Workshop: Digital Art History and the Getty Vocabularies

CAA 2020
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Getty Research Institute

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Managing Editor, Getty Vocabulary Program
Getty Research Institute

15 February 2019
Agenda

→ Introduction to the Getty Vocabularies

→ Using Vocabularies to advance scholarship

→ How to use the Getty Vocabularies OpenRefine Reconciliation service

→ Q & A
BIG QUESTION(S)

→ Why should the Getty Vocabularies matter to you?

→ How can they help you advance scholarship?

→ How can you incorporate them into your ongoing practices?
ISSUE BRIEF
November 28, 2018

Scholars ARE Collectors: A Proposal for Re-thinking Research Support

Danielle Cooper, Oya Y. Rieger

DOI: https://doi.org/10.18665/sr.310702

Topics: Collections and preservation, Digital scholarship and data management, Discovery and access, Libraries, Research practices, Scholarly communication

Tags: Research Support Services

+ Table of Contents

After fifteen years of digging into the research practices of scholars at Ithaka S+R, it is clear that scholars are collectors. We have found that they are creating and amassing increasingly complex personal collections of information over the course of their careers. These collections vary widely depending on the discipline and take many forms, including digitized archival materials, numeric data sets from experiments, audio recordings of interviews, field notes from research sites, and visual materials.
Messy, unworkable data
<table>
<thead>
<tr>
<th>Artist Display Name</th>
<th>Artist Display Bio</th>
<th>Artist Suffix</th>
<th>Artist Alpha Sort</th>
<th>Artist Nationality</th>
<th>Artist Begin Date</th>
<th>Artist End Date</th>
<th>Object Date</th>
<th>Object Begin Date</th>
<th>Object End Date</th>
<th>Medium</th>
<th>Dimensions</th>
<th>Credit Line</th>
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<tbody>
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<td>Longacre, James Barton</td>
<td>American</td>
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<td>1869</td>
<td>1853</td>
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<td>Gift of C. Ruxton Love, Jr., 1967</td>
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<td>Diam. 11/16 in. (1.7 cm)</td>
<td>Gift of C. Ruxton Love, Jr., 1967</td>
</tr>
</tbody>
</table>

Structured Data

And now you can find the gaps....
Work with it...
Draw conclusions. ...
How to get from Here to There?
Getty Vocabularies

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

ARE HERE TO HELP!
Introduction to the Getty Vocabularies
What Are Controlled Vocabularies?

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

Purpose of Controlled Vocabularies

• To provide terminology to catalog, document, retrieve, categorize, and discover information
• To capture the richness of variant terms
• For some users, to promote consistency in assignment of terms
• In retrieval and discovery, to utilize variant terms and broader/narrower contexts as structured vocabularies
What Are the Getty Vocabularies?

- **Structured vocabularies**
- **Relationships**: Thesauri, 3 relationships: equivalence (synonyms), hierarchical (broader-narrower), associative (between records, not hierarchical)
- **Standards-compliant**: Comply with standards for controlled vocabularies (ISO, NISO)
- **Authoritative**: Vocabularies cite authoritative sources and contributors; but not authoritarian (may use variant terms)
- **Scope**: Getty Vocabularies strive to be ever more multilingual, multicultural, and inclusive → **contributions**
- **Audience**: Traditional audience (art and architecture domains: visual resources, catalogers, museums), plus scholars, and related disciplines (archaeology, conservation)
- **Collaborative**: Grow through contributions from expert user community: institutions, consortia, and projects
Contributors to Vocabularies

Who are the contributors?
- Getty projects
- 300 institutions, consortia, research projects

How is the data generated?
- Contrib. may research and create original data for the purpose of contribution
  E.g., translations: Spanish, Dutch, Chinese, German, French, Croatian, Portuguese, Japanese
- Or may map data already collected in the course of their own work
  E.g., repositories and documentation projects, research projects
- Contributions = 10s of thousands per year

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

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

National documentation agencies, consortia
Image collections, libraries
Art repositories
Publishers
Research projects
Scene of Early Spring

Title: Scene of Early Spring  Type: repository  Lang.: English
Title: 宋郭熙早春圖 軸  Type: repository  Lang.: Chinese

Creator Display: Guo Xi, Song Dynasty
    Index: Guo Xi (Chinese painter, 1023 - ca.1085 CE)  [ULAN 500125758]
    Role: artist

