Getty Vocabulary Program: What We Do

WITH A BRIEF HISTORY

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Managing Editor

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WHAT ARE THE GETTY VOCABULARIES?

Catalog, index, document, retrieve, research, discover
 Getty Vocabularies

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

- **AAT, the Art & Architecture Thesaurus®** includes generic terms, relationships, sources, and notes for work types, roles, materials, styles, cultures, and techniques (e.g., amphora, oil paint, olieverf, peintures à l’huile, acetolysis, 玉器, Jadekünste, sintering, orthographic drawings, Olmeca, Rinascimento, Buddhism, watercolors, asa-no-ha-toji)

- **TGN, the Getty Thesaurus of Geographic Names®** includes names, relationships, and coordinates for current and historical cities, nations, empires, archaeological sites, lost settlements, and physical features important for cultural heritage; through LOD, TGN may be linked to GIS and maps (e.g., Diospolis, Acalán, Ottoman Empire, Mogao, Ch’ien-fu-tung, Ganges River, गंगा नदी)

- **ULAN, the Union List of Artist Names®** includes names, relationships, notes, sources, and biographical information for artists, architects, firms, studios, repositories, patrons, sitters, and other individuals and corporate bodies, both named and anonymous (e.g., Mark Rothko, Cai Xiang,葵襄, Crevoles Master, Altobelli & Molins, Rajaraja Museum)

- **IA, the Getty Iconography Authority™** is a new resource that includes proper names, relationships, and dates for iconographical narratives, religious or fictional characters, historical events, names of literary works and performing art (e.g., Adoration of the Magi, Flood of Deucalion, French Revolution, Xibalba, Niflheim, शिव, Bouddha couché)

- **CONA, the Cultural Objects Name Authority®** is a new resource for indexing works depicted in visual surrogates and for other purposes, linking rich metadata such as title, artist attribution, patron, materials, and location for works of art, architecture, and other cultural works, to allow a conduit for research and discovery (e.g., The Lacemaker, La Dentellière, Merlettaia, 神奈川沖浪裏, Great Wave, Die große Welle, Chayasomesvara Temple, Ἁγία Σοφία, Αγία Σοφία)
 Getty Vocabularies are thesauri

- Thesaurus: A semantic network of unique concepts
- Thesauri may be monolingual or multilingual
- Thesauri may have the following three relationships:
  - Equivalence Relationships
  - Hierarchical Relationships
  - Associative Relationships

Examples:
- **Objects Facet**
  - Furnishings and Equipment
  - Containers
  - <culinary containers>
  - <vessels for serving / consuming food>
  - rhyta

- **Stirrup Cups**
  - Coaching Glasses
  - Hunting Glasses

- **Sturzbechers**
  - Sturzbecher
  - Stortebekers

- **Rhyta**
  - Rhyton
  - Rheas
  - Rheons
  - Ritón

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Scope of each Getty Vocabulary

AAT

Art & Architecture Thesaurus®

Includes generic terms, dates, relationships, sources, and notes for work types, roles, materials, styles, cultures, techniques, and other concepts

Sample record

**AAT_ID**: 300011329

**Terms**:
- bas-reliefs (pref, en, fr)
- bas-relief (en, fr)
- low reliefs (en)
- bas-reliëfs (nl)
- travertino (es)
- bassorilievo (it)
- bajos relieves (es)
- travertin (fr)
- Flachreliefs (de)
- 浮雕 (雕塑) (zh; Chinese traditional)
- qián fú diāo (Chinese (transliterated Hanyu Pinyin))
- qián fú diào (Chinese (transliterated Pinyin without tones))
- ch’ien fu tiao (Chinese (transliterated Wade-Giles))

**Hierarchical Relationships**

Objects Facet
- Visual and Verbal Communication
  - Visual Works
  - <visual works by material or technique>
    - sculpture (visual works)
    - <sculpture by technique>
    - reliefs (sculptures)
    - bas-reliefs (sculpture)

**Associative Relationships**

produced by ...
- bas-relief (technique) [300053623]
distinguished from ...
- high reliefs (sculpture) [300184782]

**Scope Notes**:
- Refers to works executed in relatively shallow relief. (en)
- Beeldhouwwerken uitgevoerd in relatief laag reliëf. (nl)
- Úsese para obras ejecutadas en relieve relativamente superficial. (es)
- 指浮雕圖案較淺的作品。 (zh)

**Contributors**:
- AS-Academia Sinica, CDBP-DIBAM, GCI, ICCD, IfM-SMB-PK, RKD, AAT-Ned, VP

**Sources**:

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Scope of each Getty Vocabulary

**TGN**

*Getty Thesaurus of Geographic Names®*

Focuses on places relevant to art, architecture, and related disciplines, recording names, relationships, place types, dates, notes, and coordinates for current and historical cities, nations, empires, archaeological sites, lost settlements, and physical features

Is a thesaurus, but through LOD TGN may be linked to GIS and maps

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**Sample record**

**TGN_ID:** 300011329

**Names:**
- Siena (pref, en,it,de,nl,fr,es)
- Sienna (en, it)
- Sienne (fr)
- Σιένα (el)
- 锡耶纳 (zh)
- Сиена (ru)
- סיינה (he)
- シエーナ (ja)
- Sienese (en,adj)
- Senae (historical, la)
- Saena Julia (historical, la)
- Sena (historical, Etruscan)

---

**Hierarchical Rel.**

*polyhierarchical*

**Associative Rels.**

- ally of Pisa... (inhabited place) [700688]
- Ghibelline allies, 13th-14th centuries
- city
- archiepiscopal see
- commune (administrative) since 1125
- university center
- world heritage site

**Place Types**

- AAT

**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...

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


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**Scope of each Getty Vocabulary**

**ULAN**

Union List of Artist Names®

Includes names, relationships, notes, sources, and biographical information for artists, architects, firms, studios, repositories, patrons, sitters, and other individuals and corporate bodies, both named and anonymous.

