Getty Vocabularies LOD: Querying, Dumping, Re-Using, and Serving

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What Are the Getty Vocabularies?

AAT      TGN      ULAN      CONA
What are the Getty vocabularies?

- *Catherine wheel* or *rose window? Mona Lisa* or *La Gioconda?*

- The AAT, TGN, ULAN and CONA contain multilingual terminology and other related data to describe
  - visual art, architecture, other cultural heritage works, conservation, archaeology, archival materials, visual surrogates, and related bibliographic materials
Getty vocabularies are thesauri compliant with national (NISO) and international (ISO) standards for thesaurus construction.

They are compliant with / map to other standards:

- CDWA (Categories for the Description of Works of Art)
- CCO (Cataloging Cultural Objects)
- VRA Core (Visual Resources Association core categories)
- LIDO (Lightweight Information Describing Objects)
- etc.
The Getty Vocabularies

Discover, link, access, retrieve, research, catalogue, index
Explore art, architecture, cultural heritage, conservation, archaeology, and beyond

- Getty vocabularies are valued as authoritative
  - Grow through contributions from experts
  - Contributors and sources are cited

- Compiled, merged, edited, and published by the Getty Vocabulary Program and our talented, tireless technical team

- Data is made available in various ways: via online searching; relational tables, XML format, Web services APIs
  - Now as Linked Open Data: structured and published to make it openly accessible and shareable on the Semantic Web
    - Open Data Commons Attribution License (ODC-By) v1.0
    - Allows sharing, creation, adaptation of data with attribution

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Among the features that allow the Getty vocabularies to be used in cataloging, retrieval, and linking are the following:

- Each Getty vocabulary records and terms are identified by **unique numeric IDs**
- The Getty vocabularies are linked to each other
- The Getty vocabularies share a core data structure
Search the AAT

Find Term or ID: [Search]
Note: [AND] [OR]

Search Tips
For the Find Term or Note field, you may use AND and OR (all in upper case) [e.g., 1) windsor chairs, 2) chairs OR rockers, 3) chairs OR rockers OR armchairs, 4) bow-back AND windsor, 5) windsor AND (rockers OR chairs), 6) (windsor OR boston) AND (rockers OR chairs)]. Wildcard is the asterisk (*); right truncation only. To find an exact match rather than a key word in the Find Term field, use quotes [e.g., "chairs"]. If you wish to search the term and note together, click on the buttons for AND or OR.
Click the icon to view the hierarchy.

**Semantic View** (JSON, RDF, N3/Turtle, N-Triples)

ID: 300198841

**Record Type:** concept

**rhyta** (drinking vessels, <vessels for serving and consuming food>, ... Furnishings and Equipment (Hierarchy Name))

**Note:** Refers to vessels from Ancient Greece, eastern Europe, or the Middle East that typically have a closed form with two openings, one at the top for filling and one at the base so that liquid could stream out. They are often in the shape of a horn or an animal’s head, and were typically used as a drinking cup or for pouring wine into another vessel. Drinking was done by holding the rhyton above the drinker’s head and catching the stream of liquid in the mouth.

**Terms:**

- **rhyta** *(preferred,C,U,LC,English-P,D,U,PN)*
  - (Greek (transliterated)-P,D,U,PN)
  - (Spanish,UF,U,PN)
- **rhyton** *(C,U,English,AD,U,SN)*
  - (Greek (transliterated),AD,U,SN)
  - (Spanish,AD,U,SN)
- **Rhyton** *(C,U,English,AD,U,SN)*
- **rhytons** *(C,U,English,UF,U,N)*
  - (French-P,D,U,PN)
  - (Spanish-P,D,U,PN)
- **rhea (vessels)** *(C,U,English,UF,U,N)*
- **rheons** *(C,U,English,UF,U,N)*
- **rheon** *(C,U,English,UF,U,N)*
- **鸆 Debbie** *(C,U,English,UF,U,N)*
- **rhéitéon** *(C,U,Ancient Greek,UF,U,U)*

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Basics of Linked Data

• Universal Resource Identifier (URI) – “an ASCII string used to identify things on the Semantic Web” (http://www.w3.org/wiki/URI)
  
  http://vocab.getty.edu/aat/300198841
  http://vocab.getty.edu/tgn/1000193

• URIs are linked to each other through triples composed of subject-predicate-object relationships
  
  <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2004/02/skos/core#prefLabel> "rhyta"@en .