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

Materials Display: painted scroll
    Index: color (pigment)  [AAT 300264870]
    Index: ink  [AAT 300015012]
    Index: silk (silkworm material)  [AAT 300014072]
    Index: paper (fiber product)  [AAT 300014109]

http://vocab.getty.edu/page/cona/700002851
Dimensions: 158.3 x 108.1 cm

Index:  Value: 158.3  Unit: cm  Type: height
Index:  Value: 108.1  Unit: cm  Type: width

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

Repository No.: Meta Data identification: 000053N000000000

Credit Line: National Palace Museum

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

General Subject: landscapes

Specific Subjects: Renewal of Life [IA 901002238]
- spring (season) [AAT 300133097] | shan shui [AAT 300387301]
- trees [AAT 300132410] | streams [AAT 300008699]
- Pinus (genus) [AAT 300343658] | travel [AAT 300080094]
- floating perspective [AAT 300438516] Extent: design element

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


http://vocab.getty.edu/page/cona/700002851
 Getty Vocabularies’ relationships

- Diagram illustrates how the Getty Vocabularies contain rich relationships
- Linked to each other
- Linked to other resources, through LOD
What is AAT?

AAT, the Art & Architecture Thesaurus

The AAT is a thesaurus containing generic terms, dates, relationships, related to art, architecture, conservation, other cultural heritage

- Used or work types, roles, materials, styles, cultures, techniques, etc.
- Generic terms, not proper names
- Multilingual; large translation projects are underway
- Facets are the upper levels of the AAT structure
- AAT is not organized by subject matter or discipline

Facets of the AAT

<table>
<thead>
<tr>
<th>Associated Concepts</th>
<th>Physical Attributes</th>
<th>Styles and Periods</th>
<th>Agents</th>
<th>Activities</th>
<th>Materials</th>
<th>Objects</th>
<th>Brand Names</th>
</tr>
</thead>
</table>

 Getty Vocabularies Workshop: CAA 2020
AAT Sample Record

ID: 300190536

Terms:
- steel engravings (pref, en) [1000041363]
  
  **Qualifier:** visual works

- steel engraving (en) [1000299348]
  
  **Qualifier:** visual work

- 鋼版刻印 (zh) [1000551901]
- gāng bān kè yìn (zh) [1000551903]
- staalgravures (nl) [1000482814]
- gravures sur acier (fr) [1000429838]
- grabados al acero (es) [1000429838]
- Stahlstiche (de) [1000655952]

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

**Hierarchical Relationships (poly)**

**Objects Facet**
- ... Visual and Verbal Communication (G)
- ... Visual Works (hierarchy name) (G)
- ... visual works (works) (G)

**<visual works by material or technique> (G)**
- <visual works by material or technique> (G)
- <prints by process or technique> (G)
- <prints by process: transfer method> (G)

**<engravings (prints) (G)**
- <engravings (prints) (G)
- <steel engravings (visual works) (G)

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

**Chinese (traditional)** 以鋼版雕刻程序製成的版畫

**Dutch** Gravures waarbij de afbeelding is gesneden in een stalen plaat.

**German** ..... Druck, der im Verfahren des Stahlstichs hergestellt wurde.

**Spanish** ..... Estampas realizadas mediante el proceso de grabado en acero....

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

**Sources:** Koschatzky, Die Kunst der Graphik (1988); Lucie-Smith, Thames & Hudson Dictionary of Art Terms (1986); Newman, Innovative Printmaking (1997)

http://vocab.getty.edu/page/aat/300041363
Work type: stereoscopic photograph

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

View of the AAT hierarchy
Terms: stereoscopic photographs (preferred, C,U,English-P,D,U,PN)
        stereoscopic photograph (C,U,English,AD,U,SN)
        stereoview (C,U,English,AD,U,SN)
        photographs, stereoscopic (C,U,English,UF,U,N)
        stereograms (stereoscopic photographs) (C,U,English,UF,U,N)
        stereo pairs (C,U,English,UF,U,N)
        stereophotographs (C,U,English,UF,U,N)
        stereo photographs (C,U,English,UF,U,N)
        stereos (photographs) (C,U,English,UF,U,N)
        stereo views (C,U,English,UF,U,N)
        stereoviews (C,U,English,UF,U,N)
        stereoscopic views (C,U,English,UF,U,N)
        views, stereo (C,U,English,UF,U,N)
        stereofoto's (C,U,Dutch-P,D,U,U)
        stereofoto (C,U,Dutch,AD,U,U)
        stereoscoopfot (C,U,Dutch,UF,U,U)
        stereoscoopfotos (C,U,Dutch,UF,U,U)
        stéréogramme (C,U,French-P,AD,U,MSN)
        coppie stereoscopiche (C,U,Italian-P,D,U,PN)
        fotografías estereoscópicas (obras visuales) (C,U,Spanish-P,D,U,PN)
        fotografía estereoscópica (obra visual) (C,U,Spanish,AD,U,SN)

Work type: stereoscopic photograph

Terms for a single item, language
Some systems or local cataloging rules do not allow linking at the term level

AAT subject_id 300162872
http://vocab.getty.edu/page/aat/300162872
What is ULAN?

