The Getty Vocabularies: Content Review and Usage Status

CICOC 2017, Tbilisi, Georgia
Gregg Garcia, Software Architect
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The Getty Vocabularies

• Part 1 - Multilingual Thesauri for Access to Art History

• Part 2 - Linked Open Data and the Getty Vocabularies: Expanding Access

• Part 3 - Usage Examples and Future Initiatives

• Part 4 - Conclusion: The Vocabulary Program’s Commitment to Access
The Getty Vocabularies

Discover, link, access, retrieve, research, catalog, index

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

- The Getty Vocabularies are structured vocabularies that comply with national and international standards for thesaurus construction.
- They contain multilingual terminology and other related data for art, architecture, other cultural heritage works, conservation, archaeology, archival materials, visual surrogates, and bibliographic materials.
- The Getty vocabularies allow for categorization, indexing, and powerful retrieval of information.
- For each concept, a preferred term is flagged, representing common usage in authoritative sources; users may choose that term, or use any of the other terms in the record.
The Getty Vocabularies
Discover, link, access, retrieve, research, catalog, index

- **Art & Architecture Thesaurus®**
  AAT = terms for generic concepts, relationships, other data
  - (e.g., watercolors, amphora, asa-no-ha-toji)

- **Getty Thesaurus of Geographic Names®**
  TGN = names for administrative, physical places, relationships, historical information, coordinates, other data
  - (e.g., Diospolis, Acalán, Ottoman Empire, Ganges River)

- **Union List of Artist Names®**
  ULAN = names for people, corporate bodies, biography, relationships, other data
  - (e.g., Christopher Wren, Altobelli & Molins, Anp'yŏng Taegun)

- **Cultural Objects Name Authority®**
  CONA = not only titles/names of art and architecture
  - (e.g., Mona Lisa, Livre de la Chasse, Chayasomesvara Temple)
  - **In development:** CONA links rich metadata for works to allow a conduit for research and discovery in the broader, ever expanding arena of digital art history

- **Getty Iconography Authority**
  - (e.g., Adoration of the Magi, Zeus, French Revolution, Der Ring des Nibelungen, Reclining Buddha)
  - **In development:** Now a module of CONA, includes names for iconographical narratives, religious or fictional characters, historical events, names of literary works and performing arts

Patricia Harpring © 2016 J. Paul Getty Trust. For educational purposes. Images may be subject to additional copyright
• Developed in the 1980s from a need within the museum and library communities

• Standardized, well-sourced vocabularies for collection management systems

• Free, open, and collaborative

• International and multilingual

• Metadata: the key to art and image access

• Consistently one of the most popular tools on the Getty website
The Getty Vocabularies

Discover, link, access, retrieve, research, catalog, index

Getty Vocabularies are compliant with / map to 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)
• CIDOC CRM (CIDOC Conceptual Reference Model) (ISO 21127:2006)
• etc.

Getty vocabularies are thesauri compliant with national (NISO) and international (ISO) standards for thesaurus construction
VOCABULARIES ARE USED TO INDEX A WORK RECORD

Record Type: item
Classification: prints and drawings
Work Type: *drawing *rendering
Title: Bulto
Creator Display: rendered by Eldora P. Lorenzini (American, 1910-1993)
Index: Eldora P. Lorenzini (American, 1910-1993)
Role: rendered
Materials display: watercolor, pen, and ink on paper
Index: *watercolor *pen *ink *graphite *laid paper
Dimensions: overall: 55.9 x 40.2 cm (22 x 15 13/16 in.)
Value: 55.9 Unit: cm Type: height Value: 40.2 Unit: cm Type: width
Creation Date: 1938 Start: 1938 End: 1938
Current Location: National Gallery of Art (Washington, DC, USA)
Repository number: 1943.8.16638
Creation Location: Santa Fe (New Mexico, USA)
General Subject: *another work *religion & mythology
Specific Subject:  
Bulto, Andrés Garcia  
sculpture *figures *bulto *farming *plow *oxen  
St. Isadore
Record Type: item
Classification: prints and drawings
Work Type: •drawing •rendering
Title: Bulto
Creator Display: rendered by Eldora P. Lorenzini (American, 1910-1993)
Role: rendered
Materials display: watercolor, pen, and ink on paper
Index: •watercolor •pen •ink •graphite •laid paper
Dimensions: overall: 55.9 x 40.2 cm (22 x 15 13/16 in.)
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General Subject: •another work •religion & mythology
Specific Subject: •Bulto, Andrés Garcia •sculpture •figures •bulto •farming •plow •oxen •St. Isadore
Art & Architecture Thesaurus®

AAT, the Art & Architecture Thesaurus®, includes generic terms, relationships, sources, and scope notes for work types, materials, styles, cultures, processes, techniques, activities, roles, and abstract concepts.