• The definitions of data elements and links described by ontologies
  
  http://www.w3.org/2004/02/skos/core#
  http://www.w3.org/ns/prov#
  http://purl.org/dc/elements/1.1/

• Data is delivered to a requesting agent through a triple serialization using HTTP RDF/XML, Notation-3 (N3), Turtle, N-Triples, RDFa, JSON, JSON-LD
Existing Standards (Ontologies) Used

- **Thesaurus information**: SKOS, SKOSXL, ISO 25964
- **Common properties**: Dublin Core (DC), Dublin Core Terms (DCT)
- **Sources and contributors**: Bibliographic Ontology (BIBO), Friends of a Friend (FOAF)
- **Geographic information**: W3C Geo Ontology (WGS)
- **Revision History**: Provenance (PROV)
- **System properties**: Resource Description Framework (RDF), RDF Schema (RDFS), Web Ontology Language (OWL), and XML Schema Definition (XSD)
- **Implementation of the conversion**: RDB to RDF Mapping Language (R2RML)

Link to the HTML version of the full documentation: [http://vocab.getty.edu/doc/](http://vocab.getty.edu/doc/)
Growth of the LOD Cloud since 2007

View of LOD as of October 2007
12 Datasets

LOD as of August 2014
570 Datasets

http://lod-cloud.net/

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Our vocabularies expressed as LOD can be used to connect other resources.
Linking Possibilities: Getty Vocabularies

http://vocab.getty.edu
The Getty Vocabularies

Welcome to the SPARQL endpoint vocab.getty.edu

The Getty Vocabularies: The AAT, TGN, ULAN, and CONA contain structured terminology for art and other material culture, archival materials, visual surrogates, and bibliographic materials. Compliant with international standards, they provide authoritative information for catalogers and researchers, and can be used to enhance access to databases and Web sites. The Getty Vocabularies are produced by the Getty Vocabulary Program (GVP) and grow through contributions.

NOW Available:

**The Art & Architecture Thesaurus (AAT)**
Catherine wheel or rose window? AAT is a structured vocabulary, including terms, descriptions, and other information for generic concepts related to art and architecture.

**The Getty Thesaurus of Geographic Names (TGN)**
London or Londinium? TGN is a structured vocabulary, including names, descriptions, and other information for places important to art and architecture.

**The Union List of Artist Names (ULAN)**
Titian or Tiziano Vecellio? ULAN is a structured vocabulary, including names, biographies, and other information about artists and architects.

 Ontology Update Note: There are changes to the ontology and mapping, see Version 2.0 Changes and Version 3.0 Changes.

Documentation and Downloads:

- **GVP Semantic Representation**: HTML (for linking), PDF (for printing). Sections GVP URLs and Prefixes and Semantic Resolution describe the used URLs and provide examples. All prefixes that we use are in prefixes ttl. Comprehensive Sample Queries are included.
- **GVP ontology**: HTML, RDF/XML, Turtle
- **Datasets**: (NTriples Zip, see doc section Export Files before using!):
  - AAT: full.zip (all statements), explicit.zip (only explicit statements)
  - TGN: full.zip (all statements), explicit.zip (only explicit statements)
  - ULAN: full.zip (all statements), explicit.zip (only explicit statements)
- **VOID**: void ttl (see doc section Descriptive Information)
- **Associative Relationship Types**: Full Matrix by Codes PDF|Excel
- **General information about the Linked Open Data projects**

Explore the Dataset:

- **Text search**: Use 'AAT/TGN/ULAN' to select the vocabulary. Enter either text or concept ID in the query box. Multiple words in the text are 'AND'ed. Use 'Brief' to search only
Documentation and Downloads:

- **GVP Semantic Representation:** HTML (for linking), PDF (for printing).
  Sections GVP URLs and Prefixes and Semantic Resolution describe the used URIs and provide examples. All prefixes that we use are in prefixes.ttl. Comprehensive Sample Queries are included.
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  - ULAN: full.zip (all statements), explicit.zip (only explicit statements)
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- **Associative Relationship Types:** Full Matrix by Codes PDF|Excel
- **General information about the Linked Open Data projects**
## Full Text Search – Brief Results

