Digital (Byzantine) Sigillography

Alessio Sopracasa
(Sorbonne Université – CNRS UMR8167-Monde byzantin)

Sunoikisis Digital Classics Summer 2020
Text-Bearing Objects 2 - April 30, 2020

What a Byzantine seal is ...
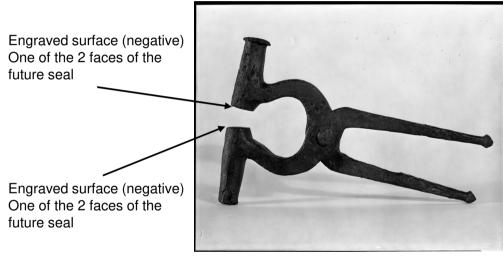
a small round object

mostly made of lead

used to autenticate a document

often bearing name and functions of the issuer + the chosen iconography

the documents which the seals were attached to are today lost, hence, the seals are studied *per se*

... and how to produce it

Engraved surface (negative)
One of the 2 faces of the
future seal

Engraved surface (negative)
One of the 2 faces of the
future seal

Matrix or *boulloterion* for Byzantine seals
(Harvard Art Museum, 1951.31.6)

... and how to produce it

A blank

Engraved surface (negative)
One of the 2 faces of the
future seal

Engraved surface (negative)
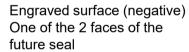One of the 2 faces of the
future seal

Matrix or *boulloterion* for Byzantine seals
(Harvard Art Museum, 1951.31.6)

... and how to produce it

A blank

Engraved surface (negative)
One of the 2 faces of the
future seal

Engraved surface (negative)
One of the 2 faces of the
future seal

Matrix or *boulloterion* for Byzantine seals
(Harvard Art Museum, 1951.31.6)

… and how to produce it

A blank

Engraved surface (negative)
One of the 2 faces of the
future seal

Engraved surface (negative)
One of the 2 faces of the
future seal

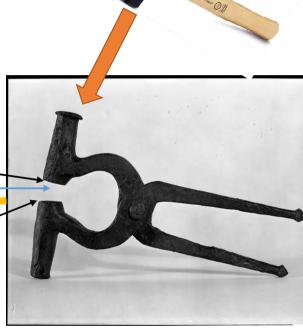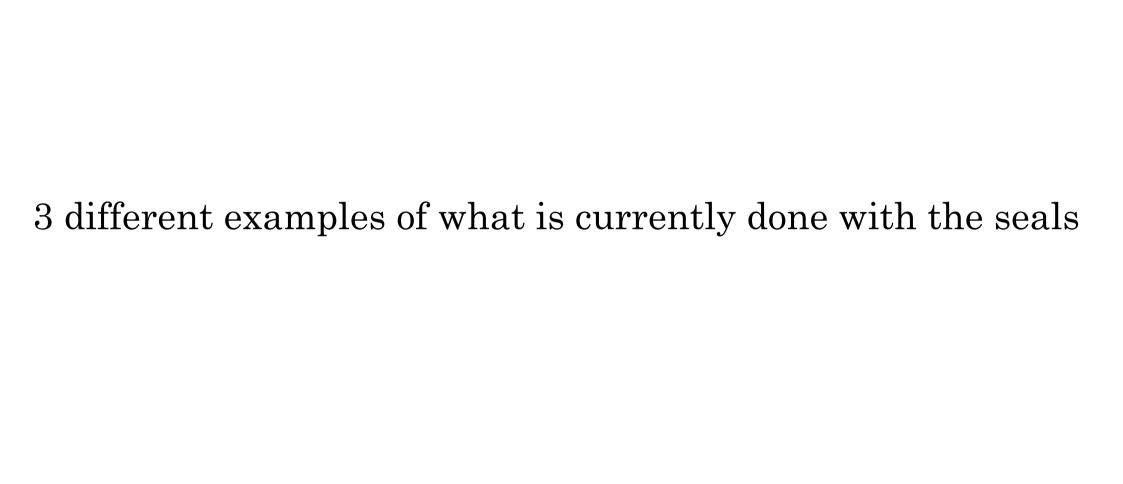Matrix or *boulloterion* for Byzantine seals
(Harvard Art Museum, 1951.31.6)

An impression has been left on the blank
and an image and text bearing object has been produced

obverse   reverse

3 different examples of what is currently done with the seals

digisig — DIGITAL SIGILLOGRAPHY RESOURCE

SEARCH | All Fields ▼ | All Indexes ▼ | Search Terms: [____] | Exact Match? ☐ | GO

RTI Image Gallery

Interact with advanced seal imagery.