- AAT is multilingual; large translation projects are underway
  - Centro de Documentación de Bienes Patrimoniales, Chile; Netherlands Institute for Art History (RKD); Academia Sinica of Taiwan; the Staatliche Museen zu Berlin Preussischer Kulturbesitz

- AAT grows through contributions, translations and others, e.g., GCI for conservation terms, multicultural terms for indigenous cultures’ works; contributors and sources are cited

- The scope is global: AAT includes generic terms to describe art, architecture, decorative arts, design, artifacts, other material culture, visual surrogates, archival materials, archaeology, and conservation

- The major subdivisions (facets) are the following:

  - Associated Concepts
  - Physical Attributes
  - Styles and Periods
  - Agents
  - Activities
  - Materials
  - Objects
  - Brand Names
Thesaural structure

- Sub-facets (called “hierarchies”) establish the context of the term
- Guide terms in angled brackets

Work type: carte-de-visite
Indexers may choose the term that best describes the work.
- The concept and each term are identified by unique numeric IDs.
- e.g., singular for a single item, language.
- Some systems or local cataloging rules do not allow linking at the term level.

**Thesaural structure**

**Work type:** carte-de-visite

AAT subject_id 300127141

cartes-de-visite (card photographs) (preferred, C,U, English, P,D,U,PN)
cartes de visite (card photographs) (C,U, English, UF, U, N)
carte-de-visite photographs (C,U, LC, English, UF, U, N)
Visitenkartenporträts (fotografische Abzüge) (C,U, German)
tarjetas de visita (obra visual) (C,U, Spanish-P, D, U, PN)
tarjeta de visita (obra visual) (C,U, Spanish, AD, U, SN)

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<thead>
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<th>term_id</th>
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<td>1000299275</td>
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<td>1000438274</td>
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</table>
Sample record

**ID:** 300132869

**Terms:**
- bobbin lace (pref, en)
- bone lace (en)
- cushion lace (en)
- 梭心蕾絲 (zh)
- 線軸編織花邊 (zh)
- kloskant (nl)
- dentelle aux fuseaux (fr)
- encaje de bolillos (es)
- encaje de bolillo (es)
- Klöppelspitze (de)
- Klöppelspitzen (de)

**Associative Relationships**
- requires ... lace pillows (<textile fabricating tools and equipment>...Objects Facet) [300132869]

**Hierarchical Relationships (poly)**
- Objects Facet
  - ... Visual & Verbal Communication
    - ..... Visual Works
      - ........ <visual works by material>
      - ............... needlework (visual works)
      - ................. lace (needlework)
      - ................. bobbin lace

**Note:** With "needle lace," one of two primary types of handmade lace. It is characterized by being made by ...

**Chinese (traditional) ..... 與「針織蕾絲 (needle lace)」同為主要的手工蕾絲，其特色是以纖纖於線軸或梭心...**

**Dutch ..... Een van de twee belangrijkste soorten met de hand vervaardigde kant; 'naaldkant' is ...**

**German ..... Zusammen mit der "Nadelspitze" eine der wichtigsten...**

**Spanish ..... Junto a "encaje a aguja", uno de los dos tipos principales de ...**

**Contributors:** VP, CHIN, AS, RKD, IfM-SMB-PK, CDPB-DIBAM

**Sources:** Earnshaw, Clabburn, Needleworker's Dictionary (1976); Identification of Lace, 2d ed. (1984); Ginsburg, Illustrated History of Textiles (1991)
ULAN, the Union List of Artist Names®, includes names, appellations (e.g., Master of …), dates, sources, relationships, nationality, and life roles for artists, architects, firms, studios, repositories, patrons, sitters, and other individuals and corporate bodies, both named and anonymous.

