



Linking Islands of Data

# Nomisma, Numismatics and LOD

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*Nomisma, Numismatics and LOD*

# Handout

<http://tinyurl.com/jo5v3o9>



# *Nomisma, Numismatics and LOD*

1. Why coins? Why bother?
2. Why the web? What sort of Web?
3. What have we done? What more can we do?



## *Nomisma, Numismatics and LOD*

- 1. Why coins? Why bother?**
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Known point of origin (*Places*)





VIAF  
Virtual International Authority File

Search

Select Field: Select Index: Search Terms:

Lysimachus, King of Thrace, ca. 361-281 B.C.

Lysimachos Thrakien, König v361-v281

VIAF ID: 82975462 (Personal)

Permalink: <http://viaf.org/viaf/82975462>

Preferred Forms

100 0 .. \_a Lysimachus, \_c King of Thrace, \_d ca. 361-281 B.C.

100 0 .. \_a Lysimachos \_c Thrakien, König \_d v361-v281

100 0 0 .. \_a Lysimachus, \_c King of Thrace, \_d ca. 361-281 B.C.



Known issuer (*People; roles*)



Known point of discovery  
(*Places; contexts*)



## 1. Where the first coins were produced



## 2. Where the first coins are found





Decorated (*Iconography; religion*)

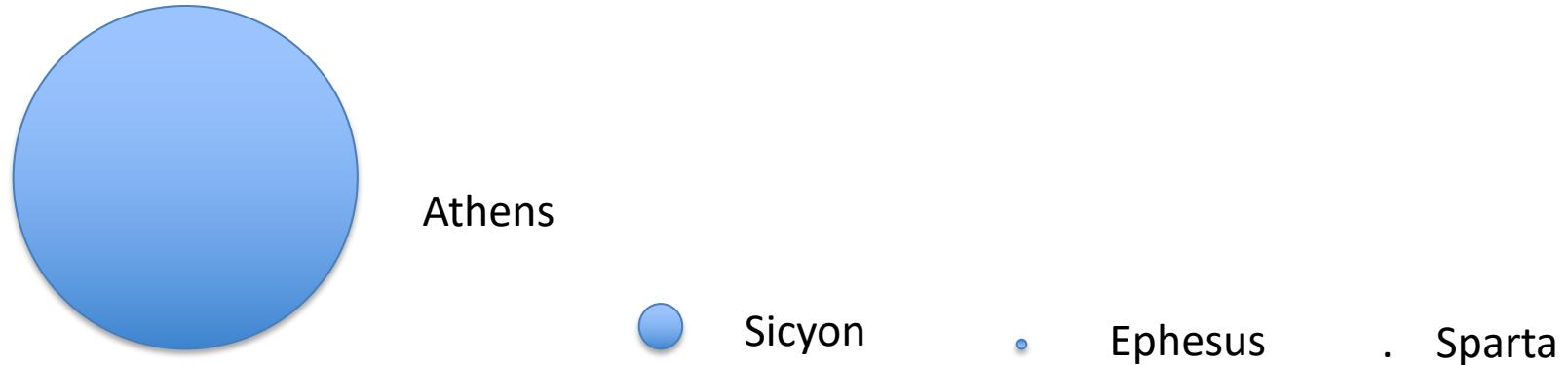


## Inscribed (*Titulature; Text*)



SPQR Imperatori Caesari Quod  
Viae Munitae Sunt Ex Ea  
Pecunia Quae Iussu Senatus Ad  
Aerarium Delata Est

Civic coin production, 450-400 BC



Quantifiable (*Statistics*)

# Good News: it survives in huge quantities

Collection	Approx No.
New York	200, 000
London	200, 000
Berlin	200, 000
Paris	200, 000
Vienna	100, 000
UK PAS	434, 036
Coinarchives.com	1,606,696
Total	c. 3 Million +

# Bad News: it survives in huge quantities

- Over 20 collections of 20,000+ ancient coins
- At least 5 different national reporting schemes
- All catalogue in their own systems, with their own standards, in their own languages
- All are at different stages in their digital journeys

# It gets worse...

- Many of the standard catalogues and corpora are more than 50 years old
- None of them exist digitally
- There is no international co-ordinating body for their creation

# Reference works (*Roman Imperial Coinage – RIC*)

MINT OF ROME — ARS — A.D. 134-138				459	
No.	Obv.	J.E.	Obverse	Reverse	Notes
			HADRIANVS AVG. COS. III. P.P.		
917	S	*	(i)	EXERC-DACICVS S.C. Hadrian standing r., on low base or l., haranguing officer and three soldiers : the soldiers face l., and the front two of them carry eagle and standard, respectively ; the officer faces r., and holds sword (?) R.	C. 561
918	S	*	(i)	* As on No. 917, but off- icer and soldiers all face l., in background, a vexillum. R.	C. 562
919	S	*	(i)	* Hadrian standing l., on platform r., haranguing three soldiers and an officer who faces l. and holds sword and spear (?) ; the soldiers hold eagle and standard, respecti- vely ; in background, vexil- lum. R.	C. 562
919A	S	*	(i) (b)	EXERCITVS DACICVS C. 571, 2 S.C. Arses No. 916. R.	