---

**Sample record**

<table>
<thead>
<tr>
<th><strong>Uran ID:</strong></th>
<th>500014514</th>
</tr>
</thead>
</table>

**Names:**
- Gaudí, Antoni (ca,es,en,fr,lt)
- Antoni Gaudí
- Cornet, Antoni Gaudí
- Cornet, Antonio Gaudí
- Gaudí, Antoni
- Gaudí i Cornet, Antonio
- Gaudí Jornet, Antoni
- Gaudí y Cornet, Antoni
- Gaudí Jornet, Antoni
- Gaodi, Antoni
- Gaudi, Antonio
- גאודי, אנטוני (he)
- 安东尼·高迪 (zh)

**Nationalities:**
- Spanish (pref)
- Catalan

**Roles:**
- architect
- landscape architect
- furniture designer

**Gender:**
- male

**Birth and Death Places:**
- Born: Reus (Tarragona province, Catalonia, Spain) (inhab place)
- Died: Barcelona (Barcelona province, Catalonia, Spain) (inhab place)

**Associative Relationships:**
- collaborated with .... Torres-García, Joaquín (Uruguayan painter and theorist, 1874-1949) 1903-1904 [500031259]
- worked with ... Martorell y Montells, Joan (Spanish architect, 1833-1906) [500072753]
- student of .... Sala Cortes, Emilio (Spanish architect, active late 19th century) [500287019]

**Contributors:**
- VP, JPGM, Avery, FRICK, WCI, Prov, GRLPSC, BHA, CCA

**Sources:**

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**Scope of each Getty Vocabulary**

**IA**

Getty Iconography Authority

New resource that focuses on subjects and topics relevant to art, architecture, and related disciplines

Includes multilingual and multicultural proper names, relationships, and dates for iconographical narratives, religious or fictional characters, themes, historical events, and named literary works and performing arts

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**Sample record**

**IA ID:** 1000085

**Names:**
- Avalokiteshvara (en)
- Avalokiteśvara (en)
- Avalokitesvara (en)
- अवलोकितेश्वर (sa)
- Спянь ргьас гцигс (bo)
- Spyán ras gzigs (Tibetan transliterated)

**AAT links**
- role/characteristic is ... bodhisattva
- symbolic attribute is ... lotus
- culture/religion is ... Mahayana (Buddhism)
- culture/religion is ... Theravada (Buddhism)

**Hierarchical Relationships**

Top of the IA hierarchies:
- Legend, Religion, Mythology
- Buddhist iconography
- Buddhist characters
- Avalokitesvara (Buddhist iconography)

**Associative Relationships**

- associated with .... Krishna (Hindu deity)
- counterpart is .... Guanyin (Buddhist bodhisattva)
- counterpart is .... Tara (Hindu-Buddhist deity)
- has as manifestation .... Amoghapasa (Buddhist character)
- author of .... Great Compassion Mantra (incantation, Buddhist, translated 7th/8th century)

**Note**
The bodhisattva of infinite compassion and mercy; embodies the compassion of all Buddhas. This bodhisattva is portrayed in different cultures as either female or male...

**Contributors & sources**


**LINKS to other resources:** LOC, Iconclass
**Sample record**

**CONA ID:** 700000141

**Titles/Names:**
Hagia Sophia (en)  
Ayasofya (tr)  
Αγία Σοφία (el)  
Agia Sophia  
Agia Sophia  
Haghiia Sophia  
Sainte-Sophie (fr)  
Santa Sofia (es)  
Santa Sophia (la)  
Sancta Sapientia (la)  
Holy Wisdom (en)  
Saint Sophia (en)  
圣索菲亚大教堂 (zh)

**Catalog Level:** item

**Work Types:**
church (historical)  
mosque (historical)  
museum  
basilica

**Classification:**
architecture

**Creation Date:**
original structure dated from 4th century CE; present structure built 532-537 CE; rebuilt in 12th century

**Creator Display:**
Anthemios of Tralles (Byzantine, ca. 474-ca. 534) and Isidoros of Meletus, the Elder (Byzantine, active mid-6th century)

**Locations:**

- **Current:** Istanbul (Turkey)  
  **Address Note:** 41.008548°N; 28.979938°E
- **Mat & Tech:** system bearing masonry, centralized plan; ashlar and brick; interior surfaces are sheathed with polychrome marble, porphyry, and mosaics
- **Dimensions:** central dome: diameter 31 meters (102 feet); height 56 meters (184 feet)
- **Stiles:**  
  Byzantine | Ottoman

**General Subject:**
architecture  
Type: isness  
religion and mythology  
Extent: purpose

**Specific Subjects:**
Holy Wisdom (Christian allegory)

**Contributors:**
VP, BWR

**Sources:**
ORIGINS

Catalog, index, document, retrieve, research, discover
History of the Getty Vocabularies