- ULAN is multilingual
- The scope is global; ranges from prehistory to the present
- ULAN includes current & historical relationships (e.g., student-teacher, firm-member)
- ULAN contains hierarchical, equivalence, & associative relationships
- ULAN grows through contributions from expert users, scholars, & art repositories (e.g., GRISC finding aids); contributors and sources are cited

- Major subdivisions include the following:
  - People who are artists, Corporate bodies (studios, firms, repositories),
  - People who are not artists, Unknown people by culture (e.g., unknown Aztec),
  - and Unidentified named people (e.g., Reverend Smith [unidentified])
**ULAN, the Union List of Artist Names®**

**Sample record**

<table>
<thead>
<tr>
<th><strong>ID:</strong> 500115493</th>
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</thead>
<tbody>
<tr>
<td><strong>Names:</strong></td>
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<tr>
<td>Dürer, Albrecht (pref, de, en)</td>
</tr>
<tr>
<td>Albrecht Dürrer</td>
</tr>
<tr>
<td>Duerer, Albrecht (en)</td>
</tr>
<tr>
<td>Durer, Albrecht (en)</td>
</tr>
<tr>
<td>Dürrer, Alberto (it)</td>
</tr>
<tr>
<td>Durerus, Albertus (la)</td>
</tr>
<tr>
<td>Dürer, Albreht</td>
</tr>
<tr>
<td>Djurer, Albrecht</td>
</tr>
<tr>
<td>Dýůra, Albrecht</td>
</tr>
<tr>
<td>Dĩrers, Albrehts</td>
</tr>
<tr>
<td>Alberto Duro Tedesco</td>
</tr>
<tr>
<td>デューラー, アルブレヒト (ja)</td>
</tr>
<tr>
<td>阿尔布雷希特·丢勒 (zh)</td>
</tr>
<tr>
<td><strong>Nationalities:</strong></td>
</tr>
<tr>
<td>German (pref)</td>
</tr>
<tr>
<td>Bavarian</td>
</tr>
<tr>
<td><strong>Roles:</strong> AAT</td>
</tr>
<tr>
<td>artist (preferred)</td>
</tr>
<tr>
<td>painter</td>
</tr>
<tr>
<td>printmaker</td>
</tr>
<tr>
<td>engraver (printmaker)</td>
</tr>
<tr>
<td>woodcutter</td>
</tr>
<tr>
<td>draftsman</td>
</tr>
<tr>
<td>illustrator</td>
</tr>
<tr>
<td>designer</td>
</tr>
<tr>
<td>mathematician</td>
</tr>
<tr>
<td>theorist</td>
</tr>
<tr>
<td>portraitist</td>
</tr>
<tr>
<td>religious artist</td>
</tr>
<tr>
<td><strong>Gender:</strong> male</td>
</tr>
<tr>
<td><strong>Display biography</strong></td>
</tr>
<tr>
<td>German printmaker and painter, 1471-1528</td>
</tr>
<tr>
<td><strong>Birth and Death Dates:</strong> Birth: 1471  Death: 1528</td>
</tr>
<tr>
<td><strong>Birth and Death Places:</strong> Born:  Nuremberg (Bavaria, Germany) (inhab place)</td>
</tr>
<tr>
<td>Died:  Nuremberg (Bavaria, Germany) (inhab place)</td>
</tr>
<tr>
<td><strong>Events:</strong></td>
</tr>
<tr>
<td>active: Nuremberg (Bavaria, Germany) (inhab place)</td>
</tr>
<tr>
<td>active: Venice (Veneto, Italy) (inhabited place)</td>
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<tr>
<td><strong>Associative Relationships:</strong></td>
</tr>
<tr>
<td>apprentice of  Wolgemut, Michael; 1486 to 1489</td>
</tr>
<tr>
<td>(German painter, printmaker, 1434/1437-1519)</td>
</tr>
<tr>
<td>child of  Dürer, Albrecht, the elder</td>
</tr>
<tr>
<td>(German goldsmith, 1427-1502)</td>
</tr>
<tr>
<td>founder of  ...Albrecht Dürrer Workshop</td>
</tr>
<tr>
<td>(German workshop, established 1495)</td>
</tr>
<tr>
<td>patron was  ...Maximilian I, Holy Roman Emperor</td>
</tr>
<tr>
<td>(Roman emperor, 1459-1519)</td>
</tr>
<tr>
<td><strong>Contributors:</strong></td>
</tr>
<tr>
<td>VP, JPGM, Avery, WCI, Prov, GRLPSC, BHA, CCA</td>
</tr>
<tr>
<td><strong>Sources:</strong> Bartrum, Albrecht Dürrer and his Legacy (2002); Bénézit, Dictionnaire des Peintres (1976); Bartsch, Le peintre graveur.</td>
</tr>
</tbody>
</table>
TGN, the Getty Thesaurus of Geographic Names®, includes names, relationships, dates, sources, and coordinates for current & historical cities, nations, empires, archaeological sites, & physical features.

