



The Linked Open Data revolution in numismatics

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.

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.

Examples of 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/id/axis>. The 'axis' is the angular relationship between the obverse and reverse of a coin.
- <http://nomisma.org/id/ephesus>. The 'mint' at Ephesus. Nomisma relates this numismatic concept to other URIs such as wikipedia, Pleiades, Getty thesauri, and the British Museum.



augustus (foaf:Person)

- skos:prefLabel: Август (bg), August (ca), Augustus (cs), Augustus (de), Αύγουστος (el), Augustus (en), César Augusto (es), Augustus (fi), Auguste (fr), Caius Octavianus Caesar Augustus (hu), Augusto (it), アウグストゥス (ja), 아우구스투스 (ko), Augustus (nl), Augustus (no), Oktawian August (pl), Augusto (pt), Augustus (ro), Август (ru), Augustus (sv), Октавиан Август (uk), Augustus (vi), 奧古斯都 (zh)
- skos:definition (en): Roman Emperor from 16 January 27 BC to 19 August AD 14.
- dcterms:isPartOf: http://nomisma.org/id/roman_numismatics
- org:hasMembership: http://nomisma.org/id/augustus#roman_emperor
- rdf:type: skos:Concept
- skos:exactMatch: <http://collection.britishmuseum.org/id/person-institution/57074>
- skos:exactMatch: <http://dbpedia.org/resource/Augustus>
- skos:exactMatch: <http://viaf.org/viaf/18013086>
- skos:exactMatch: <http://vocab.getty.edu/ulan/500058949>

#roman_emperor (org:Membership)

- nmo:hasStartDate: 27 B.C.
- org:role: http://nomisma.org/id/roman_emperor

Contributors

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

- The American Numismatic Society
- Paris Sorbonne Université
- Portable Antiquities Scheme
- The British Museum
- Arts & Humanities Research Council
- Münzkabinett, Staatliche Museen zu Berlin
- Deutsches Archäologisches Institut
- Romanian Academy
- Goethe Universität, Frankfurt



Using nomisma.org to link data repositories

Coin Hoards of the Roman Republic (CHRR) – <http://numismatics.org/chrr>

An online inventory of hoards of Roman coins closing up to AD 14

Online Coins of the Roman Empire (OCRE) – <http://numismatics.org/ocre>

A multilingual virtual catalogue of major international collections of Roman Imperial Coins to AD 491 (American Numismatic Society, British Museum, Münzkabinett Berlin)

The nomisma ontology (namespace nmo:)

A central feature of nomisma.org is an ontology defining classes and properties that are specific to the domain of numismatics, for example:

Classes

- nmo:CoinWear: Wear on a coin occurring as a result of its use.
- nmo:Mint: Generic term for a place of manufacture of a coin or for the issuing city.

Properties

- nmo:hasPortrait: Identifies the person whose portrait appears on a numismatic object
- nmo:hasAxis: Describes the directional relationship between the obverse and reverse of a numismatic object

Current and previous versions of the nomisma ontology are available as RDF or TTL files at:

<http://nomisma.org/ontology>

Here is an example for coin ID 1678 in the coin-find database AFE-WEB



```
<http://afe.dainst.org:8080/AFE_RGK/show_coin?coin_id=1678> rdf:type nmo:NumismaticObject ;
nmo:hasAppearance <http://afe.dainst.org:8080/AFE_RGK/show_picture?pic_id=22&id=1678>;
nmo:hasDenomination <http://nomisma.org/id/denarius>;
nmo:hasAuthority <http://nomisma.org/id/vespasian>;
nmo:hasMint <http://nomisma.orghttp://nomisma.org/id/rome/id/rome>;
nmo:hasDate "75";
nmo:hasTypeSeriesItem <http://numismatics.org/ocre/id/ric_2_1(2).ves.777>;
nmo:hasCollection <http://museen.de/stadt-und-industriemuseum-wetzlar.html/> .
```

Format and archiving of nomisma.org

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

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>

Contact

Dr. David Wigg-Wolf
david.wigg-wolf@dainst.de

Römisch-Germanische Kommission
Palmengartenstrasse 10-12
60325 Frankfurt am Main

www.dainst.de