### Getty Vocabularies: LOD

Results for "yute" (6 of 6)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Term</th>
<th>Parents</th>
<th>Scope Note</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>aat:300375512</td>
<td>Hibiscus cannabinus (species)</td>
<td>Hibiscus (genus), Malvaceae (family), Agents Facet</td>
<td>Species of fast growing herbaceous annual plant, with stalks growing to 5.5 m (18 feet) in height. It is probably native to southern Asia, though its exact natural origin is unknown. It is widely d...</td>
<td>Concept</td>
</tr>
<tr>
<td>aat:300014244</td>
<td>jute board</td>
<td>fiberboard, fiber products, Materials Facet</td>
<td>A strong plyboard containing no jute fiber but made typically from sulfate and wastepaper pulp, used especially for shipping containers.</td>
<td>Concept</td>
</tr>
<tr>
<td>aat:300014045</td>
<td>jute (fiber)</td>
<td>plant fiber, natural fiber, Materials Facet</td>
<td>Bast fiber derived from either of two East Indian plants (Corchorus olitorius and C. capsularis). The pale brown fibers are soft, lustrous, and coarse, ranging in length from 4 to 10 feet. The brit...</td>
<td>Concept</td>
</tr>
<tr>
<td>tgn:2786554</td>
<td>Yutes Run</td>
<td>Allegheny, Pennsylvania, World</td>
<td></td>
<td>PhysPlaceConcept</td>
</tr>
<tr>
<td>tgn:7475035</td>
<td>Yutengping</td>
<td>Miaoli Xian, Chung-hua Min-kuo, World</td>
<td></td>
<td>AdminPlaceConcept</td>
</tr>
<tr>
<td>tgn:7415324</td>
<td>Yuteriaaca, Rio</td>
<td>Oaxaca, Mexico, World</td>
<td></td>
<td>PhysPlaceConcept</td>
</tr>
<tr>
<td>Subject</td>
<td>Term</td>
<td>Parents</td>
<td>Scope Note</td>
<td>Type</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
<td>---------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
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<td>aat:300375512</td>
<td>Hibiscus cannabinus (species)</td>
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<td>Concept</td>
</tr>
<tr>
<td>aat:300014076</td>
<td>burlap</td>
<td>canvas, &lt;textile materials by process or technique&gt;, ... Materials Facet</td>
<td>Coarse canvas made of jute, used mainly for sacks and wrapping.</td>
<td>Concept</td>
</tr>
<tr>
<td>aat:300014244</td>
<td>jute board</td>
<td>fiberboard, fiber products, ... Materials Facet</td>
<td>A strong plywood containing no jute fiber but made typically from sulfate and wastepaper pulp, used especially for shipping containers.</td>
<td>Concept</td>
</tr>
<tr>
<td>aat:300253474</td>
<td>buckram</td>
<td>&lt;textile materials by finishing process&gt;, &lt;textile materials by process or technique&gt;, ... Materials Facet</td>
<td>Heavy weave cotton, jute, or linen textile stiffened with glue, size, or starch and used for interlinings in garments, box making, bookbinding, etc.</td>
<td>Concept</td>
</tr>
<tr>
<td>aat:300015203</td>
<td>oakum</td>
<td>caulking compound, sealing compound, ... Materials Facet</td>
<td>Loosely twisted hemp or jute fiber impregnated with tar or a tar derivative and used in caulking seams, as of wooden ships, and packing joints, as of pipes.</td>
<td>Concept</td>
</tr>
<tr>
<td>aat:300014078</td>
<td>canvas</td>
<td>&lt;textile materials by process or technique&gt;, textile materials, ... Materials Facet</td>
<td>Closely woven textile made in various weights, usually of flax, hemp, jute, or cotton, used especially for sails, tarpaulins, awnings, upholstery, and as a support for oil painting. Also used for a...</td>
<td>Concept</td>
</tr>
<tr>
<td>aat:300131081</td>
<td>oilcloth</td>
<td>&lt;textile materials by finishing process&gt;, &lt;textile materials by process or technique&gt;, ... Materials Facet</td>
<td>Textile of woven cotton, jute, or hemp, treated with oil and pigment and used as a waterproof covering.</td>
<td>Concept</td>
</tr>
</tbody>
</table>
rhyta

