Introduction to Controlled Vocabularies

Featuring the Getty Vocabularies

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This presentation is a companion to
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What Are Vocabularies?
Why vocabularies?

- Our goal for many years has been to enhance access to visual arts and material culture information for research, education, and discovery
- Users don’t always know what a person, place, or thing is called
- Even knowledgeable users or catalogers may use different terms for same person, place, or thing
- Vocabularies gather related terms together to improve access to art and art history information

How are vocabularies used?

- Used as sources of standard terminology for use in description, cataloging, and documentation
- Used as “assistants” in online search engines, creating a semantic “road map” that shows links and paths between concepts and terms
- Used as knowledge bases

Scope Note: Dressing rooms in ancient Greek and Roman baths and palaestrae.
An organized arrangement of words and phrases that are used to index content and/or to retrieve content through navigation or a search

It is typically a vocabulary that includes preferred terms and has a limited scope or describes a specific domain

**Synonyms**
- Athens (English) = Ἀθήναι (Greek) = Αθηνα (Latin)

**Concepts have relationships, provide context**
- Athens is in Greece
- Epiktetos II is possibly identified as the Kleophrades Painter
There are several types of controlled vocabularies, including the following:

- Subject heading list
- Controlled list
- Synonym ring list
- Taxonomy
- Thesaurus

Types of vocabularies

- **Subject heading list**: uniform words or phrases assigned to books and articles (or other materials) to describe the subject or topic and to group them with materials having similar subjects.
- Usually in alphabetical order
- Precoordination of terminology is a characteristic of subject headings

Cat family (Mammals)--Literary collections
Cat Sacred - Ancient Egypt
Types of vocabularies

- **Subject heading list**: uniform words or phrases assigned to books and articles (or other materials) to describe the subject or topic and to group them with materials having similar subjects.

- Subject headings typically combine several unique concepts together in a string as in the Library of Congress Subject Headings (LCSH).

**Example**:
- Cat family (Mammals)--Literary collections
- Cat Sacred - Ancient Egypt

**LIBRARY OF CONGRESS AUTHORITIES**

**LC Control Number:**
90004394

**HEADING:** Bicycle racing United States

000 047nz a22001169n 450
001 4833743
005 19901012154012.1

**Subject headings in LC authority file**

Images: http://newsinfo.iu.edu
Types of vocabularies

- **Authority file**: A set of established names or headings and cross-references to the preferred form from variant or alternate forms. The Library of Congress name authority file is a well-known authority file.

- Vocabulary types are not mutually exclusive. E.g., a given vocabulary can be an authority file and a thesaurus.

- Building local authorities is recommended by CDWA and CCO.

**Types of vocabularies**

- **Controlled list**: A simple list of terms used to control terminology

In a well-constructed controlled list: • each term must be unique; • terms should all be members of same class; • terms should not be overlapping in meaning; • terms should be equal in granularity/specificity; • and terms should be arranged alphabetically or in another logical order

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**Types of vocabularies**

- **Controlled list:** A simple list of terms used to control terminology
  - May include terms from other controlled vocabulary resources
  - For some elements or fields in the database, a controlled list may be sufficient to control terminology, particularly where the terminology for that field is limited and unlikely to have synonyms or ancillary information

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**Example of a controlled pick list for Classification**

- Manuscripts
- Manuscripts (miscellaneous)
- Paintings
- Photographs
- Sculpture
- Site Installation
- Texts
- Vessels

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For educational purposes only. Do not distribute.
Types of vocabularies

- **Synonym ring list:** A list comprising sets of terms that are considered equivalent
- No preferred term
- Generally used for search and retrieval, providing access to content that is represented in natural, uncontrolled language

```
 Felis domesticus
  ↓
  domestic cat
  ↓
 Felis catus
  ↓
 house cat
```

Examples of synonym rings

- Note that some equivalents are synonyms, others are related but not synonymous

```
<table>
<thead>
<tr>
<th>Clouds</th>
<th>Speech disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulus, Nimbus</td>
<td>Speech defects</td>
</tr>
<tr>
<td>Storm clouds</td>
<td>Defective speech</td>
</tr>
<tr>
<td>Cloudy</td>
<td>Disorders of speech</td>
</tr>
<tr>
<td>Meteorology</td>
<td>Speech, Disorders of speech</td>
</tr>
<tr>
<td>Weather, Atmospheric science</td>
<td></td>
</tr>
<tr>
<td>Storm, Thunderstorm, Snowstorm, Hurricane, Tornado, Twister, Waterspout</td>
<td></td>
</tr>
<tr>
<td>Rain, Rainy, Precipitation, Rainfall, Hydrometeor</td>
<td></td>
</tr>
<tr>
<td>Ultra-violet Radiation, UV, Ultraviolet Radiation</td>
<td></td>
</tr>
<tr>
<td>Wind, Windy, Windstorm, Wind Damage, Air Flow, Jet Stream</td>
<td></td>
</tr>
</tbody>
</table>
```
**Types of vocabularies**

- **Taxonomy**: An orderly *classification* for a defined domain
- Vocabularies that organize a body of knowledge into conceptual categories are classifications and taxonomies

<table>
<thead>
<tr>
<th>Animal Kingdom</th>
<th>Vertebrates (phylum)</th>
<th>Mammalia (class)</th>
<th>Carnivora (order)</th>
<th>Felidae (family)</th>
<th>Felis (genus)</th>
<th>Felis domesticus (species)</th>
</tr>
</thead>
</table>

**Types of vocabularies**

- **Alphanumeric classification scheme**: Controlled codes (letters or numbers, or both letters and numbers) that represent concepts, headings, or textual correlates
  - They generally have an implied taxonomy that can be surmised from the codes
  - The Dewey Decimal System and ICONCLASS are examples
Vocabulary: ICONCLASS
http://www.iconclass.nl/

- ICONCLASS is an alphanumeric classification scheme with textual correlates designed for the iconography of art
- Primarily religious and mythological themes in Western art
- Alphanumeric scheme allows arrangement as a taxonomy

9 Classical Mythology and Ancient History
......94 the Greek heroic legends (I)
........94L (story of) Hercules (Heracles)
................94L1 early life, prime youth of Hercules
................94L2 love-affairs of Hercules
................94L3 most important deeds of Hercules: the Twelve Labours

Broader/narrower:
Episodes in a story

Example from ICONCLASS, showing the relationships between the episodes in the iconography of Hercules

94L1 early life, prime youth of Hercules
94L2 love-affairs of Hercules
94L3 most important deeds of Hercules: the Twelve Labours
94L31 preliminaries to the Twelve Labours of Hercules
94L32 the Twelve Labours: first series
94L321 (1) Hercules chokes the Nemean lion with his arms
94L322 (2) the Hydra of Lerna is killed by Hercules
94L323 (3) the Ceryneian hind of Arcadia is captured by Hercules
94L324 (4) the Erymanthian boar is captured by Hercules
94L325 (5) Hercules cleanses the stables of Augeas by diverting the rivers
94L326 (6) the Stymphalian birds are shot by Hercules or driven away
94L327 (7) the Cretan bull is captured by Hercules
94L328 (8) the four mares of King Diomedes are captured; when Diomedes is slain...
94L329 (9) Hippolyte, the Amazon, offers her girdle to Hercules; Hercules as a guest of Hippolyte
94L33 the Twelve Labours of Hercules: second series
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

**Equivalence relationships:** The relationships between synonymous terms or names for the same concept, typically distinguishing preferred terms (descriptors) and variants.

- stirrup cups
- coaching glasses
- hunting glasses
- sturzbechers
- Sturzbecher
- stortebekers
- rhyta
- rhyton
- rhytons
- rhea
- rheon
- rheons
- ritón

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

- Hierarchical
- Associative
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

Hierarchical relationships: Broader and narrower (parent/child) relationships between concepts; hierarchical relationships are generally either whole/part or genus/species; may be polyhierarchical, meaning that each child may be linked to multiple parents.

Associative relationships: The relationships between concepts that are closely related conceptually, but the relationship is not hierarchical because it is not part/whole or genus/species.

Equivalence relationships: Concepts that are closely related conceptually, but the relationship is not hierarchical because it is not part/whole or genus/species.

Images from getty.edu, metmuseum.org, other museum sites

Thesaurus: Furnishings and Equipment
 Containers
 <culinary containers>
 vessels for serving / consuming food
 rhyta

stirrup cups
coaching glasses
hunting glasses
sturzbechers
Sturzbecher
celto-roman
stortebekers
rhyta
rhyon
rheon
rhiton
How does Chenhall Nomenclature differ from the AAT?

- Users should use both
- For art and architecture, the AAT has much, much better and deeper coverage. Nomenclature is more generalist with shallow coverage of more things, and has headings in addition to terms
- Only overlap between Nomenclature and AAT is in Objects Facet
- Much of Nomenclature is out of scope (e.g., medical and surgical equipment, because AAT focuses on art)
- AAT is thesaurus, Nomenclature not a full-blown thesaurus, but has preferred and use for terms
How does Chenhall Nomenclature differ from the AAT?

- Nomenclature includes some compound terms (headings) that AAT users construct for themselves
- AAT has incorporated all of Nomenclature that is within scope for the AAT, relatively high degree of overlap
- Nomenclature has no scope notes/definitions, except for broadest levels, AAT has scope notes
- Nomenclature has no qualifiers, AAT does
- Nomenclature has fewer UF terms than AAT
- Nomenclature has all upper case, all inverted, vs. AAT lower case and natural order terms

These four may comply with ISO and NISO standards
- Discussed as being of increasing complexity
- Also of increasing power and versatility
Tools related to or utilizing vocabularies

Ontology

- Ontologies are used in the semantic web, artificial intelligence, software engineering, and information architecture as a form of knowledge representation about a particular domain of knowledge.
- Defining relationships is key, they use vocabularies.

**Ontology**

- Formal, machine-readable specifications of a conceptual model
- Concepts, properties, relationships, functions, constraints, and axioms are all explicitly defined
- Not a controlled vocabulary, but uses one or more controlled vocabularies for a defined domain and expresses the vocabulary in a representative language that has a grammar for using vocabulary terms to express something meaningful.
- Ontologies generally divide their world into the following areas: individuals, classes, attributes, relations, and events.
- The grammar of the ontology links these areas together by formal constraints that determine how the vocabulary terms or phrases may be used together.
Ontology: Formal, machine-readable specifications of a conceptual model

An ontology is used to make queries and assertions

Ontologies have some characteristics in common with faceted taxonomies and thesauri
but the ontology will use strict semantic relationships among terms and attributes with the goal of creating knowledge representation, whereas thesauri in the art domain provide tools for cataloging and retrieval.

Folksonomy

Neologism referring to an assemblage of concepts, which are represented by terms and names (called tags) that are compiled through social tagging.

Social tagging refers to the decentralized practice and method by which individuals and groups create, manage, and share tags (terms, names, etc.) to annotate and categorize digital resources in an online "social" environment.
**Folksonomy:** Assemblage of concepts that are represented by terms and names (called *tags*) that are compiled through social tagging

- Not a controlled vocabulary, but could use vocabularies; used for retrieval
- *Social tagging* = decentralized practice where individuals and groups create, manage, and share tags (terms, names, etc.) to annotate digital resources in an online "social" environment
- Typically without hierarchical structure, typically have no preferred term for a concept, and may not even cluster synonyms
- By definition not applied to indexing by professional indexers, generally characterized by non-standard, idiosyncratic tagging

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**What Is Social Tagging?**

Social Tagging, or a Folksonomy, is an unregulated taxonomy used to categorize and retrieve web content, such as Web pages, photographs, and Web links, using unorganized labels called tags. The Philadelphia Museum of Art now offers online visitors the ability to "tag" objects in the online collection in an attempt to improve access to these works of art for themselves and others.

Browse the online collection by clicking on any of the randomly selected user-contributed tags below or search the collections using keywords. Tags which have been used most appear larger in size.

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Available tools related to or utilizing vocabularies
But first: Let us brag a bit...

The Getty Vocabularies recently won a wonderful award. Past winners in our category have been Disney/Pixar, AOL, and Apple. You may read about it at http://www.cwhonors.org/archives/2007/index.htm
Structure and content of Getty vocabularies are based upon standards
- International Organization for Standardization (ISO), NISO
- Categories for the Description of Works of Art (CDWA); Cataloging Cultural Objects (CCO),

Art & Architecture Thesaurus® (AAT)
- 34,000 'records'; 131,000 terms

Getty Thesaurus of Geographic Names® (TGN)
- 895,000 'records'; 1,115,000 names

Union List of Artist Names® (ULAN)
- 127,000 'records'; 375,000 names

Cultural Objects Name Authority™ (CONA)
- under development; available for contributions in 2011

All focus on the Visual Arts and Architecture
They grow through contributions from the user community
The vocabularies are compiled, maintained, distributed by the Getty Vocabulary Program, at the Getty Research Institute in Los Angeles
• AAT terms = generic concepts  
  • (e.g., watercolors, amphora)
• TGN names = administrative, physical places  
  • (e.g., Los Angeles, Ottoman Empire, Bavarian Alps)
• ULAN = person, corporate body names  
  • (e.g., Christopher Wren, Altobelli & Molins)
• CONA = titles/names of art and architecture  
  • (e.g., Mona Lisa, Empire State Building)

Each vocabulary record is identified by a unique, persistent numeric ID

• The compiled vocabularies are copyrighted by the Getty
• They are licensed to institutions and businesses
• They are implemented in The Museum System (TMS) and other information systems at the Getty and in the broader art information community
• Each of the vocabularies can also be accessed online
• The AAT, ULAN, and TGN were begun in the mid-1980s
• To meet the needs of the art museum, visual resources, archives, and art library communities
• Authoritative vocabularies to aid in the indexing and retrieval of art information

• Each vocabulary was conceived and constructed differently
• Since 1990s, all three have been united with the same core data structure and editorial rules
• Planning for CONA was begun in 2004
• Instruction for use of and contribution to the Getty vocabularies at conferences and online training materials
http://www.getty.edu/research/tools/vocabularies/training.html
The Getty vocabularies are used by various audiences

- by catalogers or indexers who are describing works of art, archival materials, visual surrogates, or bibliographic materials
- by researchers
- by systems implementers creating search tools to enhance end-user access to online resources

There are over 200 licenses for the vocabularies, which may each represent a large number of users of a vendor’s system.

In addition, the online Web presentation of the vocabularies typically supports around 180,000 sessions by users each month.

Making the Getty vocabularies the most heavily accessed online resource at the Getty Research Institute, and among the most heavily accessed at the Getty as a whole, illustrates how valued the Vocabularies are in the user community.
The Getty vocabularies comply with national and international standards for thesaurus construction.

We are active in the standards-building communities.

Small staff
Process contributions
Reliance on user community

Usage Statistics: Third Quarter FY09
- Total number of unique users: 125,876
- Total number of unique "visits": 162,104

Production Statistics: Third Quarter FY09
- Records edited or added: 18,201
International Standards are related to each other

- Getty vocabulary terms and associated information are valued as authoritative because they are derived from published sources and represent current research and usage in the art history community.

- The vocabulary program publishes extensive editorial manuals online. We also make frequent presentations and conduct training workshops at the Getty and at conferences throughout the year.
• The Getty vocabularies are compiled in large part from contributions from the user community, including various Getty projects and qualified outside institutions.
• Institutions may make contributions in bulk in our prescribed XML format or via an online form.
• Bulk contributions can range from a few thousand to several million records.

Thanks to our contribution program, in essence we have many "adjunct Vocabulary Program Editors," with expertise in a variety of areas

• Individual contributions are made one at a time, amounting to dozens or hundreds per month; even though the number is relatively small, this method of contributing is critical for the core user institutions that do not have the resources to submit bulk contributions.
• Contributions to our vocabularies are vetted, managed, edited, augmented, merged with existing data, placed into hierarchies and other relationships, and published by the Getty Vocabulary Program.
• Licensed files are released annually; the data on the Web site is refreshed every month.

• The systems in place to allow this work were built and are maintained by a dedicated group from the Getty Information Technology Services (ITS), who worked on user requirements and testing in close cooperation with the Vocabulary Program.
• Systems to edit data, add data, load data; to publish data; reports for work flow, quality control, and publication; to allow contributions via online and XML.
• We work closely with various cataloging projects all over the Getty and with ITS.

• Members of our staff are co-editors of the Categories for the Description of Works of Art (CDWA) and Cataloging Cultural Objects (CCO), which are standards and editorial rules for cataloging art and architecture, and CDWA Lite, which is a standard for the exchange of art information.

Categories for the Description of Works of Art
CDWA

Vocabularies are data content
Referred to in various standards
CDWA is a standard for elements of art information, guidelines for cataloging.

Published in 1996, updated.

Instances and types of vocabularies are described; “authorities” populated by vocabularies are specified.
GENERAL DISCUSSION

The creator and date of creation are core. This category focuses on the action or activity of creation, design, or manufacture. A work of art or architecture may be the product of a number of processes, and the creator responsible for each contribution should be recorded. Information about creation is necessary to identify the work and to distinguish it from other works. Knowing the creators and the date and place of creation provides researchers with crucial understanding of the context and meaning of the work.

Multiple creators and dates

Multiple individuals may be responsible for the creation of a work, and they may have played different roles. Include all pertinent creators. It is important to distinguish the artist or architect primarily responsible for designing or making the work. It is also important to identify those who had secondary roles in making the work, such as master printers, technicians, publishers, or architectural engineers. If two or more artists assumed a joint identity to create a work, their assumed identity should be recorded as creator (e.g., Legrand & Brothers). If a work is the joint product of a firm, factory, studio, or company, such as Armani, the corporate body should be identified as the creator, if there are multiple dates on a range of dates associated with the creation, indicate this.

Groups of works

For groups, it is important to list all artists who contributed to the creation of the items in the group, and all dates associated with their creation.

Uncertainty

Indicate uncertainty and ambiguity as necessary. Sources may reflect disputes about the attribution or dates for a particular work. When multiple suggestions have been made, the preferred attribution and dates of creation should be the ones accepted by the repository of the work. Other attributions or dates have scholarly interest; however, should be recorded also.

Unknown creator or unknown date

Values for creator and date must be supplied, even when the information is uncertain. In the CDWA, an unknown creator differs from an anonymous creator. An anonymous creator refers to the situation where the oeuvre and general time and place of activity of the artist have been established, but his or her name is simply unknown (e.g., Master of the Ashken Nadia). An unknown creator refers to a situation where the oeuvre or hand of the artist is not established (e.g., unknown Florentine). When the creator is unknown, include a designation of the culture or region/country that produced the work rather than a name (e.g., Florentine or unknown).
CCO includes rules for cataloging based on a subset of CDWA

Visual Resources Association (VRA) Core Categories, published by ALA 2006
We present at conferences, workshops
Write books about vocabularies and standards

 Getty Vocabularies

• Resources:
  • Information about AAT, TGN, ULAN: implementers should follow the guidelines here
    • http://www.getty.edu/research/tools/vocabularies/aat/about.html
    • http://www.getty.edu/research/tools/vocabularies/tgn/about.html
    • http://www.getty.edu/research/tools/vocabularies/ulan/about.html
  • Data dictionaries for the licensed files:
    • http://www.getty.edu/research/tools/vocabularies/obtain/download.html
  • Editorial Manuals:
    • http://www.getty.edu/research/tools/vocabularies/guidelines/index.html
  • Information about licensing: to learn about fees and conditions, send an email to vocab@getty.edu, subject = licensing
  • Information about contributions: send your name, institutional affiliation, scope of proposed vocabulary contributions to vocab@getty.edu, subject = contributions
Target audience:

Three Getty vocabularies are intended to provide terminology and other information for indexing and retrieving data related to objects, artists, concepts, and places important to various disciplines that specialize in art, architecture and material culture.

Primary users of the Getty vocabularies include museums, art libraries, archives, visual resource collection catalogers, bibliographic projects concerned with art, researchers in art and art history, and the information specialists who are dealing with the needs of these users. In addition, a significant number of users of the Getty vocabularies are students or members of the general public.