## EXERCITVS GERMANICVS.

920	S	*	(i)	EXERCITVS GERMANI- C. 571 CVS S.C. Ar. on No. 914. R.
921	S	*	(i)	EXERC-GERMA-S.C. Ar. C. 570 on No. 914. R.

920. C. 571 quotes variety of rev., soldiers carrying standard, vexillum,  
standard and shield.



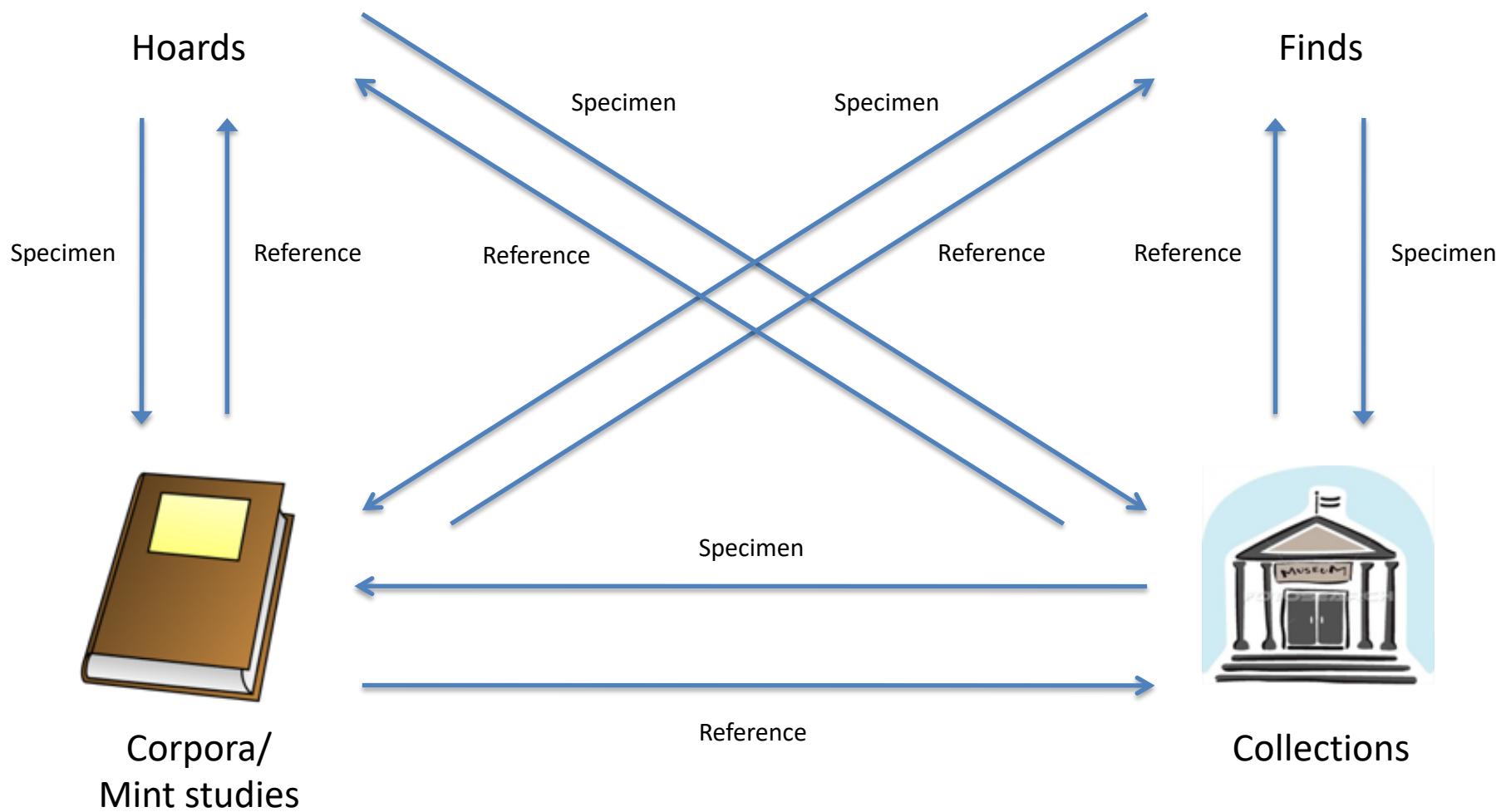
914	S	*	(f)	EXER-CAPPADOCICVS C. 553 S.C. Hadrian on horseback r., haranguing three soldiers : the first holds an eagle, the other two standards. R.
-----	---	---	-----	--

# And what about the humans?

- We work in different institutions
- We work with different institutions
- We work on different projects
- We work on different types of projects
- We work in different ways
- We work in different languages
- But we want to **link** and share data



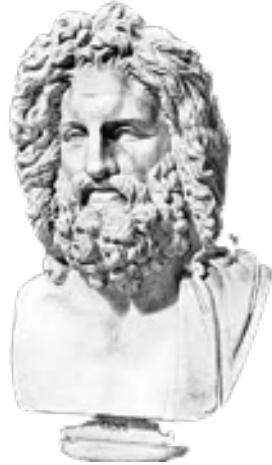
## Linking a Discipline





ΙΟΝ ΛΕΑΝΔΡΟΥ ΕΙΣ  
ΛΕΣ ΕΓΧΕΒΟΛΕΒ  
ΣΔΑΛΟΝΤΟΝ ΔΕΝΟ  
ΔΙΟΙ ΣΤΟΙΦΟΡΟ  
ΔΙΕΣ ΜΕΝΥΣ ΣΕΩΣ  
ΟΡΟΚΔΙΤΟΠΕΡΥ  
ΘΒΟΛΕΥΣ ΖΑΣ ΑΝΕ

## Linking Disciplines





# The Answer?

# Linked Open Data



## *Nomisma, Numismatics and LOD*

1. Why coins? Why bother?
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# Linked Open Data





# Five Stars

- ★ Make your stuff available on the Web (whatever format) under an open license
- ★★ Make it available as structured data (e.g., Excel instead of image scan of a table)
- ★★★ Use non-proprietary formats (e.g., CSV instead of Excel)
- ★★★★ Use URIs to denote things, so that people can point at your stuff
- ★★★★★ Link your data to other data to provide context



# Four Rules

1. Use URIs as names for things
2. Use HTTP URIs so that people can look up those names
3. When someone looks up a URI, provide useful information, using the standards (RDF\*, SPARQL)
4. Include links to other URIs, so that they can discover more things

# Statement

This coin in my collection

was minted at

Rome

# A Statement with URIs

<http://numismatics.org/collection/1010.1.51>

<http://nomisma.org/ontology#hasMint>

<http://pleiades.stoa.org/places/423025>



<http://numismatics.org/collection/1010.1.51>

<http://nomisma.org/ontology#hasMint>

<http://nomisma.org/id/rome>

# [nomisma.org/id/rome](http://nomisma.org/id/rome)

9: Coinage of the Roman Empire × 9: Coinage of the Roman Empire × 9: American Numismatic Society × 9: American Numismatic Society × 9: Coinage of the Roman Empire × nomisma.org/rome × Sharing the Wealth Online ×

nomisma.org/rome

Google Maps SOLO OCLC JSTOR Perseus BookFinder Phil WorldCat Numis CoinArchives MBS Mentis Nomisma Academia.edu Fitzwilliam Google Drive Doodle Other Bookmarks

