

Getty Vocabularies

An Overview

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Managing Editor
Getty Vocabulary Program
Revised September 2023

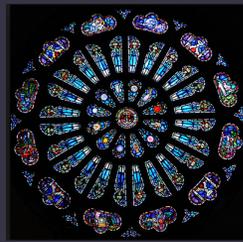


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Getty Vocabularies

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

Explore art, architecture, cultural heritage, conservation, archaeology, and beyond

Preface

- This presentation is a brief overview of Getty Vocabularies, AAT, TGN, ULAN, CONA and IA.
- For full discussions of Getty Vocabularies, see the vocabulary Web pages, Editorial Manuals, and other presentations on the vocabulary training page.
- <http://www.getty.edu/research/tools/vocabularies/index.html>

The screenshot shows the Getty Research Institute website. The main navigation bar includes 'Exhibitions & Events', 'Special Collections', 'Library', 'Search Tools & Databases', 'Scholars & Projects', 'Publications', and 'About'. The page title is 'The Getty Research Institute'. The main content area is titled 'Training Materials' and contains the following text: '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)®, Categories for the Description of Works of Art (CDWA), Cataloging Cultural Objects (CCO), and standards in general. These materials are subject to frequent modification and addition.'

Below the text, there are three bullet points: 'Getty Vocabularies and Contributing', 'Getty Vocabularies and Linked Open Data', and 'Standards: CDWA, Standards, and Accessing Digital Materials'. A fourth bullet point, 'International Terminology Working Group', is also present.

The 'Training Materials' section includes a list of documents:

- Introduction to Controlled Vocabularies: Companion Presentation (*revised 2015*) (PDF, 7 MB, 92pp)
- Brief Overview of the Getty Vocabularies (*revised 2015*) (PDF, 4.8 MB, 68pp)
- Multilinguality and Translating the Getty Vocabularies (PDF, 6.8 MB, 109pp)
- Contributing to the Getty Vocabularies (PDF, 8.7 MB, 139pp)
- Indexing Using the Getty Vocabularies (PDF, 4.1 MB, 54pp)
- AAT: Introduction and Overview (*revised 2015*) (PDF, 8.9 MB, 223pp)
- TGN: Introduction and Overview (*revised 2015*) (PDF, 4.2 MB, 100pp)
- ULAN: Introduction and Overview (*revised 2015*) (PDF, 5.2 MB, 116pp)
- CONA: Introduction and Overview (*revised 2015*) (PDF, 13 MB, 236pp)
- Developing Authorities Workshop (PDF, 13 MB, 332pp)
- CONA and Subject Access (*revised 2015*) (PDF, 4.6 MB, 113pp)
- Glossary and Bibliography for Vocabularies (PDF, 219 KB, 47pp)
- Getty Vocabulary Program: Overview of Our Work (PDF, 2.4 MB, 44pp)

On the left side of the page, there is a 'Search Tools & Databases' sidebar with a tree view. Under 'Getty Vocabularies', the following items are listed: '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', 'Frequently Asked Questions', 'Obtain the Getty Vocabularies', and 'Training Materials'.

Getty Vocabularies

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

Explore art, architecture, cultural heritage, conservation, archaeology, and beyond

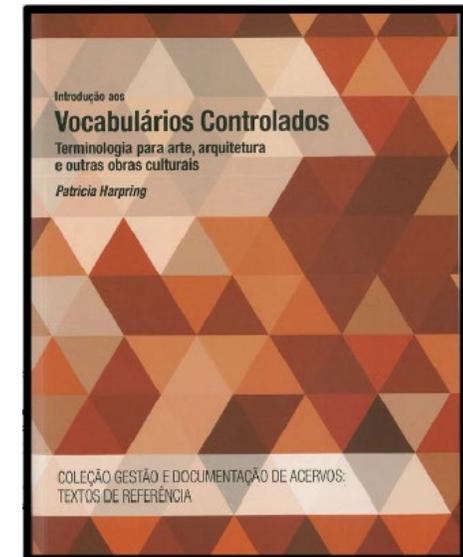
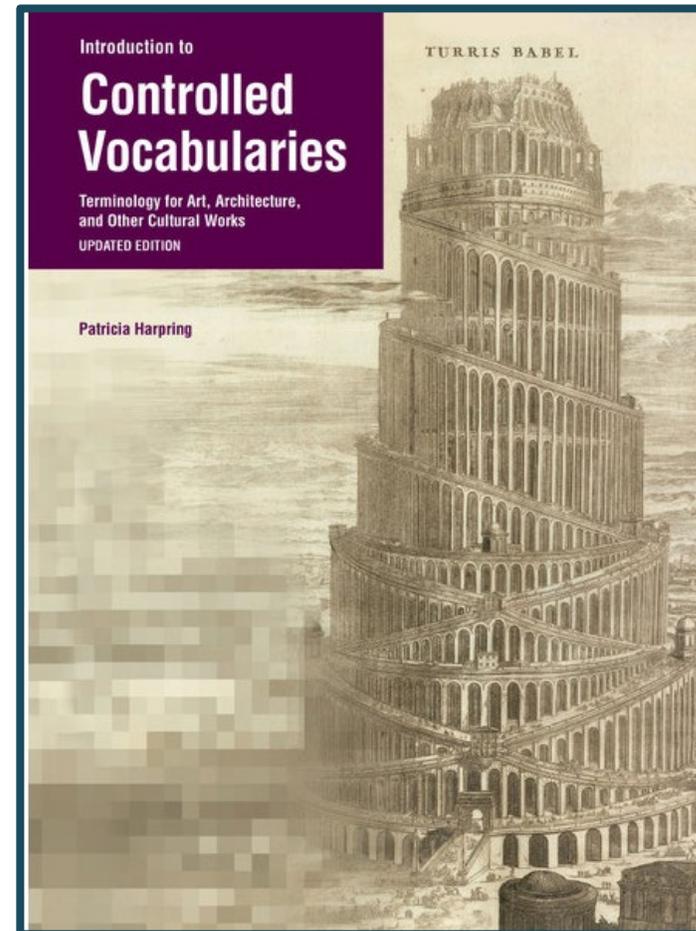
Preface

- For news, see our [quarterly Newsletter](#)
- For basic information on vocabularies, see *Introduction to Controlled Vocabularies*
- Translated in Portuguese

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.



Find Getty Vocabs Online

Our site is being redesigned – in the meantime, for information about Getty Vocabularies, **Google** “[getty vocabularies](#)”

Or on the Getty site, do not use “**search getty.edu**”: instead, scroll down to link “*search art terms*” to take you to the Vocabs’ page

There you can search the data, access data releases, how to contribute, editorial guidelines, training materials, news

Contact us:
vocab@getty.edu

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

The screenshot shows the top of the Getty.edu website. The URL <https://www.getty.edu/> is at the top. A navigation menu includes links for Visit, What's On, Explore Art, Research & Conservation, Funding, and About. The Getty logo is on the left. Below the logo is a search bar with the text "Search Getty.edu" and a magnifying glass icon. A large red 'X' is drawn over the search bar. To the right of the search bar is a section titled "More Search Tools" with a list of links: "Other tools to help you find what you're looking for", "Museum Collection", "Search for art and artists", "Research Collections", and "Search our archival collections". A red arrow points from the search bar area down to the "Search art terms" link in the "More Search Tools" section. The link "Search art terms" is highlighted with a blue box. At the bottom right, the text "Getty Library" is visible.

Find Getty Vocab Online

Left navigation:
Search the data, access data releases, how to contribute, editorial guidelines, training materials, news

Center: click headings to go to online search, FAQ, etc.

Upper right: LOD

Contact us:
vocab@getty.edu
Getty

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

The Getty Research Institute

Exhibitions & Events | Special Collections | Library | Search Tools & Databases | Scholars & Projects | Publications | About the GRI

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Search Tools & Databases

- Primo Search
- 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
 - Frequently Asked Questions
 - Obtain the Getty Vocabularies
 - Training Materials

Getty Vocabularies

NEW

The Getty vocabularies are now available as Linked Open Data. [Learn more.](#)

What is cinnabar? What is a rhyton? The Getty vocabularies contain structured terminology for art, architecture, decorative arts, archival materials, visual surrogates, conservation, and bibliographic materials. Compliant with international standards, they provide authoritative information for catalogers, researchers, and data providers. The vocabularies grow through contributions. In the new linked, open environments, they provide a powerful conduit for research and discovery for digital art history. To search the vocabularies, click on the links below.



The Art & Architecture Thesaurus (AAT)®

Catherine wheel or rose window? AAT is a structured vocabulary, including terms, descriptions, and other metadata for generic concepts related to art, architecture, conservation, archaeology, and other cultural heritage. Included are work types, styles, materials, techniques, and others.



The Getty Thesaurus of Geographic Names (TGN)®

Thebes or Diospolis? TGN is a structured vocabulary, including names, descriptions, and other metadata for extant and historical cities, empires, archaeological sites, and physical features important to research of art and architecture. TGN may be linked to GIS, maps, and other geographic resources.



The Cultural Objects Name Authority (CONA)®

Mona Lisa or La Gioconda? CONA compiles titles, attributions, depicted subjects, and other metadata about works of art, architecture, and other cultural



The Union List of Artist Names (ULAN)®

Titian or Tiziano Vecellio? ULAN is a structured vocabulary, including names, biographies, related people, and other

Click the heading

Linked Open data

GETTY VOCABULARIES

See What's New

- Multilingual & multi-cultural AAT: Conservation terms; Dutch: 60,600; Spanish: 55,000; Chinese: 26,000; German: 20,500

Have a Question?

- Contact the Vocabulary Program
- Subscribe to GRI News

Find Getty Vocab Online

Search online
Relational Tables
Web Services APIs
XML
LOD (GVP and Linked.Art)
SPARQL end point
OpenRefine Reconciliation

Open Data Commons
Attribution License
(ODC-By) 1.0

Contact us:
vocab@getty.edu



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

The screenshot shows the Getty Research Institute website. At the top, the header reads "The Getty Research Institute" with navigation links for Exhibitions & Events, Special Collections, Library, Search Tools & Databases, Scholars & Projects, Publications, and About the GRI. Below the header, there are links for Print and Share. The main content area is titled "Search Tools & Databases" and "Getty Vocabularies". A callout box points to the "Getty Vocabularies" heading with the text "Click the heading". Below this, there is a "NEW" announcement: "The Getty vocabularies are now available as Linked Open Data. Learn more." The central focus is the "Art & Architecture Thesaurus® Online" search interface. A search box contains the text "scroll OR papyri". A callout box points to this search box with the text "scroll OR papyri". The interface includes a "Search the AAT" section with a "Find Term or ID:" field, a "Note:" field, and radio buttons for "AND" and "OR". There are "Search" and "Clear" buttons, and a "Help" link. Below the search area, there are links for "Pop-up Search" and "Browse the AAT hierarchies". At the bottom, there is a "Copyright information" section and a "Search Tips" section. On the right side of the page, there is a "Linked Open data GETTY VOCABULARIES" logo and a "See What's New" section with a list of multilingual terms and their counts in various languages. Below that is a "Have a Question?" section with a link to "Contact the Vocabulary Program" and a "Subscribe to GRI News" link.

What Are Getty Vocabularies?

AAT

TGN

ULAN

CONA

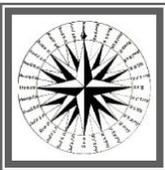
IA

Getty Vocabularies

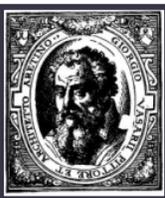
Enabling digital art history



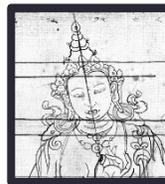
• **AAT**, *Art & Architecture Thesaurus*® includes generic terms in several languages, relationships, sources, and scope notes for agents, work types, roles, materials, styles, cultures, and techniques (e.g., *amphora, oil paint, olieverf, peintures à l'huile, acetolysis, 玉器, Jadekünste, sintering,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



• **TGN**, *Getty Thesaurus of Geographic Names*® includes names, relationships, and coordinates, with special focus on historical information for current cities, historical nations, empires, archaeological sites, lost settlements, and physical features as necessary for cataloging art; not GIS but may include coreferences to GIS and maps (e.g., *Diospolis, Acalán, Ottoman Empire, Mogao, Ch'ien-fu-tung, Ganges River, गंगा नदी*)



• **ULAN**, *Union List of Artist Names*® includes names, relationships, notes, sources, and biographical information for artists, architects, firms, studios, repositories, patrons, and other individuals and corporate bodies, both named and anonymous; may include coreferences to other resources for same entity (e.g., *Mark Rothko, Cai Xiang, 蔡襄, Crevole Master, Riza Abbasi, Altobelli & Molins, Rajaraja Museum*)



• **IA**, *Getty Iconography Authority*™ includes proper names, relationships, and dates for iconographical narratives, religious or fictional characters, historical events, names of literary works and performing art; special focus on non-Western with coreferences to other resources including Iconclass for Western (e.g., *Viaggio dei Re Magi, Flood of Deucalion, French Revolution, Olouaipilele, Xibalba, Niflheim, विश्व, Shiva, Bouddha couché*)



• **CONA**, *Cultural Objects Name Authority*® focuses on architecture, multiples, works depicted in other works, lost works; includes titles, artist attribution, creation dates, relationships, and location for works whether extant or destroyed (new contribution: 70,000 works from BWR) (e.g., *Chayasomesvara Temple, Hagia Sofia, Αγία Σοφία, The Lacemaker, La Dentellière, Merlettaia, Lion Throne Room, 神奈川沖浪, Great Wave, Die große Welle*)

Getty Vocabularies Used in an Object Record

Catalog Level: item **Classification:** paintings

Work Type:

painting (visual work) [AAT 300033618]

scroll (information artifact) [AAT 300028629]

Title: Scene of Early Spring **Type:** repository **Lang.:** English

Title: 宋郭熙早春圖 軸 **Type:** repository **Lang.:** Chinese

Creator Display: Guo Xi, Song Dynasty

Index: Guo Xi (Chinese painter, 1023 - ca.1085 CE)

[ULAN 500125758]

Role: artist

Creation Date: 1072 CE; fifth year of Xining, first era of the Shenzong Emperor, Northern Song Dynasty