Language:

Most fields in AAT, TGN, and ULAN records are written in American English.

However, vocabularies are structured as multi-lingual thesauri; names/terms may be expressed in many languages.

All Names are written in the Roman alphabet.

Where names have been transliterated from other alphabets, the transliteration using the appropriate ISO standard for that language will be flagged as the preferred name for that language whenever possible.

Diacritics:

Names and other fields contain dozens of different diacritics, expressed as codes (e.g., $00) in the data files.

Mapped to Unicode, published and displayed in Unicode.

Implementers should translate codes into the proper diacritical mark for end-users.
Accessing the vocabularies:

Catalogers and indexers who use the vocabularies typically access them in two ways:
- By using them as implemented in a collection management system (either purchased off-the-shelf through a vendor or custom-built for their local requirements), or
- By using the online databases on the Getty Web site

Databases made available on the Web site are intended to support limited research and cataloging efforts. Companies and institutions interested in regular or extensive use of the Getty vocabularies should explore licensing options by contacting the Getty Vocabulary Program at vocab@getty.edu

Implementers who wish to provide vocabularies to end-users or use them in search engines may license the vocabularies in any of three formats: XML, relational tables, or MARC (soon only XML); licensed files include no user interface

Comprehensiveness and updates:

Getty Vocabularies are compiled resources; are not comprehensive
They grow through contributions from qualified professionals
Information in the vocabularies is compiled by the Getty Vocabulary Program in collaboration with many institutions. Institutions interested in contributing may contact us at vocab@getty.edu
Selected institutions that catalog works of art, architecture, cultural objects, or their visual surrogates are eligible to contribute
Contributors must follow the editorial rules and contribute data in the prescribed XML format or via the online Web form
Implementers should allow for updates, given that the vocabularies grow and change over time
New versions are released in licensed files annually and on the Web site every month
simplified Entity Relationship Diagram for Getty Vocabularies

SUBJECT
MAIN TABLE
basic record information, unique ID, parent_key, record type, descriptive/scope note, flags

• Main table, Subject_ID links data to the record

NAMES / TERMS
multiple names, one is flagged preferred; dates for names

• Terms also identified by an ID

• All four Getty vocabularies have a common structure

Equivalence relationships between terms/names that are linked to the same concept ID

• Hierarchical relationships between different concept IDs; each record is linked to its immediate parent

ASSOCIATIVE RELATIONSHIPS
links between subjects, dates

• Associative relationships between different concept IDs; are reciprocal

Language

Contributors

Sources

Relationship Diagram for Getty Vocabularies

Patricia Harpring, August 2010
Introduction to Vocabularies (longer version) page 35 © 2010 J. Paul Getty Trust
simplified Entity Relationship Diagram for Getty Vocabularies

SUBJECT
MAIN TABLE
basic record information, unique ID, parent_key, record type, descriptive/scope note, flags

NAMES / TERMS
multiple names, one is flagged preferred; dates for names

Language
Contributors
Sources

Coordinates
Biography
Revision

History

PLACE TYPES/ROLES
multiple place types or roles, one is flagged preferred, dates

ASSOCIATIVE RELATIONSHIPS
links between subjects, dates

Place Type / Role controlled

• Controlled values identified by IDs, other shorter controlled lists in the DB simply list terminology (e.g., "preferred," "non-preferred")

TGN, ULAN, and CONA have additional tables

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Equivalence Relationships
- Synonyms, terms referring to the same concept may exist in different forms
- Multiple languages, multiple spellings, modern and historical usage

Harlem Renaissance
Negro Renaissance
New Negro Movement
Renaissance de Harlem
Renaissance, Harlem

Equivalence relationships typically should be made only between terms and names that have genuine synonymy or identical meanings.

On the other hand, a vocabulary for retrieval may link terms and names that have near-synonymy or similar meanings in order to broaden results.

Harlem Renaissance
Negro Renaissance
New Negro Movement
Renaissance de Harlem
Renaissance, Harlem
### Processes and Techniques Hierarchy

- **Hierarchical relationships**
  - organize terms and provide context

- **Residential relationships**
  - provide important links for related records, not hierarchical

#### Image-Making Processes and Techniques
- Projection
  - Azimuthal projection
    - Azimuthal equidistant projection
  - Gnomonic projection
  - Polar projection
  - Stereographic projection
  - Central projection
  - Conic projection
  - Polyconic projection
  - Cylindrical projection
  - Mercator projection
  - Equidistant projection
  - Parallel projection
  - Axonometric projection
  - Dimetric projection
  - Isometric projection
  - Oblique projection
  - Orthographic projection
  - Multiview projection

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**Jean-Siméon Chardin**
(French painter and draftsman, 1699-1779)

**Jean-Honoré Fragonard**
(French painter and draftsman, 1732-1806)

**Marie-Anne Fragonard**
(French painter and miniaturist, 1745-1823)
More Detail:
Data in the Getty Vocabularies

Union List of Artist Names
ULAN
Elements of a ULAN record

**names**
- Gaudí, Antoni
- Antoni Gaudí
- Gaudí y Cornet, Antonio
- Cornet, Antoni Gauí
- Gaudí i Cornet, Antoni

**artist**
- 500014514

- The Focus of each vocabulary record is a concept - not a “term”
- Conceptual record identified by unique numeric ID
- Linked to each artist record are names, related artists, sources for the data, and notes

**life dates**
- Birth Date: 1852
- Death Date: 1926

**notes**
- Gaudí was influenced by Catalonia's medieval history and architecture. His works display a respect for craftsmanship and structural logic. His work is characterized by sculptural plasticity...

**geographic location**
- Reus (Spain)
- Barcelona (Spain)

**nationalities**
- Catalan, Spanish

**related people**
- studied with Juan Martorell Montells

**roles**
- architect,
- landscape architect,
- furniture designer

**sources**
- Contemporary Architects (1987);
- Enciclopedia universal ilustrada (1978-1983);
- Encyclopedia of world art (1959-1987);
- Grove Dictionary of Art online (1999-);
- LC Name Authority Headings [online] (2002-)

Patricia Harpring © 2010 J. Paul Getty Trust. For educational purposes. Do not reproduce.
SCOPE OF ULAN

What is an artist?

- **Artist:** Person/group involved in the design or production of the visual arts that are of the type collected by art museums.
- **Architect:** Person/group involved in the design or creation of structures that are made by human beings, are large enough for human beings to enter.
- Although the objects themselves may actually be held by an ethnographic, anthropological, or other museum, or owned by a private collector.
- Performance artists are included (but not persons involved in the performing arts).

SCOPE OF ULAN

- In addition to individual artists and architects.
- Occasionally ULAN includes records for rulers and other patrons.
- Only prominent rulers and patrons (e.g., Emperor Hadrian or Lorenzo de’Medici).
  - must be universally important to other users
  - patrons who had a role in the creative process
  - local donors and sitters go in your local authority, not ULAN
- Corporate Bodies may be included.
- Group of people working together as an entity (not necessarily legally incorporated).
- E.g., architectural firms, photographic studios, and other groups of artists working together.
- Museums and other repositories of art works (not building names).
  - (building names will go in future CONA)
Required Fields for ULAN

- preferred name
- variant names: display form of the name
- source(s) for the names
- display biography
- role(s)
- nationality(ies)
- sex
- birth date
- death date
- hierarchical position for corporate bodies

What is a name in ULAN?

- Names, appellations, and designations used to identify the person or corporate body
  - Full name, historical names, official name, names in various languages
  - May include honorifics or titles
- MUST be equivalents: Refer to the same person or corporate body
  - If an anonymous hand is “probably” the same as a named artist, these are two separate records and linked through Associative Relationships
Examples of Names

- Kalf, Willem
  Willem Kalf
- Pei, I. M.
- L$000opez, Jos$00e Antonio
- Burgkmair, Hans, the elder
- Bartolo di Fredi
- Gentile da Fabriano
- Masaccio
- Le Corbusier
- Katshushika Hokusai
- Kicking Bear
- Monogrammist ELA
- Borden Limner
- Adler and Sullivan
- Savonnerie Manufactory
- National Gallery of Art

- inversions
- natural order
- initials
- diacritics
- elder, younger, titles
- patronymics and place names
- nicknames and pseudonyms
- transliterations and translations
- anonymous artists, hand is identified
- corporate bodies

Preferred Names

- In each record, one name must be flagged “preferred”
- “Preferred” name is the name most commonly used in the literature
- Chosen from authoritative scholarly sources and general reference works
  - Generally vernacular; but English (when there is an English equivalent, e.g., corporate bodies)
  - Transliterated into Roman alphabet where necessary
  - Please include variant names as well
Equivalence Relationships

- Kahlo, Frida
- Frida Kahlo
- Kahlo de Rivera, Frida
- Rivera, Frida
- Kahlo y Calderon, Magdalena
- Carmen Frida

- One name is required—inverted and natural order
- Many records have multiple names

Names in ULAN

NAMES:

- Wren, Christopher *(preferred, index, LC)*
- Christopher Wren *(display)*
- Wren, Sir Christopher

- All names **must** refer to the same person or corporate body
- Record names in mixed case (not all caps)
- Generally only 2 to 4, not more than 15 names (obscure inventory or sales cat. names not mandatory or desirable, but published names and artist’s signature are desired)
Names in ULAN

**NAMES:**

**Wren, Christopher** *(preferred, index, LC)*

**Christopher Wren** *(display)*

**Wren, Sir Christopher**

- Prefer the inverted form of the name most commonly used in standard, authoritative, scholarly publications in American English
- Is typically not the fullest form of the name
- Typically does not include titles, honorifics, *Mrs.*, *Sir*, etc.

Modern Western names

**NAMES:**

**Meier, Richard** *(preferred, index, LC)*

**Richard Meier** *(display)*

**Meier, Richard Alan**

- Inverted order is preferred name
  - Where appropriate
- Name #2 is the Display Name, natural order
- First, last, and middle names
  - Are not parsed in separate fields
Modern Western names

*NAMES:*

Meier, Richard *(preferred, index, LC)*
Richard Meier *(display)*
Meier, Richard Alan

- For the inverted form of names, order is: last name, comma, first name, followed by middle names or initials (if any) (e.g., Sullivan, Louis H.)

- Indicate the preferred, display, indexing, LC name, official name, other flags are included

---

**LC authority records**

**LC Control Number:** a 79018152

**HEADING:** Moore, Henry, 1896-1986

000 000967ca a2200023a 450 001 4213247 005 20060504162815 008 790385n|accessn|l|a|aaa 010 __|l|a|n|79018152 n 79018153 035 __|l|a (DLC) n 79018152 040 __|l|a|DLC |e|DLC |l|DLC |l|DLC |l|DLC |l|DLC 100 __|l|a|Moore, Henry, |d|1896-1986 400 __|l|a|Moore, Henry Spencer, |d|1898-

**ULAN names**

Moore, Henry *(preferred, index, LC)*
Henry Moore *(display)*
Moore, Henry Spencer

- Generally the ULAN preferred name is the same as the name in the LC authorized heading
- Name is flagged, and LC control number is in ULAN page field
### Pseudonyms, parenthetical names

**NAMES:**  
**Le Corbusier** *(preferred, display, LC)*  
Corbusier, Le  
Corbu  
Charles Edouard Jeanneret  
Jeanneret, Charles Edouard  
Jeanneret, Charles-$00Edouard  
Jeanneret-Gris, Charles-Edouard  
Jeanneret, Charles-Edouard

- Preferred name may be a pseudonym or nickname  
- Do not include parenthetical names in one field  
- Include other names as variant names in separate fields

---

**Pseudonyms, parenthetical names**

**NAMES:**  
**Le Corbusier** *(preferred, display, LC)*  
Corbusier, Le  
Corbu  
Charles Edouard Jeanneret  
Jeanneret, Charles Edouard  
Jeanneret, Charles-$00Edouard  
Jeanneret-Gris, Charles-Edouard  
Jeanneret, Charles-Edouard

- Even if your source lists a heading or name in parentheses, do not include the second name in the same ULAN field.
Abbreviations, briefer and fuller forms of the name

**Skidmore, Owings & Merrill** *(preferred, display, LC)*

Skidmore, Owings and Merrill
SOM

- Include full and briefer names
- Generally avoid initials and abbreviations for the preferred name *(exception: when established by warrant)*
- Include commonly used abbreviations as variant names

**Initials**

**Pei, I. M.** *(preferred, index, LC)*

I. M. Pei *(display)*

Pei, Ieoh Ming
Bèi Yù Ming

- Use the initials or abbreviations in preferred name only when established by common usage warrant
- Periods, put a space between initials, with the exception of corporate initials established by warrant, such as SOM
- Include fuller name as variant name
Elder, younger, etc.

**Brueghel, Jan, the elder** *(preferred, index)*

*Jan Brueghel the Elder* *(display)*

Bruegel, Jan *(LC)*

Brueghel, Jan, le jeune

Brueghel, Jan

- **Preferred name:** For members of same family that have same name, distinguish between the people by including the younger, the elder, Jr., or Sr., applied strictly according to the Rules.

- **Preferred name:** “I”, “II” are generally for members of a family with the same name, but not parent-child.

- Other languages included as variant names (e.g., le jeune)

---

Articles, prepositions

**NAMES:**

**Gogh, Vincent van** *(preferred, index, LC)*

*Vincent van Gogh* *(display)*

Gogh, Vincent Willem van

van Gogh, Vincent

- **Preferred name:** "last name" part of inverted name (left of comma) should not include article or preposition.

- But depends upon common usage in standard authoritative sources.

- All names: Generally do not capitalize articles and prepositions (e.g., la, del, von, van der) unless occasionally when they are the first word in the "last name" and warranted.
Patronyms and place name

Bartolo di Fredi (preferred, display)
Bartolo di Fredi Cini
Bartolo, di Fredi (LC)
Bartolo di Fredi Battilore
Bartolo di Maestro Fredi
Bartalus magistri Fredi
Bartolo Senese

- Preferred name: Use natural order form of the name for early Western, non-Western, pseudonyms, other cases where there is no inverted form or the inverted name is not the form most often used in your sources
- No "first" or "last" name, patronymic and place name
- Flag this as the Display Name

Languages

Giambologna (preferred, display, Italian-P)
Bologna, Giovanni (Italian)
Giovanni Bologna (Italian)
Giovanni da Bologna (Italian)
Bologne, Jean de (French)
Jean de Bologne (French)
Boulogne, Jean (French)
Gian Bologna (Italian)

- names in various languages, flagged when applicable
Languages

Ethnological Museum (preferred, English-P)
Ethnologisches Museum (German-P)
Ethnographische Sammlung (historical, German)
Ethnographic Collection (historical, English)
... name used from 1829

Cabinet of Art and Rarities (historical, English)
Kunst- und Raritätenkabinett (historical, German)

Language often more pertinent with corporate bodies than people since corporate body names are often translated in published sources (while people’s names rarely are)

Non-Western

Dai Xi (preferred, display)
Dai, Xi (LC)
Dài Xi (Chinese, transliterated Pinyin)
Tai Hsi (Chinese, transliterated Wade-Giles)
Chunshi (sobriquet)
Yu'an (sobriquet)
戴熙 (Chinese)

Inverted or natural order, depending upon common usage in English sources
Informed by rules of the language if you are an expert
ULAN preferred not necessarily LC name
Various transliterations, diacritics

- Variant transliterations provide access
- Diacritics recorded in code-extended ASCII (e.g., $07$
- Currently enter Roman only
- Published in Unicode
- Soon allow others, Russian Cyrillic, Chinese, etc.

Shishkin, Ivan (preferred, index, LC)
Ivan Shishkin (display)
Шишkin, Иван Иванович
Chichkin, Ivan Ivanovitch
Schischkin, Iwan Iwanowitsch
Иван Иванович Шишкин

(*= entered as $07$Шишkin, Ivan Ivanovi$07$c)

Translations

- Common translations are important variants
- “coined” terms or names are not allowed
- Translation must be found in published source

Kicking Bear (preferred, English-P)
Mato Wanartaka (Native American language)
Married name
Common misspelling

O'Keeffe, Georgia
Georgia O'Keeffe
O'Keefe, Georgia
Stieglitz, Alfred, Mrs.

- published misspellings provide access

Name changes

Bode Museum *(preferred, English-P)*
Bode-Museum *(German-P)*
Kaiser Friedrich Museum *(historical, German)*
Königlichen Museum *(historical, German)*
Royal Museum *(historical, English)*

- Names may change for corporate bodies over time
- Historical names are flagged
Former names, “incorrect” names

Names for 14th-century *Sienese painter*
- Include spelling variations, former names (e.g., appellations used when the artist was anonymous)

Bulgarini, Bartolomeo
Bartolomeo Bolgarini
Bartolomeo Bolghini
Bartolomeo Bulgarini
Bartolommeo Bulgarini da Siena
Maestro d'Ovile
Master of the Ovile Madonna
Ovile Master
Lorenzetti, Ugolino
Ugolino Lorenzetti

But do NOT include in same record unless it is generally agreed in scholarly sources that they are the same person. If uncertain, link as Related People.
Related People/Corporate Bodies

Jorge Afonso (Portuguese painter and court artist, born ca. 1470-1475, died before 1540)

Master of 1515 (Portuguese painter, active 1515)

Relationship Type:
possibly identified with

Related Person:
Master of 1515
…(Portuguese painter, active 1515)

- Use for artists who are perhaps the same person
- If scholars are not sure, do not put the names in the same record; use associative rels.

Anonymous Artist

Spitz Master (preferred, display)
Master of the Spitz Hours

Id: 500055539

Nationalities:
French (preferred)

Roles:
artist (preferred)
painter
Illuminator

Gender: male
Illuminator

Events:
active: ca. 1415-1425

List/Hierarchical Position:
\[ \cdots \cdot \cdots \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \·
**Unknown Artist**

**Names:**
- unknown Inca
- unknown Inka
- anonymous Inca
- anonymous Inka
- Incaic

**Display Biography:** Inca artist

**Nationality/Culture:** Inca

**Hierarchical Position:**
- Top of the ULAN List/Hierarchy
- Person (Facet)

*Unknown* = culture of object or creator; facet in ULAN
- Used in the creator field when the person is not named and an anonymous personality (with established oeuvre) has not been identified; culture of the work is used

---

**Other information may be attached to names**

**Name:** Le Corbusier

- **Term ID:** 1500074565
- **Display Date:** *pseudonym adopted in 1920*
- **Start Date:** 1920 **End Date:** 9999

**Contributors:**
- AVERY Preferred, BHA Preferred, CCA Preferred,
- CENSUS Preferred, FDA Preferred, GRLPSC, VP Preferred

**Sources:**
- Bénézit, Dictionnaire des Peintres (1976)
- CCA Authority File (1980-)
- RILA/BHA (1975-2000)
**BIOGRAPHY**

- Display biography
- Nationality, culture, ethnicity
- Dates of birth and death
- Roles
- Male or female
- Places of birth and death
- Important events (locus and dates of activity)

**Display biography**

*for Jacques Louis David*

*Display Biography: French painter and draftsman, 1748-1825*

- typically includes nationality, roles, birth and death dates
- comma & hyphen as indicated in example

- important information then indexed in appropriate fields using controlled format (for dates) and controlled vocabulary (for roles and nationalities)
Display biography, Indexed

for Jacques Louis David
Display Biography: French painter and draftsman, 1748-1825

NATIONALITY: French
ROLES:
artist
painter
draftsman
draftsman(s)
portraitist(s)
BIRTH DATE: 1748
DEATH DATE: 1825

Display vs. Indexing
May be relatively simple to concatenate from fielded data

Display biography, Indexed

DISPLAY BIOGRAPHY: Indian painter, active ca. 1595–1655

NATIONALITY:
Indian
Mughal

ROLES:
artist
painter
miniaturist
portraitist

BIRTH DATE: 1575
DEATH DATE: 1675

Display vs. Indexing
In other cases, display includes expressions of uncertainty and nuance
Events, locus of activity

**DISPLAY BIOGRAPHY:**
Dutch painter and draftsman, 1853-1890

**EVENT:** active

**PLACE:**
Holland
France

- where places of activity and nationality differ

---

**Other Events**

**For Henri Rousseau**

**EVENT:** exhibited

**DISPLAY DATE:** at the Salon des Indépendants, Paris, in 1886

**START DATE:** 1886

**END DATE:** 1886

**PLACE:** Paris (France)

- With an event, you must note either location or dates of the event
Descriptive note

DESCRIPTIVE NOTE:
Riza, son of 'Ali Asghar, was a leading artist under the Safavid shah Abbas I (reigned 1588-1629). He is noted primarily for having created portraits and genre scenes. The various names for this artist and the attributions of paintings in his oeuvre are somewhat uncertain, since his signatures and contemporary documentary references to him are ambiguous. Most scholars agree that the artist, Aqa Riza, who is named by Safavid chroniclers, is the same person as Riza in the court of Abbas (thus, “Abassi”). The artist’s style changed significantly at mid-life. Others believe that different artists with similar names are responsible for the paintings generally attributed to Riza. His early paintings display a fine, almost calligraphic linear style with mainly primary colors; the palette of his later works is darker and earthier, and the lines are coarser and heavier. He probably died in Esfahan.