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**Catalog, index, document, access, research, discover**

- Getty was a trailblazer in
  a) committing resources to standards and vocabularies for art information, and
  b) bringing together disparate communities under Getty leadership
- AAT, ULAN, and TGN were begun in 1979-1980s
- Formerly part of the Art History Information Program

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Partial group of AHIP staff at new Getty Center, 1997

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History of the Getty Vocabularies

- Getty Vocabularies were envisioned as tools to address needs of the art information, collecting, and research communities, to support indexing and retrieval, scholarly discovery
- From the beginning, meant to be authoritative (not authoritarian), compliant with standards, containing rich data and links
- Designed separately, united at Getty AHIP
- Thanks to an army of visionaries and editors, including Toni Petersen, Eleanor Fink, Henry Millon, Murtha Baca, Jim Bower, Patricia Harpring
- AAT began at Williams College, developed by a panel of experts; support from CASVA and Getty
History of the Getty Vocabularies

- AAT candidates were submitted on thousands of paper forms; published warrant was required
- From user community: visual resources collections, art libraries, art repositories, some from conservation
- Entered by hand in a custom-made editorial system, vetted by a dozen editors
- AAT and ULAN were published as books; soon available on diskettes, then online in 1997
History of the Getty Vocabularies

Thanks to the visionaries committed to art information access for research and cataloging

- ULAN and TGN were informed by the CIHA TAU (*Thesaurus Artis Universalis*) for artists and places important to art history
- Advised by expert committees
- Core initial data was compiled from existing Getty projects’ data and freely available US government geographic resources
- CONA & IA were based on the CDWA (*Categories for the Description of Works of Art*) model, which itself was the result of user community consensus on best practice
History of the Getty Vocabularies

Thanks to the visionaries committed to art information access for research and cataloging

- AHIP resided at Getty offices in Santa Monica until 1997
- When the Getty Center opened, we moved
- Our core activity has always been to acquire, process, and disseminate the Getty vocabularies to our core users
- Variety of formats, XML, Relational Tables, APIs, and LOD
- AAT, ULAN, TGN, CONA, and IA all share the same core data structure and the same core editorial rules
- From the beginning, they have been valued as authoritative because they are compiled by experts, contributors and sources are cited, and persistent numeric IDs identify the records, terms, other data associated with each concept
The Getty Vocabularies grow daily

Compiled through contributions from qualified, trained individuals representing institutions (visual resources collections, museums, art libraries, bibliographic indexing projects, international translation projects)

Technical support for loading and dissemination from Getty Digital (formerly Getty ITS)

The Vocabulary Program also creates materials and conducts training, workshops, and various publications covering the creation, contribution, and use of the Vocabularies

From the beginning, our work has been done in consultation with the user community
E.g., the International Terminology Working Group
AVAILABLE GETTY VOCABULARY RESOURCES

Catalog, index, document, retrieve, research, discover
To find resources, start on the landing page.

*Library Catalog*
*Getty Research Portal*
*Collection Inventories & Finding Aids*
*Photo Archive*
*Research Guides & Bibliographies*
*Digital Collections*
*Article & Research Databases*
*Collecting & Provenance Research*
*BHA & RILA*

**Getty Vocabularies**
- **Art & Architecture Thesaurus (AAT)®,**
- **Cultural Objects Name Authority (CONA)®,**
- **Getty Thesaurus of Geographic Names (TGN)®,**
- **Union List of Artist Names (ULAN)®,**
- **Contribute**
- **Editorial Guidelines**
- **Getty Vocabularies as Linked Open Data**

The Getty Vocabularies are available as Linked Open Data, XML, Relational Tables, and through APIs. Learn more.

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**The Art & Architecture Thesaurus (AAT)®**
The AAT is a thesaurus containing generic terms, dates, relationships, sources, and notes for work types, roles, material, and other concepts.

**The Getty Thesaurus of Geographic Names (TGN)®**
TGN focuses on places relevant to art, architecture, and related disciplines, recording names, relationships, place types, dates, notes, and coordinates.
Contribute to the Getty Vocabularies

The Getty vocabularies are compiled resources that grow through contributions from Getty projects and other institutions. Contributors to the Getty vocabularies include museums, libraries, archives, special collections, visual resources collections, bibliographic and other documentation projects, and large translation efforts. The Getty vocabularies are recognized as premier resources for indexer information about art, architecture, and related disciplines. By contributing, you will benefit from having their data incorporated in standard vocabularies for Getty projects and for the use of the broader community for linking, research, and discovery.

Why contribute?
The Getty vocabularies grow in large part through continued efforts and contributions from the expert user community. Below is a list of contributors to the Getty vocabularies. The list is extensible and subject to frequent updates.

XML contribution format
Contributions for AAT, TGN, ULAN, CONA, and the IA are being accepted in our prescribed Getty Vocabulary XML Schemas for Contributions. Schemas for TGN, and ULAN and a new schema for CONA are available in zipped files.