Index: Start Date: 1072 **End Date:** 1072

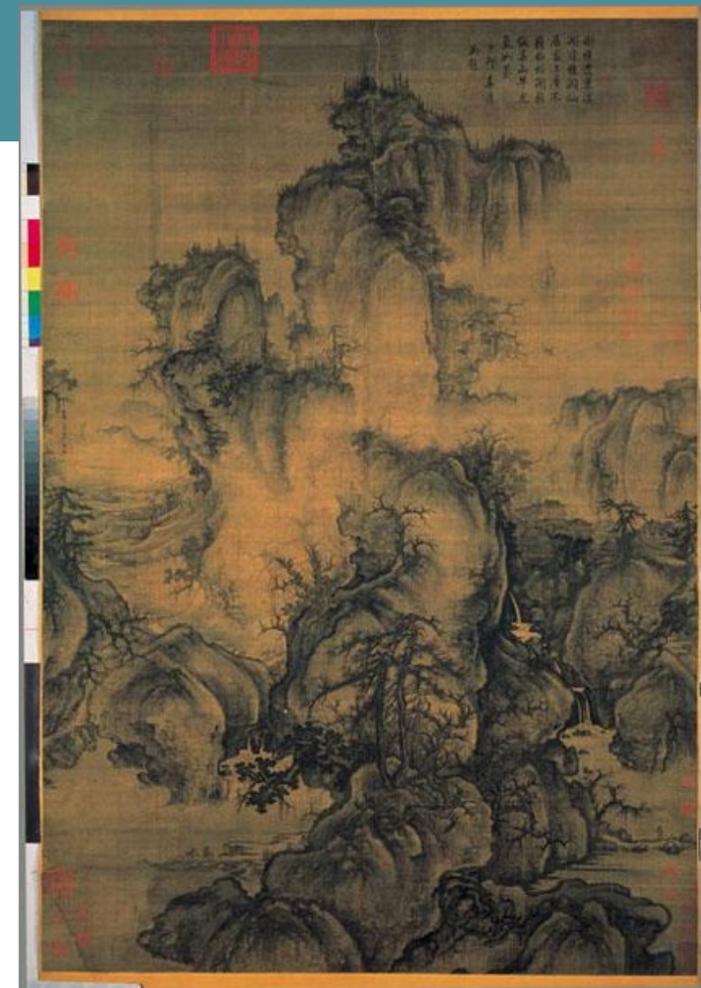
Materials Display: painted scroll

Index: color (pigment) [AAT 300264870]

Index: ink [AAT 300015012]

Index: silk (silkworm material) [AAT 300014072]

Index: paper (fiber product) [AAT 300014109]



<http://vocab.getty.edu/page/cona/700002851>

Getty Vocabularies Used in an Object Record

[continued]

Dimensions: 158.3 x 108.1 cm

Index: Value: 158.3 **Unit:** cm **Type:** height

Index: Value: 108.1 **Unit:** cm **Type:** width **[TGN 1000959]**

Location: National Palace Museum (Taipei, Taibei, Taiwan)

[ULAN 500309392] **Type:** current

Repository No.: Meta Data identification: 000053N000000000

Credit Line: National Palace Museum

Inscription: On the right side, the painter wrote: "Early Spring. Painted by Guo Xi in the year of Ren-Zi (49th year of the Chinese sexagenary cycle, referring to 1072 AD)."; 畫幅右側畫家自題:「早春。壬子(1072)年郭熙畫。」顧名思義,這幅畫作是在描寫瑞雪消融,雲煙變幻,大地復甦,草木發枝,一片欣欣向榮的早春景象

General Subject: landscapes

Specific Subjects: Renewal of Life **[IA 901002238]**

spring (season) **[AAT 300133097]** | shan shui **[AAT 300387301]**

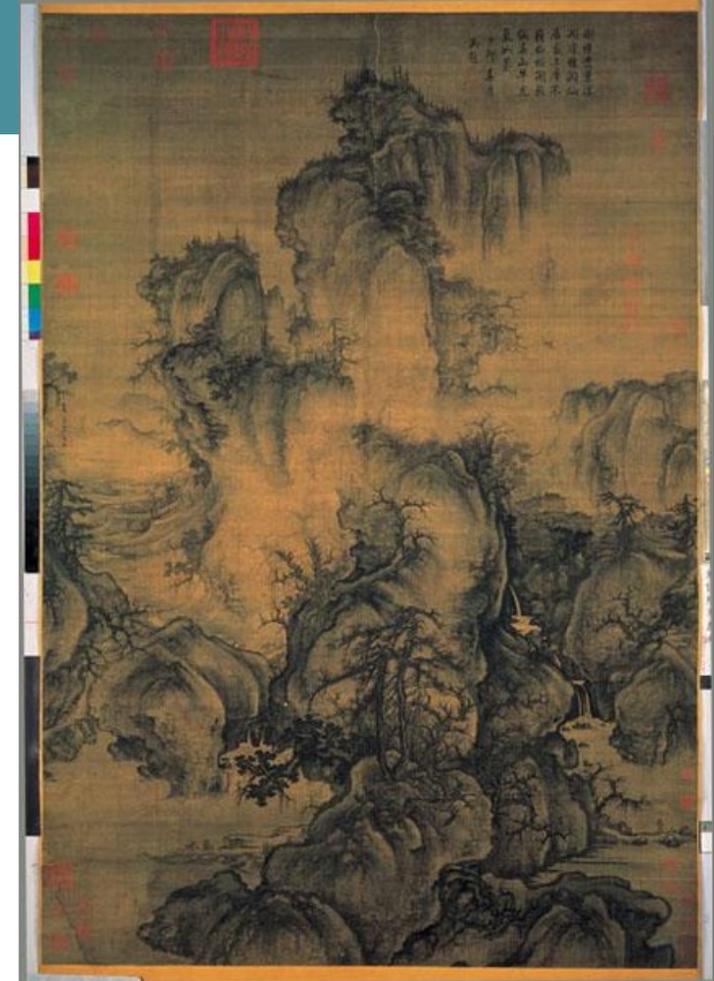
trees **[AAT 300132410]** | streams **[AAT 300008699]**

Pinus (genus) **[AAT 300343658]** | travel **[AAT 300080094]**

floating perspective **[AAT 300438516]** **Extent:** design element

Descriptive Note: "Early Spring" is here conceived of as a mist and forest filled mountain. The brushwork registers infinite variations of pressure and ink: the silhouette of the rocks and boulders are delineated with a heavy touch, the fog-washed trees with a light one....

Sources: National Palace Museum database (2008-); Yangqiu, Viewing Metaphor: Work of Early Spring (2010)



<http://vocab.getty.edu/page/cona/700002851>

Mission of the Getty Vocabulary Program

- The mission of the Getty Vocabulary Program (GVP) is to produce rich, structured, authoritative vocabularies, in compliance with international standards, that provide a powerful conduit for inter-related, linked, and meaningful research, discovery, and understanding of the visual arts and their various histories, in collaboration with the international community, and utilizing training and outreach to inform the field.

A primary goal of the Getty Vocabulary Program is to broaden and enrich the scope and coverage of the Getty Vocabularies to become ever more multilingual, multicultural, inclusive, and representative of the subjects and priorities of the GRI, the Getty, and global art history.

Features of Getty Vocabularies

- For over four decades, Getty Vocabularies have been a linchpin in cataloging, retrieval, research, and discovery for art, architecture, diverse cultural works, archival materials, visual surrogates, and art conservation, by providing standards for the naming and identification of artists, artworks, place names, and art terminology.
- The Vocabularies are in many ways unique among other terminology resources; for example, they accommodate debated and ambiguous information, and they provide complex relationships between themselves and other resources.
- Over the years, Getty has improved the Vocabularies for the evolving requirements of traditional and new users, leading in content development and technology, while still ensuring that the Vocabularies remain accessible and useful to all tiers of core users.
See [Diversity and Inclusion Issues](#)

Features of Getty Vocabularies

- In a global environment where we strive to be more open and equitable, while maintaining high standards for scholarship and research, the Getty Vocabularies facilitate these goals for art history and related disciplines.
- The [scope of the Vocabularies](#) remains the visual arts, while an ongoing goal is to make them more multilingual, multicultural, and inclusive, focusing also on diversity, equity, unbiased and antiracist terminology, and accessibility.
- Emerging from the historical Getty focus on Western art, the Vocabularies' coverage of non-Western art and culture is expanding.
- Examples include the [Florentine Codex project](#), which contributed hundreds of concepts to the Vocabularies in Spanish, Classical Nahuatl, contemporary Eastern Huasteca Nahuatl, and English.
- Ongoing multilingual projects with external partners include Chinese, Spanish, Dutch, German, Portuguese, French, Italian, Japanese, Arabic, Hebrew, and Sanskrit terminology.
- Other areas of development include additions of female artists, East Asian artists, Black artists, LGBTQ artists, indigenous place names, Native American tribal names, and gender identity terminology.

Features of Getty Vocabularies

- As Getty provides more and more digital resources for research and discovery, it is the Vocabularies that function as the glue joining varied and separate resources.
- In order to serve several critical audiences, the Vocabularies are [made available](#) free of charge and without restrictions in online displays and in multiple formats, including Linked Open Data (LOD).
- LOD is a method of publishing datasets with semantic links that can be used by computers to aid searchers in navigating the vast universe of digital information.
- Through LOD, the Vocabularies can unlock and disambiguate access to many kinds of knowledge, data, and images buried in a wide variety of databases and collection management systems at Getty and at museums, archives, and libraries around the world.

Features of Getty Vocabularies

- Getty Vocabularies are rich, structured, authoritative resources for the visual arts domain
 - Built on contributions from the international community
 - Compiled, curated, and distributed by the Getty
 - In a global environment where we strive to be more open and equitable, while maintaining high standards for scholarship and research, Getty Vocabularies facilitate these goals for art history and related disciplines
- They contain terminology for art, architecture, decorative arts, other cultural objects, archival materials, visual surrogates, and conservation
- However, they are not simple 'value vocabularies' or lists of terms; due to rich contextual data, they are 'knowledge bases' in themselves
- Compiled, curated, and distributed by Getty, the Vocabularies grow through [contributions from the expert user community](#), including institutions, consortia, and individuals

Features of Getty Vocabularies

- They are available in online displays and in various release formats
- Getty Vocabularies contain coreferences to other resources where topics overlap
- However, they are unique in their global coverage of the defined domain, in citing published sources and contributors, in allowing interconnections among historical and current information, in accommodating the sometimes debated and ambiguous nature of art historical information, and in allowing complex relationships within and between Vocabularies
- Audience: For institutions and individuals
 - in the visual arts domain of art, architecture, decorative arts, diverse cultural works, archival materials, visual surrogates, and art conservation
 - including catalogers, researchers, museums, art libraries, archives, image repositories, consortia, research projects, knowledge repositories, professors, scholars, other content experts, developers
- Who have the mission/task/imperative/interest of
 - cataloging, retrieving, researching, and discovery of information about the visual arts

Benefits of Getty Vocabularies

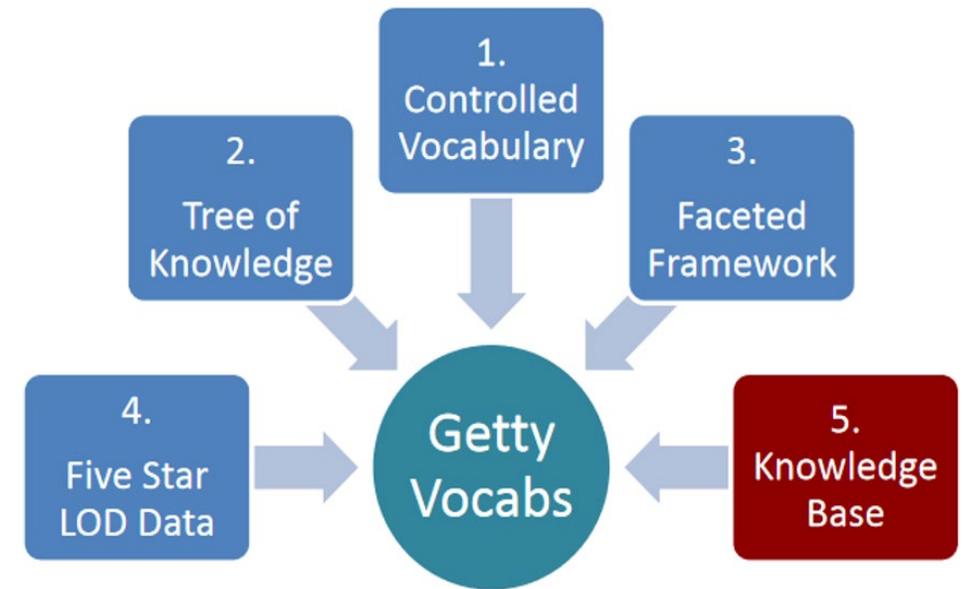
- They comply with international standards
- They, in an increasingly data-driven society, function as the glue joining varied and separate resources, regardless of language or domain within visual arts
- They provide rich context as “knowledge bases” not serving only as simple “value vocabularies”
- They, through contextual data, would allow multiple views of the data (e.g., by language, by historical/current, by culture, etc.)
- They are non-authoritarian in application, yet provide default terms and coreferences
- They accommodate multiple opinions and the sometimes debated and ambiguous nature of art historical and multicultural information (e.g., dates on terms, extent may be “possibly”, etc.)
- They may provide a powerful conduit for inter-related, linked, and meaningful research, discovery, and understanding of the visual arts and their various histories

Benefits of Getty Vocabularies

- They are enriched with domain-specific semantic links, which can be queried with a high level of precision, thereby addressing ambitious questions about history and culture
- They, in order to serve several critical audiences, are made available free of charge and without restrictions in online displays, with multiple iterations of the data (e.g., full to simple), and [in multiple formats](#), including Linked Open Data (LOD)
- They work in collaboration with the international community of users and over 350 contributors
- They have clearly defined boundaries of scope
- They are committed to broaden and enrich coverage to become more multilingual, multicultural, inclusive (DEAI), and representative of the subjects and priorities of the GRI, the Getty, global art history

Benefits of Getty Vocabularies

- They are subjects of Getty training and outreach to inform and assist the field in contributing to and application/use of the Vocabularies
- They are represented in broader realm of standards as Getty participates in ISO and other standards organizations
- They have high score in [functional metrics for LOD KOS products](#) and as [5-Star LOD data](#), serving as a controlled vocabulary, tree of knowledge, faceted framework, and knowledge base
- They are produced by a trusted cultural institution who has a commitment to users and the continuation of the Vocabularies may be expected into the future



from Marcia Zeng

How to Obtain and Use Getty Vocabularies

- Getty Vocabularies may be used and reused under the [Open Data Commons Attribution License \(ODC-By\) 1.0](#).
- They are intended to support research and cataloging efforts.
- Getty Vocabularies are made available in online displays accessed via Web search interfaces.
- Click to see the search screens: [AAT](#), [TGN](#), [ULAN](#), [CONA](#), and [IA](#).
- The Vocabulary data is also released in several formats:
- AAT, TGN, and ULAN are available as as [Linked Open Data](#) and in [XML, relational tables, and Web services APIs](#)
- CONA and IA are available via [Web services](#)
- Please find more information at the [Download Center](#)
- Also see the Getty Vocabularies [SPARQL End Point](#) and the [Open Refine Reconciliation Service](#)

Scope of Getty Vocabularies

- **Scope:** The domain of the Getty Vocabularies is the visual arts. The scope of each Getty Vocabulary is clearly defined, including what is included and what is excluded.