Topics may include:
- disputed issues or ambiguity regarding names or facts
- facts regarding the life of a person or founding and dissolution of a corporate body
- brief explanation of with whom the artist studied
- characteristics of the style of the artist or firm (only if you are an art historian or otherwise experienced in writing about style)
- description of the artist’s stylistic development (only if you are an art historian or otherwise experienced in writing about style)

Associative Relationships

RELATIONSHIP TYPE:
members are

RELATED PEOPLE:
Richard Meier
Michael Palladino
James R. Crawford
Bernhard Karpf
Reynolds Logan
Dukho Yeon

- Associative = related people and corporate bodies, not hierarchical
- E.g., a corporate body may be related to people
- Relationships are reciprocal
Related People/Corporate Bodies
for Albrecht Dürer (German, 1471-1528)

Relationship Type: son of
Related Person: Albrecht Dürer the elder

Relationship Type: student of
Related Person: Michael Wolgemut
Display Date: from 1486 through 1490
Start Date: 1486  End Date: 1490

- student/teacher relationships
- familial relationships if parent is also an artist
- dates of relationship
- Earliest and Latest are used for searching, do not display to end user

Choose the Relationship Type from controlled list
Definitions are in the Editorial Manual
Arranged by guide terms

1000  related to
1001  miscellaneous
1002  associated with
1003  possibly identified with
1004  distinguished from

1101  teacher of
1102  student of
1105  apprentice of
1106  apprentice was
1107  influenced
1108  influenced by
1111  master of
1112  master was
1113  fellow student of

1201  patron of
1202  patron was
Hierarchical Relationships

- Gobelins
  - Gobelins Furniture Manufactory
  - Gobelins Marquetry Studio
  - Gobelins Pietra Dura Studio
  - Gobelins Metalwork Studio
  - Gobelins Engraving Studio
  - Gobelins Silversmiths’ Studio
  - Gobelins Painting Studio
  - Gobelins Sculpture Studio
  - Gobelins Tapestry Manufactory
  - Gobelins Dye Works

- Hierarchical = whole/part (genus/species, instance)
- Represented with indentation in display
- Only for corporate bodies; not for people

Tapestry: Portière aux Armes de France; Woven at the Gobelins Tapestry Manufactory; woven after a cartoon by Pierre-Josse Perrot, designer; woven under the direction of Étienne-Claude Le Blond, workshop director; French, Gobelins, about 1730-1740; Silk and wool; 11 ft. 10 in. × 8 ft. 9 in.; J. Paul Getty Museum (Los Angeles, California, USA); 85.DD.100

National Museums in Berlin (German federation of museums)
- Corporate Body
- National Museums in Berlin
- Art Library
- Museum of Photography ...part of Art Library since 2004

- Dates may be associated with hierarchical relationships
- Start and End Dates index the Display Date
  - Start: 2004
  - End: 9999
Sources

Prefer the most authoritative, up-to-date source available. Sources of information in the ULAN record may include the following:

- **Standard general reference sources**
  - Grove, Thieme-Becker, Bénézit
  - LC Name Authority Headings
  - textbooks
  - general biographical dictionaries

- **Other official sources**
  - repository publications, including catalogues and official Web sites
  - general encyclopedia and dictionaries
  - authoritative Web sites other than museum sites (e.g., university sites)

- **Other sources**
  - inscriptions on art objects, coins, or other artifacts
  - journal articles, newspaper articles
  - archives, historical documents, and other original sources
  - authority records of contributors’ databases

---

**Getty Thesaurus of Geographic Names**

**TGN**
### Elements of a TGN record

<table>
<thead>
<tr>
<th>names</th>
<th>Munich München Monaco München</th>
</tr>
</thead>
<tbody>
<tr>
<td>place</td>
<td>7004333</td>
</tr>
<tr>
<td>parents</td>
<td>Germany Baveria Oberbayern</td>
</tr>
<tr>
<td>place types</td>
<td>inhabited place state capital</td>
</tr>
<tr>
<td>coordinates</td>
<td>48 08 N, 011 35 E</td>
</tr>
<tr>
<td>dates</td>
<td>founded near an older settlement in 1157</td>
</tr>
</tbody>
</table>

**note**
Capital of Bavaria and the third-largest city in Germany; is situated on both sides of the Isar River, north of the Alps. Henry the Lion, duke of Bavaria, established it in 1157 as a mint and market for Benedictine monks from Tegernsee ...

**sources**
SCOPE OF TGN

New places in TGN must be within scope

- TGN places include political entities and physical features
- Scope is global, some extraterrestrial
- Includes all current continents and nations
- Historical places, including nations and empires
- Prehistory to the present
- Real places, not mythical
- May include formerly inhabited places, historical places with unknown exact locations “lost settlement”
- Focus on places important to art and material culture

Required Fields for TGN

- preferred name
- variant names, as stated in Rules
- source(s) for the names
- place type(s) (e.g., inhabited place)
- hierarchical position
What is a name in TGN

- Names, appellations, and designations used to identify a place
  - Current, historical, official, local usage
  - May include a “core” name and descriptive designation (e.g., Mount Etna or Mississippi River)
- MUST be equivalents, referring to the same place
- If archaeological site is near but not on site of the modern town, these are two separate records, not two names in the same record

Examples of Place Names

- Firenze
- Florence
- Fiorenza
- Tel Hazor
- Tel Hazor
- Tel-Hazor
- Big Apple
- City of Brotherly Love
- Michigan, Lake
- Florentine
- vernacular names
- variant names in other languages (English)
- historical names
- transliterations
- variations in spelling, diacritics, punctuation, or capitalization
- nicknames
- translations
- inversions (physical features)
- adjectival forms
Preferred Names

- One name flagged “preferred”
- “Preferred” name is the name most commonly used
- Generally vernacular; but English for continents, oceans, historical entities, etc.

- Chosen from authoritative scholarly sources and general reference works in American English
- Include English variant if there is one, flag it
- May have been transliterated into Roman alphabet by your source where necessary
- Please include variant names as well

Equivalence Relationships

Mississippi River
Mississippi
Mississippi, fleuve
Fiume del Missisipi
Fleuve Mississippim
Chicagua
Chucagua
La Grande Riviere
Malabanchia
Malabouchia
Mascicciipi
Meact-Chassipi

- one name is required
- many records have multiple names

Image from Encyclopedia Britannica Online. Copyright Alex S. MacLean/Landslides.
### Names in TGN

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firenze</td>
<td>preferred, vernacular, Italian-preferred</td>
</tr>
<tr>
<td>Florence</td>
<td>English-preferred</td>
</tr>
<tr>
<td>Florencia</td>
<td>Spanish-preferred</td>
</tr>
<tr>
<td>Florenz</td>
<td>German-preferred</td>
</tr>
<tr>
<td>Fiorenza</td>
<td>historical, Medieval</td>
</tr>
<tr>
<td>Florentia</td>
<td>historical, Latin, name of Roman colony on N bank of Arno</td>
</tr>
<tr>
<td>Florentine</td>
<td>adjectival, English</td>
</tr>
</tbody>
</table>

- All names **MUST** refer to the same place (e.g., lost sites)
- Record names in mixed case (not all caps)
- Generally only 2 to 4, not more than 15 names (obscure archival names not mandatory or desirable, but published names are desired)

**Prefer the vernacular form commonly used in standard authoritative sources in English language**

- Include the preferred English form as well when it differs from vernacular
  - generally only for famous places and large places (nations, mountain ranges)
Multiple Vernacular Names

- Strasbourg *(preferred, vernacular, French-preferred)*
- Strassburg *(vernacular, German-preferred)*
- Straßburg *(vernacular, German-preferred)*
- Strossburi *(vernacular, Alsatian-preferred)*
- Estrasburgo *(other, Spanish-preferred)*
- Strateburgum *(historical, Medieval Latin)*
- Argentoratum *(historical, Ancient Latin)*

- Multiple vernacular languages
- Important to record all
- Prefer the one used in standard sources that also prefer the vernacular (e.g., atlas, gazetteer, NIMA)

Transliterations, diacritics

- Tōkyō *(preferred,C,V)  ..........  after replacing Kyōto as Imperial capital, 1868*
- Tokyō *(L,V,English−P,U,N)*
- Tokio *(H,O,English,U,N)  ..........  obsolete spelling*
- Edo *(H,V)  ..........  during Tokugawa Shogunate beginning 1603*
- Yeddo *(H,V)*
- Yedo *(H,V)*

- Use of diacritics
- $\text{\$00 codes (T\$01oky\$01o)}$
Processing diacritics

- Transliterated into the Roman alphabet
- Generally using a transliterated source
- ISO standards provide the preferred transliteration protocol (Pinyin, but include Wade-Giles for access too)

Currently diacritics are stored as codes, $\text{\textacuted{e}} = "\text{e}"$ with an acute accent which are translated into Unicode for displays and data releases.
Display Name, Indexing Name

Naples (Napoli province, Campania, Italy, Europe)

Napoli (vernacular preferred)
Naples (English-preferred)
Napoli province (display name)

Flag “display name” = special name flagged for horizontal displays or “headings”
where simple name is confusing

Names and Language Flags

al-Urdunn (Vernacular, preferred)
Al Urdunn (Vernacular)
Urdunn (Vernacular)
al-Mamlakah al-Urdunniah al-Hāshimīyah
(Vernacular, official)
Jordan (preferred English)
Hashemite Kingdom of Jordan (English)
Jordanie (French)
Royaume hachémite de Jordanie (French)
Jordaan (Dutch)
Jordania (Spanish)
Giordania (Italian)
JOR (ISO 316)
JO (ISO 21)
ISO400 (ISO 316)
J000 (FIPS)
Transjordan (Historical) Display

- vernacular and other languages
- variant transliterations
- preferred English, ISO, and other flags
- preferred vs. official name, not necessarily the longest form

Images: Encyclopedia Britannica online

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Names and date

Siena (vernacular, preferred) used since 13th century
   (start: 1200, end: 9999)
Sienna (English) obsolete spelling (start: 1500, end: 1900)
Senae (historical) medieval (start: 800, end: 1500)
Sanna (historical)
Saena Julia (historical) Roman (start: -100, end: 300)
Sena Julia (historical)
Sena (historical) Etruscan (start: -800, end: -100)

Hierarchical Relationship in TGN - Whole/Part

Top of the TGN hierarchy (hierarchy root)
.... World (facet)
.......... North and Central America (continent)
............ Costa Rica (nation)
............ Cartago (province)
............ Guanacaste (province)
............ Heredia (province)
............ Limon (province)
............ Puntarenas (province)
............ San Jose (province)

• provinces are part of the nation
• displayed with indentation
• indicated by linking each place to its “parent”
• Choosing the parent
• To add a new record, TGN requires that you name the correct administrative division within the nation where the place should be positioned
• Consult the Rules and precedent for other places in that nation
• If you cannot determine the correct administrative subdivision, use the narrowest level known (e.g., state or nation, if you do not know the county)

Levels below inhabited place

| hierarchy generally descends to level of inhabited place |
| neighborhoods are included for largest cities |

World

North and Central America (continent)
United States (nation)
California (state)
San Francisco (inhabited place)
Chinatown (neighborhood)
Ingleside (neighborhood)
Mission (neighborhood)
Nob Hill (neighborhood)
North Beach (neighborhood)
Washerwomans Bay (former physical feature)
Historical and former places

Hierarchical Position:

Africa.................................(continent)
Mīr........................................(nation)
Urban.................................(region)
Al-Iskandariyah..(governorate)
   Al-Iskandariyah..(inhabited place)
      Al-Hadrah ......(neighborhood)
         Antirrhodos......(former island)
               Pharos.........(island)

- Some places may no longer exist, e.g., submerged island of Alexandria, Egypt

Polyhierarchy

Modern world
Italy
Tuscany
Siena province

Historical world
Etruria

- Multiple hierarchical relationships may include historical parents
- The date of the relationship may also be included
## Dates for hierarchy

<table>
<thead>
<tr>
<th>Hierarchical Position</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World (facet)</td>
<td></td>
</tr>
<tr>
<td>.... Europe (continent)</td>
<td></td>
</tr>
<tr>
<td>........ Italy (nation)</td>
<td></td>
</tr>
<tr>
<td>.......... Upper Egypt (region)</td>
<td></td>
</tr>
<tr>
<td>............. Qinā (governorate)</td>
<td></td>
</tr>
<tr>
<td>................ Thebes (deserted settlement)</td>
<td></td>
</tr>
<tr>
<td>................ Luxor (inhabited place) [N]</td>
<td></td>
</tr>
<tr>
<td>................ Malkata (deserted settlement)</td>
<td></td>
</tr>
<tr>
<td>................ Qurna (inhabited place) [N]</td>
<td></td>
</tr>
<tr>
<td>................ Thebes, Necropolis of (necropolis)</td>
<td></td>
</tr>
</tbody>
</table>

*The date of the relationship may also be included.*

## Changing relationships through history

- **Urban diminishment**
- Occasionally large urban areas are replaced with several smaller towns
- E.g., villages on site of deserted settlement, Thebes, Egypt

| World (facet) |  |
| .... Africa (continent) |  |
| ........ Egypt (nation) |  |
| .......... Upper Egypt (region) |  |
| ............. Qinā (governorate) |  |
| ................ Thebes (deserted settlement) |  |
| ................ Luxor (inhabited place) [N] |  |
| ................ Malkata (deserted settlement) |  |
| ................ Qurna (inhabited place) [N] |  |
| ................ Thebes, Necropolis of (necropolis) |  |
Changing relationships through history

- **Urban expansion**
- Former independent towns incorporated into modern city, Vienna

World

- Europe (continent)
- Austria (nation)
- Vienna (state)
- Almannsdorf (suburb)
- Aspern (suburb)
- Atzgersdorf (suburb)
- Breitenlee (suburb)
- Dornbach (suburb)
- Stammersdorf (suburb)
- Strebersdorf (suburb)

Physical feature crosses national boundaries

- Physical features that cross boundaries are placed under the level that entirely contains them

World

Europe (continent)

- Adriatic Sea (sea)
- Alemannia (region, general)
- **Alps (mountain system)**
- Alsace-Lorraine (region, general)
- Andorra (nation)
Hierarchy with physical feature as intervening level

- World
  - Africa (continent)
  - Kenya (nation)
  - Coast (province)
  - Bura (inhabited place)
  - Galana (river)
  - Gazi (inhabited place)
  - Kinango (inhabited place)
  - Lamu (inhabited place)
  - Lugards Falls (waterfalls)
  - Mkunumbi (inhabited place)
  - Pate Island (island)
  - Pate (inhabited place)
  - Rasini (inhabited place)
  - Rabai (inhabited place)
  - Shimoni (inhabited place)

- No set number of levels in administrative structure
- Pate Island, Kenya

General region

- World
  - Africa (continent)
  - Antarctica (continent)
  - Asia (continent)
  - Central Asia (region, general)
  - Eurasia (region, general)
  - Europe (continent)
  - Middle East (region, general)
  - North and Central America
  - Oceania (continent)
  - South America (continent)

- No consistently defined boundaries (e.g., Middle East)
- Often has no hierarchical depth
Place types
for Indianapolis, Indiana

inhabited place

- city
- state capital
- manufacturing center
- transportation center
- sporting center
- financial center
- agricultural center

- minimum record has one place type
- fuller records have more
- one is flagged as "preferred"
- For cities, towns, villages, preferred = inhabited place

Place types
for Indianapolis, Indiana

inhabited place ... founded in 1821

- city
- state capital ... since 1825
- manufacturing center
- transportation center
- sporting center ... especially noted for Indianapolis 500 automobile race, since 1911
- financial center
- agricultural center

- May have dates with place type
- Dates of habitation are most important
Place types

for Machu Picchu, Peru

- Historical or current
- “deserted settlement” is preferred current, “inhabited place” is historical

- deserted settlement (preferred, current) ... building started ca. 1440; was inhabited until the Spanish conquest of Peru in 1532  
  Start: 1430  End: 1550
- archaeological site (current) ... rediscovered in 1911  
  Start: 1911  End: 9999
- ruins (current)
- inhabited place (historical)
- Inca center (historical) ... building started ca. 1440; was inhabited until the Spanish conquest of Peru in 1532  
  Start: 1440  End: 1550

Choose appropriate Place Type from the controlled list

<table>
<thead>
<tr>
<th>Place Type ID</th>
<th>Place Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3241</td>
<td>unincorporated area</td>
</tr>
<tr>
<td>B3245</td>
<td>seasonally inhabited place</td>
</tr>
<tr>
<td>B3300</td>
<td>&lt;settlements by economic base&gt;</td>
</tr>
<tr>
<td>B3302</td>
<td>animal breeding center</td>
</tr>
<tr>
<td>B3303</td>
<td>agricultural center</td>
</tr>
<tr>
<td>B3304</td>
<td>irrigation center</td>
</tr>
<tr>
<td>B3305</td>
<td>boomtown</td>
</tr>
<tr>
<td>B3306</td>
<td>livestock center</td>
</tr>
<tr>
<td>B3307</td>
<td>timber center</td>
</tr>
<tr>
<td>B3308</td>
<td>viniculture center</td>
</tr>
<tr>
<td>B3309</td>
<td>company center</td>
</tr>
</tbody>
</table>
**Associative Relationship in TGN**

- There may be associative relationships between places
  - deserted settlement may be related to modern town
  - date for relationship

**DESCRIPTIVE NOTE:**
Located over Huleh Valley, near the modern town Hazor; for centuries it was one of most important cities of Canaan, in control of rich agricultural area and vital trade and military route; according to the Bible, site of victory of Joshua and other battles of Israelites.

**Associative Relationship examples**

- *[for the Ancient Mesopotamian kingdom, Assyria, which is distinct from the Roman Province of the same name]*
  - **Relationship Type:** distinguished from
  - **Related Place:** Assyria (Roman Empire) (province)

- *[in the record for the lost settlement of Sharuhen]*
  - **Relationship Type:** possibly identified as
  - **Related Place:** Tel el-Far’ah (As Suwayd$01a’, Syria) (deserted settlement)

- *[for Kings county, New York, USA]*
  - **Relationship Type:** coextensive with
  - **Related Place:** Brooklyn (New York, New York, USA) (borough)

- *[for ancient Persia]*
  - **Relationship Type:** predecessor of
  - **Related Place:** Iran (nation)
**Associative Relationship examples**

- **Relationship Type:** capital of
  - **Related Place:** Flavia Caesariensis (Britannia Inferior, Roman Republic and Empire) (province)
  - **Display Date:** from the early 4th century CE
  - **Start Date:** 296  **End Date:** 900

[for Florence, Italy]
- **Relationship Type:** ally of
  - **Related Place:** Orvieto (Terni province, Umbria, Italy) (inhabited place)
  - **Display Date:** Guelf allies during the 13th and 14th centuries
  - **Start Date:** 1250  **End Date:** 1400

**Coordinates**

- Expressed in degrees, minutes, and seconds
- Translated into decimal degrees
- Represent a point at the center of a place, or the source of linear features (e.g., rivers)
- Elevation
- Bounding coordinates (most, least)
Recording a single point
- Usually adequate for smaller places
- Point = source of linear features
- Marginally helpful for center of areas (may record point AND bounding box), e.g., nation of India

Latitude: 20 00 N,
Longitude: 077 00 E

Descriptive Note

For Gaul (historical region)

Note: Refers to the region inhabited by the ancient Gauls, comprising modern-day France and parts of Belgium, western Germany, and northern Italy. It was a powerful ancient country. Inhabited from ca. 600 BCE by Celtic Galli. French Gaul (the area of Gaul that is modern France) was later divided by Rome into four provinces: Narbonensis, Aquitania to the west and south of the Loire, Lugdunensis in central France between the Loire and the Seine, and Belgica in the north and east.