ULAN, the Union List of Artist Names®

ULAN contains **personal names**, relationships, biographical information for artists, architects, firms, studios, repositories, patrons, sitters, both named and anonymous

- For people and corporate bodies associated with the creation of art, architecture, and related disciplines
- Includes current and historical associative relationships (e.g., students to teachers; firm and studios to members)
Names:
Katsushika Hokusai (en, ja-trans) [1500235399]
Hokusai (en, ja-trans) [1500235408]

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

Shunrō (en, ja-trans) Date: gō (artist’s name), used in his years of training, when painting hosoban (narrow prints) [1500235400]
Sōri (en, ja-trans) Date: gō used in early career, named taken from his Rinpa-school master Tawaraya Sōri [1500235401]
Kakō (en, ja-trans) Date: used for the production of commerical prints and books [1500235402]
Tatsumasa (en, ja-trans) Date: used for the production of privately published illustrations [1500235403]

Nationalities:
Japanese (pref)

Roles:
artist
printmaker
painter
designer
calligrapher
draftsman
landscapist
marine artist
figure artist
ukiyo-e artist

Birth and Death Places:
Born: Tokyo (Kanto, Japan) (inhab place)
Died: Tokyo (Kanto, Japan) (inhab place)

Events:
active: Tokyo (Kanto, Japan) (inhab place)
....... in Edo, modern-day Tokyo

Associative Relationships:
teacher of Taito, Katsushika, II
............. (Japanese printmaker, active ca. 1820-1850)
child of Nakajima Ise
............. (Japanese mirror maker, 18th century)
possibly identified with ... Tōshūsai Sharaku
............. (Japanese printmaker, active 1794-1795)

Contributors:
VP, Avery, GRL, BHA, CCA


Linked to other vocabularies,
Other resources (LOC)

ULAN Sample Record
ULAN, the Union List of Artist Names®
http://vocab.getty.edu/page/ulan/500060426

 Getty Vocabularies Workshop: CAA 2020
Scope of ULAN

Persons, Artists
........Agami, Alyssa (Mexican sculptor, born 1955)
........Abbate, Ercole dell' (Italian painter, 1563/1573-1613)
........Abeyta, Narciso (Native American painter, 1918-1998)
....... Ashmolean Master (Early Cycladic sculptor, active 25th century BCE)
....... An, Yuan (Chinese architect, active 1404-1420)

Corporate Bodies
........Abbate family, dell' (Modenese painters, active 16th-17th centuries)
........Abbot Hall Art Gallery (British museum, contemporary)
........Abdullah Freres (Turkish photography and painting studio, 1858-1899)

Non-Artists
........Aah-Hotep, Queen (Egyptian queen, ca. 1560-1530 BCE)
........Abelard, Peter (French theologian, philosopher, 1079-1142)
........Ancaster, Mary Bertie, Duchess of (English aristocrat, died 1793)

Unidentified Named People and Firms
........Abady, Sheila (artist)
........Abramo, Monsù (Italian painter, 17th century)
.......Facius, Friedrich Wilhelm (artist, born 1764)

Unknown People by Culture
........unknown Abakwariga (Abakwariga cultural designation)
........unknown Abbasid (Abbasid cultural designation)
........unknown Abbevillian (Abbevillian cultural designation)
What is TGN?