nomisma.org Browse IDs APIs Documentation Ontology SPARQL Datasets Search Q

**rome (inno:Mint)**

**skos:prefLabel** Antike Roma (it), Antiga Roma (es), Αρχαίη Ρώμη (gr), Qadim Roma (tr), Вечната Рим (bs), Crapacearima Pusa (sl), Pisa (bg), αρχαία ρώμη (gr), Hemisoma (de), Antikă Rim (sq), Roma (ca), Roma antica (es), Rim (sq), Asante Pisa (dv), Rhutani Hyntaf (gl), Antikkene Rööm (pl), Rom (de), (Pisa) (it), Roma (en), Roma (es), Roma (it), Roma niki (el), Antikaisa (Erima) (in), Հանունք (ru), Rooman (fi), Roma (fr), An Istan-Röömh (ga), Roma Antiga (pt), γητενι κύπρος (pe), անտիկ ռոմ (hy), Antikă Rim (hu), Roma (hu), Qaṣr Ḫaṣṣ (pt), Roma antique (it), Romanen Kuno (id), Antiqua Roma (it), Römafeld (sq), Roma (it), ՀԱՌՈՒՄ ԹԵՐՅՈՒ (sq), Kavne Pisa (sq), Βυζαντινή Ρώμη (en), 218 BC (pt), Romaya Keenare (ru), Black Pisa (it), Basileios Pisa (sq), Roma antiqua (de), Semovets Roma (ru), Sena Roma (it), Roma Tatscha (mg), crasp Pisa (mt), անտիկ ռոմ (pe), Rom kuno (pe), Romaneket (it), Roma (it), Roma (es), Roman dinar (it), Roma antica (it), Կավեն Հու (pe), Heym (de), HU ՀԱՌՈՒՄ (pt), Roma (pt), Imperi roman (tm), Roma (es), Pisa (it), Antikă Rim (pt), QDIBS #005# (pt), Starověký Rim (pt), Staromyska civilizacja (it), Roma e latinit (sq), Амплия (Рим) (it), Romenska (sq), Roma ya Kalé (sq), uživatel\_uz\_Syná (sq), Qombeči (sq) (sq), Рим Кадын (pt), Da Tunica (pt), Sinaunang Roma (it), Antik Roma (it), Вечната Рим (tr), Pisa (it), Qadimgi Rim (sq), La Mil oči da (sq), emr elherax (pt), Roma Ayaklısun (pe), ՀԱՌՈՒՄ (pt), Rhoman (pt)

**skos:definition** The mint at the ancient site of Rome in Latium. (en)

**dcter:isPartOf** [http://nomisma.org/id/romen\\_numismatics](#)

**geolocation** [http://nomisma.org/id/rome#this](#)

**skos:broader** [http://nomisma.org/id/latium](#)

**skos:closeMatch** [http://collection.britishmuseum.org/ID/place/ID5708](#)

**skos:closeMatch** [http://dbpedia.org/resource/Ancient\\_Rome](#)

**skos:closeMatch** [http://geonames.org/3169070](#)

**skos:closeMatch** [http://pleadies.sba.sugrpasce.it/23325](#)

**skos:closeMatch** [http://viaf.org/viaf/244982973](#)

**skos:closeMatch** [http://vocab.getty.edu/gem/7000674](#)

**skos:closeMatch** [http://vocab.getty.edu/gem/7594740](#)

**skos:closeMatch** [http://www.geonames.org/3169070](#)

**skos:closeMatch** [https://www.wikidata.org/entity/Q1147989](#)

**#this (geo:SpatialThing)**

**dcter:isPartOf** [http://nomisma.org/id/latium#this](#)

**geonet** 41.8

**geolong** 12.5

**Export:**

Linked Data: [GitHub File](#) [RDF/XML](#) [RDF/JSON](#) [JSON-LD](#)

Geographic Data: [KML](#) [geoJSON \(mint\)](#) [geoJSON \(hoards\)](#) [geoJSON \(finds\)](#)

Leaflet | Powered by Leaflet and Mapbox. Map base by [HMBC](#), 2014 (sicily-md).

Mints Hoards Finds View fullscreen

# RDF Statements

1. Subject (<http://numismatics.org/collection/1010.1.51>)
2. Predicate (<http://nomisma.org/ontology#hasMint>)
3. Object (<http://nomisma.org/id/rome>)

There are three parts: this is a ‘Triple’

# So where do URLs come from?

Standard vocabularies for describing relationships:

- SKOS - Simple Knowledge Organization System
- Dublin Core (dcterms) - Defines general metadata attributes
- Friend-of-a-Friend (foaf) - For describing people and their social network

See further:

<http://www.w3.org/wiki/TaskForces/CommunityProjects/LinkingOpenData/CommonVocabularies>

<http://lov.okfn.org/dataset/lov/>

# So where do URIs come from?

Specialised resources for common things

- Geonames.org (Modern geography)
- Pleiades (Ancient geography)
- VIAF.org (People)

# So where do URIs come from?

Objects: CIDOC-ICOM recommendation on Linked Open Data for museums

- When museum objects are referred to in Internet applications, it is necessary that the objects are uniquely identified by suitable URIs.
- In order to avoid different institutions generating competing URIs for the same object, each object (or set of objects) should have one preferred authority that assigns the URI for the object. The URI authority for the object must be known to all interested parties or be easy to discover.
- The most natural candidate for the URI authority for an object is the museum that curates the object, regardless of whether the museum intends to provide its own services on the Internet or not. This is because it is the only institution that can absolutely determine that two different museum object URIs actually describe the same thing.
- This URI should be derived in a simple way from the inventory numbers published in exhibition catalogues, through on-line museum catalogue access or by asking museum staff. This will avoid the need go through a matching process that could generate errors.
- This URI should have a form that enables any museum to provide a Linked Open Data service that resolves to the associated description of that object.

# So where do URIs come from?

## Controlled Vocabulary for a Discipline

Q. Where do the URIs for specifically numismatic concepts come from?

A. Nomisma.org

# http://nomisma.org/

Andrew

nomisma.org nomisma.org Press ⌘ ⌘ to search nomisma.org ★

APes Google Maps SOLO OULIP JSTOR Perseus BookFinder Phil WorldCat Denom CoinArchives ANS Mantis Nomisma Princeton IAS Other Bookmarks

nomisma.org Browse IDs Research Tools APIs Documentation Ontology SPARQL Datasets Search

## Nomisma

Nomisma.org is a collaborative project to provide stable digital representations of numismatic concepts according to the principles of [Linked Open Data](#). These take the form of http URIs that also provide access to reusable information about those concepts, along with links to other resources. The canonical format of nomisma.org is RDF/XML, with serializations available in JSON-LD (including geoJSON-LD for complex geographic features), Turtle, KML (when applicable), and HTML5+RDFa 1.1.

While the URIs provided by nomisma.org are stable, the project is in progress and subject to constant expansion and ongoing correction. This is particularly the case for the information provided about each nomisma.org identifier.

The information provided by nomisma.org has been provided by a wide community of scholars and institutions.

