FROM THE LIMC VOCABULARY TO LOD

Current and Expected Uses of the Multilingual Thesaurus TheA

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From the LIMC Vocabulary to LOD: TheA

• Why the need for a controlled vocabulary?

• 1.3 – From a controlled vocabulary to a standards–compliant thesaurus
  • 1.3.1 – SKOS–compliant
  • 1.3.2 – Some principles of TheA
  • 1.3.3 – Envisaged improvements
  • 1.3.4 – ISO 25964–compliant

• 1.4 – Linked Data: opening new ways
  • 1.4.1 – Multilingualism
  • 1.4.2 – Gazetteer
  • 1.4.3 – Periods and other experiments
1.2 – Why the need for a controlled vocabulary?

LIMC
1981-2009

LIMC-France

+/- 40 000 studies

+/- 50 000 images

LIMC-France

+/- 40,000 studies
+/- 50,000 images

Thesaurus TheA

Databases & Web site
1.2 – Databases & TheA ➔ Linked (Open) Data *(work in progress)*

- Ontology, model...
  ➔ Cultural Heritage (object...) ➔ CIDOC CRM LIDO, HADOC, EDM...
  ➔ thesaurus ➔ SKOS, ISO25964
- Vocabulary, thesaurus ➔ THEA
- URI ➔ ancient objects
  ➔ TheA : concepts/terms
- RDF ➔ cf. CLAROS (RDFs)
- http://

**LOD cloud diagram (2014-08-30)**
http://lod-cloud.net/

Databases – TheA – Web site
## 1.3.1– From a controlled vocabulary to a SKOS–compliant thesaurus

**TheA : Thésaurus–Antiquité**

### COMPONENTS OF THE CONTROLLED VOCABULARY 1981

<table>
<thead>
<tr>
<th>Component</th>
<th>Use in the Databases/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>object types</td>
<td>ancient object</td>
</tr>
<tr>
<td>materials</td>
<td>ancient object</td>
</tr>
<tr>
<td>artistic domains / techniques</td>
<td>ancient object</td>
</tr>
<tr>
<td>cultural areas (geographical areas)</td>
<td>production of the object</td>
</tr>
<tr>
<td>mythological &amp; historical characters’names</td>
<td>iconography beared by the object</td>
</tr>
<tr>
<td>→ general list Name</td>
<td></td>
</tr>
</tbody>
</table>

### COMPONENTS ADDED IN 1998 IN TheA

<table>
<thead>
<tr>
<th>Component</th>
<th>Use in the Databases/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>artists/ workshops</td>
<td>ancient object</td>
</tr>
<tr>
<td>places</td>
<td>previous and current locations of the object</td>
</tr>
<tr>
<td>periods of time</td>
<td>creation, production of the object</td>
</tr>
<tr>
<td>iconographic keywords &amp; themes</td>
<td>iconography beared by the object</td>
</tr>
<tr>
<td>mythological characters’names from the</td>
<td>references to the <em>LIMC</em> (and iconography)</td>
</tr>
<tr>
<td><em>Lexicon</em></td>
<td></td>
</tr>
<tr>
<td>→ <em>Article–LIMC</em></td>
<td></td>
</tr>
</tbody>
</table>
1.3.1- TheA: a SKOS-compliant multilingual thesaurus

**Micro-thesauri**
- 250 object types
- 90 materials
- 26 artistic domains & techniques
- 200 cultural areas
- 450 periods of time
- 7500 places (& spatial data)
- 700 key-words & 2500 mythological names
- 3000 mythological names in the LIMC

**Semantic relations**

**Hierarchical relations**
- Polyhierarchy
- Broader Term (BT) / Narrower Term (NT)

**Associative relations (RT)**
- synonym
- variant term
- variant spelling

**Multilingualism**
- French (fr)
- Arabic (ar)
- English (en)
- German (de)
- Hungarian (hu)
- Italian (it)
- Russian (ru)
- Spanish (es)

⇒ + 65000 terms & translations
### 1.3.2 – Some examples

<table>
<thead>
<tr>
<th>PREFERRED LABEL</th>
<th>VARIATION</th>
<th>TYPE OF VARIATION</th>
<th>MICRO–THES.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>thunderbolt</strong></td>
<td>lightning</td>
<td>synonym</td>
<td>iconography</td>
</tr>
<tr>
<td><strong>Ulysses</strong></td>
<td>Odysseus</td>
<td>variant term</td>
<td>mythological name</td>
</tr>
<tr>
<td></td>
<td><em>Odysseus / Ulixes / Uthuze</em></td>
<td><em>LIMC version</em></td>
<td></td>
</tr>
<tr>
<td><strong>Annaba</strong></td>
<td>Hippo Regius</td>
<td>ancient place name</td>
<td>place</td>
</tr>
<tr>
<td></td>
<td><em>Hippone</em></td>
<td><em>old place names</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Bône</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **vase** (BT)   | gem (BT) | magical gem (NT) |
|                 |          |                  |
| **alabastron** (NT) | stele (BT) | decree stele (NT) |
| **aryballos** (NT) |          | grave stele (NT)  |
| **amphora** (NT) |          | votive stele (NT) |
| **bowl** (NT)    |          |                  |