Topics may include the following:
- disputed issues, sovereignty, or ambiguity regarding the names or critical facts about the place
- possible confusion of the place due to its name being a homograph for a nearby place
- physical description
- description of its location (do NOT repeat the hierarchy information, but you may mention physical features, etc.)
- the first habitation of the place
- its political history, in chronological order
- its importance relative to other places or to the history of art and architecture
- for modern nations, include the languages spoken
- population may be included for inhabited places, provided you cite the date of your source
## Sources

- **Required to list sources.**
- For preferred name, prefer the most authoritative, up-to-date sources available. Sources of information in the TGN record may include the following in this order of preference:

### Standard general reference sources
- atlases, loose maps, gazetteers
- geographic dictionaries, encyclopedias, guidebooks
- government Web sites, including NGA (NIMA) and USGS

### Other official sources
- newsletters from ISO and United Nations
- communication with embassies
- Library of Congress subject headings

### Other material on topics of geography or current events
- books, journal articles, and newspaper articles
- archives and other original sources

### Other sources
- inscriptions on art objects, coins, or other artifacts
- catalog records of repositories of art objects
- books on history of art and architecture

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## Art & Architecture Thesaurus

**AAT**
Elements of an AAT record

names/terms
travertine
travertine marble
travertine stone
roachstone
lapis tiburtinus

concept
300011329

related concepts
Tufa
onyx marble

scope note
A dense, crystalline or microcrystalline limestone that was formed by the evaporation of river or spring waters. It is named after Tivoli (Tibur in Latin).

parent concept
Materials Hierarchy
limestone
sinter
travertine

sources
Sturgis, Dictionary of Architecture and Building (1902);
Roberts, Construction Industry Thesaurus (1976);
Brady and Clauser, Materials Handbook (1977);
**Scope of the AAT**

- **Scope is from prehistory to the present**
- **No geographic limitations**
- Terms for concepts, activities, and objects discussed within the literature of the fields of art, architecture, decorative arts, archaeology, material culture, art conservation, archival materials, or related topics
- Must fit into the hierarchies already established in the AAT
- **Concepts identified by terms excluding proper names**
- thus it can be described as containing information about *generic concepts* (as opposed to proper nouns or names)

**Outside the scope of AAT:**

- Geographic names (see TGN)
- Personal names (for artists, see ULAN)
- Corporate names
- Iconographic themes (see ICONCLASS)
- Titles of works of art or names of buildings (CONA)
- Brand names
Required Fields for the AAT

- preferred term
- variant terms: alternate descriptor (singular/plural)
- sources for the terms
- scope note
- source(s) for the scope note

What is a term in the AAT?

- A word or phrase denoting a discrete concept in the context of a particular subject
  - Must be used consistently in multiple sources to always refer to exactly the same concept
  - It is not the same thing as a “heading,” which may concatenate multiple “terms” together in a string
  - Terms may be combined to create headings where necessary for local use
What is a term

- AAT term represents a single concept
  - Gothic
  - cathedral
  - stained glass
  - rose windows
  - flying buttresses
  - naves
- Each of the above terms represents a concept applicable to this group of photographs
  - *Gothic cathedral* is NOT a term. It comprises two terms.

Examples of Terms

- rhyta
- rhyton
- color proofs
- colour proofs
- stilleven
- gilding
- gilded
- raking cornices
- cornices, raking
  - plural
  - singular
  - American English
  - British English
  - other languages
  - synonyms that have various etymological roots
  - noun form
  - other forms of speech
  - natural order
  - inverted order
Preferred Terms

- One term flagged “preferred”
- “Preferred” term is the term most commonly used in American English published sources
- Chosen from current scholarly literature and standard, general reference works
- Generally American English (including loan words)
- Please include variant terms as well
- Include British English if needed; other languages, must have been transliterated into Roman alphabet in your source
- Each language has one Descriptor.

Equivalence Relationship

- column kraters
- column krater
- column craters
- column-kraters
- Corinthian craters
- Corinthian kraters
- kraters, column

- one term is required
- many records have multiple terms
Terms in the AAT

- **lantern slides** *(preferred, descriptor)*
- **lantern slide** *(alternate descriptor)*
- **lantern slide transparencies** *(used for)*
- **magic lantern slides** *(used for)*
- **slide, lantern** *(used for)*
- **slides, lantern** *(used for)*

- Multiple terms **must** refer to the same concept = true synonymy, NOT near synonymy
- One flagged as “preferred” for the record
- Prefer the term most commonly used in standard, authoritative, scholarly publications in American English
- Flag the descriptor(s)

NOUNS: For objects, preferred term is a plural noun, flagged descriptor
- **statues, hôtels (town houses), triptychs, headdresses**
- For objects, the second term should be the singular noun, flagged alternate descriptor
- Synonyms may be added (flagged used for)
- Include inverted forms of descriptors
- Generally 2-3 terms, no more than 10
Compound Terms

Do not make a compound term composed of a noun phrase containing an adjective that designates material, style, attribute, or technique. Doing so would mean that these adjectives would recur in infinite combinations throughout the AAT.

[examples of what are NOT allowed as compound terms]
Baroque + churches  stone + walls
Baroque + painting  stone + churches
Baroque + sculpture  stone + steps

*lant|ern slides* comprises two words. Is it a ‘term’?

Compound Terms

- Multiword or compound terms must be capable of being arranged in a genus-species relationship within the existing AAT hierarchies
- Each term must represent a single concept or unit of thought
- A compound term typically has a focus word and one or more modifiers

[examples of valid single and multiword terms in the AAT]
domes  stained glass
watercolor  High Gothic
onion dome  art historians
flying buttresses  Felis domesticus

A quick test: If either of the components of a compound term - when separate - expresses concepts that are different than when they are part of a compound term, bind them together in a compound term.
- If components of a compound term express the same meaning whether they are individual terms or part of a compound term, do NOT make a compound term.
Terms in the AAT

**embroidering (preferred, descriptor)**
**embroidered (alternate descriptor)**
**embroidery (process) (used for)**

- **PROCESSES**: Preferred form is noun or gerund for processes, techniques, and functions
  - illumination, decoration, lacquering, sketching, embroidering, urbanization
- Alternate descriptor is past participle for processes, techniques, functions, and activities
  - scumbling ALT scumbled
  - cataloging ALT cataloged

**Terms in the AAT**

**purpleheart (preferred, descriptor)**
pelogyne (wood)
purpleheart wood
purplewood
violetwood
amaranth (purpleheart)

- **MATERIALS**: Preferred term for materials is singular
- Terms must have true synonymity
- *If the variant term is not of the same etymological origin, be especially careful*
Terms in the AAT

**purpleheart** *(preferred, descriptor)*
pelogyne (wood)
purpleheart wood
purplewood
violetwood
amaranth (purpleheart)

- Terms generally are in lower case, except scientific terms, styles, other terms capitalized based on warrant
- Angevin Gothic, Brussels lace, Tudor roses

Qualifiers for Homographs

**drums (column components)**
Cylinders of stone that form the shaft of a column.

**drums (membranophones)**
Membranophones with a resonating cavity covered at one or both ends by a membrane which is sounded by striking, rubbing, or plucking.

**drums (walls)**
The vertical walls, circular or polygonal in plan, that carries a dome.

- Homographs are spelled the same, disregarding capitalization and punctuation
- Include a qualifier if the term is a homograph for another term in the AAT
- Or if it is a homograph for another common term in standard language
Qualifiers for Homographs

**drums (column components)** *(preferred, descriptor)*

**drum (column component)** *(alternate descriptor)*

- Plural qualifier for plural nouns, singular qualifier for singular nouns
- Qualifier generally in English
- Consult the Rules for devising a qualifier
- Use words from broader context, preferred term, or another distinguishing term when necessary, per Rules
- Include qualifier for preferred or any other term in the record
- In Editor Note, alert Vocab editors to add qualifier to existing term if necessary

---

Qualifiers for terms in other languages

**milagros (ex-votos)** *(preferred, descriptor)*

**milagro (ex-voto)** *(alternate descriptor)*

- Plural qualifier for plural nouns, singular qualifier for singular nouns
- Qualifier should be in the language of the term if possible
- If you do not know, qualifier may be in English
- Consult the Rules for devising a qualifier
Qualifiers for Homographs

- Qualifiers are recorded in a separate field
- Do not put the qualifier in the Term field; put it in the Qualifier field

Terms in the AAT

- Prefer a technical term for the generic material or object, not a brand name
- "Super Glue"? No. "cyanoacrylate"?
  Yes.
- No proper names
- Brand names should be recorded in the separated, designated hierarchy

**cyanoacrylate, n.**

A chemical compound containing the substituted acrylate group
\( \text{CH}_2\text{C}=(\text{CN})\text{COO}^– \); any of various exceptionally strong adhesives based on such a compound.
**Terms in the AAT**

**diffusion transfer prints** *(preferred, descriptor)*

**diffusion transfer print** *(alternate descriptor)*

**instant camera photographs** *(used for)*

**instant photographs** *(used for)*

**instant prints** *(used for)*

**Polaroids** *(used for)*

---

- Prefer scholarly or technical vs. popular
  - diffusion transfer prints vs. instant prints
  - Brand name now in common usage

---

**Ancestral Puebloan** *(preferred, descriptor)*

preferred by Native Americans, and in most common usage

**Ancestral Pueblo** *(used for)*

**Anasazi** *(used for)*

**Basketmaker-Pueblo** *(used for)*

**Hisatsinom** *(used for)*

**Moqui** *(Pre-Columbian Pueblo style) (used for)*

**Moqui** *(used for)*

---

- Prefer culturally sensitive vs. derogatory
  - But include all variant or alternate terms to provide access
Terms in the AAT

Felis domesticus (species) *(preferred, descriptor, scientific name)*

domestic cats (alternate descriptor, common name)

domestic cat (used for)

house cats (used for)

- Flag scientific and common name (be sure they are synonyms!!)
- Flag neologisms, jargon, official terms

---

British English descriptor

color proofs *(preferred, descriptor, American English-P)*

color proof *(alternate descriptor, American English)*

colour proofs *(descriptor, British English-P)*

colour proof *(alternate descriptor, British English)*

flat proofs *(used for)*

proofs, color *(used for)*

- Include plural, singular, American English, British English
- Required to include British English descriptor is included, if it is different from the American English descriptor
Terms in other languages

**watermarks** (preferred, descriptor, English-P)
**watermark** (alternate descriptor, English)
**water-marks** (used for, English)
**water marks** (used for, English)
**papermarks** (used for, English)

... term used prior to ca. 1790

**filigrane** (descriptor, French-preferred)
**Wasserzeichen** (descriptor, German-P)
**filigrana** (descriptor, Italian-preferred, Spanish-P)
**watermerk** (descriptor, Dutch-P)

- You may include terms in other languages
- Follow capitalization rules of that language

Terms in the AAT

**violoncellos** (preferred, descriptor, English-P)
**violoncello** (alternate descriptor)
**celli** (used for)
**cello** (used for)
**cellos** (used for)
**violoncelli** (descriptor, Italian-P)

- Prefer term most commonly found in American English sources
  - **violoncellos vs. violoncelli**
  - **gymnasiums vs. gymnasia**
  - **akua’mma vs. akua’bas**
- Other language plural = variant term

Patricia Harpring, August 2010

Introduction to Vocabularies (longer version)

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Loan Words

**papier-mâché** *(preferred, descriptor, English-P, French-P)*
**papier-mâché** *(used for)*
**paper-mache** *(used for)*
**papier mache** *(used for)*

- Terms borrowed from other languages that have become naturalized in American English
  - lits à la duchesse
  - mihrabs
  - pagodas
  - gongs
  - Schnitzaltars
  - Rathäuser
- May be both preferred English and preferred other language (French)

Coining Terms

**trompe-l'oeil** *(preferred, C, U, D, English-P, French-P)*
**trompe l'oeil** *(CU, U, D, English)*

- Do not coin a new term by translating from the other language
- E.g., do not invent a translated English *deceive-the-eye* for the French *trompe-l’oeil*
- All descriptors in the AAT must have warrant from multiple authorized sources
- Do not coin D, AD, or UF
- Guide Terms may be coined
Diacritics

gallery graves (preferred, descriptor, English)
gallery grave (alternate descriptor, English)
graves, gallery (used for, English)
allées couvertes (used for, English, French)

allées couvertes = allées couvertes

- Diacritics recorded in code-extended ASCII (e.g., $00) in data, maps to Unicode
- Published and displayed in Unicode
- Must use codes for all fields – all names, notes, date fields, etc.

Various transliterations

Chokwe (preferred, descriptor)
Ciokwe (used for)
Cokwe (used for)
Jokwe (used for)
Kiokwe (used for)
Tuchokwe (used for)
Badjok (used for)
Bajokwe (used for)
Batshioko (used for)
Kioko (used for)
Quioco (used for)

- include variant transliterations
Hierarchical Relationship in AAT – Genus/Species

funerary sculpture
....brasses (memorials)
....effigies
......gisants
....haniwa
....mintadi
......bitumba
....mma
....niombo
....tomb slabs
....ushabti

- relationships depicted with indentation
- brasses, effigies, gisants, haniwa, ushabti = types of funerary sculpture

Choosing the Parent

- Under the most logical broader term
- Under the most specific parent possible
- Be consistent with the precedent of other records in the same or similar sections of the hierarchies
- With the descriptor of the concept record in mind, determine if this concept is a type of, kind of, example of, or manifestation of the proposed parent concept
- Make sure that each subset of narrower terms clustered under a broader term is independent and mutually exclusive in meaning. Occasionally meanings may overlap among siblings, but avoid this when possible
Choosing the Parent

**Hint:** To find the correct parent for your new term, look up a term in the AAT that you think is related to or similar to the term you want to add. See where that term is positioned, and then determine if your term will logically fit under that parent too, based on other terms under that parent and the Scope Note of the parent.

- Be sure that the genus/species logic holds true upwards through all levels of the hierarchy above the concept.

Facets

- Facets are the top level of the AAT structure.
- AAT is not organized by subject matter or discipline.
- "Hierarchies" are arranged within the seven facets.
- Conceptually organized in a scheme that proceeds from abstract concepts to concrete, physical artifacts.
Information Forms Hierarchy
...
...<document genres>
....<document genres by function>
.....records
.........<records by form or function>
............accession records
............administrative records
............architectural records
............bidding documents
............census records
............financial records
............legal documents
............legal instruments
..............affidavits
..............agreements
..............articles of incorporation
..............bonds (legal records)
..............certificates of incorporation
............charters
............charter parties
............escrows
............franchises

Guide Terms

- hierarchies are organized using guide terms, e.g., <form or function>

Visual Works Hierarchy
...
...<visual works by medium or technique>
....photographs
.....<photographs by form>
.......negatives
............positives
........<transparencies: photographic>
........<photographs by form: color>
........<photographs by form: format>
........card photographs
........boudoir midget mounts
........cabinet photographs
........cartes-de-visite
..............cameo prints
........gem photographs
..............lantern slides
..............slides (photographs)

Guide Terms

- levels vary depending upon necessity of a given hierarchy
**Polyhierarchy**

**Object Genres**

- fragment
- plumes
- aigrettes [N]
- strips

**Costume**

- costume accessories
  - cockades
  - jewelry
  - aigrettes worn on the head

- hair ornaments
  - aigrettes

Note: Upright plumes of feathers of an egret or heron arranged as a hair ornament or on a turban. Also, similar ornaments, often jeweled, in the shape of feathers, especially those worn on the head.

In the polyhierarchy, one “preferred” relationship is flagged for technical efficiency. The “Non-preferred” relationship displays with an “N”.

**Hierarchical Position:**

- Styles and Periods Facet
  - ... Styles and Periods
  - ........ <styles and periods by region>
  - ............ <Early Western World>
  - ................. Mediterranean
  - .................. <ancient Italian styles and periods>
  - ........................ <ancient Italian periods>
  - .................................. Roman (ancient, style or period)
  - ........................................ Imperial (Roman)
  - ........................................... Early Imperial (C) ca. 27 BCE-68 CE

- Dates for hierarchical relationships
**Related Concepts (Associative Relationships)**

**Materials**
- building materials
- coating (material)
- lacquer
- plaster
- arriccio
- intonaco
- stucco
- photographic materials
- solvent

**Visual Works**
- drawings
- design drawings
- preliminary drawings
- sinopie
- environmental art
- mosaics
- paintings
- finger paintings
- frescoes
- watercolors

- There may be associative relationships between concepts
- mural painting (fresco) and the plasters, and drawing (sinopia) underneath

**Examples of relationship types**

**[in the record for piers (supporting elements)]**
- Relationship Type: distinguished from
- Related Concept: columns (architectural elements)
- Relationship Type: distinguished from
- Related Concept: posts

**[in the record for cave architecture]**
- Relationship Type: meaning/usage overlaps with
- Related Concept: rock-cut architecture

**[in the record for carving (process)]**
- Relationship Type: causative/resulting concept(s) is
- Related Concept: carvings (visual works)

**[in the record for hachas (ceremonial axes)]**
- Relationship Type: locational context/setting is
- Related Concept: ball courts (Mesoamerican)
Dates for associative relationships

[in the record for "rapiers"]

Relationship Type: thing(s) needing context is
Related Concept: cup-hilts
Display Date: cup-hilts were found on rapiers beginning in the 17th century
Start Date: 1600
End Date: 9999

Scope Note

For Art Nouveau

Note: Refers generally to the style of painting, architecture, and the decorative and applied arts that flourished in Europe and the United States from about 1890 to 1910. The style is characterized by an emphasis on fluid, undulating, or serpentine lines or contours based on organic forms and the use of modern materials such as iron and glass.

Topics may include the following:

• the usage of the descriptor, alternate descriptors, and used for terms in the record
• the meaning and context of the descriptor and other terms in the record
• distinguishing between terms that are in different records and have overlapping meanings or that may otherwise be confused by users
Sources for the AAT record

- **Sources of information in the AAT record may include the following:**

- **Standard general reference sources**
  - major authoritative dictionaries of the English language, including Webster’s, Random House, American Heritage, and the Oxford English Dictionary (for the OED, be aware that words may be spelled differently in American English)
  - encyclopedia
  - dictionaries in languages other than English
  - LC term Authority Headings

- **Other authoritative sources**
  - other authoritative thesauri and controlled vocabularies
  - textbooks, such as Gardner and Janson

- **Other material on pertinent topics**
  - books, journal articles, and newspaper articles
  - archives, historical documents, and other original sources (for historical terms only)

- **Other sources**
  - databases of contributors
  - articles or databases on museum or university Web sites

---

**Cultural Objects**

**Name Authority**

**CONA**
Elements of a CONA record

**titles/names**
- Irises
- Les Iris
- Piante di iris
- Die Irisse
- Irys
- Irissen

**work**
- 800123

**notes**
This work was painted when the artist was recuperating from a severe attack of mental illness; it depicts the garden at the asylum at Saint Rémy...