Please click to read about Scope:

- [Scope of AAT](#)
- [Scope of TGN](#)
- [Scope of ULAN](#)
- [Scope of CONA](#)
- [Scope of IA](#)

More about Scope

- [Scope of AAT](#)

- AAT includes generic terms, and associated dates, relationships, and other information about *concepts* related to or required to catalog, discover, and retrieve information about art, architecture, and other visual cultural heritage, including related disciplines dealing with visual works, such as archaeology and conservation, where the works are of the type collected by art museums and repositories for visual cultural heritage, or that are architecture. It is our goal to be ever more inclusive of various cultures and their visual works. Also, in recognition of diverse collections found in art museums, the AAT contains terminology to describe objects and associated activities that are ceremonial or utilitarian in nature, but are not necessarily labeled as *art* according to traditional Western aesthetics.
- The AAT is used for work types, roles, materials, styles, cultures, techniques, subject, and other fields in a work record, so long as terms fit into established AAT facets.
- **What is excluded in AAT?** In general, terminology from domains other than visual arts is excluded from AAT, except to the extent that such terminology is necessary to catalog or discover information about visual works, including new media art, conceptual art, and performance art (as distinct from the performing arts).
- Excluded are proper names and iconographical subjects for the domain of art and architecture, but which are included in the other Getty Vocabularies: examples are names of people (ULAN), geographic names (TGN), titles of works of art (CONA), or iconographical topics (IA). Also excluded from AAT are unbound compound terms, which combine words from distinct hierarchies; for example, *Baroque cathedral* is an unbound compound term combining terms for a style and for a work type. Excluded are phrases or words that do not have literary warrant, organizational warrant, or user warrant. Overall, records that lack the minimal information for an AAT record are excluded; see [guidelines for contributions](#) for more information regarding minimum contribution requirements.

More about Scope

■ Scope of TGN

- TGN is not comprehensive; although coverage is multilingual and global, the scope is tailored to the needs of the Getty Vocabularies' core audience. The temporal coverage of TGN ranges from prehistory to the present. The scope of TGN includes names, relationships, place types, dates, and coordinates for places required to catalog, discover, and retrieve rich information about art, architecture, and other visual cultural heritage, including related disciplines dealing with visual works, such as archaeology and conservation. Visual works include not only works classified as *art* according to Western aesthetics, but also utilitarian and ceremonial works. For works' information, TGN is used for current location, creation location, discovery location, and subject depicted; for people in ULAN, TGN is used for places of birth, death, and activity. TGN is linked to CONA and IA as well. Development in TGN focuses on the historical world, although as much of the modern world as is necessary for giving context to the historical world and for cataloging and discovery of visual works is included.
- Types of places included in TGN are inhabited places (cities, towns, villages), nations, empires, archaeological sites, named general areas, tribal areas, lost settlements (historically documented, but the precise location is unknown), and physical features. Names that reference a built work may be included, when the name serves as a place name; if it also serves as a built work name, you may record it in CONA and link to TGN (places and built works have different attributes, thus are recorded in separate Vocabularies). Sizable areas within inhabited places may be included if they serve as place names, such as districts, neighborhoods, squares, and large parks. Street addresses are not included. Settlements that were planned but never built may be included, but legendary and fictional places are not included; they may be included in IA.
- Various types of names for places are included. Records for modern places often include historical names; places may have various historical names that change over time. Alternative place names are included, such as indigenous names and official names. Codes and official abbreviations may be included in the name field; for example, ISO codes for nations are included. See the discussion of fields below for more information about flags used to denote codes. Names in multiple languages may be included. Various transliterations may be included. Misspellings may be included, provided they are found with some frequency in published sources, and therefore are useful for retrieval. Names that are considered "pejorative" or "avoid use" may be flagged.
- **What is excluded in TGN?** While TGN includes lost settlements that have warrant in historical documentation, excluded are names of imaginary or legendary places that did not exist. These places may be recorded in the Getty Iconography Authority (IA). Generally, excluded also are names for underwater features and other physical features that are not required for cataloging and discovery of visual works or for creating historical hierarchies. Given that TGN is not comprehensive and is optimized for the domain of visual arts, many places found in generic GIS are excluded in TGN. Also, locally used abbreviations and names found in only one archival source are excluded. Street addresses are generally out of scope for TGN; if you require controlled street address as location identifiers in your local data, we advise that you use a local authority. The names of built works are generally out of scope for TGN, although they are occasionally included when used as a place name. Record built works in CONA. Overall, records that lack the minimal information for a TGN record are excluded (i.e., name, place type, broader contexts, warrant); see [guidelines for contributions](#) for more information regarding minimum contribution requirements.

More about Scope

■ [Scope of ULAN](#)

- ULAN focuses on creators of the visual arts. It includes names, relationships, and biographical information for makers and other people and corporate bodies required for the documentation, collection, and discovery of rich information about art, architecture, and other material culture where the works are of the type collected by art museums and other repositories for visual cultural heritage, or that are architecture. Within scope are artists, architects, other makers, firms, and studios, both named and anonymous. Also included may be patrons (who often have input in the creative process) and repositories of art. Makers may be named (e.g., *Katsushika Hokusai*) or anonymous (e.g., *Master of the Aachen Altar*). ULAN includes makers of cultural visual works which are ceremonial or utilitarian in nature, even if not classified as art according to traditional Western perceptions. Appellations for creating cultures are included (e.g., *unknown Aztec*). Also included are repositories of art. Amateur artists may be included in ULAN if their work is of the type typically collected by art museums and information for all **CORE** ULAN fields is available, including a recognized published source that names or discusses the artist and their work (for example, a journal article or an entry in a museum catalog). Occasionally, names of certain donors, sitters, and other non-makers associated with the work may be included, although generally such names are out of scope.
- **What is excluded from ULAN?** Filmmakers, musicians, actors, dancers, or other performing artists are out of scope for ULAN. The names of fictional and literary characters who may be the subject of the visual work are excluded from ULAN; they could be recorded instead in the Iconography Authority (IA), provided they are within scope for the IA. Records for people and corporate bodies that are named in documentation or archival materials about visual works, but whose identity and biographical information are unknown or unknowable are typically out of scope for ULAN. *Attribution statements*, including those naming studios or workshops, are outside the scope of ULAN. For example, when a painting is **attributed to** an artist or to some unknown hand in the workshop of a known artist (e.g., as might be expressed in an object record as *attributed to Hokusai* or *follower of Rembrandt*), these [attribution statements](#) are outside the scope of ULAN ([attribution qualifiers](#) are in AAT). In such cases, the attribution statement combines a qualifier that should be recorded in the object record, not included in ULAN, and possibly a link to a known artist (if applicable). Generic personal names, such as the word *Brueghel*, are excluded from ULAN because they do not represent a single definable entity. Overall, records that lack the minimal information for a ULAN record are excluded (i.e., name, nationality, role, and life dates or an estimation of when the person existed); see [guidelines for contributions](#) for more information regarding minimum contribution requirements.
- Although occasionally the names of donors, sitters, and others who are only peripherally associated with the creation of the work may be included in ULAN, these people are not the focus of ULAN and are generally excluded. Filmmakers, musicians, actors, dancers, or other performing artists are excluded from ULAN are included only in the rare occasion when the people or their works are necessary to catalog particular visual works. Names of catalogers, conservators, field archaeologists, art historians, and authors who write about cultural works are typically excluded from ULAN. In general, if a repository includes names such as noted above in the catalog record, we advise that the names be maintained in a local authority rather than contributed to ULAN, because such names are likely needed locally but are not useful to the larger ULAN user community. Also excluded from ULAN are certain local names for people and corporate bodies who themselves are within scope for ULAN, but where these particular names are used only locally; for example, excluded are local abbreviations for names and name spellings found in only one archival document.
- Please see further discussion in the [guidelines for contributions](#) and editorial guidelines regarding which names may be contributed to ULAN and which should instead be maintained in a local authority; you may consult the list of fields likely to be found in a work record and that may contain personal names, but which are out of scope for inclusion in ULAN.

More about Scope

- [Scope of CONA](#)
- CONA currently focuses on architecture, multiples, lost and destroyed works, works designed but not built, performance art, and works depicted in visual surrogates or other works. In general, the scope of CONA may include many types of visual works, including architecture and *movable works* such as paintings, sculpture, prints, drawings, manuscripts, photographs, textiles, basketry, ceramics, furniture, other visual media such as frescoes and architectural sculpture, performance art, archaeological artifacts, and various functional or ceremonial objects that are from the realm of material culture and of the type collected by museums. However, it is our goal to be ever more inclusive of various cultures and their visual works; thus objects recorded in CONA are not necessarily labeled as *art* according to traditional Western aesthetics. CONA records may represent built works or movable works, whether extant or historical, whether realized or conceptual. Works that are destroyed, disassembled, or planned but not constructed may be included. In CONA, data may be contributed from multiple contributors and other sources; the resulting compilation or linking of metadata could provide a rich resource for researchers and other users. The unique ID that CONA provides for works is seen as useful by members of the community for disambiguation of linked data about works; a concordance of the CONA ID and IDs for the work from other resources can enable a practical solution to the problem of uniquely identifying a work in the semantic Web and beyond.
- **What is excluded in CONA?** In general, out of scope for CONA are objects in natural history or scientific collections, although these works indeed fit into the framework of CONA and may be included if collected in art museums. CONA may include artists' films, but in general films, literary works, or musical works are out of scope for CONA. Limited exceptions may occur when such creations are considered visual works or produced by conceptual artists. CONA does not include records for corporate bodies, although the building that houses the corporate body could be included, even if it has the same name as the corporate body. For example the buildings of the *National Gallery of Art* in Washington, DC, are included in CONA; however, the corporate body that inhabits those buildings, also called the *National Gallery of Art*, is outside the scope of CONA (but within scope for ULAN).

More about Scope

- [Scope of IA](#)

- The domain of the IA is the visual arts. The scope of IA includes proper names and other information for named events, themes and narratives from religion/mythology, legendary and fictional characters, themes from literature, works of literature and performing arts, and legendary and fictional places. IA includes proper names not covered by the other Getty Vocabularies, ULAN, TGN, CONA, or terms in AAT. IA is unique in the following ways: The coverage of IA is multilingual, multicultural, and global; IA is not rooted in Western iconography, but culturally is universal in scope. Where there is overlap with other resources, such as Iconclass and US Library of Congress subject authorities, links are made between IA and these resources. IA also shares areas of uniqueness common to all the Getty Vocabularies, when compared to other resources covering similar topics: In their global coverage of defined domain of visual arts, in citing published sources and contributors, in allowing interconnections among historical and current information, in accommodating the sometimes debated and ambiguous nature of art historical information, and in allowing complex relationships within and between Vocabularies.
- **What is excluded in IA?** In general, out of scope for IA are topics and names included in the other Getty Vocabularies. Generic terms are found in AAT; personal names of historical people are found in ULAN; names of real places are found in TGN; and names of visual works are found in CONA. Also excluded are characters, themes, narratives, and other topics within the general scope of IA, as noted above, but which are not needed for cataloging, researching, or discovery of visual works.

Purpose of Getty Vocabularies

Purpose: Getty Vocabularies are used for several purposes:

- **Cataloging:** For some users, the Getty Vocabularies are utilized as data value standards at the point of documentation or cataloging, to promote consistency in assignment of a term or to provide options among multiple terms referencing the same concept. The Vocabularies provide preferred names/terms and synonyms for people, places, and things. They also provide structure and classification schemes that can aid in documentation.
- **Linking:** For other users, the Getty Vocabularies are used in linking, in order to reference the unique identifier of the Vocabulary record, or to otherwise reconcile their data.
- **Retrieval:** For other users, the Getty Vocabularies aid in retrieval and discovery, as search assistants to enhance end-user access to online resources. These users may utilize synonymous terms, broader/narrower contexts, and other rich contextual data in search assistants, in database retrieval systems, and more broadly in a linked environment. The Vocabularies are rich knowledge bases that contain dozens of fields of rich contextual data about each concept, and semantic networks that highlight links and paths between concepts.
- **Research tools:** For other users, the Getty Vocabularies are used as look-up resources, valuable because of the rich information and contextual knowledge that they contain.
- **Other:** Other uses may be as a target for enriching free-text descriptions of cultural objects; and as a pivot vocabulary for coreferencing (interlinking) other art vocabularies.

About the Getty Vocabularies

AAT

TGN

ULAN

CONA

IA

About AAT

- **AAT, Art & Architecture Thesaurus®** includes generic terms in several languages, relationships, sources, and scope notes for work types, roles, materials, styles, cultures, and techniques (477,898 terms)
(e.g., *amphora*, *literati (painters)*, *oil paint*, *olieverf*, *peintures à l'huile*, *acetolysis*, 玉器, *Jadekünste*, *sintering*, *orthographic drawings*, *Olmeca*, *Rinascimento*, *Buddhism*, *emakimono*, *watercolors*, *asa-no-ha-toji*)

- Facets are the upper levels of the AAT structure
- AAT is not organized by subject matter or discipline

<i>Associated Concepts</i>	<i>Physical Attributes</i>	<i>Styles and Periods</i>	<i>Agents</i>	<i>Activities</i>	<i>Materials</i>	<i>Objects</i>	<i>Brand Names</i>
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Unique features of Vocab may aid in facilitating inclusivity & multicultural content, allowing different views of data based on language, culture, discipline

UNIQUE IDS

LANGUAGES

PREFERENCES

DATES, HIST/CUR

RELS/LINKS--POLY

CREDIT/WARRANT

COREFERENCES

• AAT, Art & Architecture Thesaurus®

AAT ID: 300190536

Terms:

steel engravings (pref, en-P,PN)

[1000041363] *Contrib.* [VP,BHA] *Sources.*

Gascoigne 1986, Lucie-Smith 1986, Brit 2000-*

Qualifier: visual works

Date: from 1792

Start: 1792 **End:** 9999

steel engraving (en, SN)

[1000299348] *Contrib.* [VP,BHA] *Sources.* *

Qualifier: visual work

engravings on steel (en) (Hist)

[1000895990] *Contrib.* [Morem] *Sources.* *

gravures sur acier (fr-N, PFN)

[1000304335] *Contrib.* [CHIN] *Sources.* *

鋼版刻印 (zh_TW-P) [1000551901]

Contrib. [AS] *Sources.* *

gāng bǎn kè yìn (zh-Latn-pny-P)

[1000551903] *Contrib.* [AS] *Sources.* *

staalgravures (nl-P) [1000482814]

Contrib. [RKD-AAT ned] *Sources.* *

gravuras em metal (pt-P)

[1000884616] *Contrib.* [CVAA-BR] *Sources.* *

Sample record (partial)

Terms (cont):

grabados al acero (es-N) [1000429838]

Contrib. [CDBP-SNPC] *Sources.* *

Stahlstiche (de-N) [1000655952]

Contrib. [IfM-SMB-PK] *Sources.* *

Associative Relationships

produced by ... steel engraving (printing process) [300190536]

distinguished from ... siderographs [300389774] **Date:** from early 1800s

Start: 1800 **End:** 9999

Hierarchical Relationships (poly)

Objects Facet

.. Visual and Verbal Communication (G)

.... Visual Works (hierarchy name) (G)

..... visual works (works) (G)

..... <visual works by material or technique> (G)

..... prints (visual works) (G)

..... <prints by process or technique> (G)

..... <prints by process: transfer method> (G)

..... intaglio prints (G)

..... engravings (prints) (G)

..... steel engravings (visual works) (G)



Note: Prints made by the process of "steel engraving (printing process)," in which plates of steel or steel-faced copper are used, having replaced the use of less durable copper plates in the early 19th century...