USING DIGISIG

seal ◯

Find a particular 'seal' by entering its DIGISIG *identification number*, eg: '10213781'. The seal information page offers references to descriptions of the seal and a list of examples (impressions, matrices, casts).

item 🖳

An 'item' is a document or object in an archive or museum. To search for an item, enter the item's *shelfmark*, eg: 'DL10/87', or a *location*, eg: 'Westminster'. The location is provided by the repository which holds the item, and may refer to where the item originates or where it was discovered. On the item information page you discover what seal impressions, matrices, and casts are components of the item.

description 📖

A 'description' is an entry in a seal catalogue. You can search descriptions in three ways. Each description can be located by its *identifier*, eg: 'P38'. Descriptions can also be searched by entering a *name*, eg: 'Henry of Grosmont'. Alternatively, you can search the text that the cataloguer has used to describe the seal's *motif*, eg: 'griffin'. The description information page provides links to related descriptions and to the seal information page.

impression/matrix/cast 🔩 ♟ ◯

Seals survive in different physical forms. A matrix is a stamp used to make a seal impression. A seal impression is an object imprinted with a seal matrix. A cast is a modern copy of a seal impression.

SEAL — DESCRIPTIONS — IMPRESSION — CAST — ITEM — MATRIX

Contributing Repositories & Sources

Search *40598 seal records* from the following sources:

Publications and Projects

Catalogue of British Seal-Dies in the British Museum
Catalogue of Seals in the Department of Manuscripts in the British Museum
Catalogue of Seals in the Public Record Office
Catalogue of Seals in the Treasury of the Dean and Chapter of Durham
Portable Antiquities Scheme
Seals in Medieval Wales and the Welsh Marches
The National Archives, Kew, Catalogue of Seals

Repositories

Bangor University, Archives and Special Collections
British Library
British Museum
Canterbury Cathedral Archives
Cheshire Archives and Local Studies
Durham Cathedral Library
Durham County Record Office
East Sussex Record Office
Gwent Archives
Gwynedd Archives, Caernarfon Record Office
Hereford Cathedral Archives
Herefordshire Archive Service
Huntington Library
London Metropolitan Archives
Museum of London

http://digisig.org/: an enhanced and searchable version (with photos where possible) of British archives' and libraries' catalogues

8

A more elaborated search tool based on French archives' and libraries' catalogues

Anastasios archiatros (tenth/eleventh century)

Obverse

Patriarchal cross (X on lower crossing) on three steps. Fleurons rise from the base to the upper crossbar. Border of dots.

Reverse

Inscription of four lines, a cross above. Border of dots.

+
.ER,Θ,
..ACTA
.APXI
.TPO

[Κ(ύρι)]ε β(οή)θ(ει) [Αν]αστα[σ(ίω)] ἀρχι[α]τρο

ACCESSION NUMBER	BZS.1958.106.5338
DIAMETER	19.0 mm

Translation

Κύριε βοήθει Αναστασίω ἀρχιατρο.

Lord, help Anastasios, head surgeon.

Commentary

The rare term archiatros indicates that the owner of this seal was "head surgeon."

https://www.doaks.org/resources/seals/byzantine-seals/BZS.1958.106.5338/view

SigiDoc is...
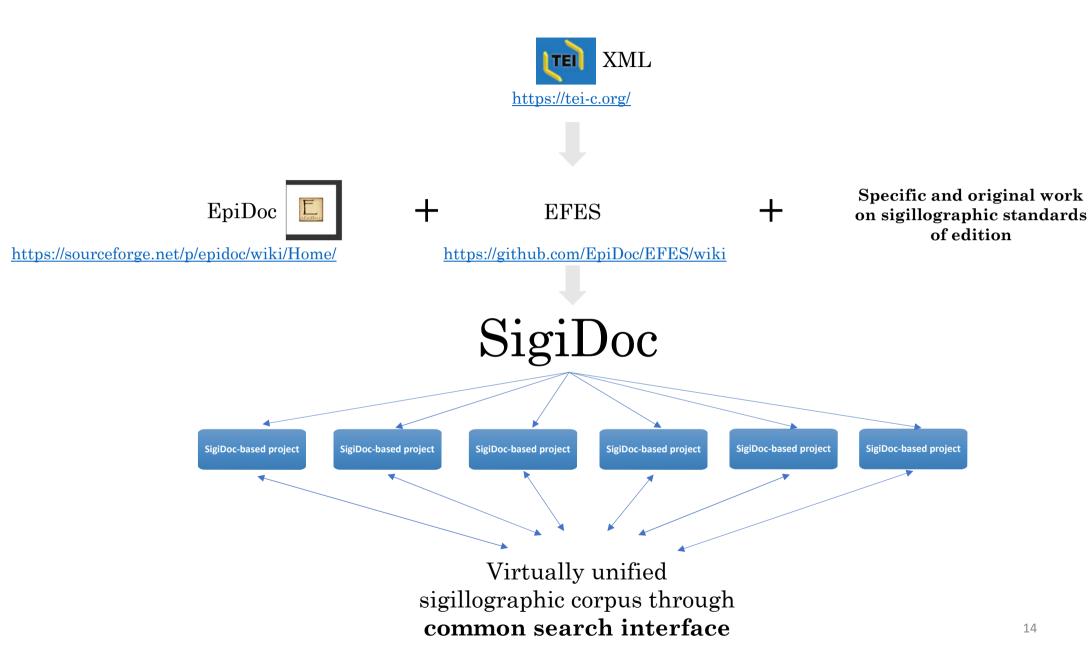
...an XML-based & TEI-compliant tool and encoding standard for the digital edition of Byzantine seals and the digital conversion of paper-published editions