**creator**
Vincent van Gogh (Dutch, 1853-1890)

**date**
1889

**work type**
painting

**style**
Post Impressionist

**materials**
oil on canvas, applied with brush and palette knife

**measurements**
71 x 93 cm (28 x 36 5/8 inches)

**current location**
Paul Getty Museum (Los Angeles, California, United States)

**creation location**
Saint Rémy de Provence (Provence Alpes Côte d’Azur, France)

**subject**
botanical nature irises regeneration soil

**sources**
CONA Equivalence Relationships

**Titles/Names:**

- Eiffel Tower  
  **Preference:** preferred
- Tour Eiffel  
  **Preference:** alternate
- Torre Eiffel  
  **Preference:** alternate
- Eiffelturm  
  **Preference:** alternate
- Three-Hundred-Meter Tower  
  **Preference:** alternate  
  **Title Type:** former

*Titles and alternate titles to refer to same work*

CONA Hierarchical Relationships

**Catalog Level:** component  
**Class:** prints and drawings  
**Work Type:** engraving  
**Title:** Spring Flowers in a Chinese Vase  
**Creator:** Maria Sibylla Merian (German, 1647-1717)

**Relationship Type:** broader context  
**Related Work:** New Book of Flowers. Nuremberg: 1680.  
**Relationship Number:** volume 3 plate 2

Record for the print is linked to separate record for the book as a whole
CONA Hierarchical Relationships

Whole/part relationships for groups, subgroups, items

Traveling Tea Service
- Teapot
- Tea Caddy
  - Japanese Imari Sugar Bowl and Cover
  - Chinese Famille-Verte Tea Bowl and Saucer
- Silver-mounted Scent Flask
- Two Spoons
- Wooden Box

- Whole/Part Records for a set
- Displayed as a hierarchy, relationships indicated with indentation
Whole/Part Records for a series and a part

Christ Presented to the People

State 1
State 2
State 3
State 4
State 5
State 6
State 7
State 8

Source: Metropolitan Museum of Art

Whole/Part Records for multiples from same plate
CONA Associative Relationships

Relationships are reciprocal

study for

study is

Jean-Auguste-Dominique Ingres; Study for the Dress and the Hands of Madame Moitessier; 1851; graphite on tracing paper, squared in black chalk; 13 15/16 x 6 5/8 inches; J. Paul Getty Museum (Los Angeles, California); 91.GG.79

Jean-Auguste-Dominique Ingres; Madame Moitessier; 1851; Samuel H. Kress Collection, National Gallery of Art (Washington, DC); 1946.7.18

One work may be depicted in another work, e.g., architectural drawing, etc.

* Subject: *human figure *allegory
*Mona Lisa (Leonardo da Vinci, ca. 1503-1506) *dollar bill *value of art *profit
*greed

Related Work: Relationship Type: depicts
(link to work record: Mona Lisa (Leonardo da Vinci, ca. 1503-1506)

by applying broad brush strokes, ending in oil stick. This pattern is repeated in the painting. The portrait at center is built up with repeated at top, growing into the dollar note at top. George Washington, Art and money are two different worlds, which can be not be compromised and urgent issue today. In this painting he uses all the ultimate faith to art.

Source: Museo d’Arte Moderno
One work may be depicted in another work, e.g., architectural drawing, etc.

E.g., record for photo as work of art linked to the architectural built work

The other work may be both a Related Work and the Subject

E.g., when contributor of photo record does not have a full catalog record for the architecture

CONA is an authority that provides a unique numeric ID for works, variant names/titles, and other information

Retrieval with CONA would allow users to retrieve ALL pertinent results with one search

- Hagia Sophia
- Church of the Holy Wisdom
- Ayasofya
- Agia Sofia
- Hagia Sophia
- Haghia Sophia
- Sancta Sophia
- Sancta Sapientia
- Saint Sophia
- St. Sophia
- Αγία Σοφία
Cultural Objects Name Authority CONA

Titles/Names:
- Hagia Sophia  Type: preferred
- Church of the Holy Wisdom
- Ayasofya  Language: Turkish
- Agia Sofia
- Agia Sophia
- Haghia Sophia
- Sancta Sophia  Language: Latin
- Sancta Sapientia
- Saint Sophia
- St. Sophia
- Αγία Σοφία

Current Location: Istanbul (Marmara region, Turkey)

Display Creator: architects: Anthemios of Tralles (Byzantine architect and mathematician in Asia Minor, ca. 474-ca. 534) and Isidoros of Meletus, the Elder (Byzantine architect and engineer in Asia Minor, active mid-6th century)

Related People/Corporate Bodies:
- Anthemios of Tralles  Role: architect
- Isidoros of Miletus  Role: architect

Technique/Medium display:
- system bearing masonry, centralized plan; interior surfaces are sheathed with polychrome marble, porphyry, and mosaics

Measurements display:
- central dome: diameter 31 meters (102 feet); height 56 meters (184 feet)

Display Creation Date: original structure dated from 4th century CE; present structure built 532-537 CE; rebuilt in 12th century
- [start: 532 end: 9999]

Object/Work Type:
- church  Display Date: from 4th century
- mosque  Display Date: under Ottomans
- museum  Display Date: since 1934
- [start: 1934 end: 9999]

Style: Culture:

Examples of records in CONA
Display Creation Date: ca. 1831/1833
[Start: 1828 - End: 1836]
Object/Work Type:
color woodcut

Technique/Medium display: woodcut, polychrome ink and color on paper
Material [inks]: • polychrome ink • paper • color (pigment)
Technique [inks]: • woodcut

Measurements display: 25.7 x 37.9 cm (10 1/8 x 14 15/16 inches)
Value: 25.7 Unit: cm Type: height | Value: 37.9 Unit: cm Type: width

Inscription: transliterated signature: Hokusai aratame Iitsu hitsu

Subject: • seascape • wave • fishermen
• boat • Mount Fuji (Chubu, Japan)
• Kanagawa (Kanto, Japan)

Style: Edo Culture:

Descriptive Note: The large wave dominates the scene, with the small mountain in the background. It is said to have inspired said to have inspired both Debussy's "La Mer" and Rilke's "Der Berg."

Related Works:
Sources:
Broader Context:
Movable Works
Katsushika Hokusai (Japanese, 1760-1849): Thirty-six Views of Mount Fuji: First Series;
1827-1837
Data Elements in CONA

- Minimum fields and editorial rules of CONA are in compliance with CDWA and CCO
- Works are identified with a unique and persistent numeric ID
- Given that CONA is an authority, it is important that records contain enough other minimum information to allow users of CONA to clearly identify each work uniquely, in order to prevent users from unintentionally linking to the wrong work

<table>
<thead>
<tr>
<th>Catalog Level</th>
<th>Minimum fields in a CONA record are the types of information typically captured in a visual resources catalog, repository catalog records, or included on a museum wall label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object/Work Type</td>
<td></td>
</tr>
<tr>
<td>Title/Name</td>
<td></td>
</tr>
<tr>
<td>Creator</td>
<td></td>
</tr>
<tr>
<td>Creation Date</td>
<td></td>
</tr>
<tr>
<td>Materials/Techniques</td>
<td></td>
</tr>
<tr>
<td>Measurements</td>
<td></td>
</tr>
<tr>
<td>Subject Matter</td>
<td></td>
</tr>
<tr>
<td>Current Location</td>
<td></td>
</tr>
</tbody>
</table>

Growth of CONA relies upon contributions from the user community

- Contributions may be made in bulk
- Or one at a time via the online contribution form
Contributing via XML

- Requires mapping your fields to the appropriate fields in the CONA XML import format
- You must include the minimum required data for each vocabulary record
- If you don’t have the minimum data, you could fill in default values
- Or use the Web form instead of XML

Contributing via online form

- For those who wish to enter records one at a time

For educational purposes only. Do not distribute.
Creating the Vocabularies

• The Getty vocabularies are compiled in large part from contributions from the user community, including various Getty projects and qualified outside institutions.

• Thanks to our contribution program, in essence we have many "adjunct Vocabulary Program Editors," with expertise in a variety of areas.
Institutions may make contributions via an online form:
- One term at a time
- Important for institutions with only a small number of contributions

Or institutions may make contributions in bulk in our prescribed XML format:
- Bulk contributions can range from a few thousand to several million records
Contributors to Vocabularies

- New terms come from Getty projects and authorized outside contributors
- Current contributors include museums, libraries, archives, bibliographic and documentation projects

Contributors to Vocabularies

- Vocabulary Program conducts training workshops at the Getty and conferences
- Small staff means contributors’ should be trained
- Social, but controlled, so that the result remains authoritative

Contributing to the Getty Vocabularies:

Adding new records via XML or online contribution forms
3. Editorial Rules, continued

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

- **Weight**: You must find the preferred term in at least three authoritative sources. See Sources for Terms below.
- List as many variant or alternate terms as have at least one legitimate source. It is not required to add variant terms; however, you should consult sources to gather alternate terms as time and editorial priorities allow.

3.3.2.5.2 Alphabet and derivatives
- **Roman alphabet**
  - Use the Roman alphabet to record all terms.

- **Transliterations**
  - For terms in a language that is not written in the Roman alphabet (e.g., Greek or Chinese), record the vernacular term that has been transliterated into the Roman alphabet. For the preferred term, you should ideally use a source that has a transliteration derived by applying pertinent ISO standards.

**Contributions are planned through the next several years**
**For current development plans, see our “News” online (with editorial guidelines)**

- **Recent Editorial Work and Data Loading in the Getty Vocabularies**
  - **ULAN (Union List of Artist Names)**
    - **ULAN development**: Current areas of ULAN development include 1) adding non-western artists, current, and historical, including Chinese, Japanese, other Asian, Native American, and others, 2) adding contemporary artists, particularly those collected by museums and special collections, 3) adding types of artists that are not currently in ULAN, such as mask artists, interior design artists, illustrators, calligraphers, etc., 4) adding names of repositories of art, and 5) the ongoing processing of contributions with Avery, VRA/U repositories, etc.
    - **Data loads**: Large data sets are being processed, including a contribution of 19,069 architects from the Avery Index, which was loaded on 30 June 2009, now being processed and published, and the forthcoming manuscript, and an online dataset from the WGA Library, Courtauld. Data has been prepared and tested for loading for the 30,000 repositories of art from VRAIndiana University (compiled by Ellyn Fine) and Grove Art Online artists. Other ULAN loads scheduled for the future are artist data from the BHA databases, and others.
    - **Unknown artists facet**: A new facet was added to ULAN in 2009. It contains applications used for creators of art and cultural objects where the name of the artist is unknown, and the culture of creation is used instead of artist. Examples of “preferred names” are “Unknown Eastern” or “Unknown Islamic.” The applications comply with rules in CCO and CDWA. Variant “names” for each entry include the culture plus “anonymity” (e.g., “unknown Eastern”) and the name of the culture without a descriptor word (e.g., “Eastern,” with qualifier “unknown”).

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• The systems in place to allow this work were built and are maintained by a dedicated group from the Getty Information Technology Services (ITS)
• Worked on user requirements and testing in close cooperation with the Vocabulary Program

Technical solutions

- Editorial system has been built (VCS), Import and Export formats designed
- Basic editorial module is completed
- Ongoing
  - Loading and vetting of contributions, publishing, CONA
  - Goal: terms contributed easily, automatically, part of regular work flow of contributor

Batch loading of data
From various systems or from online forms
In our prescribed format

VCS: Processing Data
Searching
Merging
Editing/adding info
Moving/adding links

Exporting Data
Reports for quality control
Reports for work flow
Release formats
Web, XML, Rel Tab, MARC
Technical solutions

The Getty Information Technology Services (ITS) developed a set of Web services APIs (application programming interfaces) to enable access to the most up-to-date version of the Getty vocabulary data in real time.

What do we do?

- Loading, tracking who contributed what, editing, quality control, 'moving,' merging, un-moving, un-merging
• General vetting, to be sure incoming record meets our standards

<table>
<thead>
<tr>
<th>#</th>
<th>P</th>
<th>H</th>
<th>V</th>
<th>Terms/Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P</td>
<td>NA</td>
<td>U</td>
<td>Abbatini, Antonio Maria [Unidentified]</td>
</tr>
<tr>
<td>2</td>
<td>V</td>
<td>NA</td>
<td>U</td>
<td>Antonio Maria [Unidentified] Abbatini</td>
</tr>
</tbody>
</table>

• Merging records: for multiple records contributed for the same person; automated if possible in the load

<table>
<thead>
<tr>
<th>Preferred Name</th>
<th>Matched Name</th>
<th>Biography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palamedesz, Anthonie</td>
<td>Palamedesz, Anthonie</td>
<td>Dutch painter, 1601-1673</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anthonie Palamedesz,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Palamedesz, Anthonie</td>
</tr>
<tr>
<td>Palamedesz, Anthonie</td>
<td>Anthonie, Palamedez</td>
<td>Netherlandish artist, 1601-1673</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Palamedesz, Anthonie</td>
</tr>
</tbody>
</table>
Name: Del Duca, Giacomo
Biography: Italian sculptor and architect, ca. 1520-1604
ULAN ID: 500016281

Name: Jacopo Siciliano
Biography: Sicilian architect, active in Rome, ca. 1520-1601
ULAN ID: 500137834

"Giacomo del Duca" is same person as "Jacopo Siciliano"
Records were "merged" into a single record

Name: Del Duca, Giacomo
Biography: Italian sculptor and architect, ca. 1520-1604
ULAN ID: 500016281

Name: Jacopo Siciliano
Biography: Sicilian architect, active in Rome, ca. 1520-1601
ULAN ID: 500137834

Names: Del Duca, Giacomo (pref)
Jacopo Siciliano
Biography: Italian sculptor and architect, ca. 1520-1604, born in Sicily, active in Rome
ULAN ID: 500016281
• If near-synonyms or generic postings are in a single record, we make several records of one: *cradles, cribs, bassinets* are different types of beds for babies.

<table>
<thead>
<tr>
<th>Terms/Names</th>
<th>Beds for babies</th>
</tr>
</thead>
<tbody>
<tr>
<td>cradles</td>
<td></td>
</tr>
<tr>
<td>cradle</td>
<td></td>
</tr>
<tr>
<td>cribs</td>
<td></td>
</tr>
<tr>
<td>crib</td>
<td></td>
</tr>
<tr>
<td>beds, crib</td>
<td></td>
</tr>
<tr>
<td>bassinets</td>
<td>children's bed</td>
</tr>
<tr>
<td>bassinet</td>
<td>children's bed</td>
</tr>
</tbody>
</table>

---

What do we do?

- Building hierarchies
- Determining parent, inserting or moving branches
What do we do?

Europe..........................(continent)
Polska..........................(nation)
Dolnoslaskie....................(voivodship)
Kujawsko-Pomorskie..............(voivodship)
Łódzkie.........................(voivodship)
Małopolskie.................(voivodship)
Mazowieckie...................(voivodship)
Lubelskie.......................(voivodship)
Lubuskie.......................(voivodship)
Opolskie.......................(voivodship)
Podkarpackie...................(voivodship)
Podlaskie.......................(voivodship)
Pomorskie.......................(voivodship)

Former voidvodships.............(miscellaneous)

Hierarchy may change
over time

• Campaigns to correct issues
• E.g., to update a nation’s administrative units

Preferred name / term changes

[1000159]
Congo (C,V)
République démocratique du Congo (C,V)
Congo, république démocratique du (C,V)
Democratic Republic of the Congo (C,V)
Zaïre (H,V)
République du Zaïre (H,V)
Zaire (H,V)
Republic of Zaire (H,V)................. used 1971-1997
Kongo, Republik (H,V)
Belgisch Congo (H,V)
Congo Belge (H,V)
Belgian Congo (H,O)..............
Congo Free State (H,O)...........

• We work to keep up to date with preferred terms and names
• Former preferred name was “Zaire”
• Changed to “Congo”
Ensuring quality control

- Editorial Guidelines
  - For consistency
  - For ensuring that data is correctly retrievable
  - Additions to rules made as new issues arise

- We run regular and special reports to help ensure consistency; global changes when necessary

Comprehensive editorial manuals are published online Used by editors and contributors Useful for licensees who implement the data

3.1.6.4 How to choose the parent

Choose the parent based on precedent by consulting records for similar concepts in the AAT.

- Specificity of placement
  Position the AAT record under the most specific parent possible, that is consistent with the precedent of other records in the same or similar sections of the hierarchies.

- Is this parent correct?
  With the descriptor of the concept in mind, determine if this concept is a type of, kind of, example of, or manifestation of the proposed parent concept. If it is, then a genus/species relationship exists.

  o Make sure that each subset of narrower terms clustered under a broader term is independent and mutually exclusive in meaning. Occasionally meanings may overlap among siblings, but avoid this if possible.

  o Be sure that the genus/species logic holds true upwards through all levels of the hierarchy above the concept.

- Examples
  [The most specific parent for "soupé dish" is "baking dish"]; "soupé dish" is a type of or "example of" all ancestors all the way up the hierarchy; its meaning is exclusive of all its siblings]

- Top of the AAT hierarchies
  [objects, Food, ... Objects Facet, Furnishings and Equipment]
Ensuring quality control

What do we do?

- Computer system, good reports, and technical support are critical

What do we do?

- Reports are critical
- to find errors
- to track editorial progress
- to plan workflow
- to produce files for release
We use prepared reports and ad hoc reports.

In VCS, search with search screen
And via SQL ad hoc reports.
Work with ITS to optimize retrieval
Preprocessing, special indexes, algorithms at the time of searching

Normalized strings and keywords for the name “Gogh, Vincent van”

GOGH VINCENT VAN
GOGH
VINCENT
VAN
VANGOGH VINCENT
VANGOGH

Normalized strings and keywords for the name “Atakora, Chas&ine de l’”

ATAKORA
CHAIN
DE
L
ATAKORACHAINEDEL
CHAINEDELATAKORA
LATAKORA
DELATAKORA

E.g., to find articles and prepositions for constructed “keywords”
Singular/plural issue
Add and subtract “s” in preprocessing and for the end-user’s query

1. onion domes
(domes (architectural element), <domes architectural element>
[300001285],
Turkish domes
domes, Turkish

• Small staff
• Process contributions
• Reliance on user community for contributions

Vocabulary records edited in VCS during 3rd quarter FY10

<table>
<thead>
<tr>
<th></th>
<th>Jan (18 days)</th>
<th>Feb (18 days)</th>
<th>Mar (21 days)</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAT records</td>
<td>29</td>
<td>1,427</td>
<td>311</td>
<td>1,767</td>
</tr>
<tr>
<td>AAT citations</td>
<td>21</td>
<td>133</td>
<td>17</td>
<td>171</td>
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<tr>
<td>ULAN records</td>
<td>3,588</td>
<td>2,633</td>
<td>4,431</td>
<td>10,652</td>
</tr>
<tr>
<td>ULAN cits</td>
<td>66</td>
<td>236</td>
<td>37</td>
<td>338</td>
</tr>
<tr>
<td>TGN records</td>
<td>2</td>
<td>21</td>
<td>126</td>
<td>149</td>
</tr>
<tr>
<td>TGN citations</td>
<td>2</td>
<td>4</td>
<td>70</td>
<td>76</td>
</tr>
<tr>
<td>Total Edited</td>
<td>3708</td>
<td>4,454</td>
<td>4,992</td>
<td>13,154</td>
</tr>
</tbody>
</table>
• Four editors work full-time on processing contributions
• Editors have quotas in daily work

Vocab Editing Quotas

<table>
<thead>
<tr>
<th>Task</th>
<th>Records per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation of difficult new records</td>
<td>10</td>
</tr>
<tr>
<td>Extensive Scope/Descriptive Notes, filling in existing records</td>
<td>10-15</td>
</tr>
<tr>
<td>Moderate filling in of records</td>
<td>20-25</td>
</tr>
<tr>
<td>Straightforward data cleanup</td>
<td>70-80</td>
</tr>
<tr>
<td>Moderately detailed data cleanup</td>
<td>35-45</td>
</tr>
<tr>
<td>Merging and moving candidates into publishable hierarchy</td>
<td>90-100</td>
</tr>
</tbody>
</table>

• Priority is to process online contributions
• Set priorities for bulk loaded records (e.g., Avery)
• Editors have quotas, but greatest number possible is 10 to 100 records per week, depending upon the amount of research required for the particular task
• Every year spend 2 months preparing data for the annual licensed files release

Vocab Editing Quotas

<table>
<thead>
<tr>
<th>Task</th>
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<td>35-45</td>
</tr>
<tr>
<td>Merging and moving candidates into publishable hierarchy</td>
<td>90-100</td>
</tr>
</tbody>
</table>
The Getty Vocabularies won an award. Past winners in our category have been Disney/Pixar, AOL, and Apple. You may read about it at http://www.cwhonors.org/archives/2007/index.htm

Contributing to the Vocabularies
Contributions

How may users submit candidate terms?
• Online form or bulk

 Contributions

Editorial Guidelines

How may users submit candidate terms?