Contrib. [VP,BHA] *Sources.* Gascoigne 1986, Lucie-Smith 1986, Brit 2000-, *

Chinese (traditional) 以鋼版雕刻程序製成的版畫

Contrib. [AS] *Sources.* *

Dutch Gravures waarbij de afbeelding is gesneden in een stalen plaat. *Contrib.* [RKD-AAT ned] *Sources.* *

German Druck, der im Verfahren des Stahlstichs hergestellt wurde. *Contrib.* [IfM-SMB-PK] *Sources.* *

Spanish Estampas realizadas mediante el proceso de grabado en acero....*Contrib.* [CDBP-SNPC] *Sources.* *

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

Sources: Griffiths, Prints (1996); Hunnisett, Steel-Engraved (2020); Koschatzky, Die Kunst der Graphik (1988);

Thes.Graph.Mat. **tgm010117**; Lucie-Smith, Thames & Hudson Dictionary of Art Terms (1986); Newman, Innovative Printmaking (1997)

Contributors are cited

AAT records are merged information from multiple contributors

Getty Vocabularies grow through contributions from the expert user community

All information in a Getty Vocabulary record is attributed to a contributor and cites the published sources

steel engravings (visual works) ([preferred](#))
steel engraving (visual work) ([C,U,English,AD,U,SN](#))
engravings, steel (visual works) ([C,U,English,AD,U,SN](#))
engravings on steel ([H,U,English,UF,U,U](#))
line engravings on steel ([H,U,English,UF,U,U](#))
鋼版刻印 ([C,U,Chinese \(traditional\)-P,D,U,U](#))
gāng bǎn kè yìn ([C,U,Chinese \(transliterated H,AD,U,SN\)](#))
gang ban ke yin ([C,U,Chinese \(transliterated F,AD,U,SN\)](#))
kang pan k'e yin ([C,U,Chinese \(transliterated F,AD,U,SN\)](#))
staalgravures ([C,U,Dutch-F,D,U,U](#))
staalgravure ([C,U,Dutch,AD,U,U](#))
gravures sur acier ([C,U,French-P,D,U,PN](#))
gravure sur acier ([C,U,French,AD,U,SN](#))
Stahlstiche (visuelle Werke) ([C,U,German,D,AD,U,SN](#))
Stahlstich (visuelles Werk) ([C,U,German-P,AD,U,SN](#))
gravuras em metal ([C,U,Portuguese-P,D,U,PN](#))
gravura em metal ([C,U,Portuguese,AD,U,SN](#))
grabados al acero ([C,U,Spanish-P,D,U,PN](#))
grabado al acero ([C,U,Spanish,AD,U,SN](#))
grabado en acero ([C,U,Spanish,UF,U,SN](#))

- **Getty Conservation Institute** (Los Angeles, California)
- **Morem, Missouri Remembers consortium** (St. Louis, Missouri)
- **BHA** (Bibliography of the History of Art)
- **Academia Sinica** (Nankang, Taiwan)
- **Netherlands Institute for Art History** (RKD: Bureau AAT) (The Hague, The Netherlands)
- **CHIN** (Canadian Heritage Information Network)
- **Staatliche Museen zu Berlin Preussischer Kulturbesitz** (Berlin, Germany)
- **Centro de Documentación de Bienes Patrimoniales** (Dirección de Bibliotecas, Archivos y Museos) (Santiago, Chile)

View of the AAT hierarchy

- Top of the AAT hierarchies
- Objects Facet
- Visual and Verbal Communication (hierarchy name)
- Visual Works (hierarchy name)
- visual works (works)
- <visual works by material or technique>
- prints (visual works)
- <prints by process or technique>
- <prints by process: transfer methods>
- intaglio prints
- engravings (prints)
- copper engravings (visual works)
- drypoints (prints)
- line engravings (prints)
- lithographic engravings (prints) [N]
- mezzotints (prints)
- carborundum mezzotints (prints)
- sand-grain mezzotints (prints)
- niello prints
- punched engravings
- siderographs
- steel engravings (visual works)
- stipple engravings (prints)

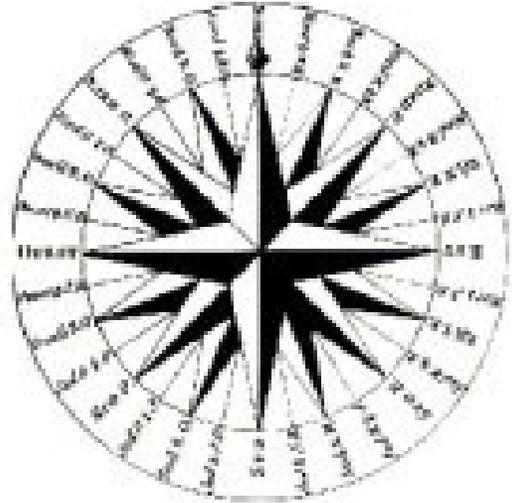
- Indention: broader/narrower (genus/species)
- Sub-facets (called “hierarchies”) establish the context of the term
- Guide terms in angled brackets
- Qualifiers display in parentheses

Concept

steel engravings (visual works)



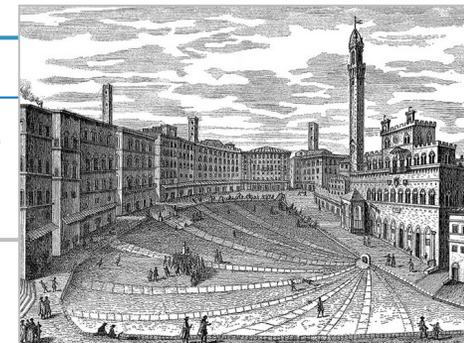
About TGN



- **TGN**, *Getty Thesaurus of Geographic Names*® includes names, relationships, and coordinates, with special focus in development on historical information for current cities, historical nations, empires, archaeological sites, lost settlements, and physical features as necessary for cataloging art; not comprehensive and not GIS but may include coreferences to GIS and maps (5,316,468 names) (e.g., *Diospolis, Acalán, Ottoman Empire, Axumite Empire, Mogao, Ch'ien-fu-tung, Leptis Magna, Machupicchu, Ganges River, गंगा नदी*)

● TGN, Getty Thesaurus of Geographic Names®

Sample record



TGN ID: 7011179

Names:

Siena (pref,it,en-P) [47413]

Contrib. [VP,BHA,Avery]

Sources. Annuario Generale 1980, UNESCO (1992); Williams (2010)*

Sienna [140808]

Sienne (fr-P) [1002860953]

Σιένα (el-P) [1002038443]

锡耶纳 (zh-P) [1002038446]

Сиена (ru) [1002038445]

シエーナ (ja) [1002038441]

Sienese (adj) (en) [1159549]

Senae (hist.) [181416]

Date: Medieval

Start: 800 *End:* 1500

Sena Julia (hist.) (la) [181415]

Sena (hist.) [181414]

Date: Etruscan

Start: -800 *End:* 200

Hierarchical Relationships (poly.)

World (facet)

...Europe (continent)

.....Italy (nation)

.....Siena (province)

.....Siena (inhabited place) (Current)

World (facet)

...Europe (continent)

.....Italian Peninsula (peninsula)

.....Etruria (former group of political entities)

.....Siena (inhabited place) (Hist.)

Date: Late Etruscan *Start:* -400 *End:* 100

Associative Relationships

ally of Pisa ..(inhabited place) [7006082]

Date: Ghibelline allies, 13th-14th centuries *Start:* 1250 *End:* 1400

Contributors:

VP,BHA, Avery,GRI

Sources: Annuario Generale (1980); NGA/NIMA database (2003-) **-129709**; Library of Congress Authorities **n 79013822**; UNESCO World Heritage Centre [online] (1992-); VIAF: Virtual International Authority File [online] (2009-) VIAF ID: **239842096 (Geographic)**

Place Types

inhabited place

Date: settled by Etruscans (flourished 6th century BCE) *Start:* -800 *End:* 9999

city

archiepiscopal see

AAT

commune (administrative)

Date: since 1125 *Start:* 1125 *End:* 9999

cultural center

university center

world heritage site

Lat: 43 19 07 N (43.3180)

Long: 011 19 50 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 ...

UNIQUE IDS

LANGUAGES

PREFERENCES

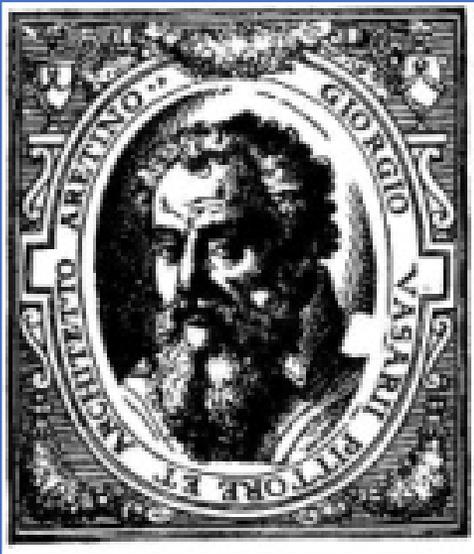
DATES, HIST/CUR

RELS/LINKS--POLY

CREDIT/WARRANT

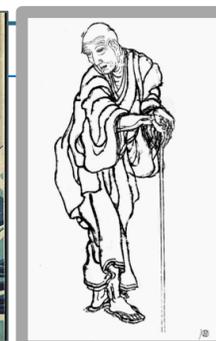
COREFERENCES

About ULAN



- **ULAN**, *Union List of Artist Names*® includes names, relationships, notes, sources, and biographical information for artists, architects, firms, studios, repositories, patrons, other individuals and corporate bodies, both named and anonymous; may include coreferences to other resources (1,470,142 names) (e.g., *Mark Rothko*, *Cai Xiang*, *蔡襄*, *Crevole Master*, *Riza Abbasi*, *Rajaraja Museum*, *I. M. Pei & Partners*, *Ahuitzotl*, *William Kentridge*, *Frida Kahlo*)

• **ULAN, Union List of Artist Names®**
Sample record



ULAN ID: 500060426

Names:

Katsushika Hokusai (en,ja-trans) [1500235399]

Contrib. [VP,CCA, Avery]

Sources. Bowie (1964), Grove (2022),Met (2003)*

Hokusai (en,ja-trans) [1500235408]

Date: name taken by the artist in 1798, and used for his prints and paintings

Start: 1798 *End:* 9999

葛飾 北斎 (ja) [1500705416]

Shunrō (en,ja-trans) *Date:* gō (artist's name), used in his years of training, when painting hosoban (narrow prints) [1500235400]

Sōri (en,ja-trans) *Date:* gō used in early career, named taken from his Rinpa-school master Tawaraya Sōri [1500235401]

Kakō (en,ja-trans) *Date:* used for the production of commercial prints and books [1500235402]

Tatsumasa (en,ja-trans) *Date:* used for the production of privately published illustrations [1500235403]

Display bio: (Japanese printmaker, painter, 1760-1849)

Birth date: 1760

Death date: 1849

Nationalities:

Japanese (pref)

Roles:

artist

AAT

printmaker

painter

designer

calligrapher

draftsman

landscapist

marine artist

figure artist

ukiyo-e artist

Gender: male

Birth and Death Places:

Born: Tokyo (Kanto, Japan)) (inhab place)

Died: Tokyo (Kanto, Japan)) (inhab place)

Events:

active: Tokyo (Kanto, Japan)) (inhab place)

..... in Edo, modern-day Tokyo

Associative Relationships:

teacher of Taito, Katsushika, II

.....(Japanese printmaker, active ca. 1820-1850)

child of Nakajima Ise

.....(Japanese mirror maker, 18th century)

possibly identified with ... Tōshūsai Sharaku

..... (Japanese printmaker, active 1794-1795)

Contributors:

VP, Avery,GRL,BHA,CCA

Sources: Bowie, Drawings of Hokusai (1964);

Grove Dictionary of Art online (1999-2002);

Library of Congress Authorities n 80043599 ;

Metropolitan Museum of Art [online] (2003-);

Bouquillard, Hokusai: First Manga Master (2007)

TGN

UNIQUE IDS

LANGUAGES

PREFERENCES

DATES, HIST/CUR

RELS/LINKS--POLY

CREDIT/WARRANT

COREFERENCES

About IA



- **IA**, *Getty Iconography Authority*[™] includes proper names, relationships, and dates for iconographical narratives, religious or fictional characters, historical events, names of literary works and performing art; special focus on non-Western with coreferences to other resources (7,200 terms) (e.g., *Xibalba*, *Yemonja*, *शिव*, *Shiva*, *Bouddha couché*, *Flood of Deucalion*, *Viaggio dei Re Magi*, *French Revolution*, *Olouaipipilele*, *Niflheim*, *Mithras*)

• IA, Getty Iconography Authority™

Sample record



IA ID 901000085

Names

Avalokiteśvara (pref-en) [5000191]

Qualifier: Buddhist bodhisattva

Date: name occurs in Sanskrit by 7th century

Start: 600 *End:* 9999 *Contrib:* VP,BHA,BWR-P

Sources: Bowker (1997); Dunhuang (2010)

Avalokitesvara [5001067]

Avalokitesvara [5003150]

अवलोकितेश्वर (sa) [5001068]

ཡུན་རས་གཟིགས (bo) [5002308]

Spyan ras gzigs [5002309]

Hierarchical Relationships

Top of the IA hierarchies

Legend, Religion, Mythology

Buddhist iconography

Buddhist characters

Avalokiteshvara (Buddhist iconography)

Vocab links

role/characteristic is ... Bodhisattva [AAT]

symbolic attribute is ... lotus [AAT]

culture/religion is ... Mahayana (Buddhism) [AAT]

culture/religion is ... Theravada (Buddhism) [AAT]

AAT
TGN
ULAN
CONA

Associative Relationships

associated with Krishna (Hindu iconography)

counterpart is Guanyin (Buddhist iconography)

Display Date: veneration in India flourished ca. 3rd-7th centuries *Start:* 200 *End:* 9999

Note The bodhisattva of infinite compassion and mercy; embodies the compassion of all Buddhas. Known in over 100 manifestations; is portrayed in different cultures as either female or male, as

Contributors VP,BHA,BWR

Sources Bowker, Oxford Dictionary of World Religions (1997); Huntington, Art of Ancient India (1985); Encyclopedia Britannica Online (2022-);

LC: LC control no.: **sh 85010492**

UNIQUE IDS

LANGUAGES

PREFERENCES

DATES, HIST/CUR

RELS/LINKS--POLY

CREDIT/WARRANT

COREFERENCES

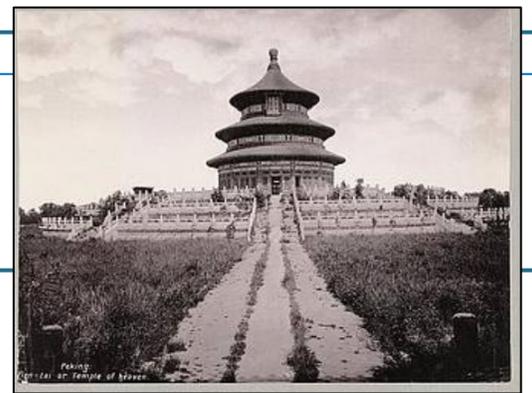
About CONA

- **CONA**, *Cultural Objects Name Authority*® titles, artist attribution, creation dates, relationships, and location for works; focuses on architecture, multiples, works depicted in other works, lost works, designed but not built (107,493 titles) (e.g., *Hagia Sofia*, *Αγία Σοφία*, *Adinatha Temple*, *Flatiron Building*, *The Lacemaker*, *Merlettaia*, *La Dentellière*, *Lion Throne Room*, *神奈川沖浪*, *Great Wave*, *Die große Welle*)