The project is steered by a committee currently consisting of:

- Rachel Ackermann, Swiss Inventory of Coin Finds
- Florence Codine, Ecole Pratique des Hautes Etudes
- Karsten Dahmen, MK Berlin
- Fridérique Duynat, BNF
- Ethan Gruber, ANS
- Sebastian Heath, NYU ISAW
- Jérôme Mainat, Ashmolean Museum, Oxford
- Andrea Meadows, New College, Oxford University
- Ulrike Peter, Berlin-Brandenburg Academy of Sciences and Humanities
- Karsten Tolle, DBIS, University of Frankfurt
- David Wigg-Wolf, DA RKG

Nomisma.org also hosts the [Numismatic Description XML Schema](#).

There are two Github repositories associated with the project. The application code is available in <https://github.com/nomisma/framework>. The RDF/XML data and ontology versions are in <https://github.com/nomisma/data>.

## Example Nomisma.org URIs

Nomisma.org focuses on URIs for concepts that are unique to numismatics or which have a distinct meaning within the discipline. Examples are:

- <http://nomisma.org/d/axis>. The 'axis' is the angular relationship between the obverse and reverse of a coin.
- <http://nomisma.org/d/ephesus>. The 'mint' at Ephesus. Nomisma relates this numismatic concept to other URIs such as [wikipedia](#), [Pleiades](#),

## Data Export

### Nomisma Linked Data

 Linked Data: [JSON-LD](#), [TTL](#), [RDF/XML](#)

### Pelagios Annotations

 VoID for Concepts: [RDF/XML](#),  
VoID for Partner Objects: [RDF/XML](#)

## Atom Feed

 Feed Documentation

## Contributors

The following institutions have contributed data, specialist advice and/or financial support to the Nomisma project:

 Arts & Humanities Research Council

 Münzkabinett Staatsliche Museen zu Berlin

 Alexander von Humboldt Foundation

 GOETHE UNIVERSITÄT FRANKFURT AM MAIN

 Akademie der Wissenschaften der Bundesrepublik Deutschland

# Statement about an Ashmolean object

<http://hcr.ashmus.ox.ac.uk/coin/HCR23285>  
(Ashmolean-created URI)

<http://nomisma.org/ontology#hasMint>  
(Nomisma.org)

<https://pleiades.stoa.org/places/491687>  
(URI for Pella in the online vocabulary for ancient placenames)

# Statement about an Ashmolean object

<http://hcr.ashmus.ox.ac.uk/coin/HCR23285>

(Ashmolean-created URI)

<http://nomisma.org/ontology#hasMint>

(Nomisma.org)

[http://nomisma.org/id/pella\\_macedon](http://nomisma.org/id/pella_macedon)

(URI for the mint of at Nomisma.org)

# Statement about an Ashmolean object



A screenshot of the Pleiades project interface. The top navigation bar includes links for Home, Browse Places, Standardized Data, Map, Credits, Documentation, and Help. The main content area shows a map of the Pella region in Macedonia, with numerous red dots indicating specific locations. To the left of the map is a sidebar with a search bar and a list of "Associated Types" such as "Associated Type", "Associated Person", "Associated Organization", and "Associated Event". Below the map is a detailed view of a specific location with a red dot, showing geographical features and nearby landmarks.



A screenshot of the Pleiades project interface, specifically the entry for Pella/Diokletianopolis. The top navigation bar is identical to the previous screenshot. The main content area shows a detailed view of the Pella/Diokletianopolis entry, including a map, a list of "Associated Types", and sections for "Geography", "Demography", "History", "Culture", "Archaeology", and "Literature". The "Geography" section includes a map of the region and a table of coordinates.

[http://nomisma.org/id/pella\\_macedon](http://nomisma.org/id/pella_macedon)  
(for humans)

nomisma.org/pella\_macedon

nomisma.org/ld/pella\_macedon

Google Maps SOLO DLIP JSTOR Perseus BookFinder Phil WorldCat Donum CoinArchives ANS Mantis Nomisma Princeton IAS Other Bookmarks

nomisma.org Browse IDs Research Tools APIs Documentation Ontology SPARQL Datasets Search

Quantitative Analysis

## pella\_macedon (nmo:Mint)

**skos:prefLabel** Πέλλα (εργ.), Πέλλα (βρ.), Πέλλα (αρχ.), Πέλλα (εργ.), Πέλλα (εργ.)

**skos:definition** The mint at the ancient site of Pella in Macedonia. (εργ.)

**determinacyPartOf** [http://nomisma.org/ld/greek\\_numismatics](#)

**geo:location** [http://nomisma.org/ld/pella\\_macedon#this](#)

**rdf:type** skos:Concept

**skos:broader** [http://nomisma.org/ld/strymonian\\_and\\_bottiaean\\_district](#)

**skos:closeMatch** [http://collection.britishmuseum.org/id/place/x46346](#)

**skos:closeMatch** [http://dbpedia.org/resource/Pella](#)

**skos:closeMatch** [http://pleiades.stoa.org/places/4811987](#)

**skos:closeMatch** [http://vocab.getty.edu/tgn/7011026](#)

**skos:closeMatch** [http://www.geonames.org/734726](#)

**skos:closeMatch** [https://www.firebaseio.com/m/0d9mk](#)

**skos:closeMatch** [https://www.wikidata.org/entity/Q213679](#)

**#this** (geo:SpatialThing)

**determinacyPartOf** [http://nomisma.org/ld/strymonian\\_and\\_bottiaean\\_district#this](#)

**geodlat** 40.760333

**geodlong** 22.525642

## Export

Linked Data GitHub File RDF/XML RDF/TTL JSON-LD

Geographic Data KML geoJSON (mints) geoJSON (hoards) geoJSON (finds)

Mints Hoards Finds View fullscreen

## Associated Types (max 10)▼

+ View SPARQL for full query @Download CSV

Home User Reviews Feedback

[http://nomisma.org/id/pella\\_macedon](http://nomisma.org/id/pella_macedon)  
(for machines)

# So where do URLs come from?

Specialised resources for numismatic things



Nomisma.org

(Ontology and basic vocabulary)

RRC, RIC, OCRE, CHRR, CHREP, RPC, IGCH, OGC  
(numbering systems)



## *Nomisma, Numismatics and LOD*

1. Why coins? Why bother?
2. Why the web? What sort of Web?
3. What have we done? What more can we do?

# The four pillars

1. Collections



2. Reference works



3. Hoards



4. Single finds



# 1. Collections



<http://numismatics.org/collection/1010.1.51>

<http://nomisma.org/ontology#hasMint>

<http://nomisma.org/id/rome>

# 2. Reference Works

The screenshot shows the homepage of the Coinage of the Roman Republic Online (CRRO) website. The header features the CRRO logo in large, bold, red and white letters, with "COINAGE OF THE ROMAN REPUBLIC ONLINE" in smaller white text below it. The background of the main content area is a dark gray with a faint watermark of a circular Roman coin design containing various Latin inscriptions. At the bottom of the page, there is a brief explanatory text about the aims and history of the project.