• Online form or bulk

Research

Go to: http://vocabcontrib.getty.edu/login.aspx

Login page

Web Form Login -- v3.02

User Name: 
Password: 
Theme: Art & Architecture Thesaurus

To become a contributor to the ART, ULAN, or TGN, please send an email to vocab@getty.edu.

- Notice tells you how to acquire user name and password
- Tells you that your contributions must follow our editorial rules
- Your contributions become permanent part of the Vocabulary
- Your institution is cited as the contributor of terms/names
- The vocabulary is the intellectual property of the Getty

Patricia Harpring, August 2010
Introduction to Vocabularies (longer version)  page 135  © 2010 J. Paul Getty Trust
<table>
<thead>
<tr>
<th>Name/Translation</th>
<th>Preferred Language</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairo</td>
<td>English-Preferred</td>
<td>[BHA, GRISP, VP]</td>
</tr>
<tr>
<td>Al-Qāhirah</td>
<td>Vernacular Preferred</td>
<td>Cambridge World Gazettean (1988)</td>
</tr>
<tr>
<td>Le Caire</td>
<td>French-Preferred</td>
<td>Columbia Lippincott Gazettean (1961)</td>
</tr>
<tr>
<td>Kairo</td>
<td>German-Preferred</td>
<td>Heath's French Dictionary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIMA, GEDnet Names Server (1996-1999)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cassell's German Dictionary (1982) 334</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rand McNally Atlas (1989) 1-84</td>
</tr>
</tbody>
</table>

**Required fields**

It is required to enter information in all fields marked with a big red asterisk.

**Defaults**

If there is already a value automatically supplied for these or any other field, check to be sure that the default value is correct for your record.
**1. Preferred Name**

<table>
<thead>
<tr>
<th>Schikaneder, Jakob</th>
</tr>
</thead>
</table>

**Sort Order**

- Fill in fields
- Click here to bring up windows with additional fields
- Click PLUS or MINUS to add new fields or take them away
- Sort Order Use where indicated

**2. Variant Name**

<table>
<thead>
<tr>
<th>Jakob Schikaneder</th>
</tr>
</thead>
</table>

**Sort Order**

Details window for the Name: language, LC, sources, etc. Click “Save”
Click this icon to access the controlled list
- Search for controlled terms by word
- Use numeric code to find related things adjacent in the list (e.g., 9018 brings Nationalities related to German)

Pending Candidates PDF
A report generated monthly, PDF listing the candidates extant as of the date posted (29 January 2010, in the example below); refreshed every month.

The name of the candidate hierarchy "level" may give a clue as to why this is "candidate," not published. For example, in the AAT "in development" means this is a new hierarchy; "accumulating warrant" means more examples of usage are required.
Help screens
Click on the underlined blue link for Help.

Click “Rules”
Go to the full set of rules for that field.
We advise
• Check the rules as you go.
  Don’t try to read the manuals cover to cover

Editorial Manuals online
The full manuals are available online.
http://www.getty.edu/research/tools/vocabularies/editorial_guidelines.html

Multilingual AAT terms:
- We have received a complete translation of the AAT in Spanish from Centro de Documentación de Bienes Patrimoniales, Chile. The data will be loaded and integrated beginning in August or September 2010.
- A Chinese translation is underway by the National Digital Archives Program, Taiwan.
- A German translation is being undertaken by the Institut für Museumsforschung in Berlin.
- The Rijksbureau voor Kunsthistorische Documentatie is scheduled to deliver a full Dutch translation of the AAT later in 2010. They are also hoping to begin contributing new terms to the AAT this year.
- We are in the process of integrating around 3,000 Italian object type terms from ICCD, Rome, which were contributed several years ago.
- The full set of 3,000 French terms from CHIN has been fully integrated.
Quality Control

Automatic construction of vocab? No.

- users require exact synonyms and relationships, close is not good enough
- much merging and constructing hierarchies is done by hand, in order to ensure accuracy and correct placement within the logic of the thesaurus
- some automatic merging of exact matches is possible based on strict criteria

Sources of the Vocabularies

- Vocabulary Program: Getty vocabulary editors edit and add new terminology
- Sources include standard general published sources, text books, scholarly articles, museum records, etc.

Hardcopy sources
Online sources
Hundreds or thousands of records are added or edited each month.
Candidates are published on Contribution Forms.
Approved records are published to the online data and licensed files.
**Major Users of Vocabularies**

- In collections management systems
  - Available as licensed files
    - *Relational Tables*
    - *XML*
    - *MARC*
  - over 200 licenses
    - released annually
- **Online “browsers”**
  - [http://www.getty.edu/research/tools/vocabularies](http://www.getty.edu/research/tools/vocabularies)
  - 180,000 queries per month
    - released monthly

**Users and Partners**

- Getty projects and others
- Information Professionals
  - Museums
  - Visual resource specialists
  - Librarians
  - Archivists
- Academics
  - Art history
  - Architectural history
- Archaeology
- History
- Systems implementers, vendors, Vocabulary providers
Users and Partners

- OCLC
- State Museums of Berlin/Institute for Museum Studies
- Centro de Documentación de Bienes Patrimoniales, Chile
- CHIN, ICCD
- European Union MILE Project (Metadata Image Library Exploitation)
- Systems vendors
- VRA, ALA
- NISO, ISO
- Grove, Marburger Index, Freer, and TELDAP in Taiwan

 Getty is a partner with many institutions in the field of art information and retrieval
- Browse the hierarchies

Disadvantage of cutting-and-pasting is that you do not have automated access to updates of the data

Example of a cataloging system

Licensed files may be implemented in a museum system
- Vocabulary may be controlled by the system
- Populated with published vocabularies and local terminology
Example of a cataloging system

- Licensed files may be implemented in a museum system
  - Vocabulary may be controlled by the system
  - Populated with published vocabularies and local terminology

- Variant terms provide access
- Using the unique ID of the AAT term allows for updates when the AAT changes

- firedogs
- andirons
- andiron
- fire-dogs
- dogs, fire
Getty Vocabularies are sets of standard terminology that typically form a critical part of an institution’s local vocabulary

- A combination of vocabularies will be necessary
  - Required terms may be outside the scope of a given vocabulary
  - No single vocabulary is comprehensive for its scope
- Local authorities should be populated with published vocabularies and local terminology

Why do we need local authorities?

- Local authorities provide terms not found in published authorities (e.g. unpublished terms, non-expert terms, “wrong” terms, local terms)
- Local authorities remind cataloguers of policies regarding local usage of terms.
- Local authorities cluster together all the variant names for terms, and identify the terms that are preferred and used by the particular institution.
- Local authorities can provide non-expert, “non-scientific” or simply collection-specific broader terms to assist end-users
Controlling data values?

Authorities as described in CDWA and CCO

- Some use controlled lists, some controlled formats (e.g., dates)
- But values in many fields are best controlled by authorities

The authority contains the preferred terms, variant terms, other info
- Is linked to the Work Record

Values in many fields are best controlled by authorities
**What is an Authority?**

- **Authority record**: Controlled vocabulary implemented for the purpose of controlling terminology in catalog records. Includes one or more names or headings (typically one is “preferred”), cross references, notes, and other information about a person, place, or thing.

- **Authority file**: A collection of authority records.
Authority linked to appropriate fields in a work record

Authority linked to appropriate fields in a work record
The brick dome uses four iron chains for a compression ring; it is buttressed by the apses and supported internally by four massive piers more than 18 m thick. Bramante's original floor plan called for the dome over a Greek cross plan. Michelangelo designed the dome; after his death Giacomo della Porta (1532 or 1533, died 1602) designed mid-1550s, constructed late 16th century.

Saint Peter's Basilica, designed by Michelangelo Buonarroti (Florentine, 1475-1564), design revised by Giacomo della Porta (Italian, born 1532 or 1533; died 1602).
with nature. A stream leads from the foreground, where three hunters and their dogs gaze into the southeast toward the distant Hudson River and the flank of Storm King Mountain. A small memory in the artist's London studio. Cropsey adopted a high vantage point, looking west so that the fall foliageelan of the Catskills just beyond the Hudson Valley rises to meet the sky. In the fall of 1860, to complete the picture, he visited the Hudson River valley via New York State, NY, and New York City. His painting, Storm King Mountain, Wallkill, is based on his views of mountains in his home state of New York.

**Creation Location**: Uttar Pradesh (India)

**Current Location**: National Gallery of Art (Washington, DC, USA), Gift of the Avalon Foundation, 1963.9.1

**Creation Date**: 1860

**Subject**: landscape, Hudson River, autumn, sunrise, dawn, trees, clouds

**Record Type [controlled]**: corporate body

**Names**:
- National Gallery of Art
- NGA

**Display Biography**: American art museum, established in 1937

**Place/Location [link]**: Washington (DC, USA)

**Display Broader Context**

**Geographic Place Authority Record**

**Record Type [controlled]**: corporate body

**Names**:
- Washington (preferred)

**Display Broader Context**

**Hierarchical Position [link]**:
- North and Central America (continent)
- United States (nation)
- District of Columbia (national capital district)
- Washington (DC, USA)

**Display Biography**

**May include records for corporate bodies: firms, repositories**

**Authorities linked to each other**
**Personal and Corporate Name Authority Record**
- **Record Type [controlled]:** unknown artist
- **Names:**
  - **unknown Yup’ik**
  - **unknown Yupik**
  - Anonymous Yupik Eskimo
- **Display Biography:** Yup’ik artist
- **Nationality/Culture:** Yup’ik
  - Native American
  - ... <Arctic Native American styles>
  - .... <Alaskan Native styles>
  - ........ Yup’ik

**Class:** sculpture  
**Work Type:** mask

**Title:** Yup’ik mask (Nepcetaq)

**Creator Display:** unknown Yup’ik

**Role:** sculptor

**Name [link to authority]:** unknown Yup’ik

**Creation Date:** 20th century

**Subject:** face, shield, ceremony, shaman

**Current Location:** National Museum of Natural History (Washington, DC); SI, 153624

**Creation Location:** Alaska (USA, North America)

**Measurements:** 35.6 cm (width) (14 1/16 inches)

**Materials and Techniques:** wood, paint, feathers

**Description:** This Nepcetaq (shaman mask) represents a face peering through a triangular shield, painted red, white, and black. The mask was used in dances and ceremonies, especially during the long winter darkness when dances and storytelling took place in the qasgiq (traditional men’s house) using these masks.

**Image ©NMNH Web site; Photographer: Barry McWayne**

---

**Geographic Place Authority Record**
- **Record Type [controlled]:** administrative entity
- **Names:**
  - **Karnak** (preferred)
  - **Al-Karnak**
  - **El Kharnak**

- **Display Broader Context:** Qina governorate, Egypt
- **Hierarchical Position [link]:**
  - Africa (continent)
  - .......... Egypt (nation)
  - ............ Upper Egypt (region)
  - .............. Qina (governorate)
  - ................ Karnak (inhabited place)

- **Type [controlled]:** inhabited place

- **Coordinates [controlled]:**
  - Lat: 25 43 00 N  
  - Long: 032 39 00 E
  - (Lat: 25.7167 decimal degrees)
  - (Long: 32.6500 decimal degrees)

**(StringUtils)**

Karnak (al-Karnak, El Kharnak), on the Nile River, about 10 miles / 16 kilometers southeast of Luxor, is an ancient Egyptian capital, the site of the temple of Amun-Re and one of the finest examples of New Kingdom religious architecture. It is located just opposite the ancient city of Thebes. Karnak was founded as early as the 4th dynasty (c. 2560 BC); it was the dominant city during the 18th, 19th, and 20th dynasties (c. 1550–1069 BC), the so-called New Kingdom. The temple complex is the largest in Egypt, covering about 121 acres / 0.49 square kilometers.

**Sources [link to Source Records]:**
- Getty Thesaurus of Geographic Names (1988–)
- NIMA, GEOnet Names Server (2000–)
**Work Type [link to Concept Authority]:** statue

**Title:** Colossal Head of Akhenaten

**Creator Display:** unknown Egyptian, New Kingdom

**Role [cont.]:** sculptor

**Creation Date:** ca. 1350 BCE

**Current Location [link]:** Egyptian Museum, Cairo, Egypt

**Discovery Location [link]:** Karnak (Qina governorate, Egypt)

**Style:** Eighteenth Dynasty (New Kingdom)

**Measurements:** height: 153 cm (61 inches)

**Material/Technique:** limestone

**Creator Display:** unknown Egyptian, New Kingdom

**Date:** ca. 1350-1336 BCE

**Discovery Location [link]:** Karnak (inhabited place)

**Hierarchical Position [link]:**
- Egypt (continent)
- Upper Egypt (region)
- Qina (governorate)
- Karnak (inhabited place)

**Place Type [controlled]:** inhabited place

**Coordinates [controlled]:**
- **Lat:** 25 43 00 N degrees minutes
- **Long:** 32 39 00 E degrees minutes

**Note:** Village on E bank of the Nile in Upper Egypt; with Luxor, Karnak is on the site of ancient Thebes; location of temple of Amen, considered one of the finest examples of early New Kingdom religious architecture; also has many Middle Kingdom remains.

**Sources [link to Source Records]:**
- Getty Thesaurus of Geographic Names (1988-)
- NIMA, GEOnet Names Server (2000-)

**Geographic Place Authority Record**

**Record Type [controlled]:** administrative entity

**Names:**
- **Karnak** (preferred)
- Al-Karnak
- El Khamâk

**Display Broader Context:** Qina governorate, Egypt

**Class [controlled]:** human role

**Work Type [link to Concept Authority]:** mask

**Title:** Mask

**Creator Display:** unknown Chokwe

**Creation Date:** 20th century

**Current Location:** National Museum of African Art (Washington DC, USA)

**ID:** 85-15-20

**Discovery Location:** Congo (Africa)

**Creation Location:** Angola (Africa)

**Measurements:** height: 39.1 cm

**Materials and Techniques:** wood, raffia, metal, kaolin

**Descriptive Note:** In Chokwe villages masks are worn by men in dances to invoke ancestral spirits, to represent spirits found in nature, or to represent men and women or wild animals in a narrative story.
**Concept Authority Record**

- **Terms**
  - courvoisier (preferred, singular)
  - courvoisiers (preferred, plural)
- **Hierarchical position**
  - Objects Facet
  - drawings
  - animation cels
  - serialgraph cels
  - blot drawings
  - cadasves exquis
  - computer drawings

**Source**

Refers to a type of animation cel up, or grouping, that is composed of two or more cels and a production background that was created by, or imitates those created by, the Courvoisier Galleries in the late 1930s and early 1940s. It is distinctive in the technique by which figures were trimmed to their edges, glued to a background typically composed of wood veneer, patterns, or hand-painted watercolors, and covered by a protective top cel.

**Source**

Art & Architecture Thesaurus (1988)

**Note**

Refers to a type of animation cel set-up, or grouping, that is composed of two or more cels and a production background that was created by Courvoisier 1940s. It is distinctive in the technique by which figures were trimmed to their edges, glued to a background typically composed of wood veneer, patterns, or hand-painted watercolors, and covered by a protective top cel.

**Source**

Art & Architecture Thesaurus (1988)
Introduction to Vocabularies (longer version)  

Subject Authority

- Contains iconographical terminology, including proper names of literary, mythological, or religious characters or themes, historical events and themes

Record Type
- Subject Names (preferred, alternates, and variants) (required)
- Broader Context (required, if applicable)
- Related Keywords (required, if applicable)
- Note
- Related Subjects (required, if applicable)
- Related Geographic Places
- Related Persons or Corporate Bodies
- Related Concepts
- Relationship Type
- Sources (required)

Subject Authority Record
- Subject Names:
  - Xibalbá (preferred)
  - Place of Fear
  - Underworld
- Hierarchical Position [link]:
  - Maya iconography
  - .......legends from the Popol Vuh
  - .......Xibalbá
- Related Keywords [cont.]:
  - demons
  - Hero Twins
  - Vucub-Camé (demon)
  - Hun-Camé (demon)
  - Note: In the creation myth of the highland Quiché Maya, the underground realm called Xibalbá was ruled by the demon kings Hun-Camé and Vukub-Camé. It was a dangerous place accessed by a steep path. The Hero Twins, Hun-Hunapú and Vukub-Hunapú, were lured to ball game challenge, but were tricked and slaughtered. However, the twins were avenged by Hun-Hunapú and Xbalanqué.

Subject Authority Record
- Subject Names:
  - Xibalbá (Maya iconography)
  - underworld
  - skeleton
  - death
  - ax
  - altar
  - celebration
- Current Location [link]: Petén Department (Guatemala)
- Creation Location [link]: Petén Department (Guatemala)
- Materials and Techniques: Straight-sided ceramic vessels with painted decoration
- Description: Straight-sided ceramics with painted decoration comprising complex scenes where a dancing figure holds a long-handled axe and a handstone. On a "codex-style" painting depicts a scene in the realm of the Lords of Death, with Baby Jaguar and a skeleton.
- Note Source [link]: Metropolitan Museum of Art on line (accessed 1 February 2010)

Work Record
- Record Type [controlled]: item
- Class [controlled]: Precolombian art
- Title: Vessel with Mythological Scene
- Creator Display: unknown Maya
- Role [cont.]: artist
- Value: unknown Maya
- Subject display: Scene in the realm of the Lords of Death, with Baby Jaguar and a skeleton.
- Site: Xibalbá (Maya iconography)
- Place of Fear
- Underworld
- Related Keywords [cont.]:
  - demons
  - Hero Twins
  - Vucub-Camé (demon)
  - Hun-Camé (demon)
  - Note: In the creation myth of the highland Quiché Maya, the underground realm called Xibalbá was ruled by the demon kings Hun-Camé and Vukub-Camé. It was a dangerous place accessed by a steep and difficult path. The Hero Twins, Hun-Hunapú and Vukub-Hunapú, were lured to Xibalbá by a ball game challenge, but were then tricked and slaughtered.

Includes terms for iconographic subjects

Note: In the creation myth of the highland Quiché Maya, the underground realm called Xibalbá was ruled by the demon kings Hun-Camé and Vukub-Camé. It was a dangerous place accessed by a steep and difficult path. The Hero Twins, Hun-Hunapú and Vukub-Hunapú, were lured to Xibalbá by a ball game challenge, but were then tricked and slaughtered. However, the twins were avenged by Hun-Hunapú and Xbalanqué.
Flaming Body Halo

The bondage of illusion and ignorance to salvation and eternal serenity. Encircling Shiva is a flaming body halo ("Auspicious One") that not only establishes the visual limits or surrounding effulgence) that not only establishes the visual limits of this complex and dynamic composition but also symbolizes the boundaries of the cosmos.

In his dance of ecstasy Shiva raised his left leg, and, in a gesture known as the "gaja hasta," pointed to his lifted leg to symbolize the grandeur and universality of his spiritual reign. According to Shaivite sects of India, Shiva means "Auspicious One" in Sanskrit. He is one of the legendary figures who were traditional models of ascetic practice.

