

Workshop: Digital Art History and the Getty Vocabularies

CAA 2020

Anne Helmreich
Associate Director, Digital Initiatives
Getty Research Institute

Patricia Harpring
Managing Editor, Getty Vocabulary Program
Getty Research Institute

15 February 2019

Getty

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.

[Getty Vocabularies Workshop: CAA 2020](#)



Messy, unworkable data

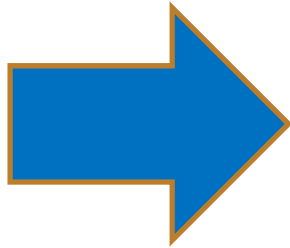
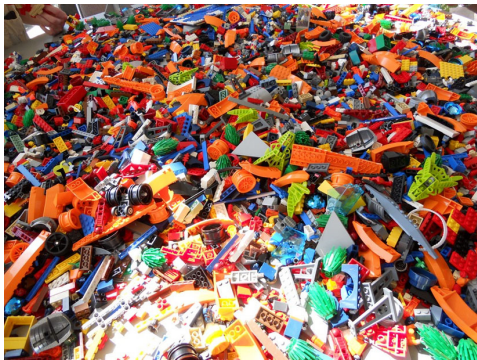
Artist Display Name	Artist Display Bio	Artist Suffix	Artist Alpha Sort	Artist Nationality	Artist Begin Date	Artist End Date	Object Date	Object Begin Date	Object End Date	Medium	Dimensions	Credit Line
James Barton Longacre	American, Delaware County, Pennsylvania 1794–1...	NaN	Longacre, James Barton	American	1794	1869	1853	1853	1853	Gold	Dimensions unavailable	Gift of Heinz L. Stoppelman, 1979
Christian Gobrecht	1785–1844	NaN	Gobrecht, Christian	NaN	1785	1844	1901	1901	1901	Gold	Dimensions unavailable	Gift of Heinz L. Stoppelman, 1980
NaN	NaN	NaN	NaN	NaN	NaN	NaN	1909–27	1909	1927	Gold	Diam. 11/16 in. (1.7 cm)	Gift of C. Ruxton Love, Jr., 1967
NaN	NaN	NaN	NaN	NaN	NaN	NaN	1909–27	1909	1927	Gold	Diam. 11/16 in. (1.7 cm)	Gift of C. Ruxton Love, Jr., 1967

Structured Data

And now you can find the gaps....

Work with it...

Draw conclusions. ...



How to get from
Here to There?

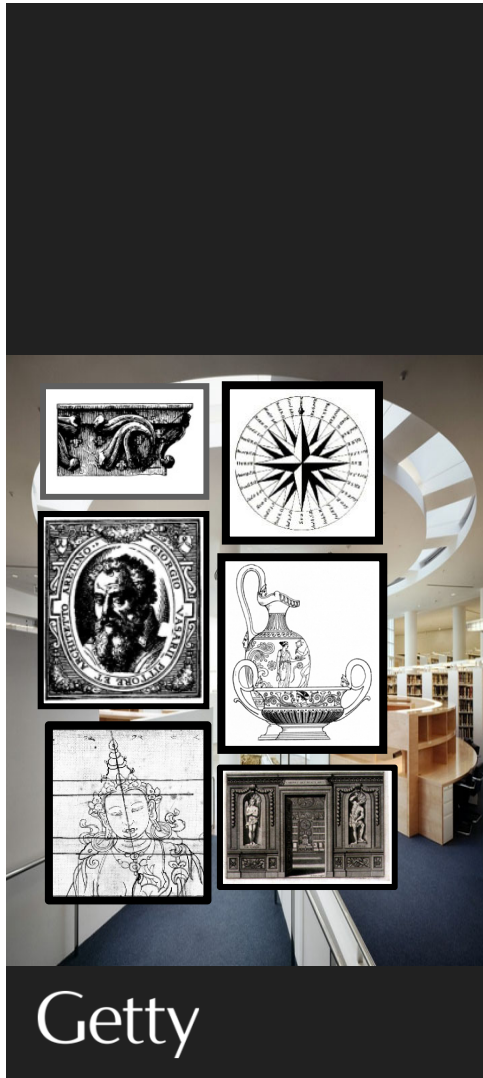
Artist Display Name	Artist Display Bio	Artist Suffix	Artist Alpha Sort	Artist Nationality	Artist Begin Date	Artist End Date	Object Date	Object Begin Date	Object End Date	Medium	Dimensions	Credit Line
James Barton Longacre	American, Delaware County, Pennsylvania 1794–1...	NaN	Longacre, James Barton	American	1794	1869	1853	1853	1853	Gold	Dimensions unavailable	Gift of Heinz L. Stoppelmann, 1979
Christian Gobrecht	1785–1844	NaN	Gobrecht, Christian	NaN	1785	1844	1901	1901	1901	Gold	Dimensions unavailable	Gift of Heinz L. Stoppelmann, 1980
NaN	NaN	NaN	NaN	NaN	NaN	NaN	1909–27	1909	1927	Gold	Diam. 11/16 in. (1.7 cm)	Gift of C. Fluxton Love, Jr., 1967
NaN	NaN	NaN	NaN	NaN	NaN	NaN	1909–27	1909	1927	Gold	Diam. 11/16 in. (1.7 cm)	Gift of C. Fluxton Love, Jr., 1967