TGN, Getty Thesaurus of Geographic Names®

TGN contains **place names** relevant to art, architecture, and related disciplines

- Names, relationships, place types, dates, notes, and coordinates
- Scope includes cities, nations, empires, physical features
- Focus on historical information, for regions, archaeological sites, lost settlements
- Built upon a skeleton of the modern world
- Thesaurus compliant with ISO standards
- TGN is not GIS, but may be linked to GIS, maps, etc.
TGN Sample Record

TGN, Getty Thesaurus of Geographic Names®

http://vocab.getty.edu/page/tgn/7011179

ID: 7011179

Names:
Siena (pref, it, en) [47413]
Sienna [140308]
Sienne (fr) [1002860953]
Σίένα (el) [1002038443]
锡耶纳 (zh) [1002038446]
Сиена (ru) [1002038445]
Siyenah (he) [1002038442]
シエーナ (ja) [1002038441]
Sienese (adj) (en) [1159549]
Siena (hist.) Date: Medieval [181416]
Siena Julia (hist.) (la) [181415]
Sena (hist.) (Etruscan) [181414]

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

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

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

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

city
archiepiscopal see
commune (administrative) since 1125
cultural center
university center
world heritage site

AAT

Loc: 43.1907 N (43.3180)
Long: 011.1950 E (11.3300)
Elevation: 1056.430 feet (322.0000 meters)

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

Associative Relationships
ally of Pisa ..(inhabited place) [7006082]
Ghibelline allies, 13th-14th centuries

Contributors:
VP,BHA, Avery,GRI


Linked to other vocabularies,
Other resources (LOC, NGA)
What is IA?

IA, the Getty Iconography Authority™

IA contains *iconography names* describing topics relevant to art, architecture, and related disciplines

- Includes the proper names of subjects not covered by other Getty Vocabularies
- Includes multilingual proper names, relationships, and dates
- For iconographical narratives, religious or fictional characters, themes, historical events, and named literary works and performing arts
What is CONA?

CONA, Cultural Objects Name Authority®

CONA compiles titles/names with other metadata for works of art, architecture, and other cultural works

- For works current and historical, documented as items or in groups, whether extant, destroyed, or never built
- New resource that may be used to record works depicted in visual surrogates, multiples (prints), architecture, and for other purposes
Using Vocabularies to advance scholarship
MICRO LEVEL EXAMPLES

• Historic name variants for an artist

• Most appropriate noun to describe an object, material, process, etc.

• Translations of terms associated with art and architecture
MACRO LEVEL EXAMPLES

• To structure and manage heterogenous data
• To apply digital humanities approaches and import data into digital humanities tools
Network Analysis: Knoedler Stockbooks, 1870-1920

Must standardize the following fields in the database, extracted from the stockbook pages, so that the computer can match

- Artist (including all name variants)
- Artist Nationality
- Sale/Purchase Geographic locations
- Buyer names
- Seller names
- Currencies

Working over 40,000 transactions
Using Getty’s OpenRefine service when feasible
How to use the Getty Vocabularies Open Refine Reconciliation service
Cleaning/Reconciling data

- **OpenRefine.org**
  - Supports multiple languages
  - Supports different data types
  - Can export your project
  - Has reconciliation services with various relevant authorities, e.g.
    - Wikidata
    - VIAF
    - Library of Congress subject headings
Getty Vocabularies
Open Refine Reconciliation service

- https://www.getty.edu/research/tools/vocabularies/obtain/openrefine.html

- Today- keeping it very simple; can work with further OpenRefine expressions to refine/clean data
Create a project by importing data. What kinds of data files can I import?

TSV, CSV, *SV, Excel (xls and .xlsx), JSON, XML, RDF as XML, and Google Data documents are all supported. Support for other formats can be added with OpenRefine extensions.

Get data from:
- This Computer
- Web Addresses (URLs)
- Clipboard
- Database
- Google Data

Locate one or more files on your computer to upload:
Choose Files
No file chosen

Next »
<table>
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<tr>
<th></th>
<th>ARTIST NAME</th>
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<th>ARTISTNATIONALITY</th>
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</table>
### Using facets and filters

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

Not sure how to get started? Watch these screencasts

<table>
<thead>
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<th>Row</th>
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<tr>
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**Tamburini, Arnaldo**  
(Italian painter, count, 1843-1901)

Comment on works: genre, Portraits
Much more you can do!

- To reconcile/clean/edit your data
- Filter
- Facets
- Clusters
- GREL Expressions (General Refine Expression Language)
For further resources for OpenRefine

- [https://openrefine.org/](https://openrefine.org/) & its wiki
- [https://librarycarpentry.org/lc-open-refine/](https://librarycarpentry.org/lc-open-refine/)
For Further Reading (Sampling)

- Dublin Core Metadata Initiative
- Christopher Morse, Rashmi Singhal, & Jud Harward “Research Databases and the Future of Digital Humanities Applications,”
Thank you.

Anne Helmreich
Associate Director, Digital Initiatives
Getty Research Institute

Patricia Harpring
Managing Editor, Getty Vocabulary Program
Getty Research Institute