**Subject display:** Shiva as Lord of the Dance with a Flaming Body Halo

**Creation Location [link]:** Metropolitan Museum of Art (New York, USA)
**Current Location [link]:** Shiva as Lord of Dance (Nataraja)
**Measurements:** 27.94 x 40.64 cm (11 x 16 inches)
**Creation Date:** 1125

**Subject Authority Record**

**Names:**
- Shiva [preferred]
- Siva
- Siwa
- Sambhu
- Sankara
- Pasupati
- Mahesa
- Mahadeva
- Auspicious One

**Hierarchical Position [link]**
- Hindu Iconography
- Hindu gods

**Related Keywords [link]:**
- androgynous destroyer
- dancer restorer
- mendicant ascetic
- yogin sensuality
- herdsman avenger

**Note:** One of the primary deities of Hinduism. He is the paramount lord of the Shaivite sects of India. Shiva means "Auspicious One" in Sanskrit. He is one of the legendary figures who were traditional models of ascetic practice.

---

**Subject Authority Record**

**Names:**
- First Battle of Bull Run [preferred]
- First Battle of Bull’s Run
- First Battle of Manassas

**Hierarchical Position [link]**
- American Civil War
- First Battle of Manassas

**Related Keywords [link]:**
- American Civil War
- First Battle of Bull Run

**Note:** One of two battles fought a few miles north of the crucial railroad junction of Manassas, Virginia. The First Battle of Bull Run (called First Manassas by the authorities) was fought on July 21, 1861, at a very early stage of the war. Both armies were ill-prepared and ill-equipped. The Union general, Irvin McDowell (American Union general, 1818-1893) had about 45,000 men in battle at First Bull Run and 49,000 at First Manassas. Both armies suffered heavy casualties, with over 12,000 casualties at First Bull Run and over 5,000 at First Manassas. The Union军队 retreated to the town of Manassas Junction three miles away north of the railroad junction. The Confederate army pursued the Union army and captured about 2,000 prisoners from the more than 30,000 Union soldiers. This battle marked the beginning of the American Civil War.
photographed the tower from a low vantage point to short of the tower’s completion. Louis-Émile Durandelle barely visible in the far distance is dwarfed under the emphasis of its monumentality. The massive building photographed the tower from a low vantage point to short of the tower’s completion. Louis-Émile Durandelle…
A single element may be linked to multiple authorities

- Work Type [link]: painting
- Title: Magdaleine Pinceloup de la Grange
- Creator Display: Jean Baptiste
- Role [cont.]: painter
- Creation Date: 1747 [cont.]: Start: 1747 • End: 1747
- Subjects: [link to Personal/Corp. Name Authority]
  - Pinceloup de la Grange, Magdaleine
    (French aristocrat, 18th century)
    [link to Concept Authority]: •portrait
    • domestic cat (animal)
- Current Location [link]: J. Paul Getty Museum
  (Los Angeles, California, USA)
  ID: 84.PA.664
- Measurements: 65 x 54 cm (25 5/8 x 21 3/8 inches)
  [controlled] • Value: 65 Unit: cm Type: height
  - Value: 54 Unit: cm Type: width

---

A single element may be linked to multiple authorities

- Work Type [link]: painting
- Title: Magdaleine Pinceloup de la Grange
- Creator Display: Jean Baptiste
- Role [cont.]: painter
- Creation Date: 1747 [cont.]: Start: 1747 • End: 1747
- Subjects: [link to Personal/Corp. Name Authority]
  - Pinceloup de la Grange, Magdaleine
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  [controlled] • Value: 65 Unit: cm Type: height
  - Value: 54 Unit: cm Type: width

---

Personal & Corporate Name Authority Record
- Record Type [cont.]: person
- Names
  - Pinceloup de la Grange, Magdaleine
    (preferred, inverted)
    Magdaleine Pinceloup de la Grange
    (preferred, natural order)
    • Parseval, Magdaleine
    • Pinceloup de la Grange, Madaleine
  - Display Biography: French aristocrat, 18th century
  - Nationalty [cont.]: French
  - Birth Date *: 1700
  - Death Date *: 1799
  - Life Roles [cont.]: aristocrat
  - Place of Activity [link]: Orleans (France)
  - Related Person
  - Relationship Type [cont.]: spouse of
  - [link to Person/Corp.]: Charles-François Pinceloup de la Grange
  - Sources [link]: J. Paul Getty Museum (online)
**Work Record**

- **Record Type [cont.]:** item
  - **Class [cont.]:** paintings

- **Work Type [link]:** painting

- **Title:** Magdaleine Pinceloup de la Grange

- **Creator Display:** Jean Baptiste Perroneau (French painter, ca. 1715-1783)

- **Creator Display:**
  - Jean-Baptiste Perroneau (French painter, ca. 1715-1783)

- **Creation Date: 1747 [cont.]:** Start: 1747

- **Subjects: [link to Personal/Corp. Name Authority]**
  - Pinceloup de la Grange, Magdaleine (French aristocrat, 18th century)

- **Display Biography:**
  - French aristocrat, 18th century

- **Nationalty [cont.]:** French

- **[cont.]: Birth Date **: 1700
  - **Death Date *: 1799

- **Life Roles [cont.]:**
  - aristocrat

- **Place of Activity [link]:** Orléans (France)

- **Related PersonRelated Person**
  - Relationship Type [cont.]: spouse of

- **Sources [link]:** J. Paul Getty Museum (online)

**Personal & Corporate Name Authority Record**

- **Record Type[cont.]:** person
  - **Names**
    - Pinceloup de la Grange, Magdaleine (preferred, inverted)
    - Magdaleine Pinceloup de la Grange (preferred, natural order)
    - Parseval, Magdaleine
    - Pincelou p de la Gran g, Madaleine
  - **Creator Display:** Jean Baptiste Perroneau (French painter, ca. 1715-1783)

**Concept Authority Record**

- **Record Type [cont.]:** concept
  - **Terms**
    - **domestic cat** (preferred, common name)
    - **Felis domesticus** (preferred, species name)
    - domestic cats
    - Felis catus
    - house cat
    - Carnivora (order)
    - Felidae (family)
    - Felis domesticus

- **Note:** Domesticated member of the genus Felis, first domesticated in Egypt ca. 2000 BCE. Probably descended

**Local Classification Authority:**

- Aerospace (NASA Thesaurus)
- Agriculture and Subsistence
- Animal Equipment
- Architecture (AAT)
- Armour and Weapons (AAT)
- Biology (LOC)
  - <Anatomy
    - <<Nervous system
    - <<Brain
    - <Aquatic biology
  - Information Forms (AAT)
  - ..........<document genres>
    - .............copies (document genres)
    - .............literature (writings)
    - .............children's literature
    - .............writings
  - Food Preparation and Consumption

- Source of terminology should be noted (e.g., AAT, NASA)
Terms coming from a cataloging system that has Getty Vocabs as well as local terminology

<table>
<thead>
<tr>
<th>Term</th>
<th>TermType</th>
<th>Language</th>
<th>Local</th>
<th>Core</th>
<th>Appc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Containers</td>
<td>Descriptive</td>
<td>English</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Customer</td>
<td>AlternateTerm</td>
<td>English</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

FULL_PATH: Authorities / Attributes / GettyGuide / Works of Art / Furniture / Cabinets / Containers / Cartonniers

SCOPE NOTE: Pieces of furniture fitted with pigeonholes or compartments to hold boxes made either as independent pieces of furniture or as pieces to be placed on top of a bureau plat.

HISTORY NOTE: Art & Architecture Thesaurus®

Local authority term available in end-user displays

Since antiquity, stories of the ancient gods and goddesses, such as Zeus, Aphrodite, and her son eros, continued to be depicted, even while they had lost their religious significance. In the Renaissance, a classical education was required of all learned gentlemen: knowledge of Greece and Rome complicated one’s learning, taste, and status. A
Vocabularies used in applications other than cataloging works

Geographic Place authority in ULAN Is controlled by values from TGN
ULAN usually limits number of variants to around 15, for practical purposes of retrieval and to avoid user confusion.

Thesaurus standard recommends UFs are "commonly used"; ULAN is for general use.

Provenance Index will include obscure names with abbreviations or once-only spellings (critical for PI LOCAL AUTHORITY); it is the responsibility of Vocab, not Prov, to eliminate these variants as necessary in the published ULAN.

Note that ULAN includes many of the PI variants.
Includes around 40 variants for Jan Breughel the Elder.
• Note that ULAN includes many of the PI variants
  includes around 40 variants for Jan Breughel the Elder
• Originally had over 110 variants

Indexing
Specificity and Exhaustivity
Applying vocabularies

- There is no prescribed method of using the vocabularies
- Must make local decision
- Factors to consider
  - specificity
  - exhaustivity
  - pre- vs. post-coordination

Pre-coordination: Combination of individual concepts into compound or complex terms at the point of data storage

Post-coordination: Combination of individual concepts into compound or complex terms at the point of retrieval

- Which will your local system or authorities allow?
- What is your local methodology?
Separate fields allow retrieval of basilicas that have style Romanesque

- **Title**: La Madeleine
- **Work Types**: basilica, church
- **Styles**: Romanesque, Gothic
- **Creation Date**: original church was rebuilt after fire of 1120, choir was rebuilt after 1200
- **Current Location**: Vézelay (Burgundy, France)

- Vocabulary separates unique concepts to make it more powerful and more versatile
- "Romanesque basilica" is a compound concept

**Romanesque basilica**

- Concepts are separate in the AAT
- "basilica" is the form of the building
- "Romanesque" is the style and period

**Single Built Works**

- <single built works by form> basilica

Refers to religious or secular buildings characterized by an oblong plan divided into a nave with two or more side aisles, the former higher and wider than the latter and lit by clerestory windows, usually terminated by an apse.

**Styles and Periods**

- **Medieval**
- **Romanesque**

Refers to the style and period most evident during the 11th and 12th centuries in western Europe. The style ... in general is characterized by the interpretation of ancient Roman style, including great size, round arches, ...
Concept Authority

- Compound terms may be constructed in the work record
- Advantage of "pre-coordination" is that the terms stay together
- E.g., if you have a red silk and black wool vestment, indexing should bind "red" and "silk" together

Material: red silk

Using separate fields that are bound, e.g., Material and Color
Using subfields within a field
Using local compound terms that bind the two words together.

Search: red AND silk

- Cannot distinguish between red silk and black wool because the color is not joined to the fiber.
- However, this may be adequate for local retrieval needs.

Title: Opus Anglicanum, Chasuble
Creator: unknown English
Creation Date: 1330–1350

Materials:
- silk
- red
- wool
- black
- metallic
- thread
- velvet
- embroidering

Location: Metropolitan Museum of Art, New York
Specificity

- How precise are your indexing terms?
  - “temples” or “wats”
  - “photographs” or “daguerreotypes”
- Collection size
- Collection focus
- Expertise of cataloguers
- Expertise of users

Sample Record with “core” CCO or CDWA information

Record Type [controlled]: item
Class [controlled]: • sculpture • European art
*Work Type [link]: • statue • bust
*Title: Bust of Jacob van Reygersberg
*Creator Display: Rombout Verhulst (Flemish, 1624-1691)
*Role [link]: sculptor • Verhulst, Rombout
*Creation Date: 1671
  [controlled]: • Start: 1671 • End: 1671
*Subject [links]: • portrait • Jacob van Reygersberg (Dutch aristocrat, 1625-1675) • commemoration
*Current Location [link]: J. Paul Getty Museum (Los Angeles, California, USA) • ID: 78.DE.65
*Measurements: 63 cm (height) (24 7/8 inches)
  [controlled]: • Value: 63 Unit: cm Type: height
*Materials and Techniques: marble with extensive drillwork
  Material [links]: • marble
  Technique [links]: • carving • drillwork
A minimum record should contain values in all of these elements

- How many terms you use in each element
- and whether or not you include additional elements are local decisions = Exhaustivity
- How specific your terms are is a separate issue = Specificity

<table>
<thead>
<tr>
<th>Record Type</th>
<th>Class [controlled]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Item</td>
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</table>

<table>
<thead>
<tr>
<th>Work Type</th>
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<tbody>
<tr>
<td>Statue</td>
</tr>
<tr>
<td>Bust</td>
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</table>

<table>
<thead>
<tr>
<th>Title</th>
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<tbody>
<tr>
<td>Bust of Jacob van Reygersberg</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Creator Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rombout Verhulst (Flemish, 1624-1698)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role [link]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sculptor</td>
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</table>

<table>
<thead>
<tr>
<th>Creation Date</th>
</tr>
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<tbody>
<tr>
<td>1671</td>
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<table>
<thead>
<tr>
<th>Subject [links]</th>
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</thead>
<tbody>
<tr>
<td>Portrait</td>
</tr>
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<td>Jacob van Reygersberg (Dutch aristocrat, 1625-1675)</td>
</tr>
</tbody>
</table>

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<tr>
<td>J. Paul Getty Museum (Los Angeles, California, USA)</td>
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<tr>
<th>Materials and Techniques</th>
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</thead>
<tbody>
<tr>
<td>Marble with extensive drillwork</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material [links]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marble</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technique [links]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carving</td>
</tr>
<tr>
<td>Drillwork</td>
</tr>
</tbody>
</table>

**Hierarchy**

- Paint by composition or origin
  - Water-base paint
  - Tempera
    - Casein paint
    - Egg-oil tempera
      - Egg tempera
        - Gum tempera
        - Oil tempera

- Perhaps “Egg tempera” more accurately describes the medium

**Scope Note for Egg tempera:**
Tempera paint using egg as its vehicle, traditionally the yolk only, in other cases, the whole egg.
Visual Works Hierarchy
...<visual works by medium or technique>
........photographs
...........<photographs by form>
...........negatives
...........positives
..............photographic prints
..............<photographic prints by process>
..............albumen prints
..............crystalotypes
..............hyalotypes
..............aristotypes
..............chromogenic color prints
..............collodion prints
..............collodion transfers
..............cyanotypes
..............gelatin silver prints
..............galalith prints
..............pigment prints
..............platinum prints
..............salted paper prints
..............silver-dye bleach prints
..............direct positives
..............daguerreotypes

How specific?

by medium, technique, process

by function, by subject type

Visual Works Hierarchy
...<visual works by medium or technique>
........photographs
...........<photographs by form>
...........negatives
...........positives
..............photographic prints
..............<photographic prints by process>
..............albumen prints
..............crystalotypes
..............hyalotypes
..............aristotypes
..............chromogenic color prints
..............collodion prints
..............collodion transfers
..............cyanotypes
..............gelatin silver prints
..............galalith prints
..............pigment prints
..............platinum prints
..............salted paper prints
..............silver-dye bleach prints
..............direct positives
..............daguerreotypes

Visual Works Hierarchy
...<visual works by subject type>
........portraits
..............cliper (portraits)
..............companion portraits
..............group portraits
..............conversation pieces
..............double portraits
..............self-portraits
• Item may require more or less specificity
• e.g., “statues” may be correct for one object, “kouroi” may be more appropriate for another

Objects
broader terms
Visual Works
<visual works by medium or technique>
sculpture
<sculpture by subject type>
death masks
life masks
scarabs

narrower terms
statues
colossi
figurines...
korai
kouroi

Scope note - Tooling, using implements which are usually hand-held and heated, without the addition of gold leaf, silver leaf, or color; often on leather or cloth.

Processes and Techniques Hierarchy
...<processes and techniques by specific type>
......<surface marking processes and techniques>
............tooling
.................blind tooling
.................gold tooling
.................silver tooling

How do you know which term to use?
Scope note may help identify correct term
When you just don’t know

- Vocabulary cannot make up for lack of knowledge
- If information does not tell you the bull head is a vessel, you will never get to “rhyton”

**Scope note:**
Vessels from Ancient Greece, the Middle East, or eastern Europe, often in the shape of a horn or an animal's head, typically used as a drinking vessel or for pouring wine into another vessel.

**When you just don’t know**

- If the indexer does not have specific information, index with a broader term

**Materials Hierarchy**

- paint
  - paint by composition or origin
    - water-base paint
    - distemper
    - calcimine
    - poster color
    - whitewash
    - emulsion paint
    - latex paint
    - tempera
    - casein paint
    - egg tempera
    - egg-oil tempera
    - gum tempera
    - oil tempera
For educational purposes only. Do not distribute.

Title: Temple of the Jaguar
Current Location: Tikal, (Petén, Guatemala)

North and Central America......(continent)
Guatemala............................(nation)
Petén..................................(department)
Altar de Los Sacrificios...(ruins)
Chunchuqui..............(inhabited place)
Dolores.......................(inhabited place)
El Encanto............(inhabited place)
Flores.......................(inhabited place)
La Florida...........(inhabited place)
La Libertad..............(inhabited place)
Piedras Negras....(deserted settlement)
San Luis..................(inhabited place)
Sayaxché.....................(inhabited place)
Tikal..........................(deserted settlement)
Uaxactún..............(deserted settlement)

Should “link” to the hierarchy
If you cannot, include “parents” in your work record

Title: Bamana Headdresses
Creator: Bamana peoples
Work Type: chi wara (headdresses)
Medium: wood, iron, fiber
Creation Date: 20th cen.
Measurements: heights: 55.2 cm and 59.1 cm
Current Location: National Museum of African Art, gift of Dr. Ernst Anspach and museum purchase

Costume Hierarchy
...<accessories worn on the head>
..........headgear
..........headdresses
............chi wara
...............commodes (headdresses)
...............cornets (headdresses)
...............crowns (headdresses)
...............coronets (crowns)
...............English hoods
...............hennins
...............poloi
...............pschents
...............tiaras

The broader context is critical; link to it, or insert it into the work record
But also use vocabulary for retrieval

Index or retrieve with “parents”?
Exhaustivity

- How many aspects of a work do you catalog? How many terms do you assign to a work?
- Time limitations
- Focus of the collection

How to apply vocabularies to various catalog levels

- Extent of indexing may be governed by internal factors
- Priority may be to gain initial control of material
- Project may be indexed in phases
- Set goals and quotas, quality control

Phase 1 = group
Phase 2 = box
Phase 3 = item
Indexing a group of objects

Record Type: group
Work Types:
- preliminary drawings
- presentation drawings
- working drawings
- sections
- elevations
- plans

Title: Group: Drawings for Falling Water (Kaufman House), Bear Run, Pennsylvania
Creator: Frank Lloyd Wright
"[link]: Wright, Frank Lloyd  Role: architect
Creation Date: 1936-1937

Description: Wright designed the house for Pittsburgh department store owner Edgar J. Kaufmann, whose son, Edgar Jr., was a Taliesin fellow ... Current Location: Frank Lloyd Wright Home and Studio

Should vocabulary reflect all items in the group at a specific level?
Or broad indexing, with specific terms linked to items?

Record Type [controlled]: item  Class [controlled]: +manuscripts  -American works
*Work Type [link]:  +manuscript
*Title: Declaration of Independence
*Creator Display: Thomas Jefferson (American, 1743-1826)
*Creation Date: 1776  Start: 1776  End: 1776
*Subject [links]:  +textual work  +independence  +social contract  +Continental Congress  +colonies  +England  +United States  +separation  +dissolution
Culture [link]: American
*Current Location [link]: National Archives and Record Administration (Washington, DC, USA)  +ID: unavailable
*Measurements: 75.56 x 62.23 cm (29 3/4 x 24 1/2 inches)  Value: 75.56  Unit cm  Type: height  |  Value: 62.231  Unit cm  Type: width
*Materials and Techniques: ink on parchment

Inscriptions: text reads: In CONGRESS, July 4, 1776. / The unanimous Declaration of the thirteen united States of America / WHEN in the Course of human Events it becomes necessary for one People to dissolve the Political Bands which have connected them with another, and to / assume among the Powers of the Earth, the separate and equal Station to which the Laws of Nature and of Nature's God entitle them, a decent Respect to the Opinions of Mankind requires that they should declare the causes which impel them to the Separation. WE hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator / with certain unalienable Rights, that among those are Life, Liberty and the Pursuit of Happiness...

Abstracting and indexing
- When indexing a work that is primarily text
- Index what text is about - not only what is on the page
Use historical names

- If the historical entity is not the same place, concept, person, etc. as the modern counterpart
- Then the two names/terms should be in separate authority records
- Thus you should link to the correct historical entity
- E.g., historical Flanders did not have the same boundaries as modern Belgium; they are NOT equivalents in a thesaurus

World

Europe (continent)
- Bulgaria (nation)
- Belarus (nation)
- Belgium (nation)
- Czech Republic (nation)
- Denmark (nation)
- Germany (nation)
- Spain (nation)

Flanders (historic region)
- Aalst (inhabited place)
- Antwerp (inhabited place)
- Bruges (inhabited place)
- Brussels (inhabited place)
- Gent (inhabited place)
- Leuven (inhabited place)
Use historical names?