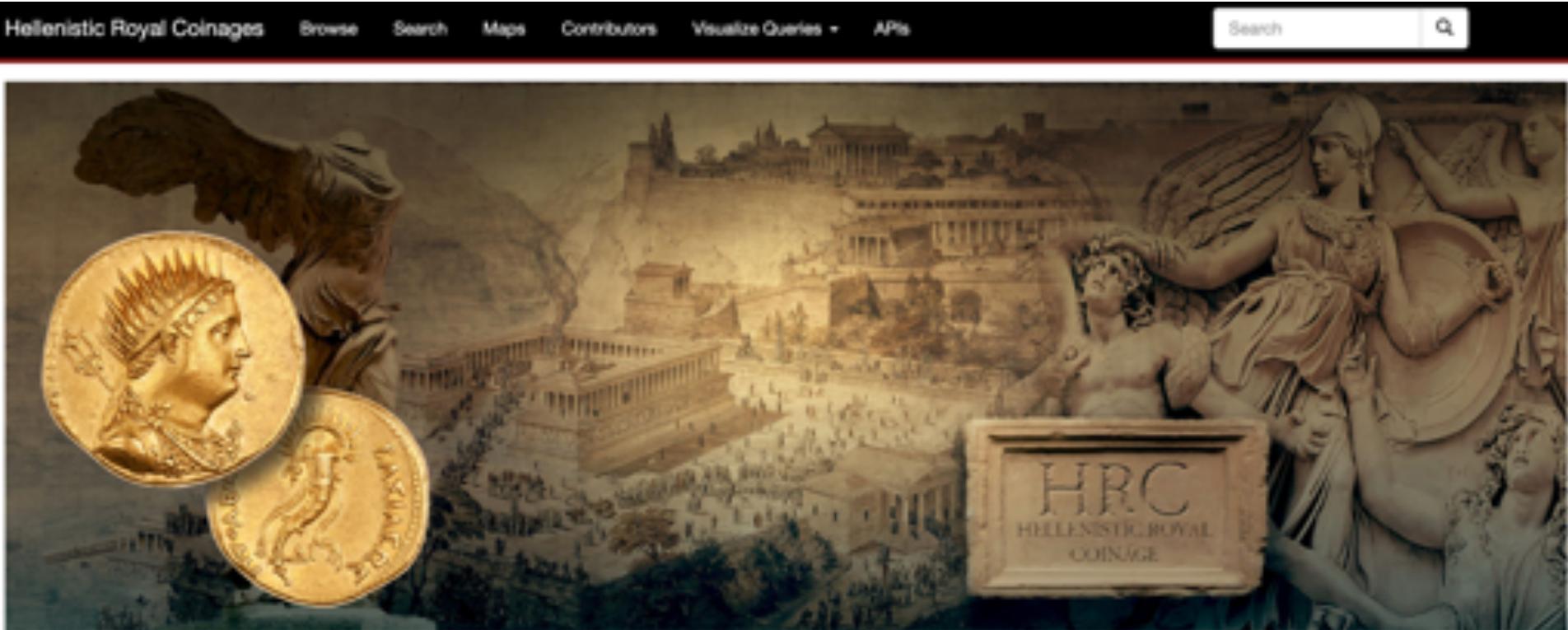
CRRO COINAGE OF THE ROMAN REPUBLIC ONLINE

Coinage of the Roman Republic Online (CRRO) aims to provide in effect an online version of Michael Crawford's 1974 publication *Roman Republican Coinage* (PRC), which is still the primary typology used for the identification of Roman Republican coin types. Since its publication in 1974 there have been significant revisions to the dating of the series following the discovery of new hoards, but no attempt has been made to reflect these or make any other amendments to the published typology at this stage. The descriptions for these coins are based on the typology set out in PRC, but have been modified to meet the standards of the British Museum's collection management system. Additional types not in the British Museum's collection were added to this database by Richard Witschonke of the ANS.

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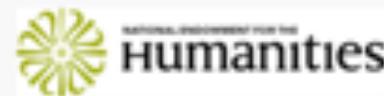
# 2. Reference Works



Hellenistic Royal Coinages (HRC) is a [National Endowment for the Humanities](#) funded project based at the American Numismatic Society in New York City. HRC is a web-based resource for users to learn about, research, and conduct different types of analyses on the coinages produced by the different dynasties and rulers of the ancient Mediterranean and Near East during the Hellenistic period (ca. 323–31 BC). These include the coins struck by (and in the name of) Alexander the Great and those struck by his successors, such as the Seleucids in the Near East and the Ptolemies in Egypt.

This site, the HRC Union Catalogue, allows users to search across all existing HRC type corpora simultaneously. These include: [PELLA](#), a resource that currently focuses on the coinage in the name of Alexander the Great; [Seleucid Coins Online](#), a resource devoted to the coinage of the Seleucid dynasty; and [Ptolemaic Coins Online](#), a resource for the coinage of the Ptolemaic dynasty. In the future we hope to add additional resources for the coinages of other Hellenistic dynasties and rulers including the Antigonid, Attalid, and Bactrian dynasties.

## Support



In March 2017, the National Endowment for the Humanities awarded Hellenistic Royal Coinages \$262,000 as part of the broader [Hellenistic Royal Coinages \(HRC\)](#) initiative. This grant is leveraged through the NEH's [Humanities Collections and](#)

# 3. Hoards

CHRR Online [Browse](#) [Search](#) [Maps](#) [Analyse Hoards](#) [APIs](#) [FAQ](#)

# CHRR Online

Coin Hoards of the Roman Republic Online

Coin hoards of the Roman Republic Online (CHRR Online) is a database of Roman Republican coin hoards mainly from the period 150 BC to AD 2. This database began life as a personal research database constructed by Kris Lockyear using a combination of published data and Michael Crawford's personal archive now housed here in the British Museum. The online database, which utilises the Numishare application developed by Ethan Gruber, is a joint project between Kris Lockyear (Institute of Archaeology, University College London) and the American Numismatic Society.

The database is not intended to be a comprehensive listing of hoards of that date. For a detailed discussion of the construction of the database and the data contained within it, please see the FAQ, Lockyear 2007, Lockyear 2013 or Lockyear and Gruber forthcoming.

The database is currently Version 1 (beta).