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

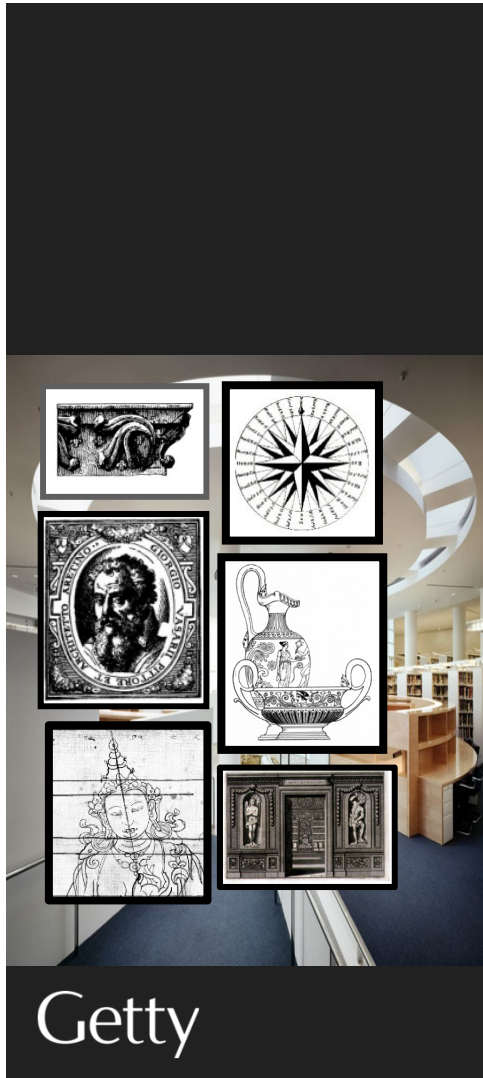


What Are Controlled Vocabularies?

- 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 (btwn 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

Getty

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

Getty

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
Centro de Documentación de Bienes Patrimoniales, Santiago
Istituto Centrale per il Catalogo e la Documentazione, Rome

National
documentation
agencies,
consortia

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

Image
collections,
libraries

Pinacoteca do Estado de São Paulo
Rijksmuseum in Amsterdam
Mystic Seaport Museum in Connecticut
Smithsonian National Museum of African Art
Grove Art online

Art repositories

Publishers

Florentine Codex Initiative (GRI)
Traditional Chinese Architecture (Vanderbilt, SEU)

Research projects

Getty Vocabularies Used in an Object Record

Catalog Level: item **Classification:** paintings

Work Type:

painting (visual work) [AAT 300033618]

scroll (information artifact) [AAT 300028629]

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

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

Creator Display: Guo Xi, Song Dynasty

Index: Guo Xi (Chinese painter, 1023 - ca.1085 CE) [ULAN 500125758]