Contributors to the Getty Vocabularies

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<thead>
<tr>
<th>Brief Name</th>
<th>Full Name</th>
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<tbody>
<tr>
<td>A</td>
<td>AAT-AD</td>
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<td>AAT Advisory Committee (Williamsburg, Massachusetts)</td>
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<td>AS</td>
<td>AS-Academia Sinica</td>
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<td>Academia Sinica (Academia Sinica; Nankang, Taiwan)</td>
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<td></td>
<td>American Association for State and Local History (Nashville, Tennessee)</td>
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How to create records

Editorial Guidelines

These documents contain information about editorial practice for the Art & Architecture Thesaurus (AAT®), the Getty Thesaurus of Geographic Names (TGN®), the Union List of Artist Names (ULAN)®, the Cultural Objects Name Authority (CONA)®, and the Getty Iconography Authority (IA)™. The guidelines are subject to frequent modification and addition.

Purpose of these guidelines

These editorial guidelines for the AAT, ULAN, TGN, CONA, and IA are guidelines intended for contributors to the Getty vocabularies. The content of these guidelines is a product of the Getty Vocabulary Program. References to the in-house editors (Vocabulary Coordination System), may appear. Contributors to the vocabularies, the IA, and implementers of the vocabulary data should consult the editors for additional information and guidance appropriate for their circumstances.

- Editorial Guidelines: Art & Architecture Thesaurus (AAT)
- Editorial Guidelines: Getty Thesaurus of Geographic Names (TGN)
- Editorial Guidelines: Union List of Artist Names (ULAN)
- Editorial Guidelines: Cultural Objects Name Authority (CONA)
- Editorial Guidelines: Getty Iconography Authority (IA)
- Overview for contributors (PDF, 8.7 MB, 139pp)
- AAT Translations: Multilingual Equivalency Work

News: Recently added Getty vocabulary records (Revised 13 Jan 2019, 1.3 MB, 84pp)

Editorial issues and contributions (August 2017) (PDF, 7.1 MB, 224pp)
Editorial issues and contributions 2 (August 2016) (PDF, 7.1 MB, 224pp)
Technical issues: Part 1 (August 2016) (PDF, 3.5 MB, 34pp)
Technical issues: Part 2 (August 2017) (PDF, 4.6 MB, 12pp)

3.3.2.5 RULES for Terms

3.3.2.5.1 Minimum requirements

**Required:** Record at least one term for the concept record. If a concept is known by multiple terms, include them in repeating instances of this field. All terms in one record must be true synonyms.

3.3.2.5.2 How to record Terms

- It is required to record at least one term -- the record-preferred term, which is the word or phrase used most often in scholarly literature to refer to the concept. Excluded are proper names of persons, organizations, geographic places, named subjects, and named events.

- **Warrant for terms**
  The descriptor must be found in at least three authoritative sources. All other terms, including alternate descriptors or used for terms, must be found in at least one authoritative source.
  List as many synonymous terms or translated terms as have at least one legitimate source or have been contributed by an authorized translation project.

3.3.2.5.3 Alphabet and dialectics

- **For the descriptor**
  Use the Roman alphabet to record the record-preferred term. The record-preferred term should typically be in English, if possible. Other terms in the record may be in other alphabets and writing systems.
  There may be a preferred term for each language.

Express terms in Unicode.
4.4.2 Contributing Large Translations

*Guidelines for Multilingual Equivalency Work* (Patricia Harpring)

Please use the guidelines here with *Introduction to Controlled Vocabularies* (Harpring, Patricia, 2013), and the *Editorial Guidelines* on this site. The lengthy, comprehensive discussions in these works are not repeated here.

Details of the guidelines here are augmented and revised as necessary over time, typically as new issues arise in translation projects.

For occasional terms in foreign languages rather than large translation projects, see the *AAT Editorial Guidelines: Terms*: *Translating terms*.

4.4.2.1 Quick Reference Guide

Below is a brief list of critical guidelines for establishing multilingual equivalencies in the AAT:

- Contact the *Getty Vocabulary Program* before beginning a translation project.
- Follow the guidelines in the *AAT Editorial Guidelines*.
- For each language, organize the translations as a unified project managed by the participating translating institutions.
- Assemble an expert team for translations, including experts in both a) the content and b) the source and target languages.
- Organize the work logically, either a) working facet by facet or b) using a two-step approach, by first mapping existing terminology in the target language back to the master AAT, and then proceeding...
Getting started, other training

Training Materials

The documents on this page include presentations and other training materials for the Art & Architecture Thesaurus (AAT®), the Getty Thesaurus of Geographic Names (TGN®), the Union List of Artist Names (ULAN®), the Cultural Objects Name Authority (CONA®), the Getty Iconography Authority (IA™), Categories for the Description of Works of Art (CDWA), Cataloging Cultural Objects (CCO), and other standards and resources. These materials are subject to frequent modification and addition.

- Getty Vocabularies and Contributing
- Getty Vocabularies: Conferences, Linked Open Data, Technical Issues
- Cataloging, CDWA, and Other Standards
- International Terminology Working Group

 Getty Vocabularies and Contributing

Presentations describing the history, scope, and characteristics of the Getty Vocabularies and how to contribute to them. For more details on contributing to the Getty Vocabularies, see the Contributing to the Getty Vocabularies. For detailed editorial rules for contributions, see the Editorial Guidelines. For comprehensive information on controlled vocabularies, see the Introduction to Controlled Vocabularies.