• **CONA, Cultural Objects Name Authority®**

Sample record



CONA ID: 70002923

Titles/Names:

Temple of Heaven (pref- en)

[1000016889]

Display Date: renamed in the 16th century **Start:** 1521 **End:** 9999

Contrib: JPGM-P,BWR,BHA

Sources: BWR database (2019); Great Buildings (2000)-P; UNESCO WHC (1992)

Tian Tan (zh-tr) [1000016890]

T'ien-t'an (zh-trl) [1000019041]

Tiantan [1000016892]

temple du Ciel (fr) [1000019264]

templo del Cielo (es)

[1000019265]

Himmelstempel (de) [1000019266]

壇 (zh) [1000016894]

天坛 (zh) [1000016893]

천단 (ko) [1000019043]

Catalog Level: item

Work Types: temple complex

AAT

Classification: Architecture

Creation Date: construction 1406-1420; extended 16th century **Start:** 1406 **End:** 1420

Qualifier: construction

Creator Display: **ULAN**

first built by Ming Chengzu; extended by Ming Shizong; renovated by Qianlong

[ULAN 500356295]

Role: patron/38121

[ULAN 500372663]

Role: patron/38121

[ULAN 500372572]

Role: patron/38121

Locations:

Location current Beijing (Beijing Shi (municipality), China) (nation) **Address Note:** +39.913889,+116.391667

TGN

Dimensions [display] entire complex: 237 hectares

Mat & Tech [display] wood and stone

wood **AAT 300011914** | stone **AAT 300011176**

Style: Chinese [AAT 300018322] | Taoist [AAT 3001

AAT

General Subject:

architecture **Type:** isness

religion and mythology **Extent:** purpose

Specific Subjects:

Heaven [AAT 300185658] **Extent:** dedication

Chinese heaven [IA 901002236]

AAT
TGN
ULAN
CONA
CONA IA

Note: Large religious complex in the old outer city comprises three buildings are built in a straight line

Contributors:

JPGM; VP; GRISC; BHA; BWR;

Sources: Built Works Registry **BWR3792244**; Library of Congress Authorities online (2002-) **n2011019454**;

Fodor's Travel (2016); J. Paul Getty Museum, collections online (2000-); Great Buildings Online (1997-); UNESCO World Heritage Centre [online] (1992-) **Ref: 881**

UNIQUE IDS

LANGUAGES

PREFERENCES

DATES, HIST/CUR

RELS/LINKS--POLY

CREDIT/WARRANT

COREFERENCES

What Do We Do?

AAT

TGN

ULAN

CONA

IA

History

Art History Information Program (AHIP)

Getty was trailblazer in committing resources to standards and vocabularies for art information in 1980s

TAU, Thesaurus Artis Universalis; CIHA, Comité international d'histoire de l'art

Getty engaged disparate communities

(visual resources, museums, libraries, special coll., archives, some scholars) under Getty leadership to reach consensus (*AAT)

1. Cataloging practice
2. Vocabularies for **cataloging, research & discovery, knowledge bases**
[classification model]
[semantic structure]



1997

*1970s, Williamstown, MA

Getty

History

International Terminology Working Group (ITWG)

Over the years,
Vocabs have changed
with the requirements
of our core
community; need to
remain relevant

Getty partners with
international visual
arts information
community

**Multilingual,
multicultural, inclusive**

Staff: Small editorial
staff, working small
technical team at Getty
and consultants

Contributions: Rely
upon > 350 contributors:
institutions, consortia,
scholarly projects,
scholars



2020

History

The GettyVocabularies, 1990-2023

- **Steady growth:** in terms AAT, ULAN, and TGN, CONA, and IA
- **Global reach:** content, partners in contributions and users
- **Scope:** defined domain, with growth to be multicultural (non-Western) and multilingual; inclusivity
- **Core audience:** beyond visual resources, museums, special collections, but also art historians, conservation, archaeology, among other closely allied fields
- **Partners:** greatly enlarged number of contributors (23 vs 350) and users; e.g., VIAF
- **Free and open access:** LOD, search online, other releases Open Data Commons Attribution License (ODC-By) 1.0
- **Developers:** incorporation in search engines and collections management software, other applications; not abandoning credit and warrant, nor users without access to funds and technical support
- **Outreach:** from documentation for internal Getty to 100s of Web pages, participate in standards creation, workshops, and rules for cataloging art and creating vocabularies, *Introduction to Controlled Vocabularies*, *Multilingual Equivalency Work*

Click the  icon to view the hierarchy.

[Semantic View \(JSON, RDF, N3/Turtle, N-Triples\)](#) ■ [Represent](#)

ID: 300184767
Page Link: <http://vocab.getty.edu/page/aat/300184767>

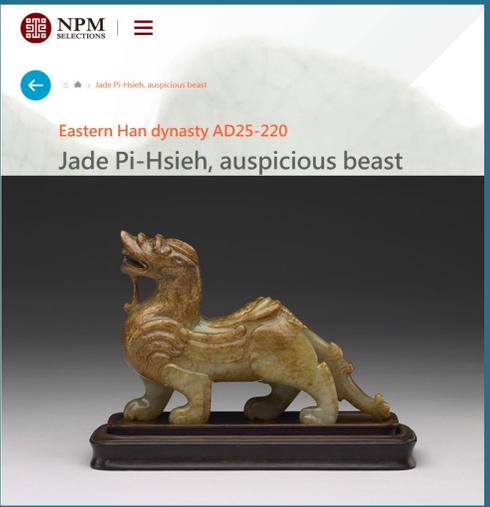
 **jades (objects)** (<sculpture by material>, sculpture (visual works), ... Visual and Verbal Comm (hierarchy name))

Note: Collectively, the class of sculptures, containers, and other objects and artifacts carved in jade several varieties of fine-grained rock 3000–2000 BCE) onward. The Chinese metaphorically equated jade with pur specific object name may be used, su

Terms:

- [jades \(objects\)](#) ([preferred](#), C,U, (objetos) (Spanish-P,D,U,B
- [jade \(object\)](#) (C,U,English,AD,U, (objeto) (Spanish,AD,U,SN)
- [玉器](#) (C,U,Chinese (traditional)-P,D
- [yù qì](#) (C,U,Chinese (transliterated
- [yu qi](#) (C,U,Chinese (transliterated
- [yü ch'i](#) (C,U,Chinese (transliterate
- [jaden beeldhouwwerken](#) (C,U,D
- [jaden beeldhouwwerk](#) (C,U,Dut
- [Jadekünste](#) (C,U,German,D,PN)
- [Jadekunst](#) (C,U,German-P,AD,SN
- [Jadeschnitzerei](#) (C,U,German,UF
- [Jadeschnitzereien](#) (C,U,German,

Facet/Hierarchy Code: [V.VC](#)



JSON

```
{
  "head" : {
    "vars" : [ "Subject", "Predicate", "Object" ]
  },
  "results" : {
    "bindings" : [ {
      "Subject" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/aat/300184767"
      },
      "Predicate" : {
        "type" : "uri",
        "value" : "http://www.w3.org/1999/02/22-rdf-syntax-ns#type"
      },
      "Object" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/ontology#Subject"
      }
    }
  ]
}
```

<https://www.getty.edu/research/tools/vocabularies/>

Meet the Getty Vocabulary Program (GVP)

- PhD or MA in Art History, or MLIS with strong Art History
- All are recognized experts in vocabulary creation
- Cross-trained on all Getty Vocabularies

Contact us: vocab@getty.edu



Our Workflow

What do we do?

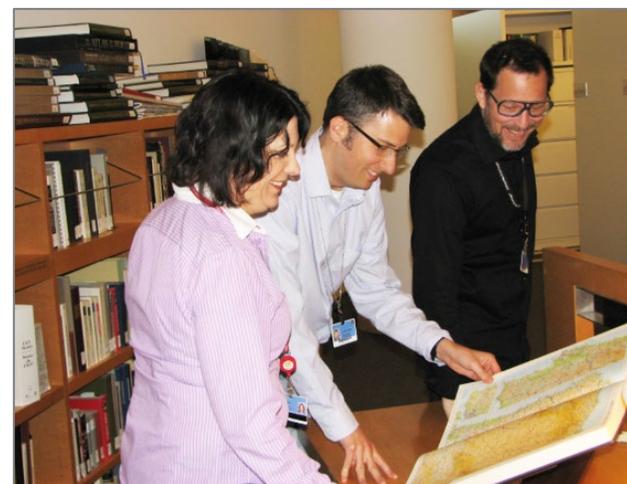
- Getty Research Institute
- Vocabs grow through contributions: We train contributors, process incoming contributions, 1000s per year
- Is data compliant with standards, within scope, correct? Updates published regularly by Getty Digital
- Contact us: vocab@getty.edu



Our Workflow

Coordinating contributions

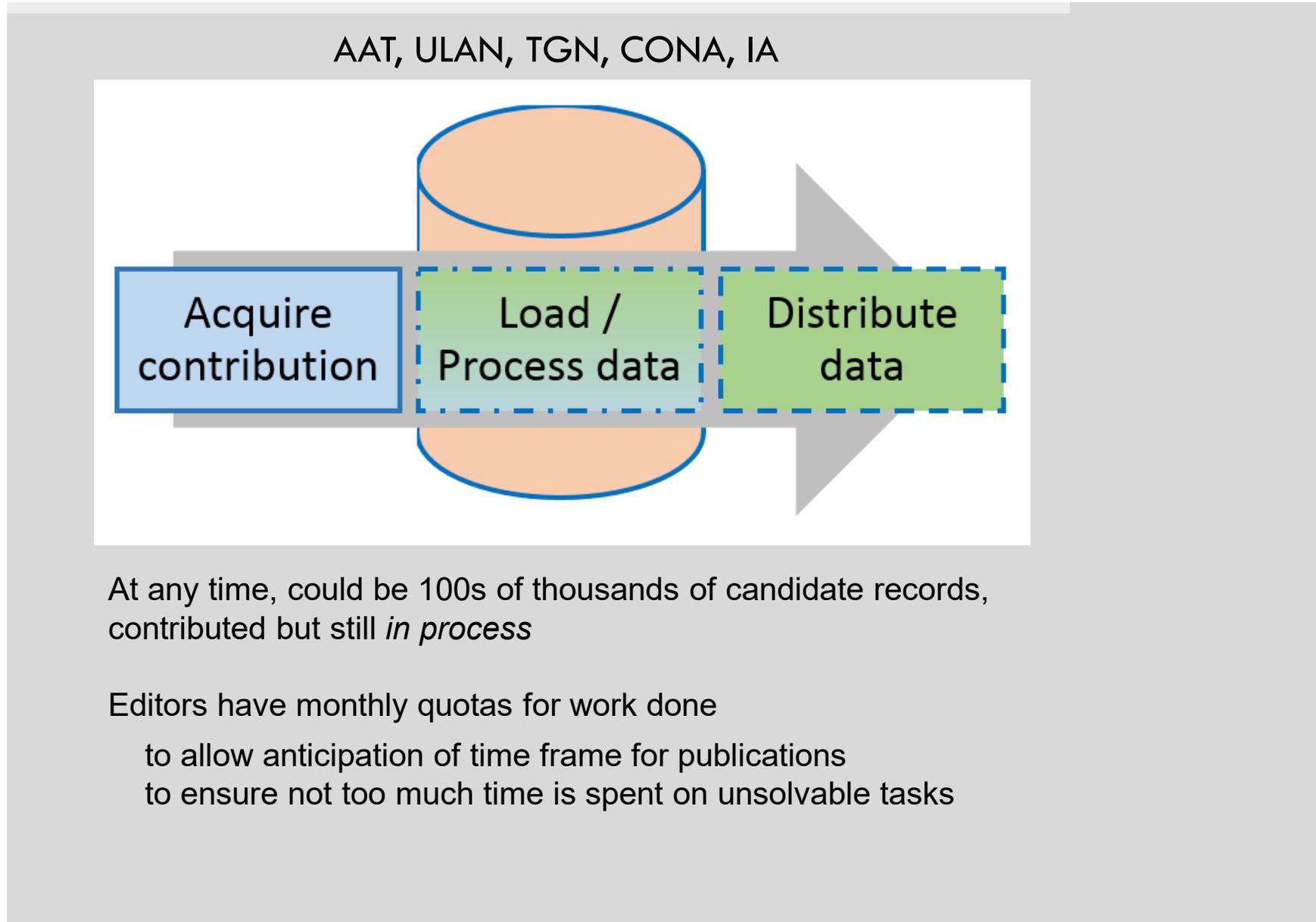
- Nurturing relationships with contributors
- Advising re. mapping their existing data to format for loading into our editorial system
- Advising re. translation methodology and content issues
- Meetings and online conversations
- Receiving contributions, preprocessing, transforming to XML, then contribution is loaded
- Outreach, workshops, individual training for users and contributors



Our Workflow

Processing records

- Contributors' data is loaded and processed by the Getty Digital team and 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





Merging 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

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

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

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

ULAN record is a merged, homogenous entity



Union List of Artist Names® Online
Full Record Display

[New Search](#)

[Previous Page](#)

[Help](#)

Click the  icon to view the hierarchy.

[Semantic View](#) ([JSON](#), [JSONLD](#), [RDF](#), [N3/Turtle](#), [N-Triples](#)) [Represent](#)

 **Guardi, Francesco** (Italian painter, 1712-1793)

Note: Venetian painter, during the first half of his career he specialized in decorations and church paintings; later became a vedutista (view painter) of Venetian urban life.

Names:

Guardi, Francesco ([preferred](#), [V](#), [index](#), [LC](#))

Francesco Guardi ([V](#), [display](#))

Gardi, Francesco ([V](#))

Garde, Francesco ([V](#))

Gardis, Francesco ([V](#))

Gauda, Francesco ([V](#))

Guada, Francesco ([V](#))

Guarde, Francesco ([V](#))

Guardet, Francesco ([V](#))

Gvardi, Franchesko ([V](#))

Guardi, François ([V](#))

Guardi, Francisco ([V](#))

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

Merged in one record

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

Getty

ULAN record is a merged, homogenous entity



Union List of Artist Names® Online
Full Record Display

[New Search](#)

[Previous Page](#)

Click the icon to view the hierarchy.

[Semantic View](#) ([JSON](#), [JSONLD](#), [RDF](#), [N3/Turtle](#), [N-Triples](#)) [Represent](#)

Guardi, Francesco (Italian painter, 1712-179

Note: Venetian painter, during the first half of his career he specialized in decorations and church paintings; later became a vedutista (view painter) of Venetian urban life.