The data is freely available to scholars for use in their research. We only ask that you:

- Identify each hoard in your publications using the unique three-character hoard identifier;
- cite the database in the following manner:

Lockyear, Kris (2013). Coin Hoards of the Roman Republic Online, version X. New York: American Numismatic Society. Data retrieved from <a href=></a> on <a href=></a>.

CHRR Online is a Numishare tool based on the stable numismatic identities established by the [Numisma](#) project. The Roman Republican coin data served by Numisma has been supplied by the British Museum's [Roman Republican Coinage](#) project.

Powered by [Numishare](#).



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## 4. Findspots

Multiple finds projects now exist:

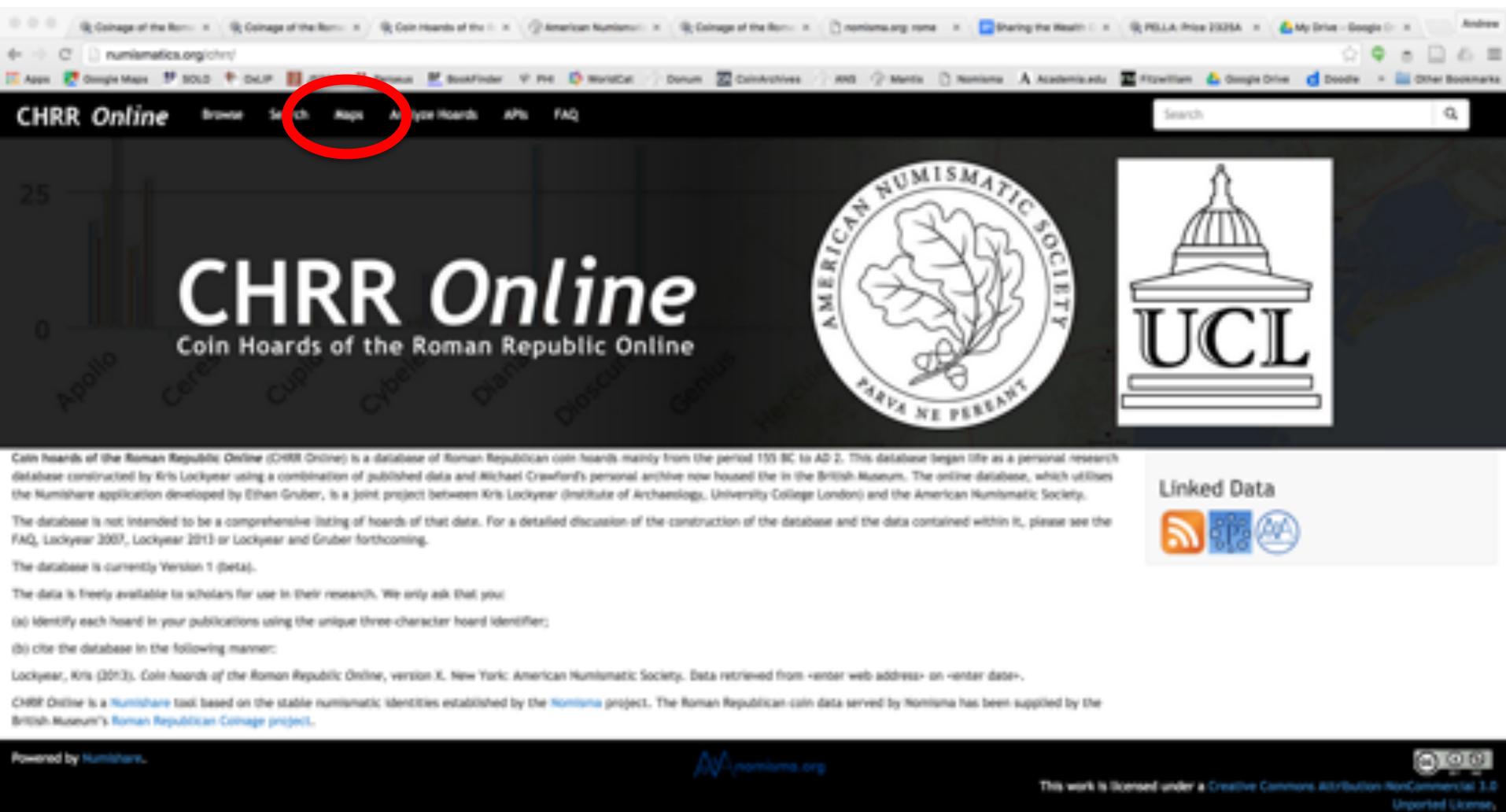
UK: the Portable Antiquities Scheme (PAS)

<https://finds.org.uk/>

Europe: Antike Fundmünzen in Europa (AFE)

<http://afe.fundmuenzen.eu/>

# Pulling it together



The screenshot shows the homepage of the CHRR Online website. At the top, there is a navigation bar with links for 'Browse', 'Search', 'Maps', 'Ancient Hoards', 'APIs', and 'FAQ'. A red circle highlights the 'Maps' link. To the right of the navigation bar is a search bar. Below the navigation bar, the title 'CHRR Online' is displayed in large white letters, followed by 'Coin Hoards of the Roman Republic Online'. To the right of the title is the logo of the American Numismatic Society, which is a circular emblem featuring a laurel wreath and the text 'AMERICAN NUMISMATIC SOCIETY' around the top and 'PARVA NE PEREANT' at the bottom. Next to the ANS logo is the logo for University College London (UCL), which consists of a stylized dome icon above the letters 'UCL'. The main content area contains text about the database, including its purpose, history, and usage guidelines. It also mentions the 'Numishare' tool and the Creative Commons Attribution NonCommercial 3.0 Unported License.

CHRR Online  
Coin Hoards of the Roman Republic Online

Coin hoards of the Roman Republic Online (CHRR Online) is a database of Roman Republican coin hoards mainly from the period 150 BC to AD 2. This database began life as a personal research database constructed by Kris Lockyear using a combination of published data and Michael Crawford's personal archive now housed here in the British Museum. The online database, which utilises the Numishare application developed by Ethan Gruber, is a joint project between Kris Lockyear (Institute of Archaeology, University College London) and the American Numismatic Society.

The database is not intended to be a comprehensive listing of hoards of that date. For a detailed discussion of the construction of the database and the data contained within it, please see the FAQ, Lockyear 2007, Lockyear 2013 or Lockyear and Gruber forthcoming.

The database is currently Version 1 (beta).

The data is freely available to scholars for use in their research. We only ask that you:

- Identify each hoard in your publications using the unique three-character hoard identifier;
- cite the database in the following manner:

Lockyear, Kris (2013). Coin Hoards of the Roman Republic Online, version X. New York: American Numismatic Society. Data retrieved from <a href=>[enter web address]</a> on [enter date].