Role: artist

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

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

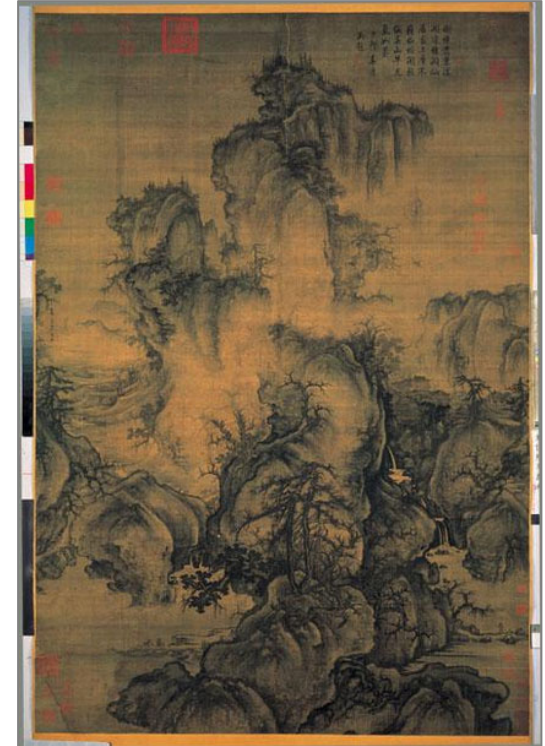
Materials Display: painted scroll

Index: color (pigment) [AAT 300264870]

Index: ink [AAT 300015012]

Index: silk (silkworm material) [AAT 300014072]

Index: paper (fiber product) [AAT 300014109]



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

[continued] **Getty Vocabularies Used in an Object Record**

Dimensions: 158.3 x 108.1 cm

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

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

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

[ULAN 500309392] **Type:** current

Repository No.: Meta Data identification: 000053N000000000

Credit Line: National Palace Museum

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

General Subject: landscapes

Specific Subjects: Renewal of Life [IA 901002238]

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

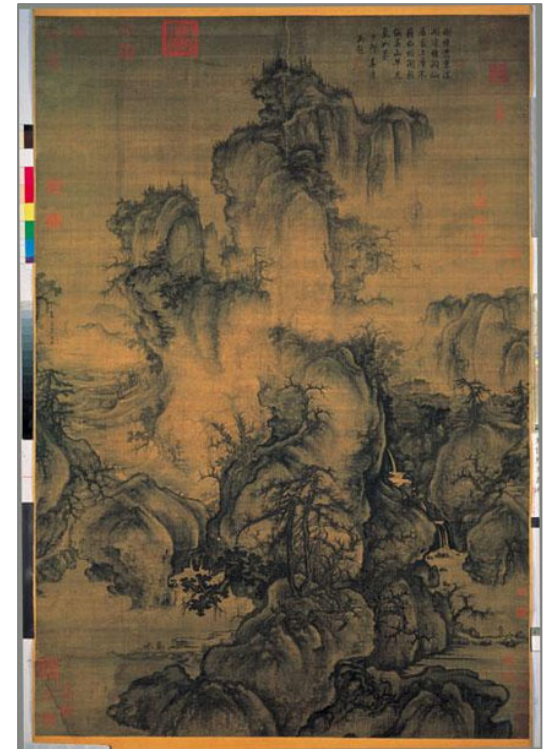
trees [AAT 300132410] | streams [AAT 300008699]

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

floating perspective [AAT 300438516] Extent: design element

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

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



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

amfoor
amphorae
arc-boutant
brittleness
Buddhism
calligraphy
emulsifier
façades
flying buttress
飛扶壁
lithographer
litógrafos
luchtbogen
orthogonal plan
Macedonian
millwork
Rinascimento
ῥυτόν
stupa
Sturzbecher
travertine
weft wrapping
yastiks
zeppelin
Zigula
zinc oxide

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

<i>Associated Concepts</i>	<i>Physical Attributes</i>	<i>Styles and Periods</i>	<i>Agents</i>	<i>Activities</i>	<i>Materials</i>	<i>Objects</i>	<i>Brand Names</i>
----------------------------	----------------------------	---------------------------	---------------	-------------------	------------------	----------------	--------------------



AAT Sample Record

AAT, Art & Architecture Thesaurus®

<http://vocab.getty.edu/page/aat/300041363>

- [partial record]
- preferred term is flagged, but not required to use it; based on local rules
- IDs for record and for terms

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 bǎn kè yìn (zh) [1000551903]

staalgravures (nl) [1000482814]

gravures sur acier (fr)

[1000304335]

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)

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

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

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

..... intaglio prints (G)

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

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

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

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)

View of the AAT hierarchy

Top of the AAT hierarchies
.... Objects Facet
..... Visual and Verbal Communication (hierarchy name)
..... Visual Works (hierarchy name)
..... visual works (works)
..... <visual works by material or technique>
..... photographs
..... <photographs by technique>
..... <photographs by picture-taking technique>
..... aerial photographs
..... chronophotographs
..... instantaneous photographs
..... motion photographs
..... photobooth pictures
..... photomicrographs
..... radiographs
..... beta radiographs
..... x-radiographs
..... snapshots
..... space photographs
..... staged photographs
..... stereoscopic photographs
..... anaglyphs
..... half stereographs
..... parallax stereograms
..... stereographs
..... tissue stereographs

