Connecting Coins Around the Globe

Numismatics and Linked Open Data

«Chur» (Zurich), 6 June 2020

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What is Numismatics?

Numismatics (Greek: nomisma=coin) is the study of coins, monetary history and all the connected topics.

Why are Numismatists pushing LOD?

HENRICVS REX

BASILEA CIVITAS

This is the best-preserved specimen of a coin type of Henry II, minted in Basle (around 1006-1014 AD).

It was deciphered last year (2019) for the first time, after comparison with all the other known specimens of that type, changing it from Conrad I of Burgundy to Henry II, king of the Romans.

Why are Numismatists pushing LOD?

Coins are mass objects but at the same time objects with individual characteristics

We need all the information of all the linked specimens, often from various collections and publications.

...heterogeneous data makes our lives difficult.

Why are LOD-people fans of Numismatics?

Numismatics has been highly standardized and normalized for over a hundred years.

It has developed a specialized ontology long before computer science.

As a discipline with connections to history as well as to archaeology and history of the arts, numismatics is traditionally highly interlinked with neighbouring disciplines

Nomisma.org – what, why, how?

Available datasets based on nomisma.org:

http://nomisma.org/datasets

Sparql endpoint:

http://nomisma.org/sparql

What?
Numismatic reference data

Why?
To make our lives easier and more fun

How?
5 star linked open data – one machine readable stable URI for every numismatic concept

Nomisma.org – what, why, how?

- Monthly: Google-Hangout of the steering committee

- Annually: meeting of the steering groups of nomisma.org/ECFN, including our workshops on specific questions: varying locations, embracing the local scientific community
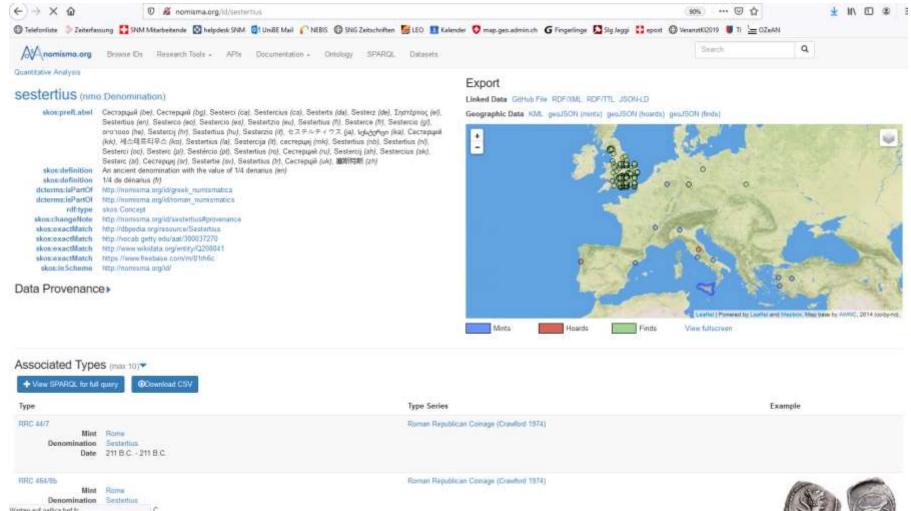
Rule of thumb:

«If more than one person agrees on a numismatic concept, it is a numismatic concept!»
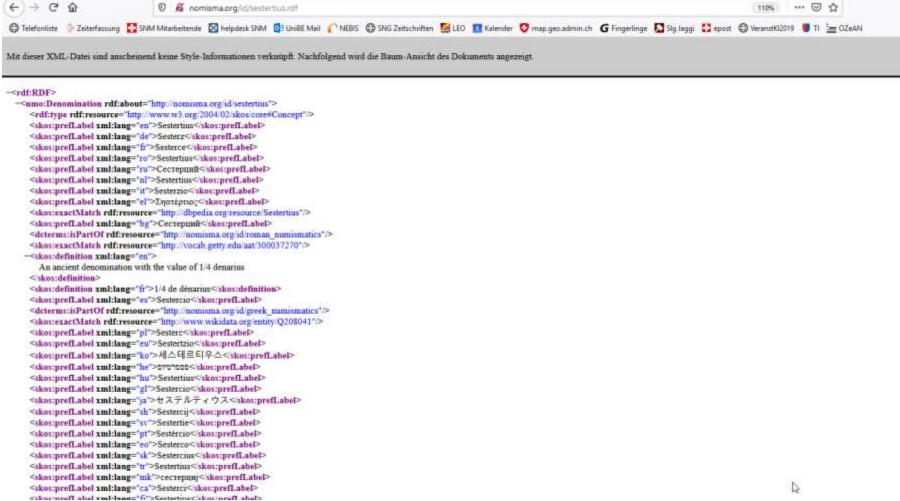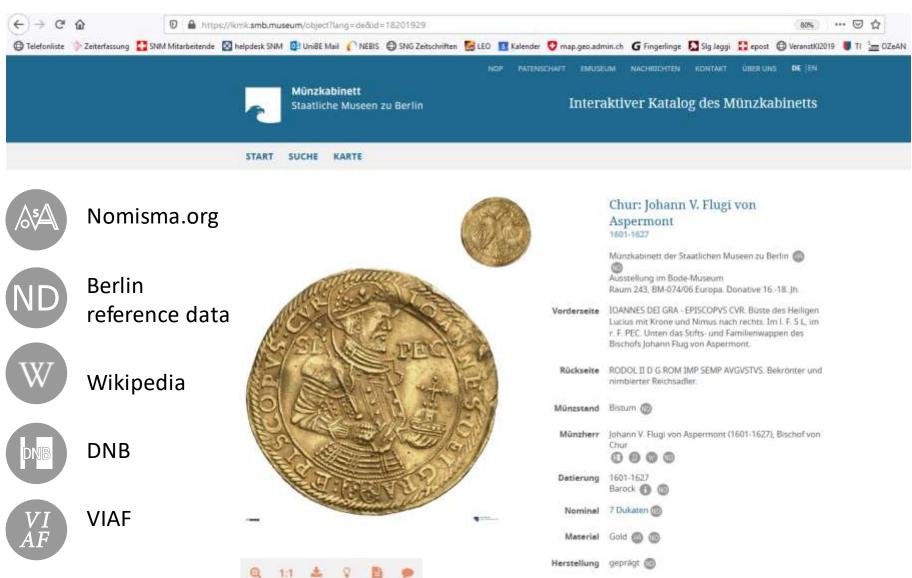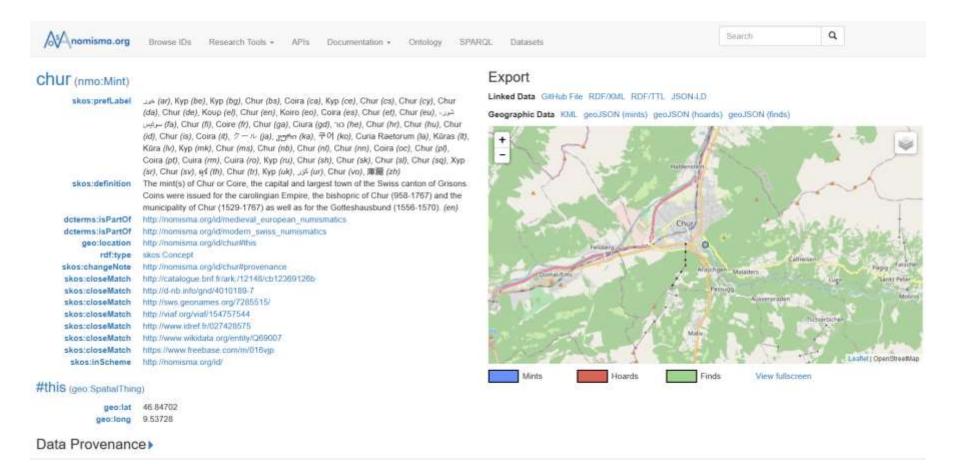
Nomisma.org – what, why, how?

Nomisma.org – what, why, how?