Names:

Guardi, Francesco ([preferred](#), [V](#), [index](#), [LC](#))

Francesco Guardi ([V](#), [display](#))

Gardi, Francesco ([V](#))

Garde, Francesco ([V](#))

Gardis, Francesco ([V](#))

Gauda, Francesco ([V](#))

Guada, Francesco ([V](#))

Guarde, Francesco ([V](#))

Guardet, Francesco ([V](#))

Gvardi, Franchesko ([V](#))

Guardi, François ([V](#))

Guardi, Francisco ([V](#))

Getty

Contributors

AVERY, BHA, G

Courtauld

Sources

Avery Authorit

Harald Szeema

(2011-)

J. Paul Getty M

Library of Cong

M. Knoedler &

Collections (20

Provenance In

RILA/BHA (197

Witt Library, A

Nationalities:

Italian ([preferred](#))

Venetian

AAT

Roles:

artist ([preferred](#))

painter

landscapist

AAT

Gender: male

TGN

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

ULAN

sibling of [Guardi, Antonio](#)

(Italian painter, 1699-1760) [500025094]

sibling of [Guardi, Niccolò](#)

(Italian painter, 1715-1785) [500029088]

Merged information,
redundancy eliminated

Note links to other
ULAN records, to AAT
and TGN

Usage of the Vocab data

- 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.
- In addition, Getty Vocabularies released as LOD with very high use
- AAT and other vocabs available at satellite sites and in vendor systems



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

Usage of the Vocab data

- Vocabulary data is licensed and used by hundreds of institutions and vendors
- Collections management systems (e.g., TMS)
- We contribute to VIAF
- Now linking vocabulary data in LOD in hundreds or thousands of new ways

<http://viaf.org/>

The VIAF® (Virtual International Authority File) combines multiple name authority files into a single authority file by matching and linking widely-used authority files and making that information available.



VIAF Contributors

- Library of Congress/NACO
- National Library of Mexico
- British Library
- National Agricultural Library (U.S.)
- National Library of Medicine (U.S.)
- National Library of New Zealand

- Vatican Library
- Swiss National Library
- Library and Archives Canada
- Union List of Artist Names [Getty Research Institute]
- NUKAT Center of Warsaw University Library

- [Louis XIV, roi de France, 1638-1715](#)
- [Louis XIV, King of France, 1638-1715](#)
- [Louis XIV, koning van Frankrijk, 1638-1715](#)
- [Ludwik XIV \(król Francji : 1638-1715\)](#)
- [Lluís XIV, rei de França, 1638-1715.](#)
- [Luis XIV, Rey de Francia](#)
- [Louis 1638-1715 King of France XIV](#)
- [Ludwig XIV. Frankreich, König 1638-1715](#)
- [Ludvig XIV, kung av Frankrike, 1638-1715](#)
- [Louis XIV roi de France et de Navarre de 1643 à 1715](#)
- [Louis XIV, re di Francia, 1638-1715](#)
- [Ludvikis XIV, Francijas karalis, 1638-1715](#)
- [Ludvík XIV., francouzský král, 1638-1715](#)
- [1638-1715, לואי 14, מלך צרפת.](#)
- [Louis 14世, 1638-1715, フランス国王](#)
- [Louis <re di Francia ; 14.>](#)
- [Louis XIV, King of France \(French monarch, collector, and patron, 1638-1715\)](#)

- GRI (with ULAN and TGN) contributes to VIAF, the Virtual International Authority File.
- Link to other sources in Linked Open Data

Getty Vocabularies and LOD

AAT TGN ULAN CONA IA

Used for Retrieval



Giambologna
Female Figure;
Marble; H: 48 in.; 2008 J.
Paul Getty Museum;
82.SA.37



Giovanni Bologna
Triton, 16th century (1560–70);
Bronze; H. 36 in;
Metropolitan Museum of Art; Bequest of Benjamin Altman, 1913
(14.40.689)



Jean Boulogne;
Mercure volant; Bronze;
H 1,7 m; L 0,57m; Pr 1,4 m; Musee du Louvre, Collection du duc de Brissac (saisie en 1794)?; MR



Bologna, Giovanni da; *Christ Crucified*,
probably before 1588; bronze, corpus, height
including foot rest: 371 x .254 x .078 m ; National Gallery of Art, Washington, DC; Gift of Mr. and Mrs. John R. Gaines in memory ...

- Traditional use of Vocabularies for retrieval focuses on the names
- *If a user asks for one name/term, all of the synonyms can be used for retrieval*
- *For example, if a user searches on “Giovanni da Bologna”...*

From ULAN

Giambologna

Giovanni da Bologna

Giovanni Bologna

Jean Boulogne

Jean de Boulogne

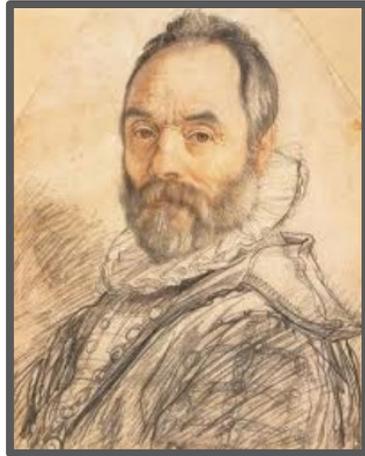
Bologna, Giovanni da

“giambologna” OR “giovanni da bologna” OR “giovanni bologna” OR “jean boulogne” OR “bologna, giovanni da”

Used for Retrieval

- New methods and LOD can utilize hierarchical and associative relationships, other links or inferred relationships, and other rich data to answer more complex questions and aid serendipitous discovery

Associative relationships



ULAN_500016387

Giambologna (*Flemish sculptor and architect, 1529-1608, active in Italy*)

had patron

Marie de Medici (*French queen, patron, 1573-1642*)

patron of

ULAN_500000585

Francavilla, Pietro

teacher of

ULAN_500007371

Tacca, Pietro (*Italian sculptor and architect, 1577-1640*)

ULAN_500055036

Susini, Antonio

student of

Display Date: from 1592
Start Date: 1592 End Date: 1608

ULAN_500044474

Marsy, Jaspard

ULAN_500016663

Broecke, Willem van den

e.g., using ULAN to find works by students of Giambologna

First, select all entities from ULAN having role AAT_300025103_artist AND having Assoc Rel 1102_student_of to ULAN_500016387 Giambologna ; then use data from this set of artists to search across a given set of Works' data or online

Used for Retrieval

How to Use Getty Vocabularies for Retrieval?

- In a vendor's system.
- **Or through bespoke retrieval implementations designed for your use.**
See available formats of Vocabulary data:
<https://www.getty.edu/research/tools/vocabularies/obtain/index.html>
- **Or you may search the Vocabularies directly through online tools:**
The AAT, ULAN, and TGN are available through an [OpenRefine reconciliation service](#)
And via a [SPARQL end point](#). To learn about interesting questions you can ask of the Vocabularies using SPARQL, see over 90 sample queries in [Sample Queries: Finding Subjects](#)

What Is Linked Open Data (LOD)?

- AAT, TGN, and ULAN are available as LOD
- under the Open Data Commons Attribution License (ODC-By) 1.0
- When data is linked and open, it means that data is structured and published according to the principles of Linked Data, so that it can be both interlinked and made openly accessible and shareable on the Semantic Web. The goal of linked open data is to allow data from different resources to be interconnected and queried.
- In order for data to be understood and processed automatically by computers, data in records or about resources must be expressed in a standard format. Each thing (for example, a museum object, a place, or a person) must be represented by a persistent identifier (known as a Uniform Resource Identifier (URI)). A Resource Description Framework (RDF) is a language or format for describing things as well as the relationships between things as simple properties and values (known as 'triples'), while things are represented using URIs.

Appendix A: What Are Controlled Vocabularies

AAT TGN ULAN CONA IA

What Are Controlled Vocabularies?

- A controlled vocabulary is an organized arrangement of words and phrases
- Typically includes preferred and variant terms
- Has a defined scope or describes a specific domain

Purpose of Controlled Vocabularies

- To provide terminology to catalog and retrieve information
 - To capture the richness of variant terms
 - For some users, to promote consistency in assignment of the same terms to similar content
 - In retrieval, to utilize variants and broader/narrower contexts

Controlled Vocabularies vs. Controlled Format

- **Controlled vocabularies** are organized sets of controlled terminology values (often with other information as well)
 - **Controlled format** refers to rules concerning the allowable data types and formatting of information
-
- Fields may have controlled format in addition to being linked to controlled vocabulary
 - Or the controlled format may exist in the absence of any finite controlled list of acceptable values

Controlled Vocabularies vs. Controlled Format

Controlled format

- May govern the expression of Unicode or other characters in either a free-text field or in a field that is linked to a controlled vocabulary
- Also for fields where numbers or codes are used
- E.g., recording measurements, geographic coordinates
- May regulate the number of digits allowed, the expression of decimals and negative numbers, etc.,
- *Ideally in compliance with ISO, NISO, or another appropriate standard*

Controlled Vocabularies vs. Controlled Format

Which fields here are controlled format,
which use controlled vocabulary?

display

Materials/Techniques Description: egg-tempera paint with tooled gold-leaf halos on panel

indexing
with
controlled
terms

Role: medium Material Name: egg tempera | gold leaf

Role: support Material Name: wood panel

AAT

Technique Name: painting | gold tooling

display

Dimensions Description: comprises 10 panels; overall: 280 x 215 x 17 cm
(110 1/4 x 84 5/8 x 6 3/4)

indexing
with
controlled
format

Extent: components Value: 10 Type: count

Value: 280 Unit: cm Type: height

Value: 215 Unit: cm Type: width

Value: 17 Unit: cm Type: depth

Types of Controlled Vocabularies

- Most controlled vocabularies in art indexing are structured vocabularies
 - Structured vocabulary = emphasizes relationships
-

Relationships in General

- Connections between terms and between concepts
Are a rose window and a Catherine wheel the same thing?
How is pot-metal glass related to the more general term stained glass?
- Between **equivalents** (synonyms)
- Other relationships = **hierarchical** and **associative** (links that organize concepts and provide context)

Types of Controlled Vocabularies

The most common types of controlled vocabularies used for art and architecture information

- subject heading lists
- simple controlled lists
- synonym ring lists
- taxonomies
- thesauri

Subject Heading Lists

Uniform words or phrases intended to be assigned to books, articles, or other documents in order to describe the subject or topic of the texts and to group them with texts having similar subjects

Examples:

Library of Congress Subject Headings (LCSH)

Bicycle racing--United States

Medical Subject Headings (MeSH)

Embryonic and Fetal Development

- Typically arranged in alphabetical order, with cross-references between the preferred and other nonpreferred headings
- Differ from other vocabularies = precoordination of terminology = combine several unique concepts together in a string

LC Subject Headings used to catalog books

Multiple concepts in one heading

Other Headings

- Other types of headings or labels may be used to uniquely identify or disambiguate one vocabulary entry from another

- *E.g., name of a creator may be listed with a short biographical string to form a heading or label for display in a work record*

Pierre Koenig (American architect, 1925-2004)

name



display biography

Subject Edit - Term: Case Study House No. 21, S:700000090, P:700000001

Subject ID: 700000090 Review: **New VP** Merged: Not Merged Publish: Not Published

Parent: 700000001 Record: Built Work Candidate: Non Candidate

Label: **Case Study House No. 21 (house; architect: Pierre Koenig (American architect, 1925-2004); 1956-1958; renovated 1998)**

Note Language: English

the middle class. Case Study No. 21 was considered by the architect to be his masterpiece. It is a minimalist classic Modern design in an open-plan steel-and-glass structure. The glass-walled house is surrounded by five reflecting pools. It comprises two

Titles/Names

#	P	H	V	Terms/Names	Display Dt	Start Dt	End Dt	Term ID	Disp Nm	AACR2 Flag	Other
1	P	C	U	Case Study House No. 21				1000000209	N/A	N/A	artist's
2	V	C	U	Bailey House				1000000210	N/A	N/A	N/A
3	V	C	U	CSH #21				1000000211	N/A	N/A	N/A

WorkType/Class/Level **Creator Display** Related Person/Corp Creation Date Location Physical Characteristics

Preferred Name: **architect: Pierre Koenig (American architect, 1925-2004)**

Examples of headings in object record

Controlled Lists

A controlled list is a simple list of terms used to control terminology

A well-constructed controlled list, the following is true:

- each term is unique
 - terms are not overlapping in meaning
 - terms are all members of the same class (i.e., having the same level of rank in a classification system)
 - terms are equal in granularity or specificity
 - terms are arranged alphabetically or in another logical order
-
- Should be derived from **larger published standard vocabularies** if appropriate
 - They are best employed in certain fields of a database **where a short list of values is appropriate** and where terms are unlikely to have synonyms or ancillary information

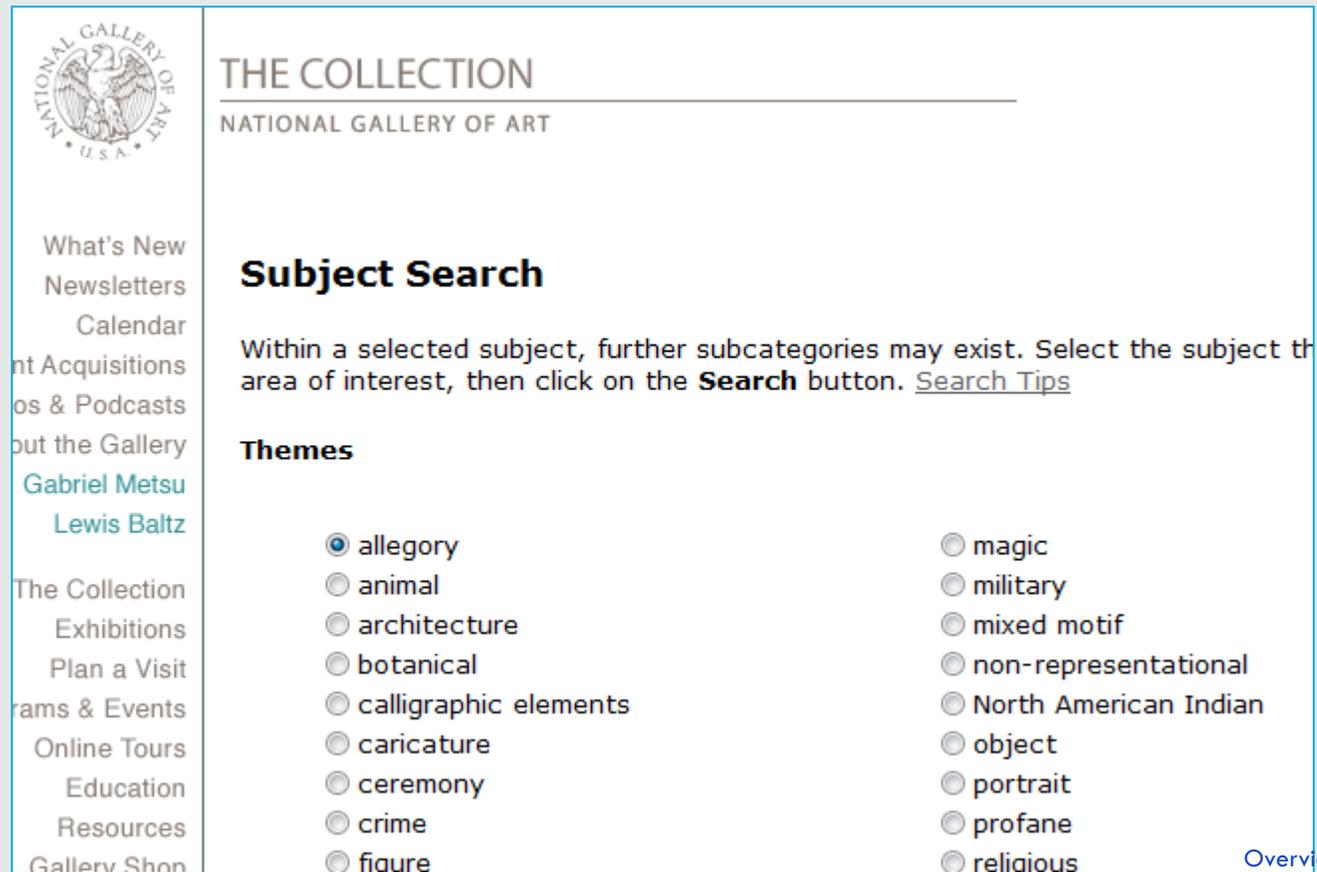
Controlled Lists

Pick Lists

Lead users to a small set of choices of terms for a given field

Often implemented as drop-down or other types of lists

- From the end-user perspective, such short lists may be easier to navigate than more complex lists, particularly for nonspecialist users