Source: http://vocab.getty.edu/aat/500198841

<table>
<thead>
<tr>
<th>Predicate</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>rdf:type</td>
<td>gvp:Concept, gvp:Subject, skos:Concept</td>
</tr>
<tr>
<td>rdfs:label</td>
<td>Rhyta@de, Rhyton@en, esanciadora@es, lai tan chiu pel@zh-latn-wadegile, lai tan jiu bei@zh-latn-pinyin-x-notone, lai tan jiu bei@zh-latn-pinyin-x-hanyu, rhea (vessels)@en, rhen@en, rheons@en, rhyta@es, rhyta@el-latn, rhyta@en, rhyton@es, rhyton@en, rhyton@el-latn, rhytions@es, rhytions@en, rhytions@fr, rhton@grc-latn, rlon@fr, rtons@fr, rton@es, rton@s@es, rton@ni, ryton@ni, purov@grc, 角杯@zh-hant, 角杯@zh-hant, 角状杯@zh-hant</td>
</tr>
<tr>
<td>rdfs:seeAlso</td>
<td><a href="http://www.getty.edu/vow/AATFullDisplay?find=&amp;logic=AND&amp;note=&amp;subjectid=500198841">http://www.getty.edu/vow/AATFullDisplay?find=&amp;logic=AND&amp;note=&amp;subjectid=500198841</a></td>
</tr>
<tr>
<td>skos:scopeNote</td>
<td>aat_scopeNote:119579, aat_scopeNote:119580, aat_scopeNote:34904, aat_scopeNote:77124, aat_scopeNote:83378</td>
</tr>
<tr>
<td>skos:inScheme</td>
<td>aat</td>
</tr>
<tr>
<td>skos:prefLabel</td>
<td>Rhyta@de, lai tan chiu pel@zh-latn-wadegile, lai tan jiu bei@zh-latn-pinyin-x-notone, lai tan jiu bei@zh-latn-pinyin-x-hanyu, rhyta@el-latn, rhyta@en, rhytions@es, rhytions@fr, rtons@ni, 角杯@zh-hant</td>
</tr>
<tr>
<td>skos:altLabel</td>
<td>Rhyton@en, esanciadora@es, lai tan jiu bei@zh-latn-pinyin-x-hanyu, rhea (vessels)@en, rhen@en, rheons@en, rhyta@es, rhyta@el-latn, rhyta@en, rhyton@es, rhyton@en, rhyton@el-latn, rhytions@es, rhytions@en, rhytions@fr, rhton@grc-latn, rlon@fr, rtons@fr, rton@es, rton@s@es, rton@ni, purov@grc, 角杯@zh-hant, 角状杯@zh-hant</td>
</tr>
</tbody>
</table>
2.6 Full Text Search Query

This is the query used for the Full Text Search:

```sparql
select ?Subject ?Term ?Parents ?Descr ?ScopeNote ?Type (coalesce(?Type1, ?Type2) as ?ExtraType) {
  ?Subject luc:term "fishing" AND vessel"; a ?typ.
  ?typ rdfs:subClassof gvp:Subject; rdfs:label ?Type.
  filter (?typ != gvp:Subject)
  optional {?Subject gvp:placeTypePreferred [gvp:prefLabelGVP [xl:literalForm ?Type1]]}
  optional {?Subject gvp:agentTypePreferred [gvp:prefLabelGVP [xl:literalForm ?Type2]]}
  optional {?Subject gvp:prefLabelGVP [xl:literalForm ?Term]}
  optional {?Subject gvp:parentStringAbbrev ?Parents}
  optional {?Subject foaf:focus /gvp:biographyPreferred/schema:description ?Descr}
  optional {?Subject skos:scopeNote [dct:language gvp_lang:en; rdf:value ?ScopeNote]}
}

OPTIONAL {?parent gvp:broadernPreferred ?grandParent}
```

If the user selected Brief, we use predicate luc:term (just before the red text), for Full, we use predicate luc:term.
SPARQL Query Using AAT to Find TGN Data

Get all nations from TGN for a lookup list:
Find “Nation” concept in AAT -> 300128207
Query LOD -> select * {?s gvp:placeType aat:300128207; gvp:prefLabelGVP/xl:literalForm ?pTerm}
What do the artists of these works of art have in common?