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

Work type:
stereoscopic photograph



View of the terms for a concept in AAT record

<http://vocab.getty.edu/page/aat/300162872>

AAT subject_id 300162872

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

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)
stereoscopfoto (C,U,Dutch,UF,U,U)
stereoscopfoto's (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



Achilles Painter
Abasi, Riza
رضا عباسی
An Qi
安岐
Bartolo di Fredi
Galleria degli Uffizi
Gilbert & George
Katsushika Hokusai
Kicking Bear
Master of Boi
Méraud, Pierre-Antoine,
père
Ngapatari, Hakaraia
O'Keeffe, Georgia
Pei, I. M.
Rothko, Mark
Sa'īd, Mahmūd
Skidmore, Owings &
Merrill
unknown Mende
Vikramaditya I
Wren, Christopher
Zeuxiades
Ζευξιάδης



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)



ULAN Sample Record

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

Linked to other vocabularies,
Other resources (LOC)

ID: 500060426

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

葛飾 北斎 (ja) [1500705416]

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

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

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

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

Nationalities:

Japanese (pref)

Roles:

AAT

artist
printmaker
painter
designer
calligrapher
draftsman
landscapist
marine artist
figure artist

ukiyo-e artist

Gender: male

Birth and Death Places:

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

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

TGN

Events:

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

Associative Relationships:

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

Contributors:

VP, Avery,GRL,BHA,CCA

Sources: Bowie, Drawings of Hokusai (1964); Grove Dictionary of Art online (1999-2002); Library of Congress Authorities n 80043599 ; Metropolitan Museum of Art [online] (2003-); Bouquillard, Hokusai: First Manga Master (2007)

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)

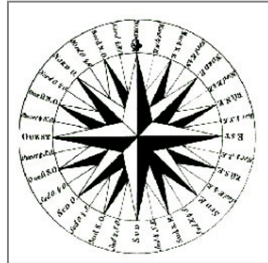
Unidentified Named People and Firms

-Abady, Sheila (artist)
-Abramo, Monsù (Italian painter, 17th century)
-Facijs, Friedrich Wilhelm (artist, born 1764)

Unknown People by Culture

-unknown Abakwariga (Abakwariga cultural designation)
- unknown Abbasid (Abbasid cultural designation)
- unknown Abbevillian (Abbevillian cultural designation)

Abthugni
Angel Falls
Athínai
Αθήναι
Bhārat
Býčí Skála
Bora-Bora
Casablanca
Chichén Itzá
Cueva Cerro Sota
Donner Pass
Dos Cabezas Site
Firenze
Fort Rouillé
Gdansk
Genna Bogai, Arcu
Святой Престол
Jabal Mayyah
Kush
Luxor
מישקאל
Mare Cantabricum
Nan Madol Ruins
Rapa Nui
臺北



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>

Linked to other vocabularies,
Other resources (LOC, NGA)

ID: 7011179

Names:

- Siena (pref,it,en) [47413]
- Sienna [140808]
- Sienne (fr) [1002860953]
- Σιένα (el) [1002038443]
- 锡耶纳 (zh) [1002038446]
- Сиена (ru) [1002038445]
- Siyenah (he) [1002038442]
- סיינה (he) [1002038444]
- シエーナ (ja) [1002038441]
- Sieneſe (adj) (en) [1159549]
- Senae (hist.) *Date:* Medieval [181416]
- Sena 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

Associative Relationships

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

Contributors:

VP,BHA, Avery,GRI

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

Place Types

- inhabited place settled by Etruscans
(flourished by 6th century BCE)
- city
- archiepiscopal see
- commune (administrative) since 1125
- cultural center
- university center
- world heritage site

AAT

Lat: 43 19 07 N (43.3180)

Long: 011 19 50 E (11.3300)

Elevation: 1056.430 feet (322.0000 meters)

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

Adorazione dei Magi
Apedemak
Baby Jaguar
Death and the Miser
Ehecatl
Ganesh
Hades
Hercules
Herakles
Mithras
Niflheim
Noli me tangere
Olouaipipilele
Prajnaparamita
Penance of Indra
Reclining Buddha
Bouddha couché
涅槃仏
Storming the Bastille
The Divine Comedy
Tumatauenga
Virgin Hodegetria
World War I
Xibalba

What is IA?