- Introduction to Controlled Vocabularies: Companion to the Book (2016) (PDF, 10.5 MB, 130pp)
- Overview of the Getty Vocabularies (2019) (PDF, 8.6 MB, 79pp)
- Multilingual Equivalency: Translating the AAT (2019) (PDF, 7.6 MB, 99pp)
- Contributing to the Getty Vocabularies (2019) (PDF, 15.4 MB, 197pp)
- Indexing Art Information with Getty Vocabularies (2019) (PDF, 12.1 MB, 129pp)
- AAT Introduction and Overview (2016) (PDF, 11.3 MB, 228pp)
Patricia Harpring
Series edited by Murtha Baca

This primer on the characteristics, scope, uses, and methods for building and maintaining controlled vocabularies for art and cultural materials explains how vocabularies should be integrated in cataloging systems; utilized for indexing and retrieval; and structured to group synonyms and arrange concepts into categories.
 Getty Vocabularies Frequently Asked Questions

- Is it possible to obtain the Getty vocabulary data?
- What is the history of the Getty vocabularies?
- Getty Vocabulary Program: What do we do?
- Why isn’t the term I need in the vocabularies?
- How do I know which is the "correct" term in a vocabulary record?
- Who contributes to the Getty vocabularies?
- What are the sources of information for the vocabularies?
- How often is the information updated?
- What areas are currently being developed in the vocabularies?
- Do the Web versions of the AAT, ULAN, TGN, CONA, and IA contain all available data from the vocabularies?
- Are there diacritics (accent marks) in the vocabulary data?
- How may I cite the vocabularies in MARC?

Is it possible to obtain the Getty vocabulary data?
The three published Getty vocabularies, AAT, TGN, and ULAN, CONA, and IA, are made available in Web search interfaces to support limited research and cataloging efforts. Companies and institutions interested in regular or extensive use of the vocabularies may use AAT, TGN, or ULAN in XML format, relational tables, or as Linked Open Data. The new Getty resources, CONA and IA, are currently in development and not yet available as data files.
Obtain the Getty Vocabularies

How to obtain the Getty Vocabulary data

- **Licensing**: All Getty Vocabulary data found on this site are made available openly and free from fees under the Open Data Commons Attribution License (ODC-By) 1.0. Data has been compiled from various institutional contributors using published sources; the contributor and sources should be cited along with the Getty as attribution.

- **On the Getty Web site**: Users may search for individual terms and names in the Getty Vocabularies online. The data is refreshed monthly. The Getty Vocabularies are made available via this Web interface to support limited research and cataloging efforts. See below how URIs may be used to refer to the vocabulary records on this site.

- **LOD formats**: Users may acquire the full data for AAT, TGN, and ULAN, in JSON, RDF, N3/Turtle, and N- Triples through our Linked Open Data (LOD) project. Data is refreshed monthly.

- **Additional formats**: The AAT, ULAN, and TGN are available in monthly releases of XML and relational tables. The data are also available via Web Services, refreshed monthly.

See links to the full data sets, data dictionaries, and more information at the Download Center.

**NOTE**: Any or all of these additional formats will likely be discontinued in the future. Please plan your transition to accessing the Getty Vocabulary releases in LOD formats.

- **Outside availability**: Incorporated in vendors’ systems: The Getty Vocabularies may be found in various collection management systems or

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**Gettly Vocabularies as Linked Open Data**

Do you use the Getty Vocabularies LOD? Take the survey and help us improve our services.

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
- URIs (Uniform Resource Identifiers)
- What is LOD?
- Introduction to Getty Vocabularies as LOD (PDF, 3.8 MB, 41pp)
- 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. CONA is being mapped to CIDOC CRM.

**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
Millions of records are available, refreshed monthly.
Included are rich data, links to other formats.
Primary areas of activity
of the Getty Vocabulary Program
and Getty Digital technical support

- Contributions
- Processing
- Outreach
- Training
- Publications
- Dissemination
- Integration
- Tools
MORE ABOUT OUR ACTIVITIES

 Catalog, index, document, retrieve, research, discover
Basic workflow

• Contributors’ data is loaded by the Getty Digital team and processed by the Getty Vocabulary Program
• Data is merged, normalized, and published
• Exported data is refreshed for users every month
• Releases: Online search, Web services APIs, LOD, XML, and relational tables

At any time, could be 100s of thousands of candidate records, contributed but still in process

Editors have monthly quotas for work done to allow anticipation of time frame for publications to ensure not too much time is spent on unsolvable tasks
### Who are the contributors?

- Getty projects
- 300 institutions, consortia, other expert groups

### How is the data generated?

- They may research and create original data for the purpose of contribution
  E.g., translations: Spanish, Dutch, Chinese, German
- Or may map data already collected in the course of their own work
  E.g., repositories and documentation projects
- Contributions: 10s of thousands per year

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** Getty projects are major contributors**

- Provenance Index
- GRI Photo Archive
- GRI Special Collections
- GRI Library
- GCI
- JPGM

**Examples of other contributors**

- Centro de Documentación de Bienes Patrimoniales, Santiago
- Netherlands Institute for Art History
- Staatliche Museen zu Berlin Preussischer Kulturbesitz
- Academia Sinica of Taiwan
- Canadian Heritage Information Network
- Istituto Centrale per il Catalogo e la Documentazione, Rome
- Avery Architectural & Fine Arts Library
- Courtauld Institute
- Canadian Centre for Architecture
- Frick Art Reference Library
- Indiana University Digital Collections
- Harry Ransom Center, University of Texas at Austin
- Bunting Visual Resources Library, U. of New Mexico
- Pinacoteca do Estado de São Paulo
- Rijksmuseum in Amsterdam
- Mystic Seaport Museum in Connecticut
- Smithsonian National Museum of African Art
- Grove Art online
- Florentine Codex

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The International Terminology Working Group (ITWG)—a collective of metadata and controlled vocabulary professionals and scholars from North America, Europe, Asia, and the Middle East—meet every year or so to discuss four AAT translation Projects (including the Dutch AAT), as well as new projects, the other vocabularies, and overall the challenges and opportunities in developing and maintaining multilingual electronic thesauri for use by cultural heritage institutions.