- TGN is multilingual; the scope is global; it ranges from prehistory to the present
- TGN focuses on places important to art and material culture
- TGN includes current and historical cities, nations, and empires
- TGN includes real places, not mythical or legendary; however, TGN includes formerly inhabited places and historical places with unknown exact locations ("lost settlements")
- TGN is a thesaurus, compliant with international standards for thesaurus construction; it contains hierarchical (polyhierarchical), equivalence, & associative relationships
- TGN includes current and historical relationships
- TGN is not a GIS (Geographic Information System), but may be linked to maps & GIS
- TGN grows through contributions from the expert user and scholar communities, large national geographic databases; contributors and sources are cited

- Major subdivisions include continents, nations, empires
  - World (Africa, Alexandrian Empire, Antarctica, Asia, Europe, Holy Roman Empire, etc.);
  - Extraterrestrial Places (Milky Way Galaxy, etc.)
TGN, the Getty Thesaurus of Geographic Names®

Sample record

**ID:** 7011179

**Names:**

Siena
(Siena (it, en, es, fr, nl, de)
Σιένα (el)
锡耶纳 (zh)
シエーナ (ja)
Sienese (en-adj)
Siena (h-en)
Sena Julia (h-la)
Sanna (h)
Saena (h)

**Hierarchical Rel.** *(polyhierarchical)*

World (facet)
.. Europe (continent)
... Italy (nation)
.... Tuscany (region)
...... Siena (province)
........ Siena (inhabited place)

World (facet)
.. Europe (continent)
... Italian Peninsula (peninsula)
..... Etruria (former confederation)
........ Siena (inhabited place)

Historical: Late Etruscan

**Associative Rel.**

ally of: Pisa (inhabited place) [7006082]

Ghibelline allies, 13th-14th centuries

**Place Types**

inhabited place settled by Etruscans (flourished by 6th century BCE)

city
archiepiscopal see
commune (administrative) since 1125

**Place** cultural center
university center
world heritage site

**Lat:** 43.1907 N (43.3180)
**Long:** 10.11950 E (11.3300)
**Elevation:** 1056.430 feet (322.0000 meters)

**Note:** Siena was founded as an Etruscan hill town; later was the Roman city of Sena Julia (3rd century BCE). It flourished under the Lombard kings (6th century CE) and was Medieval self-governing commune ...

**Contributors:** BHA, FDA, GRLPSC, VP

CONA, the Cultural Objects Name Authority®, is a new resource available for contributions. CONA compiles titles, creator attributions, depicted subjects, physical characteristics, and other metadata about works of art, architecture, and cultural heritage, both extant and historical. Sources include museum collections, special collections, archives, libraries, scholarly research, conservation projects, and documentation projects. CONA is linked to AAT, TGN, ULAN, and IA.

- CONA is multilingual; the scope is global; ranges from prehistory to the present
- CONA includes current and historical relationships (e.g., folios for a lost manuscript)
- CONA is compliant with Categories for the Description of Works of Art (CDWA) and Cataloging Cultural Objects (CCO); mapping to CIDOC CRM being investigated
- CONA is a thesaurus, compliant with international standards for thesaurus construction
- CONA is a thesaurus, compliant with international standards for thesaurus construction
- CONA contains hierarchical (polyhierarchical), equivalence, & associative relationships
- Minimum data includes title or name, work type, creator, creation date, materials, dimensions, subject, geographic location (for architecture) or repository and repository ID
- CONA grows through contributions from art repositories, expert users, and scholars

- Major subdivisions include the following: Built Works, Movable Works, Visual Surrogates, Conceptual Works, Unidentified Named Works
CONA, the Cultural Objects
Name Authority®

Sample record

- **CONA links work records to Getty vocabularies**

  **ID:** 700001950

  **Titles:**
  - Shiva met de maan in het haar (nl)
  - Shiva with the Moon in his Hair (en)

  **Catalog Level:** item

  **Work Types:**
  - sculpture (visual work)

  **Classifications:**
  - sculpture (preferred)

  **Creation Date:** 1000/1200

  **Creator Display:**
  - anoniem
  - sculptor: unknown Chola

  **Locations:**
  - Current: Rijksmuseum (Amsterdam, North Holland, Netherlands) AK-MAK-1291; RM001.collect.910; Bruikleen van de Vereniging van Vrienden der Aziatische Kunst