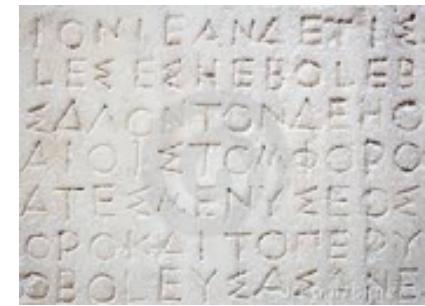
CHRR Online is a Numishare tool based on the stable numismatic identities established by the [Numisma](#) project. The Roman Republican coin data served by Numisma has been supplied by the British Museum's [Roman Republican Coinage](#) project.

Powered by [Numishare](#).

 numisma.org

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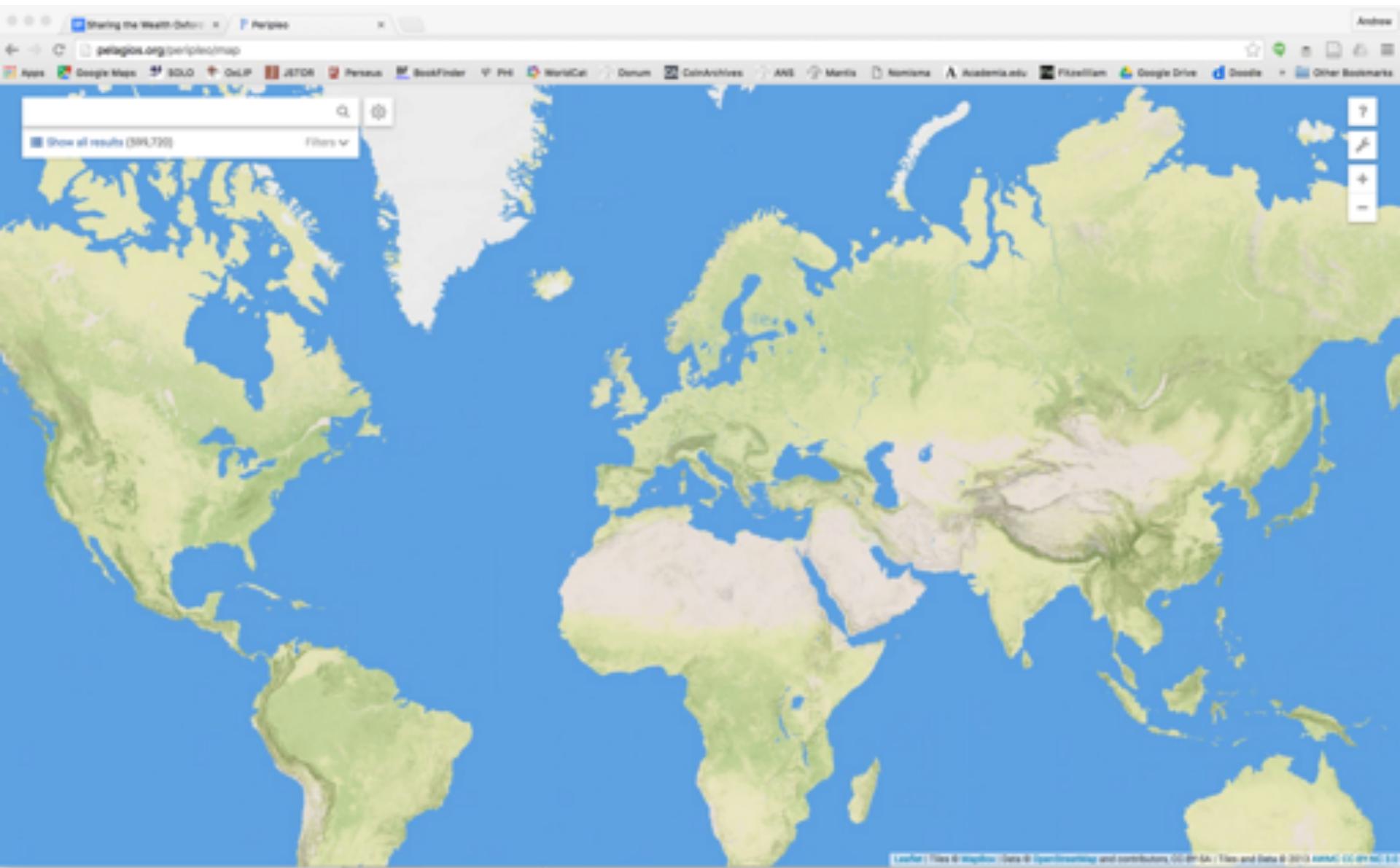
# Speaking to the wider world...