- Nurturing relationships with contributors
- Advising re. mapping their existing data to format for loading into our editorial system
  E.g., GRI Szeemann finding aids to ULAN
- Advising re. translation methodology and content issues
- Meetings and online conversations

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Steps for receiving and processing contributions

- Communication with the Getty Vocabulary Program
- Are you mapping existing data or making new records?
- Small contributions via email or online contribution form
- Larger contributions are bulk loads
- Click through the contribution agreement
- Send sample files, back-and-forth if there are problems
- Send full data files for bulk loads
- Data must be normalized, reconciled, transformed, and loaded
- Data is vetted, processed, and edited as necessary
- May include merging, if incoming record matches an existing record
- Data is moved from candidate to non-candidate
- Data is published with regular monthly contributions
Merging candidate data in one record

- Getty vocabularies merge contributed records representing the same concept
- Example from ULAN: Three contributions; are any of these records for the same person?
  Yes, 1st and 3rd rows
- Merged by algorithm, if possible; if not, merged by editors; OpenRefine reconciliation tool being developed

<table>
<thead>
<tr>
<th>ULAN ID</th>
<th>Matching name</th>
<th>Display biography</th>
<th>Roles (AAT-controlled)</th>
<th>Nationality (AAT-controlled)</th>
<th>Estimated birth date</th>
<th>Estimated death date</th>
</tr>
</thead>
<tbody>
<tr>
<td>500017409</td>
<td>Guardi, Francesco</td>
<td>Venetian painter, 1712-1793</td>
<td>artist painter landscapist</td>
<td>Venetian Italian</td>
<td>1712</td>
<td>1793</td>
</tr>
<tr>
<td>500312969</td>
<td>Guardi, Francesco</td>
<td>Italian noble, born 1514</td>
<td>noble</td>
<td>Italian</td>
<td>1514</td>
<td>1614</td>
</tr>
<tr>
<td>500412666</td>
<td>Guardi, Francesco</td>
<td>Italian artist, ca. 1712-1793</td>
<td>artist</td>
<td>Italian</td>
<td>1707</td>
<td>1793</td>
</tr>
</tbody>
</table>

A name matches exactly; role matches; a nationality matches; dates within range?

Publishing data

- Contributors' data is loaded and processed by the Getty Digital technical team and the Vocabulary Program editorial team
- Data is merged, normalized, and published
- Refreshed for users every two weeks
- Releases: Online search, XML, relational tables, APIs, LOD

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Merging data in one record
Relationships and linking are built into and among the Getty vocabularies

Attribution to contributor and source is maintained, but merged and unified, and various “preferred” data is flagged

Resulting ULAN record is a merged, homogenous entity

Contributors
AVERY, BHA, GRISC, GRL, GRLPA, PROV, VP, WCI, WCP, WL-Courtauld

Sources
Avery Authority files (1963-)
Harald Szeemann papers, Finding Aid, GRI Special Collections (2011-)
J. Paul Getty Museum, collections online (2000-)
Library of Congress Authorities database (n.d.) n 50074509
M. Knoedler & Co. records, Finding Aid, GRI Special Collections (2012-)
Provenance Index Databases, Authority file (1985-)
RILA/BHA (1975-2000)
Witt Library, Authority files

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Resulting ULAN record is a merged, homogenous entity

Nationalities:
- Italian (preferred)
- Venetian

Roles:
- artist (preferred)
- painter
- landscapist

Gender: male

Birth and Death Places:
- Born: Venice (Venezia province, Veneto, Italy) (inhabited place)
- Died: Venice (Venezia province, Veneto, Italy) (inhabited place)

Related People or Corporate Bodies:
- member of .... Guardi family
- (Italian painters, active 18th century) [500060865]
- parent of .... Guardi, Giacomo
- (Italian painter, 1764-1835) [500023608]
- sibling by marriage (in-law) of .... Tiepolo, Giovanni Battista
- (Venetian painter, 1696-1770) [500018523]
- Cecilia Guardi married Tiepolo in 1719
- sibling of .... Guardi, Antonio
- (Italian painter, 1699-1760) [500025094]
- sibling of .... Guardi, Niccolò
- (Italian painter, 1715-1785) [500029088]
Systems / Procedures diagram: Getty Vocabularies
Systems / Procedures diagram: Getty Vocabularies
Systems / Procedures diagram: Getty Vocabularies
Systems / Procedures diagram: Getty Vocabularies
Systems / Procedures diagram: Getty Vocabularies
Systems / Procedures diagram: Getty Vocabularies
STATUS OF THE GETTY VOCABULARIES

Catalog, index, document, retrieve, research, discover
Statistics for the Getty Vocabularies

