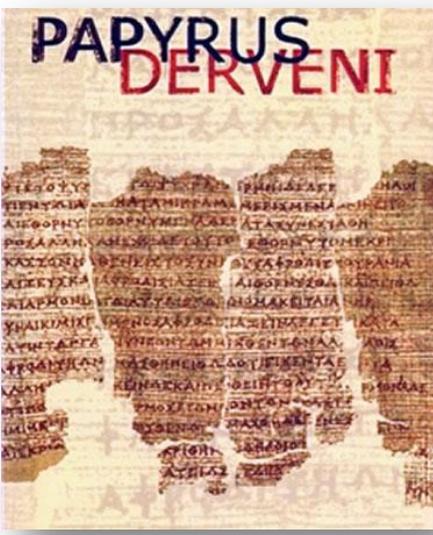
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# Derveni Papyrus

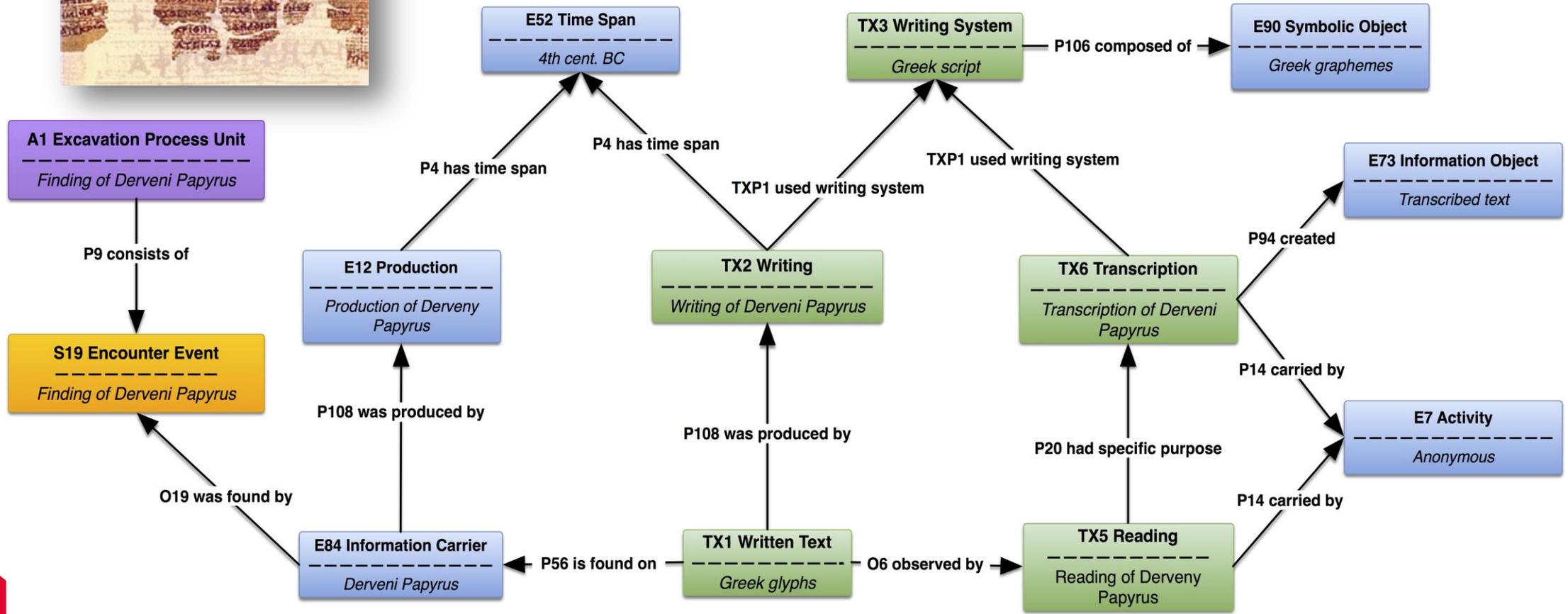


- *"The oldest surviving manuscript of Europe"* (UNESCO)
- Found: 1962 in Derveni (ancient Lete)
- 4th century B.C.
- Archaeological Museum of Thessaloniki
- First (unauthorized and anonymous) publication: 1982
- Official publication: 2006





# Derveni Papyrus



# Thank you



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