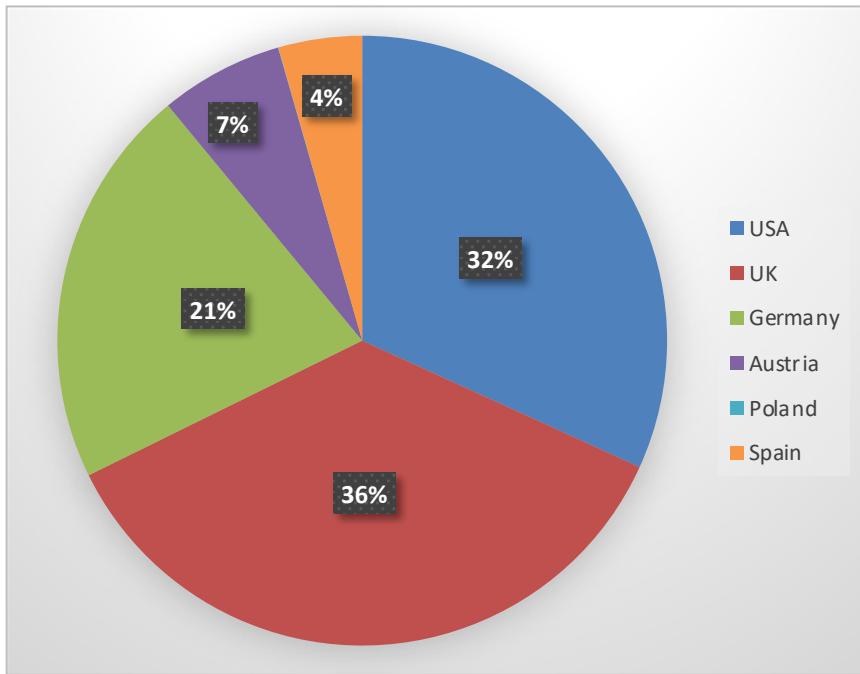
Linking Disciplines



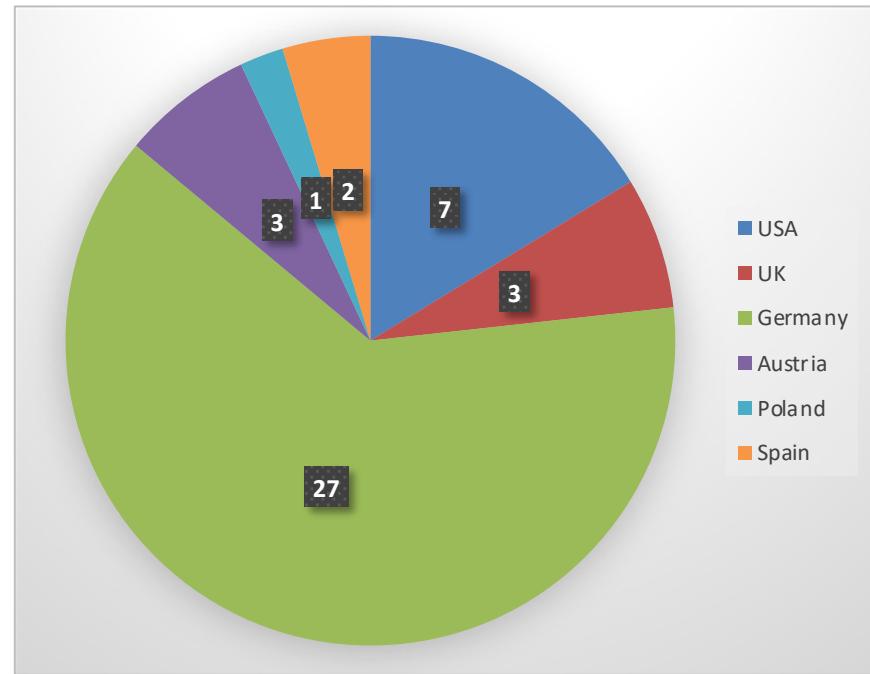
# Speaking to the wider world...



# Contributors to OCRE

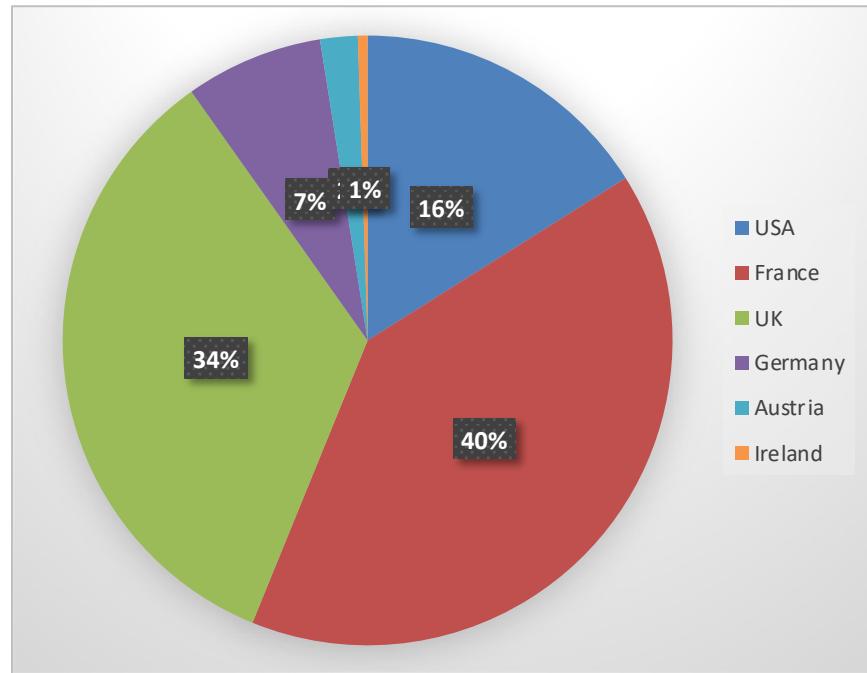


Coins / country  
(132,074)

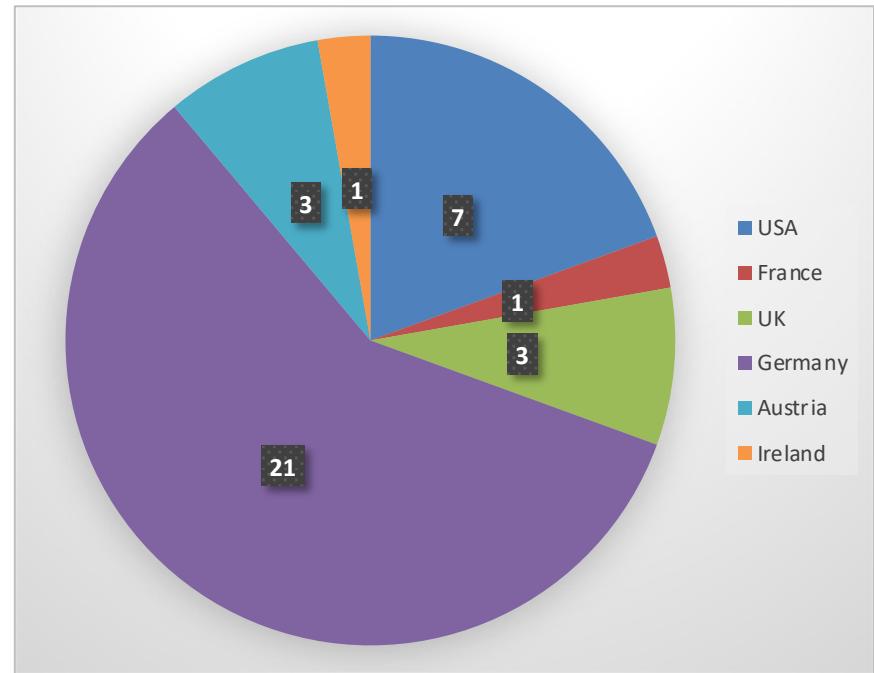


Projects / country  
(43)

# Contributors to CRRO



# Coins / country (50,409)



## Projects / country (36)



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[viaf.org/viaf/5240736](http://viaf.org/viaf/5240736)



Money, Data, Tea and Sympathy:



{BnF}



Münzkabinett  
Staatliche Museen zu Berlin



Portable  
Antiquities  
Scheme  
[www.finds.org.uk](http://www.finds.org.uk)



NATIONAL ENDOWMENT FOR THE  
Humanities



The British  
Museum



Arts & Humanities  
Research Council

I  
S  
A  
W

The End