Joseph Heintz, the elder
*The Toilette of Venus*

Jean-Honoré Fragonard
*Ruins of an Imperial Palace, Rome*

Robert Macpherson
*The Campagna near Rome*
All three were active in Italy but were not Italian.

**SPARQL Query**

```sparql
select ?x ?name ?bio ?birth {
  {select distinct ?x
   {?x foaf:focus/bio:event/((schema:location | (schema:location/gvp:broaderExtended)) tgn:1000080-place)}
    ?x gvp:prefLabelGVP/xl:literalForm ?name;
    foaf:focus/gvp:biographyPreferred [schema:description ?bio;
    gvp:estStart ?birth].
  filter (“1550”^^xsd:gYear <= ?birth && ?birth <= ”1900”^^xsd:gYear)
  filter exists {?x gvp:broaderExtended ?facet.
    filter (?facet in (ulan:500000002))
    filter not exists {
      ?x foaf:focus/((schema:nationality | (schema:nationality/gvp:broaderExtended)) aat:300111198) }}
}
```

- Just one of the ways to get interesting results using all three vocabularies.
- The full URIs are:
  - Italy: [http://vocab.getty.edu/tgn/1000080-place](http://vocab.getty.edu/tgn/1000080-place)
  - Person, Artists facet: [http://vocab.getty.edu/ulan/500000002](http://vocab.getty.edu/ulan/500000002)
  - Italian (culture or style): [http://vocab.getty.edu/aat/300111198](http://vocab.getty.edu/aat/300111198)
Reconciliation is the process of connecting local data to vocabulary concepts/people/places.

OpenRefine (openrefine.org) is a tool for cleaning, transforming and extending data with web services and external data.

Getty Vocabularies sample queries for using OpenRefine:

http://vocab.getty.edu/queries#OpenRefine_Reconciliation_Service
### 3.13 OpenRefine Reconciliation Service

OpenRefine (formerly Google Refine) is a popular and powerful tool for working with messy tabular data: cleaning it, transforming it (including to LOD), extending it with web services, linking it to structured databases. It was originally used for populating Freebase, then open sourced by Google. DERI created some useful extensions: Reconcile & interlink, Export RDF. LODRefine is a repackaging of these extensions, adding reconciliation against DBpedia, Crowd-sourcing, and Statistics. It was popularized for use by GLAM professionals by Ruben Verborgh, Seth Holland and Max De Wilde through the sites [http://openrefine.org/](http://openrefine.org/) and [http://freeyourmetadata.org/](http://freeyourmetadata.org/).

A question has been asked whether GVP LOD can be used as an OpenRefine reconciliation service. The DERI extension includes a "SPARQL full-text search-based Reconciliation" that unfortunately cannot be used, because there’s no way to specify that the lucene index should be used (see issue/33). Nevertheless, one can use the GVP SPARQL service by querying for a fixed label (similar to **Find Subject by Exact English Preferred**), getting JSON format and parsing the result. Inge van Stockum of the Rijksmuseum worked out a detailed solution. We reproduce it here with a few changes. Assume you have NL labels and you want to look them up in AAT and fetch the AAT identifier and the NL preferred label.

- Create a column by fetching a URL based on the column that contains the terms

```sparql
'sparql://vocab.getty.edu/sparql.json?query=select+distinct+{?x+in+Scheme+aal;+ (x+prefLabel+aal+label+gvp+term) }+escape(value,'url')+39%27%27)
```

- Parse the JSON to obtain the URL:

```javascript
value.parseJson().results.bindings[0].x.value
```

- Parse the identifier out of the URL by adding a column based on this column:

```javascript
value(27, 37)
```

- Use another query to fetch prefLabelGVP:

```sparql
'sparql://vocab.getty.edu/sparql.json?query=select+?x+where+{?x+gvp+prefLabelGVP+skosxl:literalForm+?label+decidentifier}+escape(value,'url')+39%27%27)
```