  **Creation:** Tamil Nādu (India)

  **Materials:** bronze founding

  **Dimensions:** 40 cm (height) x 24 cm (width) x 10.5 (depth)

  **Events:**
  - exhibition: Metamorfoze/Geheugenproject Willem Witsen

  **Cultures:**
  - Indian
  - Chola

  **General Subject:**
  - human figure(s) (preferred)
  - religion and mythology

  **Specific Subjects:**
  - Shivá (Hindu iconography)
  - mudrā (pose, <visual and representational concepts>)

  **Contributors:** Rijksmuseum; VP

  **Sources:** Rijksmuseum XML file

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IA, the Getty Iconography Authority™, is a new resource available for contributions. It includes named events, religious & mythological iconography, fictional characters & places, themes from literature.

- IA is multilingual; scope is global; includes topics from all places and periods
- IA includes the proper names of subjects referenced in art and cultural heritage but not covered by the other Getty vocabularies (AAT = generic concepts, TGN = real places, ULAN = real people, CONA = names of art objects and architecture)
- IA is compliant with the Subject Authority of CDWA (Categories for the Description of Works of Art) and the Subject Authority of CCO (Cataloging Cultural Objects)
- IA is a thesaurus, compliant with international standards for thesaurus construction
- IA contains hierarchical (polyhierarchical), equivalence, & associative relationships
- IA grows through contributions to CONA, and independently from expert users, scholars, and repositories of art
- Includes links to resources such as Iconclass and US Library of Congress authorities
- As of this writing, IA is a module within CONA; over time, IA will become a standalone authority

- IA includes the following major subdivisions: Legend, Religion, Mythology; Literature and Performing Arts; Named Events; Miscellaneous (Miscellaneous Allegory, Symbolism; Characters; Legendary Places; Themes and Narrative)
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Power of Term Relationships

• **Hierarchical**: all records have parent-child relationships

• **Equivalence**: variant terms

• **Associative**: records can be linked between hierarchies
Getty vocabularies are linked to each other

http://vocab.getty.edu
Getty Vocabularies as Linked Open Data

The Getty vocabularies are constructed to allow their use in linked data. A project to publish them to the LOD (Linked Open Data) cloud is underway. The documents on this page contain news and presentations about releasing the Getty vocabularies as LOD. These materials are subject to frequent modification and addition.

- News and Status of the Project
- What Is LOD?
- Introduction to Getty Vocabularies as LOD (PDF, 3.8 MB, 46pp)
- List of External Advisors (PDF, 88KB, 7pp)

The AAT, TGN, and ULAN are now available as LOD. They are published under the Open Data Commons Attribution License (ODC-By) 1.0.

**Attention developers and programmers:**
Technical documentation to assist in exploring the AAT, TGN, and ULAN data is available at the SPARQL endpoint at vocab.getty.edu

**News and Status of the Project**

Releasing the Getty vocabularies as Linked Open Data is part of the Getty’s ongoing effort to make our knowledge resources **freely available** to all. Making the Getty vocabularies available to the research community as LOD could have a truly
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Uses

• Vocabulary data is licensed and used by hundreds of institutions and vendors, or downloaded as LOD

• Collections management systems (e.g., TMS)

• Online data searches

• Now linking vocabulary data in LOD in hundreds or thousands of new ways
Access

- **Data is made available in various ways:** via online searching; Web services APIs; licensed relational tables and XML format annual releases

- **Download Center** – sample data, schemas
  http://getty.edu/research/tools/vocabularies/obtain/download.html

- **Linked Open Data:** SPARQL endpoint, sample queries
  http://getty.edu/research/tools/vocabularies/lod/index.html

- **Training Pages:**
  http://www.getty.edu/research/tools/vocabularies/training.html

- **Contribute:**
  http://getty.edu/research/tools/vocabularies/contribute.html
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Our Team: What We Do

- 1 Managing Editor, 3 Editors, Software Architect
- Processing contributions (normalizing, editing, merging, problem solving)
- Mapping contributor data to correct fields and controlled lists
- Checking exports, communication with our partners
- Education, outreach, future projects