<table>
<thead>
<tr>
<th>Class:</th>
<th>sculpture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Type:</td>
<td>sculpture, votive figures</td>
</tr>
<tr>
<td>Title:</td>
<td>Ploughman of Arretium</td>
</tr>
<tr>
<td>Measurements:</td>
<td>7 1/4 in. length</td>
</tr>
<tr>
<td>Material:</td>
<td>bronze</td>
</tr>
<tr>
<td>Creator:</td>
<td>unknown Etruscan</td>
</tr>
<tr>
<td>Role:</td>
<td>sculptor</td>
</tr>
<tr>
<td>Creation Date:</td>
<td>6th century BCE</td>
</tr>
<tr>
<td>Creation Location:</td>
<td>Arretium</td>
</tr>
<tr>
<td>Style:</td>
<td>Etruscan</td>
</tr>
<tr>
<td>Subject:</td>
<td>ploughman, oxen, labor, afterlife, ceremonies</td>
</tr>
</tbody>
</table>

Description: This figure was found in one of the many sanctuaries from Etruscan Arretium, and was probably a votive offering. The subject reflects a natural preoccupation of the inhabitants of Arretium, which was an outpost of Chiusi in a fertile farming region.

Current Location: Archaeological Museum (Florence, Italy)

Location Authority
- Arezzo (preferred, Italian-Pref)
- Arretium (historical, Ancient Latin)

• In this case, ancient and modern towns are equivalents
• Your system may not allow you to link to the ancient town name, but only to the record as a whole
• If so, you can index with the modern name and refer to the ancient name in a note

Implementing Vocabularies for Retrieval
Using the synonyms for retrieval

If a user asks for one name/term, include all synonyms for retrieval

From ULAN
Giambologna
Giovanni da Bologna
Giovanni Bologna
Jean Boulogne
Jean de Boulogne
Bologna, Giovanni da
ULAN is used to aid retrieval on Getty site

You searched for *gherardo della notte*

Did you mean to search for one of the following?

- *Northcroft, Gerrt van* (11 results)

**Gherardo Starnina (Getty Museum)**
A biography of the artist Gherardo Starnina from the J. Paul Getty Museum's collection.

**Madonna and Child with Musical Angels (Getty Museum)**
A work by Gherardo Starnina from the J. Paul Getty Museum's collection.

**Ghirlandaio della Robbia (Getty Museum)**
A biography of the artist Ghirlandaio della Robbia from the J. Paul Getty Museum's collection.

**Best of a Man (Getty Museum)**
A work by Ghirlandaio della Robbia from the J. Paul Getty Museum's collection.

**La Verna: Chapel of Giovanni (Getty Museum)**
A work by Jacopo Ligozzi from the J. Paul Getty Museum's collection.

**Windsor Raphael Drawings (Getty Press Release)**
Several drawings by Raphael, his teachers, and his assistants on loan from the Royal Library at

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Using the hierarchy for retrieval

**Containers Hierarchy**
- containers
  - <containers by form>
    - vessels
      - <vessels by form>
        - <vessels by function>
          - beakers (vessels)
          - boilers (vessels)
          - bottles
          - <bottles by form>
            - <bottles by function>
              - bowls (vessels)
              - covered bowls
              - buckets (vessels)
              - cage-cups
              - cauldrons
              - craggans
              - crocks
              - dinoi
              - ewers
            - <aquamaniles>
    - <vessels by form>
      - <face vessels>

**Incorporate narrower terms if a user asks for a broader term**
Using associative relationships for retrieval

Names:
- Richard Meier & Partners (preferred, display, V)
- Richard Meier and Partners (V)

Related persons:
- Richard Meier
- Michael Palladino
- James R. Crawford
- Bernhard Karpf
- Reynolds Logan

Retrieval via data other than names

- Retrieval of places based bounding box
  - E.g., box drawn around coordinates of Abomey, 30 minutes either side of 07 14 N, and of 002 00 E*


Photo: GCI. Map: http://www.odci.gov/cia/publications/factbook/
Using other semantic relationships in retrieval

- retrieval using defined relationships between vocabulary terms and other data

Interoperability

- Interoperability in the context of controlled vocabularies refers to the ability of two or more vocabularies and their systems or components of their systems to exchange and use each other’s information.
- Used in retrieval and also by indexers who need multiple, but related, vocabularies
- Mapping terms from two vocabularies is challenging
  - meaning of terms, structure, context, synonymity, authoritativeness, pre- and post-coordination, and other issues must be resolved
- Some mapping may be done by data mining and algorithms, but human mediation is also necessary for success
How to Display Vocabulary Information

Displaying names/terms

Names:
- Schiavone, Andrea (preferred, index, V, Italian-P)
- Andrea Schiavone (display, V)
- Medulić, Andrija (V, Serbo-Croatian)
- Meldolla, Andrea (V)
- Andrea Meldolla (V)
- Meldola, Andrea (V)
- Andrea Schiavone veneziano (V)
- André Schiavon (V)
- Andrea Esclabon (V)
- Andrea Schiavoni (V)
- Schavione, Andrea (V)
- Andrea Schiavoni (V)
- Schiavoni, Andrea (V)

- Be sure it is clear which name/term is preferred.
- Arrange terms in logical order, where appropriate (e.g., most commonly used at the top)
Thesaurus jargon such as "used for" or "UF" will be unfriendly for a general audience.

Names:
- Beijing (preferred, C, Y, N, Chinese (transliterated Pinyin): P)
- Peking (C, Y, N, Chinese (transliterated Wade-Giles): P)
- Pékin (C, Y, N)
- Pei-Ching (C, Y, N)
- Pei-ching (C, Y, N)
- Pei-p'ing (C, Y, N)
- Peiching (C, O, N)
- Peking (C, O, N)
- Pechino (C, O, N)
- Peking (H, Y, N)
- Pei-p'ing (H, Y, N)
- Chî (H, O, N)
- Khabralik (H, O, N)
- Cambaluc (H, O, N)

Diacritic codes should be translated for display to user where possible.

Some Unicode characters may not display on the Web.
How to disambiguate homographs

1. drums (walls)
   (<walls by location or content>, <walls, ... Components>)

2. drums (column components)
   (<shafts and shaft components>, ... Components)

3. drums (membranophones)
   (membranophones, <sound devices by acoustical characteristics>, ... Furnishings and Equipment)

- For AAT, use the qualifier, if any
- Place qualifier in parentheses
- Also add parent string as necessary
- Use unique numeric IDs to disambiguate in your database

[Image of Pendant Mask]

Title: Pendant Mask
Artist: unknown Nigerian, Court of Benin
Object Type: mask
Style: Edo (African)
Medium: ivory, iron, and copper
Date of Execution: ca. 1415
Dimensions: h. 9 3/8 in. (23.8 cm)
Location: Metropolitan Museum of Art, Michael Rockefeller Memorial Collection, Gift of Nelson A. Rockefeller, 1972, 1978

[Image of Six Fold Screen: Iris and Bridge]

Title: Six Fold Screen: Iris and Bridge
Artist: Ogata Korin
Object Type: mask
Style: Edo (Japanese)
Medium: six fold screen; ink, color, and gold leaf on paper
Date of Execution: Edo period
Dimensions: 70 1/2 x 146 1/4 in.
Location: Metropolitan Museum of Art, Purchase, Louisa Eldridge McBurney Gift, 1953

- Qualifiers provide clarity for display
- But are typically impractical in retrieval

[Image of Museum Website]

Images from Metropolitan Museum Web site.
How to disambiguate homographs

1. **Pajou, Augustin**
   (French sculptor and draftsman, 1730-1809) [500015509]
   
   - Augustin Pajou
   - Augustin Pajou le Père

2. **Pajou, Augustin Desire**
   (French artist, 1805-1876) [500056917]
   
   - Augustin Desier Pajou

3. **Pajou, Jacques Augustin**
   (French painter, 1765-1828) [500026425]
   
   - Jacques Augustin Pajou
   - Pajou, Jacques Augustin Catherine

- In ULAN, use preferred name with preferred biography
- Show all names that meet criteria of the search
- Given that the sculpture dates from 1760, user knows that the artist must be Pajou père

---

1. How to disambiguate homographs

   - Alexandria e Pala
   - Alexandria Stalichellorum
   - Alexandria Stattellorum

2. **Alexandria .......... (inhabited place)**
   (World, Africa, Egypt, Urban, Al-Iskandariyah governorate) [7001189]
   
   - Alexandria Al-Iskandariyah
   - Alexandria Ad Augutum
   - Alexandria Auguti

3. **Alexandria .......... (inhabited place)**
   (World, Africa, South Africa, Eastern Cape, Province of) [1092614]

4. **Alexandria .......... (deserted settlement)**
   (World, Asia, Pakistan, Baluchistan) [6000172]

5. **Alexandria .......... (inhabited place)**

6. **Alex .......... (World)**

7. **Alex .......... (World)**

- In TGN, use the parent string and place type
- Here parents display in descending order to allow intelligent sorting on parent string
- May display in ascending order for more natural display in other contexts
How to disambiguate homographs

Alexandria (*Asia, Pakistan, Baluchistan*) (deserted settlement)

Alexandria (*Baluchistan, Pakistan*) (deserted settlement)

- Parent string in reverse order allows indexing by continent, nation
- In natural order is easier to read

Accommodate requirements of horizontal vs. hierarchical displays. E.g., "display name" for parent string

- special name flagged for horizontal displays
- where simple name is confusing
- in a heading

Names:

- **Coast** (*preferred, C,V,N*)
- **Coast Province** (*display, C,V,N*)

Galana (*Coast Province*, Kenya, Africa) river
Hierarchical display for thesauri

Top of the TGN hierarchy (hierarchy root)

.... World (facet)

........ Asia (continent)

........... India (nation)

................ Delhi (union territory)

........................ Delhi metropolitan area (metropolitan area)

............................... Delhi (inhabited place)

........................................ Qutb Minar (tower)

........................................... Red Fort (fort)

- Preferred display of hierarchies is with indentation for general audience
- Use graphics to indicate focus and where levels may be expanded

Other displays for thesauri

- Flat hierarchical view is hard for non-expert to interpret ("RT", "BT", "PT", etc.)
- Flat view does not work well with a large thesaurus
- Not recommended for AAT or TGN
In addition to hierarchical view, user should be able to see all information in a record (via Subject_ID)

- User should be able to view multiple vocabulary records at once

Display when record has multiple logical parents

Hierarchical Position:
- Objects Facet
- ... Furnishings and Equipment
  - ... Weapons and Ammunition
    - ... weapons
    - ............... ceremonial weapons
    - ............... ceremonial swords

Additional Parents:
- Objects Facet
- .... Furnishings and Equipment
  - ... Weapons and Ammunition
    - ... weapons
    - ............... edged weapons
    - ............... Swords
    - ............... <swords by function>
    - ............... ceremonial swords

Ceremonial swords are weapons, and ceremonial objects too
How to Find Matches for Merging and for Retrieval
**Retrieval:** Matching end user’s search string to ULAN name / term

- full name string, exact
- full name string, normalized
- truncation
- key words
- Boolean operators

- pre-processing of both ULAN data and the end user’s incoming query

**Merging:** Matching duplicates to allow merging in data loads, records for same artist contributed by multiple contributors

- We have been finding duplicate records representing the same artist/corporate body for 25 years
- First project = Synoname in 1985, developing algorithms using data from several museums

- Balance accuracy and efficiency
- Some human-intervention always required
- ULAN merging -- algorithms -- tables of roles, nationalities, pivoting on comma, normalizing
Report presents display data, but matches made on indexed data; editors must extrapolate.

Matches on normalized names, birth and death dates, roles, nationality.

Note that roles need not be exact match; tables of equivalents for matching are used to find duplicates.

This report gives editors lists of near-matches.

Again, you are seeing display data, but match was done on controlled, indexing fields not shown in this report.

Require vetting by humans.

Usually problem with inexact dates, etc.
2.2. Matching Rules

This section describes the matching rules used to match a contributed subject with an existing subject. If all of the following matches, the contributed subject will be merged with the existing subject. If only some of the following matches, say 3 of 4 matches, the contributed subject will be inserted into the VCS database as a new subject. A report of near matches needs to be generated (see Appendix X for the report content and format). While key words are generated and stored in a separate column, and they have their place in Boolean searching and other matching situations, they may not be used for matching because identical key words in a name/term may be very different subjects (e.g., Andrea di Bartolo and Bartolo di Andrea are different people and should not be matched).

2.2.1. Matching Terms

The following method will be used to match terms:

- To find matches and near-matches, various algorithms have been developed.
- May be customized as necessary for a particular contributed data set.

- There is a normalized version for each term, where the normalized term will be checked against all other terms. The IDs will be compared to the next matching criterion.
- For terms that do not contain a comma, no pivoting is needed. For terms that contain a comma, additional matches need to be done with a plain normalized search.

If a contributed term contains any commas, the comparison will involve pivoting different combinations of the term around the comma.

- Pivoting on the comma
- Eliminates issues with "key words", that do not work well with proper names
- Reduces number of false matches that occur with key word matching because order of the terms is maintained
- d'Arpino, Niccolò di Giovanni and d'Arpino, Giovanni di Niccolò are two different people, but key words are the same
- punctuation: Giovanni di Niccolò Darpino is the same as d'Arpino, Giovanni di Niccolò

- Matching Terms

For terms that contain one comma, for example "Saint Helen's, Mount", the comparison will involve pivoting strings to the left and right around the comma.

Saint Helen's, Mount
Mount Saint Helen's

The resulting strings will then be normalized and all punctuation, diacritic codes, and spaces performed on the following strings:

SAINTHELENSMOUNT
MOUNTSAINTHELENS

For terms that contain two commas, for example "Appiani, Andrea, the elder", the comparison will involve pivoting different combinations of the term around the commas. This is necessary because various conventions for using commas in inverted names may result in several possibilities.

Appiani, Andrea, the elder
Andrea Appiani the elder
the elder Andrea Appiani

The resulting strings will then be normalized and all punctuation, diacritic codes, and spaces performed on the following strings:

APPIANIANDREATHE ELDER
ANDREAAPPIANITHE ELDER
THEELDERANDREAAPPIANI
Roles and Nationalities are controlled values; contributor's data is mapped to controlled values.
- Tables relate roles and nationalities that should be considered equivalents for the purposes of matching.
- E.g., if one record indexes the person as "painter" but another indexes the person as "watercolorist", this is still a match (provided names, nationalities, and dates also match or are equivalent for matching).

Matches for Retrieval

- How to search by name / term?
  - full name string, exact
  - full name string, normalized
  - truncation
  - key words
  - Boolean operators
Access by all equivalent names/terms

- Basic access by all terms/names is critical

Descriptor: **sepia**

Synonyms, spelling variants:
- cuttlefish ink
- ink, cuttlefish

Tools such as Soundex and other phonetic algorithms do not work well with names and most AAT terms, because all languages (not only one language may be represented in the vocabularies)

Therefore, specialized normalization and searching algorithms are advised for vocabularies

**Soundex:** a phonetic algorithm for indexing names by sound based on English pronunciation. Names with the same pronunciation are encoded to the same representation so that they can be matched despite minor differences in spelling.
**FULL NAME STRING**

**EXAMPLES**
Florenz  
Rancho San Diego  
River Thames

**ISSUES**
• Can yield accurate retrieval, *important for large data sets & for finding errors*
• Queries fail due to no exact match (*e.g.*, Thames or Thames, River)
• Query on normalized name increases hits (*e.g.*, Rancho Sandiego); remove case, spaces, punctuation, diacritics

**KEY WORDS**

**EXAMPLES**
Thames  
Diego  
Sena

**ISSUES**
• Allows retrieval when exact format of multiple word names is unknown (*e.g.*, Thames, or River Thames, or Thames, River)
• Causes problems for compound words if full name query is not also an option (*e.g.*, Rancho Sandiego vs. San Diego, Rancho)
• Most effective with Boolean operators an option, *otherwise results list may be too long*

---

**TRUNCATION**

**EXAMPLES**
Edinburg*  
Pyeitawinzu Myanm* Nain*  
*angqiao

**ISSUES**
• Wild card allows retrieval when exact spelling is unknown
• Left-hand truncation is *very helpful, but impractical with large data sets*
• Wild card may be applied to full name string and to key words

**BOOLEAN OPERATORS**

**EXAMPLE: full name**
Bay of Biscay OR Biscay, Bay of

**EXAMPLES: key words**
(Castillo OR Rancho) AND Diego  
Monte AND Oliv*

**ISSUES**
• Allows best retrieval, *most control by user*
• May be applied to full name string and to key words
• Naïve user may not understand logic of formula (*AND & OR, parantheses*)
• Place name may be homograph of operator, *e.g.* “Or”

---

*Patricia Harpring, August 2010  
Introduction to Vocabularies (longer version)  
page 198  
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STOP LIST

EXAMPLES

West
Lake
al

ISSUES

• Not the same as general database (e.g., not articles & prepositions)
• Should be allowed with Boolean operators, or results will be too limited
• Need way to allow queries on names composed only of stop words (e.g., town called “Lake”)

ABBREVIATIONS

EXAMPLES

St. Louis
W Lafayette
Mt Everest
Moskovskaya Ob

ISSUES

• Map to full word allows best retrieval, but difficult for vernaculars
• Often affects place types in names, directional indicators

How results can differ

• Allow post-coordination in retrieval
• E.g., Romanesque AND basilica

• Built Work Name: La Madeleine
• Location: Vézelay (Burgundy, France)
• Built Work Type: basilica, church
• Style: Romanesque, Gothic
• Date of Execution: original church was rebuilt after fire of 1120, choir was rebuilt after 1200
• For multiple-word terms, should find the exact match
• Does not search for individual words alone

**compound pier**

---

**Automatic truncation**

Find Name: **dome, turkish**

Logic:  

Note:

• If no exact match is found, tool automatically truncates words and tries to find a match (to overcome lost matches due to plurals)
  
  e.g., "dome* AND "turkish**"

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

1. **onion domes**
   (domes (dome components), <domes and dome domes, Turkish)
Key Words and Boolean

- Names in natural or inverted order (pivot using the comma)
- Retrieval by keywords or normalized strings
- Automatic "and" or "or" not successful because it brings back too many results


   Possible queries from users:
   - Ghunayjah, Jabal al-
   - Ghunayjah
   - Jabal AND Ghunayjah
   - Jabal Alghunayjah

   “Keyword” table created for matching:
   - ghunayjah
   - jabal
   - al
   - ghunayjahjabalal
   - jabalalghunayjah

Normalizing diacritics

- Accommodating diacritics in query
- in data (Unicode, other codes)
- if display of non-Latin 1 not possible

   **Oriente** .......... (region)
   (World, South America, Ecuador) [7024091]
   **Región Amazónica**
   **Ecuador Amazónico**
   **Grande Região Norte** .......... (region)
   (World, South America, Brazil) [7023444]
   **Amazônica Brasileira**
   **Variant Amazónica, Região**
   **Amazon Basin** ..........(basin)
   (World, South America) [7024123]
   Hoya Amazônica
   Bacia Amazônica

   “Keyword” table is normalized, omitting diacritics:
   - amazonica
   - amazonica

   TGN data base:
   - Amaz$00onica
   - Amaz$03onica
Other criteria for search:
- Browsing hierarchies
- TGN: Place type, broader context (nation or continent), [coordinates]

Search the TGN

Find Name:  
Place Type:  
Lookup
Nation:  
Lookup

Other criteria for search:
- Browsing hierarchies
- ULAN: Nationality, Role, [dates]
Other criteria for search:
- Browsing hierarchies
- AAT: Scope note text

Search the AAT

Find Term: 

AND  OR

Note: 

Pop-up Search  Browse the AAT hierarchies

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