The screenshot shows the National Gallery of Art website. On the left is a navigation menu with items like 'What's New', 'Newsletters', 'Calendar', 'Recent Acquisitions', 'Videos & Podcasts', 'About the Gallery', 'Gabriel Metsu', 'Lewis Baltz', 'The Collection', 'Exhibitions', 'Plan a Visit', 'Programs & Events', 'Online Tours', 'Education', 'Resources', and 'Gallery Shop'. The main content area is titled 'THE COLLECTION' and 'NATIONAL GALLERY OF ART'. Below this is a 'Subject Search' section with a brief instruction: 'Within a selected subject, further subcategories may exist. Select the subject that is of interest, then click on the **Search** button. [Search Tips](#)'. Underneath is a 'Themes' section with a grid of radio buttons for selection. The 'allegory' option is selected.

Themes	
<input checked="" type="radio"/> allegory	<input type="radio"/> magic
<input type="radio"/> animal	<input type="radio"/> military
<input type="radio"/> architecture	<input type="radio"/> mixed motif
<input type="radio"/> botanical	<input type="radio"/> non-representational
<input type="radio"/> calligraphic elements	<input type="radio"/> North American Indian
<input type="radio"/> caricature	<input type="radio"/> object
<input type="radio"/> ceremony	<input type="radio"/> portrait
<input type="radio"/> crime	<input type="radio"/> profane
<input type="radio"/> figure	<input type="radio"/> religious

Controlled Lists

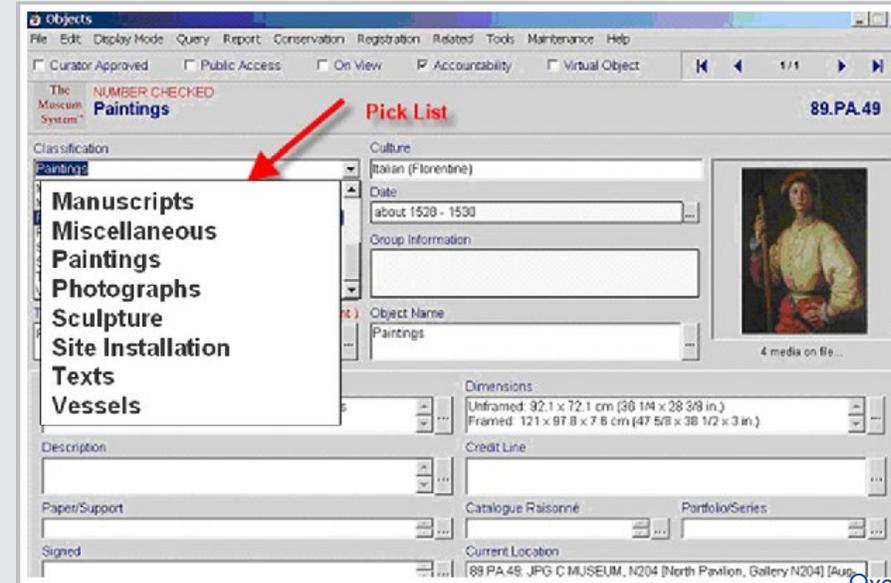
Pick Lists

In cataloging systems, advantage of such lists = cataloger or indexer has only short list of terms from which to choose

Thus ensuring more consistency and reducing the likelihood of error

Example of a pick list from The Museum System (TMS) application for the J. Paul Getty Museum

architecture	manuscripts
armor	miscellaneous
books	paintings
coins	photographs
decorative arts	sculpture
drawings	site installation
implements	texts
jewelry	vessels



Controlled Lists

Pick Lists

In cataloging systems, advantage of such lists = cataloger or indexer has only short list of terms from which to choose

Thus ensuring more consistency and reducing the likelihood of error

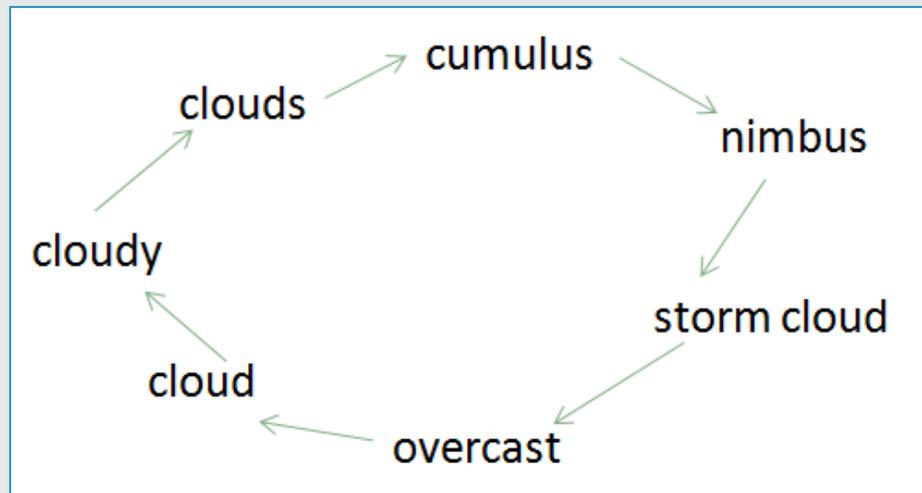
- Dozens of areas of a work record may be better suited for a short controlled list rather than a more complex controlled vocabulary

Classification field, Title Type (e.g., *artist's, descriptive, inscribed, etc.*), Title Language (e.g., *English, French, German, Italian, Spanish, etc.*), or Title Preference (e.g., *preferred, alternate*)

- **Disadvantage** is that it limits choices to cataloger or end-user; if used in retrieval would not allow retrieval by synonyms and related terms

Synonym Ring Lists

- Simple sets of terms considered equivalent for the purpose of retrieval



- Catalogers do not use synonym rings for indexing; used behind the scenes of an electronic information system
- Used to broaden retrieval (query expansion): may contain near-synonyms that have similar or related meanings rather than only terms with true synonymy
- Used with texts, not generally with fielded data
- Best when constructed by an expert in the content and for a specific text

Authority Files

Sets of established names or headings and cross-references to the preferred form from variant or alternate forms

- *Authority control* refers as much to the methodology of application as to a particular controlled vocabulary

- Any listing of terms, names, or headings that distinguishes between a preferred and variant names or headings may be used as an authority
- Getty Vocabularies are non-authoritarian authorities; preferred term is flagged (*term used most often in scholarly literature in language of the record*) but users may use any term in the record if they wish

LC Control Number: n 79003969

HEADING: Moses, Grandma, 1860-1961

000 00578cz a2200193n 450

001 1418836

005 19910703055707.6

008 790117n| acannaab |a aaa

010 __ |a n 79003969

035 __ |a (DLC)n 79003969

040 __ |a DLC |c DLC |d DLC-R

100 10 |a Moses, |c Grandma, |d 1860-1961

400 00 |a Grandma Moses, |d 1860-1961

400 10 |w nna |a Moses, Anna Mary Robertson, |d 1860-1961

400 10 |a Mōzesu, |c Guranma, |d 1860-1961

670 __ |a Her Grandma Moses ... 1946.

670 __ |a Her Guranma Mōzesu ten, 1990: |b t.p. (Grandma Moses)

952 __ |a RETRO

953 __ |a xx00 |b zz00

Taxonomies

A taxonomy = orderly classification for a defined domain

Comprises controlled vocabulary terms organized into a hierarchical structure

- [Flavobacterium](#) [LinkOut](#) *Click on organism name to go to organism page*
 - [Flavobacterium algicola](#) [LinkOut](#)
 - [Flavobacterium anhuiense](#) [LinkOut](#)
 - [Flavobacterium antarcticum](#) [LinkOut](#)
 - [Flavobacterium aquatile](#) [LinkOut](#)
 - [Flavobacterium aquidureense](#) [LinkOut](#)
 - [Flavobacterium arcticum](#)
 - [Flavobacterium banpakuense](#)
 - [Flavobacterium branchiophilum](#) [LinkOut](#)
 - [Flavobacterium branchiophilum FL-15](#)
 - [Flavobacterium ceti](#) [LinkOut](#)
 - [Flavobacterium cheniae](#) [LinkOut](#)
 - [Flavobacterium chungangense](#) [LinkOut](#)
 - [Flavobacterium columnare](#) [LinkOut](#)
 - [Flavobacterium croceum](#) [LinkOut](#)
 - [Flavobacterium cucumis](#) [LinkOut](#)
 - [Flavobacterium daejeonense](#) [LinkOut](#)
 - [Flavobacterium defluvii](#) [LinkOut](#)
 - [Flavobacterium degerlachei](#) [LinkOut](#)
 - [Flavobacterium denitrificans](#) [LinkOut](#)

- A taxonomy may differ from a **thesaurus** in that it generally has shallower hierarchies and a less complicated structure
- For example, it often has no equivalent (synonyms or variant terms) or related terms (associative relationships)
- Scientific classifications of animals and plants are well-known examples of taxonomies

Alphanumeric Classification Schemes

Controlled codes (letters or numbers, or both letters and numbers) that represent concepts or headings

- Generally have an implied taxonomy that can be surmised from the codes

720 Architecture

723 | Architecture from ca. 300 to 1399

Dewey	LC	General Subject
000, 040, 080	AC	General Collections
010, 020, 090	Z	Library Science
030	AE	Encyclopedias
050	AP	Periodicals
060	AS	Academies, Societies
070	PN	Literature (Gen.)
100	B-BJ	Philosophy (Gen.)
110-120	BD	Speculative Philosophy
130, 150	BF	Psychology
140, 180, 190	B	Philosophy (Gen.)
160	BC	Logic
170	BJ	Ethics
200, 210, 290	BL	Religions. Mythology
220	BS	The Bible
230	BT	Doctrinal Theology
240, 250	BV	Practical Theology
260, 270	BR	Christianity
280	BX	Christian Denominations
300	H	Soc. Sci. (General)

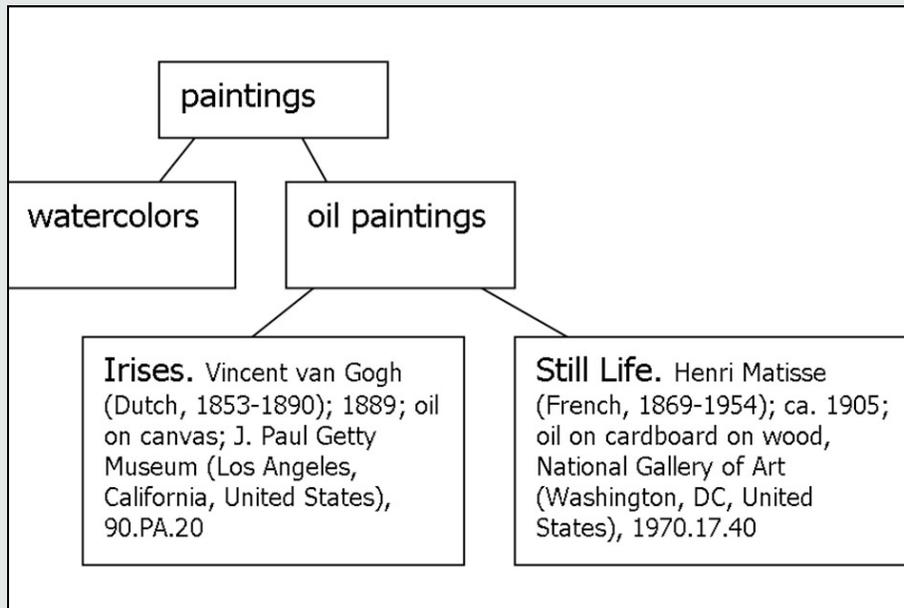
Dewey	LC	General Subject
570	GN, QH	Anthropology. Nat. Hist.
580	QK	Botany
590	QL	Zoology
600	T-TX	Technology
610	R	Medicine (General)
620	TA	Engineering
630	S, HD	Agriculture. Land Use
640	TX	Home Economics
650	HF	Commerce
660	TP	Chemical Technology
670, 680	TS, HD	Manufactures
690	TH	Building Construction
700	N	Visual arts
710	SB	Plant culture
720	NA	Architecture
730	NB	Sculpture
740	NC	Drawing. Design
750	ND	Painting

Dewey Decimal Classification and Library of Congress Classification systems

Ontologies

Formal, machine-readable specifications of a conceptual model

Not a controlled vocabulary, but use one or more controlled vocabularies and expresses the vocabulary in a representative language to express relationships



- Ontologies generally divide the realm of knowledge that they represent into the following areas: **individuals, classes, attributes, relations, and events**
- Ontologies used in the Semantic Web, artificial intelligence, software engineering, and information architecture

A detail of a sample ontology for Vincent van Gogh's *Irises* and Henri Matisse's *Still Life*, illustrating how the works are part of a subset of oil paintings under the category paintings

Folksonomies

Assemblages of concepts represented by terms and names (called tags) that are compiled through social tagging; became prominent ca. 2004

Do not typically have hierarchical structure or preferred terms for concepts, and they may not even cluster synonyms