Using LOD for (online) collections

Nomisma.org

Berlin
reference data

Wikipedia

DNB

VIAF

Using LOD for (online) collections

Using LOD for (online) typologies

http://numismatics.org/ocre/id/ric.1(2).aug.2B

Using LOD for (online) typologies

```xml
-<rdf:RDF>
  -<nmo:TypeSeriesItem rdf:about="http://numismatics.org/ocre/id/ric.1(2).aug.2B">
     <rdf:type rdf:resource="http://www.w3.org/2004/02/skos/core#Concept"/>
     <skos:prefLabel xml:lang="en">RIC I (second edition) Augustus 2B</skos:prefLabel>
     <skos:definition xml:lang="en">RIC I (second edition) Augustus 2B</skos:definition>
     <dcterms:source rdf:resource="http://nomisma.org/id/ric"/>
     <dcterms:replaces rdf:resource="http://numismatics.org/ocre/id/ric.1(2).aug.2b"/>
     <nmo:representsObjectType rdf:resource="http://nomisma.org/id/coin"/>
     <nmo:hasManufacture rdf:resource="http://nomisma.org/id/struck"/>
     <nmo:hasDenomination rdf:resource="http://nomisma.org/id/denarius"/>
     <nmo:hasMaterial rdf:resource="http://nomisma.org/id/ar"/>
     <nmo:hasAuthority rdf:resource="http://nomisma.org/id/augustus"/>
     <nmo:hasIssuer rdf:resource="http://nomisma.org/id/p_carisius"/>
     <nmo:hasMint rdf:resource="http://nomisma.org/id/emerita"/>
     <nmo:hasRegion rdf:resource="http://nomisma.org/id/lusitania"/>
     <nmo:hasStartDate rdf:datatype="http://www.w3.org/2001/XMLSchema#gYear">-0025</nmo:hasStartDate>
     <nmo:hasEndDate rdf:datatype="http://www.w3.org/2001/XMLSchema#gYear">-0023</nmo:hasEndDate>
     <nmo:hasObverse rdf:resource="http://numismatics.org/ocre/id/ric.1(2).aug.2B#obverse"/>
     <nmo:hasReverse rdf:resource="http://numismatics.org/ocre/id/ric.1(2).aug.2B#reverse"/>
     <void:inDataset rdf:resource="http://numismatics.org/ocre/"/>
  </nmo:TypeSeriesItem>
  -<rdf:Description rdf:about="http://numismatics.org/ocre/id/ric.1(2).aug.2B#obverse">
     <nmo:hasLegend>IMP CAESAR AVGVST</nmo:hasLegend>
     <dcterms:description xml:lang="en">Head of Augustus, bare, left</dcterms:description>
     <nmo:hasPortrait rdf:resource="http://nomisma.org/id/augustus"/>
  </rdf:Description>
  -<rdf:Description rdf:about="http://numismatics.org/ocre/id/ric.1(2).aug.2B#reverse">
     <nmo:hasLegend>P CARISIVS LEG PRO PR</nmo:hasLegend>
     <dcterms:description xml:lang="en">Round shield, spear-head, and curved sword</dcterms:description>
  </rdf:Description>
</rdf:RDF>
```
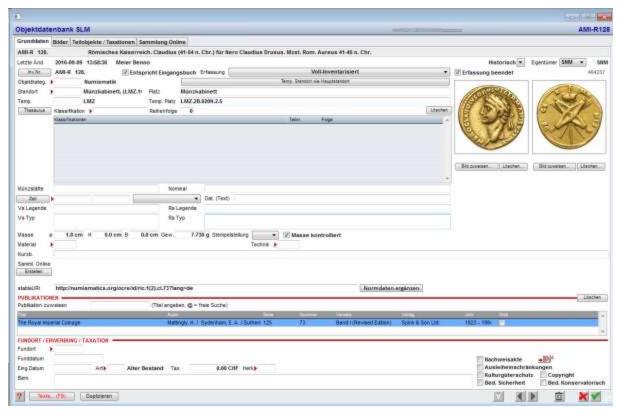
http://numismatics.org/ocre/id/ric.1(2).aug.2B.rdf

Using LOD in numismatic daily life

- Harvest data (sparql queries)

- Searching for anomalies in the data

- Matching similar data with same phenomena

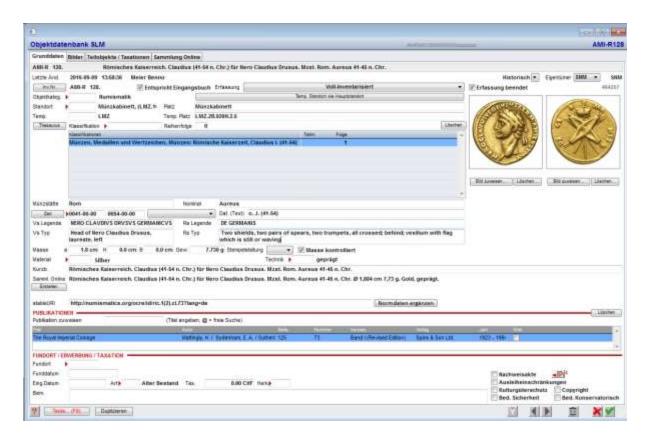- Update new results (e.g. attribution to another king) simultaneously in all connected databases

Example of use: automation enabled by LOD

Determine the coin type and fill in the stable URI of that type…

Example of use: automation enabled by LOD

… all the needed fields are completed via a predefined sparql query.

This saves time and helps to be consistent with the entries at the same time!

Thank you for your attention!

(I'm happy to answer any question)