- Parse the JSON to obtain the label:

```javascript
value.parseJson().results.bindings[0].label.value
```

See **Combination Full-Text and Exact String Match** for another variant of a query that may work better for reconciliation.
### OpenRefine Example

#### Create Project
- **Open Project**
- **Import Project**
- **Language Settings**

#### Configure Parsing Options

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sting-bullets</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1551880</td>
</tr>
<tr>
<td>Finials</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1551895</td>
</tr>
<tr>
<td>Scaraboids</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1551854</td>
</tr>
<tr>
<td>Architavus</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1551851</td>
</tr>
<tr>
<td>Xylophones</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1551862</td>
</tr>
<tr>
<td>Ephemera</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1547300</td>
</tr>
<tr>
<td>Akrotaria</td>
<td>Beazley Archive Dictionary</td>
<td>1547709</td>
</tr>
<tr>
<td>Chalices</td>
<td>GettyGuide glossary term</td>
<td>1551736</td>
</tr>
<tr>
<td>Statelars</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1551749</td>
</tr>
<tr>
<td>Medallions</td>
<td>GettyGuide glossary term</td>
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</tr>
<tr>
<td>Sesterlifì</td>
<td>Art &amp; Architecture Thesaurus®</td>
<td>1551796</td>
</tr>
<tr>
<td>Hecte</td>
<td></td>
<td>1551798</td>
</tr>
</tbody>
</table>

#### Parse data as

- **Excel files**
- **JSON files**
- **Line-based text files**
- **CSV / TSV / separator-based files**
- **Fixed-width field text files**
- **PC-Axis text files**
- **MARC files**
- **RDF/N3 files**
- **XML files**

- **Worksheets to Import**
  - Sheet1: 546 rows

- **Options**
  - Ignore first 0 line(s) at beginning of file
  - Parse next 1 line(s) as column headers
  - Discard initial 0 row(s) of data
  - Load at most 0 row(s) of data

- **Additional Settings**
  - Store blank rows
  - Store blank cells as nulls
  - Store file source (file names, URLs) in each row
Add column by fetching URLs based on column Column 1

New column name: Reconcile1
Throttle delay: 5000 milliseconds
On error: set to blank

Formulate the URLs to fetch:

Expression Language General Refine Expression Language (GREL)

```
'http://vocab.getty.edu/sparql.json?query=select+distinct*
{x+skos:inScheme+aat;\[(xl:prefLabel\xl:altLabel)/gvp:term\]+escape(toLowerCase(trim(value)), 'url') + '@en'}
```

Preview

<table>
<thead>
<tr>
<th>row</th>
<th>value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sling-bullets</td>
</tr>
</tbody>
</table>

OK Cancel
Using facets and filters

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?
Watch these screencasts

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Reconcile1</th>
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Find Name: **Akroteria**

Logic:

Note: 1 result

Click the icon to view the hierarchy.
Check boxes to view multiple records at once.

1. **acroteria**
   (<culminating and edge ornaments for architectural>, architectural elements, ... Components (hierarchy name)) [3000002214]
   **Akroteria**
ID: 300002214

**Record Type:** concept

**acroteria** (<culminating and edge ornaments for architectural>, architectural elements, ... Components (hierarchy name))