Not considered authoritative because they are typically not compiled by experts

animals **jesus** lion shore **chair** scale noah war elephant still life fashion candles
architecture clay bomb eastern state penitentiary dragon mythology water rescue george
washington twenties swatches rabbit grace kelly panorama medieval period teahouse oriental
rug readymade classical modern pen painting candlesticks window soldiers knife goddess
drawing bull black and white wood paneling eagle whistler deities chair utamaro durer
oriental tournaments teaching combat couture picture surgery fireplace music 19th century
white philosophy vase wedding tribal abstract pop art phonograph mary sword dessert
seashells merry-go-round african american **surrealism** eating utensils optical illusion
tomb ukiyo-e sketch folk costume double portrait poetry **cubism** waves stone
japonisme toy jug birds period room **impressionist** third eye zebra helmet dog
post-impressionist skeleton sculpture hindu **deity** jainism fire money portrait wine
dress coffee transportation contemporary bench hare chinese calendar rifle trees vacation
lord shiva angel tea cross jail wharton esherick children landscape costume designer time
bird ornamental kitchen **buddhism** ark prison horse gown insect storm polar bear
snake mythological character geisha tomb funerary stone birds lions helen rose ceramics
beach impressionism boxer virgin mary blue pole arms japanese post modern doorway
flowers coat of arms side table cyclist biblical characters ink pet bones tree love
battle butterfly arctic lotus throne guns hindu god dutch tiles gospel brooding sewing
knight mushroom cloud biblical stories glasses transparent vintage furniture wood foot
book native americans 1950s funerary writing taoism beth karle baroque storage
contemplating **light** seasons drinking mug bible woodblock print 20th century

- Can be useful in situations where controlled tagging is not possible
- Potential for enhanced retrieval = by linking folksonomies to more rigorously structured controlled vocabularies

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**

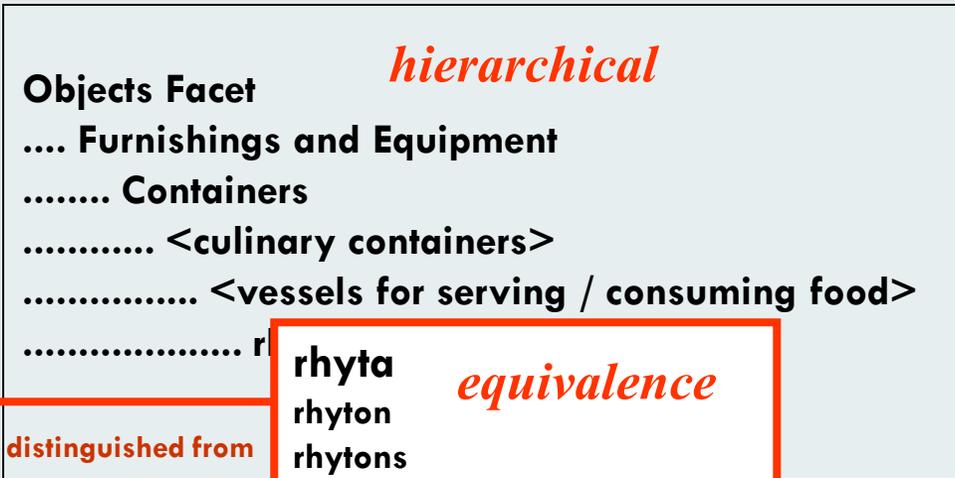


stirrup cups
coaching glasses
hunting glasses



sturzbechers
Sturzbecher
stortebekers

associative



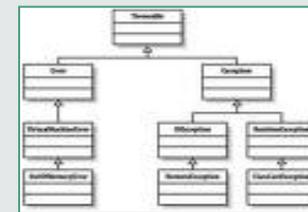
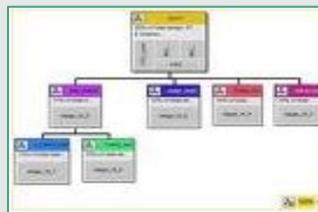
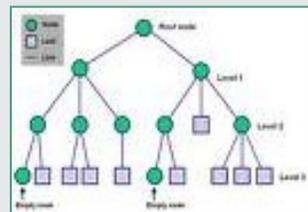
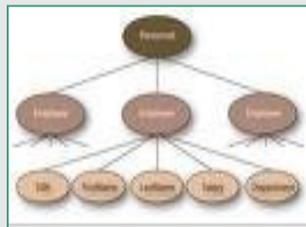
rhyta
rhyton
rhytons
rhea
rheon
rheons
ritón



Using Multiple Vocabularies

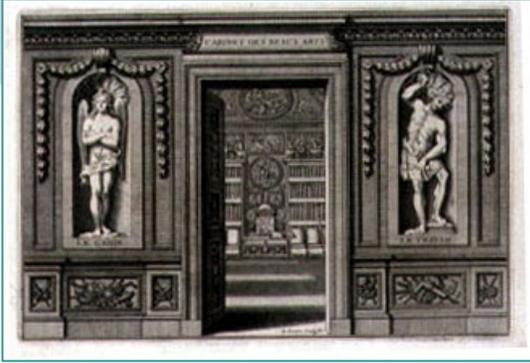
Catalogers of art information require multiple vocabularies because no single vocabulary provides the full set of terminology needed to catalog or index a given set of cultural heritage data

- A combination of vocabularies is necessary for indexing
- A separate combination may be necessary for retrieval (or at minimum the cataloging vocabularies may be used differently in retrieval)



Appendix B: CDWA and CCO

CONA is compliant with
CDWA and CCO



What is CDWA?

Categories for the Description of Works of Art

- CDWA includes both a **conceptual framework** of elements and relationships, and **cataloging rules** for describing, documenting, and cataloging cultural works and related images
- Includes 540 elements
- Agreed upon best practice based on consensus of expert group who met for years
- **Primary focus** is art and architecture, including but not limited to prints, manuscripts, paintings, sculpture, photographs, built works, and other visual media
- **Also covers** many other types of cultural objects, including artifacts and functional objects from the realm of material culture

CONA is based
on CDWA



- For the Work
- For Images of the Work
- Authorities

- Comprehensive set of 540 elements
- 9 core elements

Subject Authority +

CDWA: FULL LIST OF CATEGORIES

Cataloging Examples
Entity Relationship Diagram
The CDWA and Other Metadata Standards
A Crosswalk of Metadata Standards
Bibliography

+ Indicates a "core" category

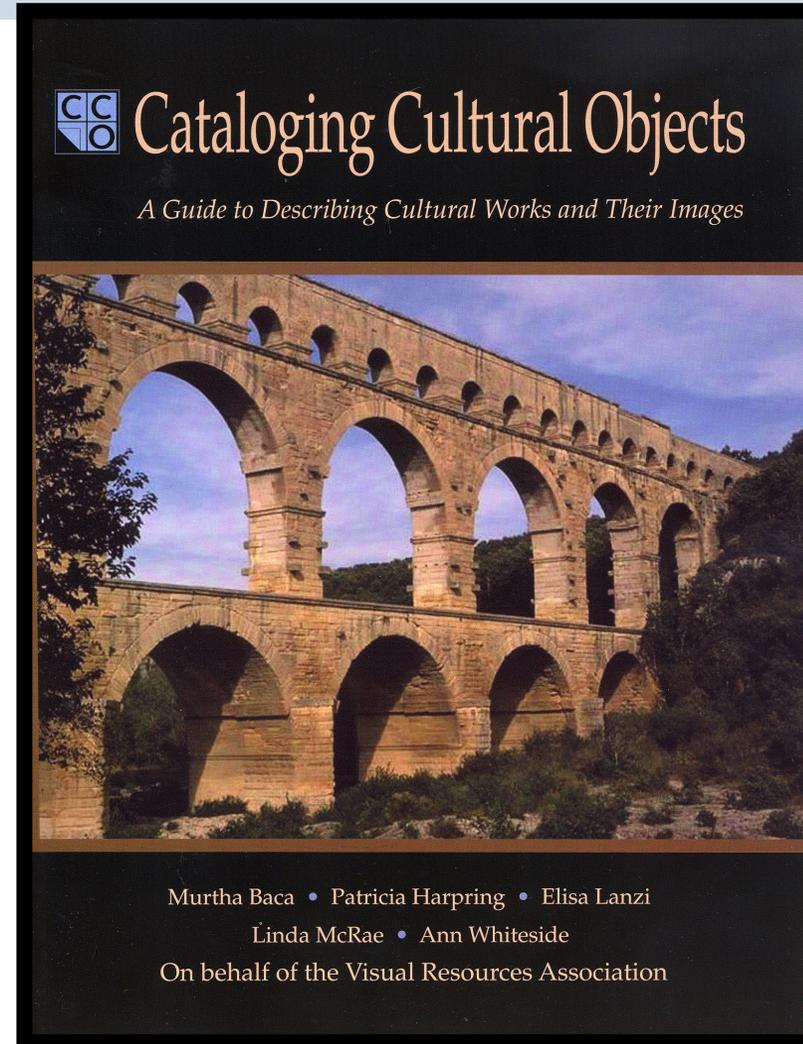
OBJECT/WORK <i>Core</i> Catalog Level <i>Core</i> Type <i>Core</i> Object/Work Type Date --- Earliest Date --- Latest Date Components/Parts --- Quantity --- Type Remarks Citations --- Page	OWNERSHIP/COLLECTING HISTORY Description Transfer Mode Cost or Value Legal Status Owner/Agent --- Role Place Date --- Earliest Date --- Latest Date Owner's Numbers --- Number Type Credit Line Remarks Citations --- Page
CLASSIFICATION <i>Core</i> Term <i>Core</i> Remarks Citations --- Page	EXHIBITION/LOAN HISTORY Description Exhibition Title or Name Type Curator Organizer Sponsor Venue --- Name/Place --- Date ----- Earliest Date ----- Latest Date Object Number --- Number Type Object/Work Label/Identification Remarks Citations --- Page
TITLES OR NAMES <i>Core</i> Text <i>Core</i> Type Preference Language Title Date --- Earliest Date --- Latest Date Remarks Citations --- Page	CATALOGING HISTORY Cataloging Institution
CREATION <i>Core</i> Creator Description <i>Core</i> --- Extent --- Qualifier --- Identity <i>Core</i> --- Role <i>Core</i> --- Statement	



What is CCO?

Cataloging Cultural Objects

- **Subset of CDWA**
- **Manual** for describing, documenting, and cataloging cultural works and their visual surrogates
- **Primary focus** is art and architecture, including but not limited to prints, manuscripts, paintings, sculpture, photographs, built works, and other visual media
- **Also covers** many other types of cultural objects, including artifacts and functional objects from the realm of material culture



Published by the American Library Association
Available at the ALA site, Amazon.com, etc.



What is CCO?

- For the Work
- For Images of the Work
- Authorities
- 116 elements total
- 9 core elements

Chapter 1: Object Naming

Work Type / Title

Chapter 2: Creator Information

Creator / Creator Role

Chapter 3: Physical Characteristics

Dimensions / Materials and Techniques /

State and Edition/ Additional Physical Characteristics

Chapter 4: Stylistic and Chronological Information

Style / Culture / Date

Chapter 5: Location and Geography

Current Location / Creation Location / Discovery Location/ Former Location

Chapter 6: Subject

Subject

Chapter 7: Class

Class

Chapter 8: Description

Description / Other Descriptive Notes

Chapter 9. View Information

View Description / View Type / View Subject / View Date

Authority 1: Personal and Corporate Names

Authority 2: Geographic Places

Authority 3: Concept Authority

Authority 4: Subject Authority

- CDWA and CCO are mapped to 13 other standards
- You should be able to express your data in multiple formats and multiple standards

Metadata Standards Crosswalk

The crosswalk below includes only a partial list of the elements for each standard, focusing on the areas of overlap. This crosswalk is for planning purposes only; it is an *intellectual mapping*. To create a technical crosswalk, see the *Technical Crosswalks* page.
 For the full list of elements for any one of the standards below, see references at the bottom of this page.[1]
 (To print this crosswalk from your Web browser, use the 11 x 17-inch paper size setting, landscape print format, .25-inch margins. For an older version of this crosswalk, print the PDF from the *Printer Friendly* page.)

CDWA	CCO	CONA	CIDOC CRM [coming soon]	LIDO [coming soon]	CDWA Lite	VRA Core
1. OBJECT/ WORK (core)						
1.1. Catalog Level (core)		Creator_Other_Displays. catalog_level			<cdwalite: recordType>	<vra: work> or <vra: collection>
1.1. Object/Work - Type (core)		Work Type	<cdwalite: objectWorkType>		<vra: worktype> in <vra: work> or <vra: collection>	6
1.1. Object/Work - Components						30 D
2. CLASSIFICATION (core)						
2.1. Classification - Term (core)		Class	<cdwalite: classification>			0: 0: cl
3. TITLES OR NAMES (core)						
3.1. Title Text (core)	Title	Term.term			<cdwalite: title>	<vra: title> in <vra: work> or <vra: collection>

- CDWA and CCO are mapped to 13 other standards
- A project should be able to express data in multiple formats and multiple standards

- CDWA: The Categories for the Description of Works of Art
- CCO: Cataloging Cultural Objects
- CONA: Cultural Objects Name Authority
- CIDOC CRM: The International Committee for Documentation, Conceptual Reference Model (CRM)
- LIDO: Lightweight Information Describing Objects
- CDWA Lite: CDWA Lite XML schema
- VRA Core: The Visual Resources Association Core categories 4.0
- MARC/AACR: MARC formats produced by the Library of Congress, Anglo-American Cataloguing Rules national cataloging code, replaced by Resource Description and Access (RDA)
- MODS: Metadata Object Description Schema
- Dublin Core: Dublin Core Metadata Initiative
- DACS: Describing Archives Content Standard
- EAD: Encoded Archival Description Document Type Definition (DTD)
- Object ID: Object ID international standard for police and customs agencies
- CIMI: Consortium for the Computer Interchange of Museum Information attribute set, Z39.50 Profile
- FDA Guide: Guide to the Description of Architectural Drawings

Common practice and Best practice

- CCO/CDWA are based on best practice
- Both CCO and CWDA are the result of consensus reached by groups representing a broad spectrum of prominent professionals in the museum, art library, visual resources, special collection, and archives communities
- Both CCO and CDWA committees agreed on sets of elements and rules for cataloging based on existing common practice in their professions
- But going further, to advise best practice for documenting cultural heritage works
- To both uniquely identify the works for maintenance by the responsible institution and to researchers
- And to provide enough additional information to allow scholarly research and retrieval

Key principles of good cataloging

- **What is the focus?** Establish the logical focus of each Record:
 - a single item
 - a work made up of several parts
 - a physical group or collection of works
 - an image of a work
- **Core elements:** Include all of the core required CCO/CDWA elements
- **Cataloging rules:** Follow the CCO/CDWA rules; make and enforce additional local rules to allow effective retrieval, re-purposing, exchange, and linking of information
- **Terminology:** Use published controlled vocabularies, such as Getty Vocabularies. Use local controlled lists as necessary

- **Consistency:** Be consistent in all aspects of entering data and in establishing relationships between entities
- **Metadata standards:** Ensure that your underlying data structure, including relationships, is compliant with (or mappable to) established metadata standards
- **Your system:** As far as is possible, do not allow limitations of a cataloging system to cause distortion of the data
 - E.g., do not put two values into one field due to system limitations. Your system will change in the future; your data should survive migration

Thank you.

Patricia Harpring
Managing Editor
Getty Vocabulary Program

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