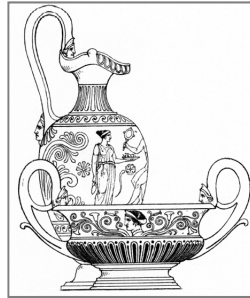


IA, the Getty Iconography Authority TM

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

Bhimesvara Temple
Bradshaw rock
paintings
Case Study House 21
Château de Versailles
Empire State Building
En liberté comme toi
Himeji Castle
姫路城
Irises
Kashmir Gate
Mona Lisa
La Gioconda
Model for the Façade
of San Lorenzo
MS Ludwig XV
Pantheon
Portrait of Napoleon
Ronda di notte
Square Ting Vessel
of Duke Kang
西周早期 康侯方鼎



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

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

- Online search
- Editorial guidelines
- Training materials
- Contribute
- Obtain

vocab@getty.edu

The screenshot shows the homepage of the Getty Vocabularies website. On the left is a navigation menu with categories like 'Search Tools & Databases', 'A-Z List', 'Library Catalog', and 'Getty Vocabularies'. The main content area features a 'Getty Vocabularies' header and an introductory paragraph. Below this are three featured vocabulary sections: 'The Art & Architecture Thesaurus (AAT)', 'The Getty Thesaurus of Geographic Names (TGN)', and 'The Cultural Objects Name Authority (CONA)'. Each section includes a small icon and a brief description of the vocabulary's scope and content. On the right side, there is a 'Linked Open Data' logo, a 'See What's New' section with statistics on contributions, and a 'Have a Question?' section with contact information and a newsletter subscription link.

Getty

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

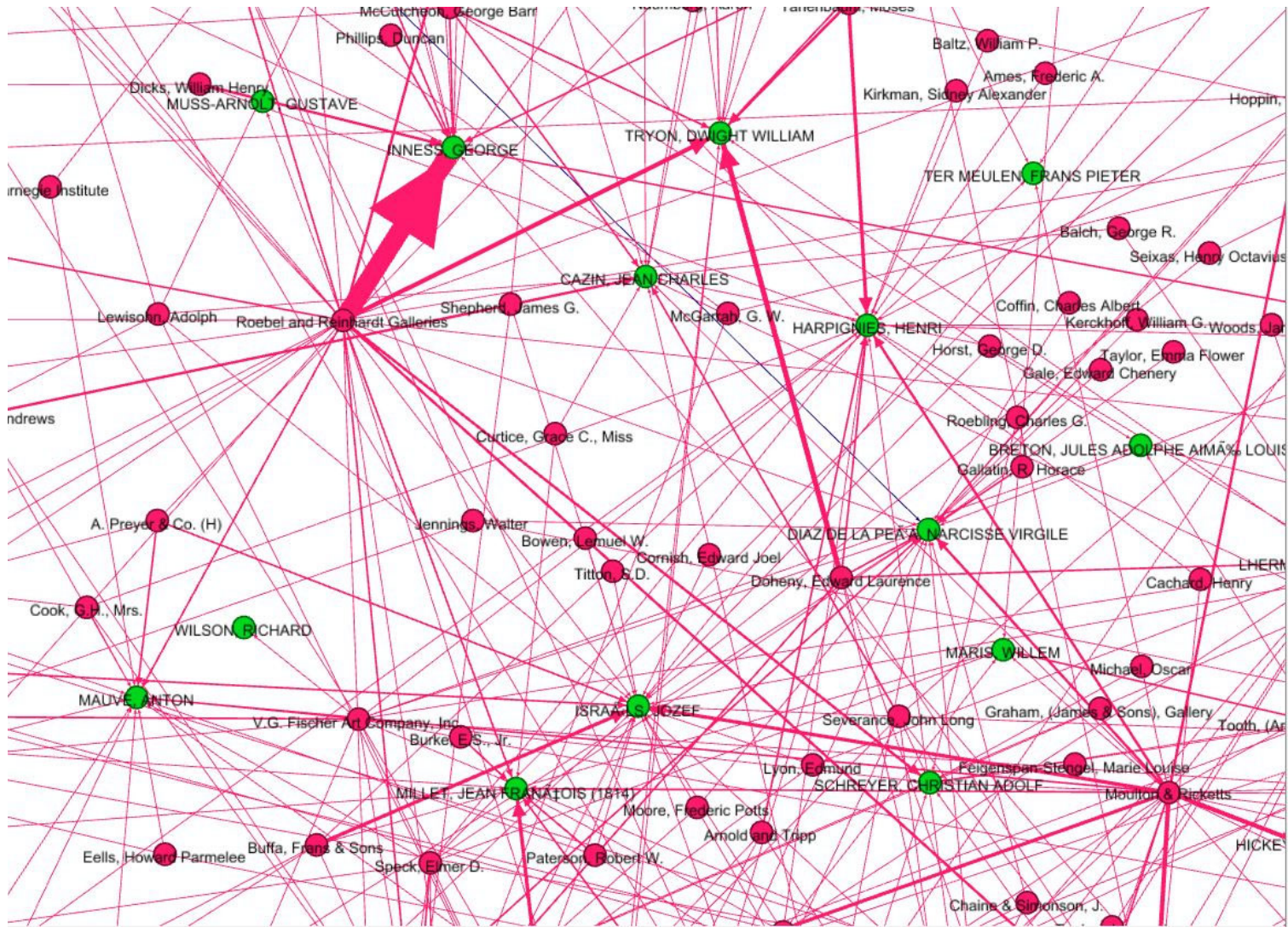
Network Analysis: Knoedler Stockbooks, 1870-1920