**Note:** The figures or ornaments at the lower angles or apex of a pediment, generally supported on plinths.

**Terms:**
- acroteria *(preferred,C,U,LC,English-P,D,U,PN)*
- acroterion *(C,U,English,AD,U,SN)*
- acroterium *(C,U,English,UF,U,N)*
- acroters *(C,U,English,UF,U,N)*
- 平底三角牆頭飾 (C,U,Chinese (traditional)-P,D,U,U)*
- 三角牆頭屋頂雕像 (C,U,Chinese (traditional),UF,U,U)*
- 三角牆頭雕像底座 (C,U,Chinese (traditional),UF,U,U)*
- 雕刻飾物 (C,U,Chinese (traditional),UF,U,U)*
- 頭 (C,U,Chinese (traditional),UF,U,U)*
- 山牆飾物底座 (C,U,Chinese (traditional),UF,U,U)*
- p'ing di sän jiao qiáng ding shì dì (C,U,Chinese (transliterated Hanyu Pinyin)-P,UF,U,U)*
- p'ing di san jiao qiang ding shi di (C,U,Chinese (transliterated Pinyin without tones)-P,UF,U,U)*
- p'ing ti san chiao ch'iang ting shih ti (C,U,Chinese (transliterated Wade-Giles)-P,UF,U,U)*
- acroteriën *(C,U,Dutch-P,D,U,U)*
- Akroterien *(C,U,German,D,PN)*
- Akroterion *(C,U,German-P,AD,SN)*
- Akroter *(C,U,German,UF,SN)*
- Akrote (C,U,German,UF,PN)*
- Akroteren *(C,U,German,UF,PN)*
- Akroteria *(C,U,German,UF,PN)*
- acróteras *(C,U,Spanish-P,D,U,PN)*
- acrótera *(C,U,Spanish,AD,U,SN)*
- acroterio *(C,U,Spanish,AD,U,SN)*
- acrotera *(C,U,Spanish,UF,U,SN)*
Community Support Forum

We hope the community will use this gettyvocablrd forum to ask questions, discuss issues, and find solutions related to the technical aspects of this publication. Usage examples are especially welcome.

Welcome to our community discussion... announcement
By Getty Vocabularies LOD - 1 post - 75 views 6/11/15

Why ISO-8859-1 coding is needed
By Christopher Johnson - 7 posts - 18 views Apr 10

large results download limits
By Matthew Lincoln - 2 posts - 22 views Mar 8

Getting more data out of ULAN
By Vladimir Alexiev - 3 posts - 50 views Jan 31

ULAN Import Error Completed
By Nabeel Ahmed - 2 posts - 18 views Jan 13

How to get all Subjects of a Given Parent in ULAN
By Ykje - 3 posts - 23 views 12/22/15

Help with a query
By Karan - 2 posts - 25 views 12/22/15

Wrongly merged biographies
By Gabriel Kerneis - 2 posts - 13 views 12/15/15

Tweets

you know / just indexing a copy @thegetty’s github.com/thisisaaronlan... in a copy of @mapzen ‘s github.com/pelias/pelias on a lazy saturday

pelias/pelias
pelias - Pelias is a modular open-source geocoder using ElasticSearch for fast geocoding.
github.com
Some Useful Resources and Links

▶ Tim Berners-Lee TED Talk
  - http://www.ted.com/talks/tim_berners_lee_the_year_open_data_went_worldwide.html

▶ Europeana Video
  - Sometimes a picture is worth a thousand words – in this case, it’s a video
  - http://vimeo.com/36752317

▶ Eero Hyvönen’s book
  - Publishing and Using Cultural Heritage Linked Data on the Semantic Web

▶ Linked Open Data in Libraries Archives and Museums (LODLAM)
  - http://lodlam.net/

▶ Open Memory Project
  - http://summit2015.lodlam.net/2015/04/21/challenge-entry-open-memory-project
Links to Vocabularies Resources

Developer SPARQL Endpoint

http://vocab.getty.edu

General Information about our LOD project

http://www.getty.edu/research/tools/vocabularies/lod/index.html

About the Getty Vocabularies in general

http://www.getty.edu/research/tools/vocabularies/index.html

Public Forum

https://groups.google.com/forum/#!forum/gettyvocablod

Examples of ID 300198841

Human readable: http://vocab.getty.edu/page/aat/300198841

Machine readable: http://vocab.getty.edu/aat/300198841
The Future of the Getty Vocabularies LOD

- Current effort underway at the Getty to bring together all institutional data sets under one semantic architecture online.
- Focus will shift to providing the data in forms that are easier to understand and use, and services for both humans and machines on top of the data to help with discovery and reconciliation.
- ULAN data model / ontology first to be changed with standards such as CIDOC-CRM and Schema.org being evaluated.
- AAT ontology definition will likely not change significantly.
- TGN ontology definition will most likely change, but options have yet to be evaluated.
Take the Survey!

Please help us understand your needs as we consider the future architecture of the Getty Vocabularies LOD implementation:

https://www.surveymonkey.com/r/gettyvocabslod