Totals as of 26 April 2019

<table>
<thead>
<tr>
<th>Vocab</th>
<th>Records</th>
<th>Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAT</td>
<td>60,635</td>
<td>400,334</td>
</tr>
<tr>
<td>ULAN</td>
<td>312,442</td>
<td>928,660</td>
</tr>
<tr>
<td>TGN</td>
<td>2,531,649</td>
<td>4,084,938</td>
</tr>
<tr>
<td>CONA</td>
<td>6,677</td>
<td>13,256</td>
</tr>
<tr>
<td>IA</td>
<td>1,757</td>
<td>5,002</td>
</tr>
</tbody>
</table>

Records edited or created FY19Q3

<table>
<thead>
<tr>
<th>Vocab</th>
<th>Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAT</td>
<td>903</td>
</tr>
<tr>
<td>ULAN</td>
<td>11,834</td>
</tr>
<tr>
<td>TGN</td>
<td>1,940</td>
</tr>
<tr>
<td>CONA</td>
<td>15</td>
</tr>
<tr>
<td>IA</td>
<td>23</td>
</tr>
</tbody>
</table>

AAT Loaded, awaiting processing

Incomplete records languish awaiting research, clean contributions are processed quickly

<table>
<thead>
<tr>
<th>Contrib</th>
<th>Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS</td>
<td>19</td>
</tr>
<tr>
<td>BHA</td>
<td>3</td>
</tr>
<tr>
<td>CCA</td>
<td>2</td>
</tr>
<tr>
<td>CDBP-TRP</td>
<td>701</td>
</tr>
<tr>
<td>CHIN</td>
<td>15</td>
</tr>
<tr>
<td>GCI</td>
<td>12</td>
</tr>
<tr>
<td>GRISC</td>
<td>8</td>
</tr>
<tr>
<td>ICCD</td>
<td>11,628</td>
</tr>
<tr>
<td>IUAV</td>
<td>1</td>
</tr>
<tr>
<td>ifM-SMB</td>
<td>6</td>
</tr>
<tr>
<td>PMA</td>
<td>2</td>
</tr>
<tr>
<td>RKD / ANET</td>
<td>91</td>
</tr>
<tr>
<td>SIK-ISEA</td>
<td>8</td>
</tr>
<tr>
<td>Suzzalo-UW</td>
<td>3</td>
</tr>
</tbody>
</table>

Files awaiting loads and potential contributions (issue: need tech support)

<table>
<thead>
<tr>
<th>Vocab</th>
<th>Potential Contribs</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAT</td>
<td>36</td>
</tr>
<tr>
<td>ULAN</td>
<td>28</td>
</tr>
<tr>
<td>TGN</td>
<td>9</td>
</tr>
<tr>
<td>CONA</td>
<td>10</td>
</tr>
<tr>
<td>IA</td>
<td>6</td>
</tr>
</tbody>
</table>

Each contribution could entail multiple files, may be hundreds or thousands of records

E.g.,

CHIN: 15,000 AAT records
FloCo: 400 records, all vocabs
Belvedere: 20,800 ULAN recs
Heard Museum: 26,000 ULAN recs
Use of the Getty Vocabularies

- Always at the top of resources used at the GRI
- E.g., Online Web searches

- Access to training materials and editorial guidelines

- Highest number of pages accessed at GRI every month (17,000 page views, 200,000 queries)
- Among the highest at Getty overall
- Demonstrating usefulness is important to proving the value of the project, re. budgets, etc.

<table>
<thead>
<tr>
<th>No.</th>
<th>Page</th>
<th>Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vocabs: AAT</td>
<td>16,106</td>
</tr>
<tr>
<td>2</td>
<td>Vocabs: ULAN</td>
<td>11,826</td>
</tr>
<tr>
<td>3</td>
<td>Vocabs: TGN</td>
<td>9,479</td>
</tr>
<tr>
<td>4</td>
<td>GRI landing page</td>
<td>5,676</td>
</tr>
<tr>
<td>5</td>
<td>GRI list of resources</td>
<td>5,171</td>
</tr>
<tr>
<td>6</td>
<td>Exhibition: monumentality</td>
<td>4,273</td>
</tr>
<tr>
<td>7</td>
<td>Vocabs: general information</td>
<td>4,245</td>
</tr>
<tr>
<td>8</td>
<td>Provenance: search</td>
<td>3,895</td>
</tr>
<tr>
<td>9</td>
<td>Library</td>
<td>3,345</td>
</tr>
<tr>
<td>10</td>
<td>Provenance: general information</td>
<td>2,690</td>
</tr>
<tr>
<td>11</td>
<td>BHA (Bibliography for History of Art)</td>
<td>2,091</td>
</tr>
<tr>
<td>12</td>
<td>Photo Archive</td>
<td>1,759</td>
</tr>
<tr>
<td>13</td>
<td>GRI: Digital Collections: Turkey photos</td>
<td>1,673</td>
</tr>
<tr>
<td>14</td>
<td>Vocabs: CONA</td>
<td>1,489</td>
</tr>
<tr>
<td>15</td>
<td>Vocabs: CDWA (cataloging rules for art)</td>
<td>1,143</td>
</tr>
</tbody>
</table>
Use of the Getty Vocabularies