From a SigiDoc point of view, a seal is:
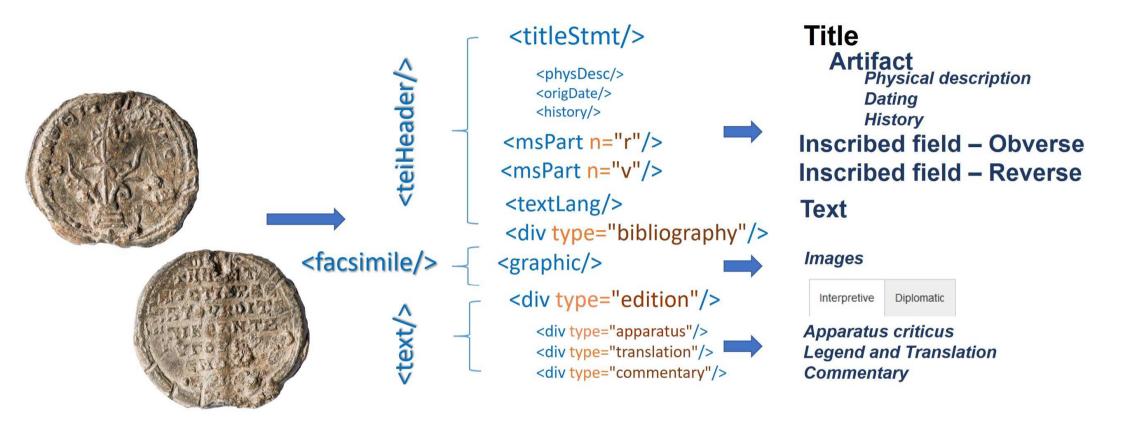
➢an object ——————————→ numismatics

➢a text ——————————→ epigraphy
(numismatics)

➢an iconography ——————————→ numismatics

A major difference: unlike for coins, usually there are not **series** of inscriptions
and seals

TEI XML

https://tei-c.org/

EpiDoc + EFES + **Specific and original work on sigillographic standards of edition**

https://sourceforge.net/p/epidoc/wiki/Home/   https://github.com/EpiDoc/EFES/wiki

SigiDoc

| SigiDoc-based project | SigiDoc-based project | SigiDoc-based project | SigiDoc-based project | SigiDoc-based project | SigiDoc-based project |

Virtually unified
sigillographic corpus through
common search interface

The structure of a Sigidoc XML file: the template for the edition of a Byzantine seal


```
                              <titleStmt/>                    Title
                                                                Artifact
                                  <physDesc/>                       Physical description
                                  <origDate/>                       Dating
                <teiHeader/>      <history/>                         History
                                  <msPart n="r"/>         Inscribed field – Obverse
                                  <msPart n="v"/>         Inscribed field – Reverse
                                  <textLang/>             Text
                                  <div type="bibliography"/>
                <facsimile/>      <graphic/>              Images

                                  <div type="edition"/>     [ Interpretive | Diplomatic ]

                <text/>               <div type="apparatus"/>     Apparatus criticus
                                      <div type="translation"/>   Legend and Translation
                                      <div type="commentary"/>    Commentary
```
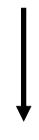
From the seal (left) to the EFES-generated webpage (right), through the SigiDoc XML template (middle)

SigiDoc (adapted from EpiDoc)

Produces XML files containing all the information, esp.:

- Metadata
- Legend (text)
- Indexing information

↓

EFES

- Organisation of data (indices, search form, ...)
- Visualisation and publication: dratf of the final web page

An exemple of how SigiDoc encodes a seal's text (i.e. a legend)

Seal of Oursel (Roussel) de Bailleul, proedros and stratopedarches

```xml
<div type="textpart" subtype="sigla" n="obv" rend="linear">
        <ab>
          <cb n="a"/>
          <rs type="marianSigla" ref="marianSigla.xml#Μήτηρ_Θεοῦ">
            <w lemma="μήτηρ" lemmaRef="http://www.perseus.tufts.edu/hopper/morph?l=mhthr&amp;la=greek">
              <expan><abbr>M</abbr><ex>ήτη</ex><abbr>ρ</abbr></expan>
            </w>
          <cb n="b"/>
          <rs type="divinity" ref="divinities.xml#Θεός">
            <expan><abbr>Θ</abbr><ex>εο</ex><abbr>ῦ</abbr></expan>
          </rs>
        </rs>
      </ab>
    </div>
```


M̅Ρ‒Θ̅V̅   M(ήτη)ρ Θ(εο)ῦ

Seal of Oursel (Roussel) de Bailleul, proedros and stratopedarches

```xml
<div type="textpart" subtype="face" n="rev" rend="linear">
        <ab>
          <lg type="legendsCases" ref="legendsCases.xml#Dat">
```

+ΘΚΕRO   + Θ(εοτό)κε βο-
ΗΘΕΙѠΡCΕ   ήθει Ούρσέ-
ΛΗΠΡΟЄΔΡѠ   λη προέδρω
SCTΡΑΤΟΠЄ   (καὶ) στρατοπε-
ΔΑΡΧΗ   δάρχῃ

Seal of Oursel (Roussel) de Bailleul, proedros and stratopedarches (1070/72-1078)

```xml
<lb n="1"/>
    +
    <rs type="invocation" ref="invocation.xml#Invoc5">
      <rs type="marianAppellative" ref="marianAppellatives.xml#Θεοτόκος">
        <expan><abbr>Θ</abbr><ex>εοτό</ex><abbr>κε</abbr></expan>
      </rs>
      <w lemma="βοηθέω" lemmaRef="http://www.perseus.tufts.edu/hopper/morph?l=bohqei&amp;la=greek">
        βο
<lb n="2" break="no"/>ήθει
      </w>
    </rs>
```

Seal of Oursel (Roussel) de Bailleul, proedros and stratopedarches

```xml
<persName type="attested" ref="prosopography.xml#PBWRoussel61">
        <name type="forename">
        Οὐρσέ
    <lb n="3" break="no"/>
        λῃ
        </name>
    </persName>
```

Seal of Oursel (Roussel) de Bailleul, proedros and stratopedarches

```xml
<rs type="dignity" ref="dignities.xml#πρόεδρος">
            προέδρῳ
        </rs>
```

Seal of Oursel (Roussel) de Bailleul, proedros and stratopedarches

```
<lb n="4"/>

    <w lemma="καί" lemmaRef="http://www.perseus.tufts.edu/hopper/morph?l=kai&amp;la=greek">
      <expan><ex>καὶ</ex></expan>
    </w>
```

Seal of Oursel (Roussel) de Bailleul, proedros and stratopedarches

```xml
<rs type="officeMilitary" ref="officeMilitary.xml#στρατοπεδάρχης">
          στρατοπε
<lb n="5" break="no"/>
          δάρχῃ
</rs>
```

The iconography (in progress)

o   a major challenge

o   SigiDoc will also come with an iconography description standard specifically designed for Byzantine sigillography

o   the principle is:

start big

finish small

➢ data are organised in **hierarchical order**, from the largest categories (person, animal, cross, etc.) to the smallest details (objects held by persons, clothes, attributes, etc.)

➢ the system is **extensible**

The iconography (in progress)

Which is the best way to handle and display it?

XML to visualise the description inside the seal's edition?

A drop-down menu with constrained choices for a search interface?

The iconography (in progress)

Animal

DESCRIPTION

Number	Class	Species	Stance
1	winged	eagle	flying right

ATTRIBUTES

Object	Field	Appearance	Gesture
ribbon aroundNeck	cross betweenWings	curvedWings	wingsUplifted upward

These terms look weird simply because the stylesheet takes the attributes' values in the XML file
➢ The elements and the attributes of the decriptive XML files (partly represented here in green) are also the fields for a future **search form**

THANK YOU !!!