...
1.3.2 – Some principles of TheA...

animal (BT)

bird (NT) (BT)

eagle (NT)

An eagle on a Corinthian aryballos. 
(BnF, De Ridder.113) :
http://medaillesetantiques.bnf.fr/ark:/12148/c33gbzztq

Jupiter in the shape of an eagle, with Ganymede, on a jewel 
(BnF, inv.56.200) 
http://medaillesetantiques.bnf.fr/ark:/12148/c33gbhb6q

an eagle as Jupiter’s attribute on a roman cameo (BnF, 
Camée.5):
http://medaillesetantiques.bnf.fr/ark:/12148/c33gb1cq62

Photogr. : S. Oboukhoff. © BnF / CNRS, MAE
1.3.2 – Some principles


→ TheA: Aphodite / Venus / Turan
   Greek / Latin / Etruscan

• Modern terms rather than ancient terms: lionskin vs leonte (leonte is hidden)
• Specific ancient words selected as preferred labels: thrysos
Some possible links within LIMC–France and the LOD.
1.3.4 – ISO 25964-compliant

*TheA* in a SKOS & ISO25964 compliant OpenSource online tool

ISO 25964-1:2011

Ministère de la Culture et de la Communication

Ginco
1.3.4 – ISO 25964-compliant : OpenTheso (front end)

OpenTheso, M. Rousset (beta version). TRD FRANTIQL-MOM-CNRS (data from PACTOLS)

29/09/2014
1.3.4 – ISO 25964–compliant : OpenTheso (Arabic & back end)

OpenTheso, M. Rousset (beta version). TRD FRANTIＱ-MOM-CNRS (data from PACTOLS)

29/09/2014
A.-V. SZABADOS : From LIMC-France to LOD : TheA
TheA in a new application...

Attributes (DC) → TheA → context

Thesaurus concept
PreferredTerm / NonPreferredTerm

TopTerm

CompoundTerm
Compound Equivalence
→ wreath + laurel

ConceptGroups
ConceptGroupLabel
→ mythological character
→ historical character

Array ?

Associations → attributes
Alignment → attributes
→ broadMatch / closeMatch / relatedMatch...

bold = new
Thesauri & alignments ?...

Alignments with ...? :
- Vocabularies of the French Ministère de la Culture
- PACTOLS → archaeology, bibliographical notices...
- Getty Vocabularies AAT/ ULAN/ TGN → History of Art, artists, gazetteer...
- SENESCHAL → English Heritage
- Iconclass → iconography, themes
- Etc...

Does TheA include specific topics worthy of mapping and alignments ?
- mythological characters’ names ?
- iconographic keywords ?
- artists and workshops’ names ?...

Some possible ‘SameAs’ / ‘closeMatch’
- Typology of Greek vases : bell crater, aryballos...
- Greek vase painters’ names : Nikostenes
- Materials : silver...
- ...
1.4.2– Linked Data: opening new ways – multilingualism

now on the Web: ‘Museosphere’

11. Le projet Muséophile

- translated terms are drawn from Wikipedia via DBpedia/mashups...
- and also... HDA Lab and JocondeLab...

by Th. GROUAS

http://museosphere.net/
1.4.2 - Linked Data: Gazetteer

TheA:
Modern & ancient places
countries > regions > towns and/or ancient sites > buildings
& coordinates (latitude/longitude), variants, different spelling

ancient places → only a part of the gazetteer

PLEIADES / Pelagios: historical geographic information about the ancient world
http://pleiades.stoa.org/docs/using-our-data/pelagios

Attic... (geometry/polygons)

image by E. Gruber, *Kerameikos*
1.4.2- Linked Data: Periods ...

**PeriodO**: [http://perio.do/](http://perio.do/)

aims at “... the creation of a gazetteer not of agreed-upon, centralized, and abstracted period concepts, but of the individual assertions made by authoritative scholarly sources about the temporal and spatial boundaries of periods in particular contexts”

[RABINOWITZ, SHAW, KANSA 2014]
Cultural area : time + place + style?
TheA in the Semantic web & the Linked Data...

Semantic web

Linked (Open) Data
improved quality
complementarity

epigraphy...

LIMC-France: ancient object with inscription  epigraphy ‘on line’
LIMC-France: documents → databases + thesaurus → website/Linked data

- geospatial data
- chronology & periods & cultural areas
- characters’ names