- Data release files also have high numbers of users
- Relational Tables, XML, APIs
- Example illustrates LOD with very high use for one month
- AAT is also available at satellite sites in Germany, Taiwan, Chile, the Netherlands
- Vocabularies are available in various vendor systems
Integration of the Getty Vocabularies

• Vocabulary data is available in several consolidated resources
  • **VIAF**: ongoing, ULAN, concordance of IDs from resources globally
  • Internal integration, current
    • **Provenance Index**: AAT, ULAN, TGN; issue = local authority for artists verbatim names
    • **PhotoTech**: AAT, ULAN, TGN, CONA
  • **TMS**: Gallery Systems, updating Getty Vocabs on board; or link in a new Web product
  • **Alma**: Ex Libris, how to incorporate Getty Vocabs

http://viaf.org/
Linking the Getty Vocabularies

Relationships between the vocabularies
Linking the Getty Vocabularies

Relationships from the vocabularies to other Getty resources

Special Collections
Provenance
Photo Archive
GCI
JPGM

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Linking the Getty Vocabularies

Relationships from the Getty vocabularies to other resources
Goals: Increased multilingual, multi-cultural, inclusive Vocabularies

**Status: Current ULAN is heavily European, but our goal is to add more non-Western**

**Nat./Cultures in ULAN:**
Records total: 305,684 (as of Feb. 2019)
Nat/cultures total linked: 351,773
[a person may have multiple nationalities, cultures]

**Partial list of Nationality/Culture/Ethnicity**
European 212,286
American 55,933
African American 517
Native American, First Nations 4,394 [Heard]
Mexican, Central-South 11,652
African 2,588
Middle Eastern 2,006 [soon greater, IMJ]
Indian subcontinent 1,370
East Asian 6,270
Canadian 4,812
Other 49,945
Goals: Increased multilingual, multi-cultural, inclusive Vocabularies

Languages in AAT

136 different languages as of 27 April 2019

No of terms for top 20 languages
- English 165,905
- Chinese 91,839
- Dutch 63,336
- Spanish 56,188
- German 20,959
- Italian 14,444
- French 6,813
- Latin 2,141
- Portuguese 247
- Greek 70
- Nahuatl 49
- etc.

Status: Current AAT is in process of receiving several translations and increasing multilinguality

Number of Terms by Language in AAT

- English
- Chinese
- Dutch
- Spanish
- German
- Italian
- French
- Latin
- Portuguese
- Greek
- Nahuatl
- Other

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Users are already from all over the globe

**Distribution of users, Vocab online search**
149 countries total; top 50, Apr ’18-Mar ’19

<table>
<thead>
<tr>
<th>Country</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>79,597</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9,125</td>
</tr>
<tr>
<td>Canada</td>
<td>6,528</td>
</tr>
<tr>
<td>Germany</td>
<td>5,809</td>
</tr>
<tr>
<td>France</td>
<td>5,687</td>
</tr>
<tr>
<td>Italy</td>
<td>4,847</td>
</tr>
<tr>
<td>Spain</td>
<td>4,343</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4,023</td>
</tr>
<tr>
<td>Australia</td>
<td>3,378</td>
</tr>
<tr>
<td>Belgium</td>
<td>2,106</td>
</tr>
<tr>
<td>Poland</td>
<td>2,017</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1,962</td>
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<tr>
<td>Russia</td>
<td>1,602</td>
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<tr>
<td>Japan</td>
<td>1,572</td>
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<tr>
<td>Mexico</td>
<td>1,543</td>
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<tr>
<td>Brazil</td>
<td>1,398</td>
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<tr>
<td>China</td>
<td>1,200</td>
</tr>
<tr>
<td>Greece</td>
<td>1,200</td>
</tr>
<tr>
<td>Argentina</td>
<td>1,188</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1,087</td>
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<tr>
<td>Israel</td>
<td>896</td>
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<tr>
<td>Austria</td>
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<tr>
<td>India</td>
<td>876</td>
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<tr>
<td>Hong Kong</td>
<td>721</td>
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<tr>
<td>Philippines</td>
<td>667</td>
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<tr>
<td>Colombia</td>
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<tr>
<td>New Zealand</td>
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<tr>
<td>South Korea</td>
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<td>Portugal</td>
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<tr>
<td>Sweden</td>
<td>542</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>522</td>
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<tr>
<td>Ireland</td>
<td>480</td>
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<tr>
<td>Ukraine</td>
<td>468</td>
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<tr>
<td>Greece</td>
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<td>Turkey</td>
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<tr>
<td>Finland</td>
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<td>Norway</td>
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<td>Singapore</td>
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<tr>
<td>Puerto Rico</td>
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<tr>
<td>Egypt</td>
<td>246</td>
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<tr>
<td>Bulgaria</td>
<td>234</td>
</tr>
<tr>
<td>unidentified</td>
<td>222</td>
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<tr>
<td>South Africa</td>
<td>215</td>
</tr>
<tr>
<td>Thailand</td>
<td>193</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>168</td>
</tr>
</tbody>
</table>

Total users by country for online Vocab search
12 months, Apr ’18-Mar ’19
Challenges:

• How to retain high productivity of loading and editorial processing with small staff
  • Working with the community for contributions
  • Need improved technical support for loading and processing
• How to retain high scholarly quality, attributions to sources, and rich data in releases focused on new technology

![Decline in staff for Getty Vocabularies over time](image-url)