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](https://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>
- Tutorial:
https://www.getty.edu/research/tools/vocabularies/obtain/getty_vocabularies_openrefine_tutorial.pdf
- Today- keeping it very simple; can work with further OpenRefine expressions to refine/clean data



- Create Project
- Open Project
- Import Project
- Language Settings

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

Locate one or more files on your computer to upload:

This Computer

Choose Files No file chosen

Web Addresses (URLs)

Next »

Clipboard

Database

Google Data



Version 3.2 [55c921b]

- Preferences
- Help
- About

E1								
=ARTISTGENDER								
	A	B	C	D	E	F	G	H
1	ARTIST NAME	ARTISTBIRTH	ARTISTDEATH	ARTISTNATIONALITY	ARTISTGENDER			
2	Tamburini							
3	F.A. Bridgman							
4	F.A. Bridgman							
5	F.A. Bridgman							
6	F.A. Bridgman							
7	F.A. Bridgman							
8	Kraus							
9	Ch. Jacque							
10	van Wyngaerd							
11	van Wyngaerd							
12	J. G. Brown							
13	F. de Mesgriny							
14	D. Johnson							
15	A. Stevens							
16	W. Maris							
17	Campriani							
18	Campriani							
19	Compte Calix							
20	Wopfner							
21	J. D. Briscoe							

Facet / Filter Undo / Redo 0 / 0

40254 rows

Extensions: Wikidata

Show as: rows records Show: 5 10 25 50 rows

« first < previous 1 - 10 next > last »

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

	All	ARTIST NAME	ARTISTBIRTH	ARTISTDEATH	ARTISTNATION	ARTISTGENDER
☆	1.	Tamburini				
☆	2.	F.A. Bridgman				
☆	3.	F.A. Bridgman				
☆	4.	F.A. Bridgman				
☆	5.	F.A. Bridgman				
☆	6.	F.A. Bridgman				
☆	7.	Kraus				
☆	8.	Ch. Jacqu				
☆	9.	van Wyngaerd				
☆	10.	van Wyngaerd				

OpenRefine Reconcile column "ARTIST NAME"

Facet / Filter Undo / Redo

Services

- Wikidata (en)
- VIAF

Pick a Service or Extension on Left

Extensions: Wikidata

Open... Export Help

Using facets and filters

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

Not sure how to get started? Watch these screencasts

Add standard service

Enter the service's URL:

The Getty: Explore

Getty360 | Calendar | Blog | Connect with Us | Shop | Support Us

The Getty Research Institute

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

Print

Search Tools & Databases

- Library Catalog
- Getty Research Portal
- Collection Inventories & Finding Aids
- Photo Archive
- Research Guides & Bibliographies
- Digital Collections

Getty Vocabularies OpenRefine Reconciliation

Data managers, developers, and others who wish to reconcile data sets to the Getty Vocabularies may now do so using OpenRefine, an open-source tool for data cleanup and transformation.

- Experienced users of the tool may reconcile their data when in OpenRefine with the URL: <http://services.getty.edu/vocab/reconcile/>

Have a Question?

- Contact the Vocabulary Program

OpenRefine Artist

Reconcile column "NAME"

Open... Export Help

Extensions: Wikidata

previous 1 - 50 next last

Facet / Filter Undo / Redo

Services

Wikidata (en)

Pick a Service or Extension on Left

Add standard service

Enter the service's URL:

Add Service Cancel

Add Standard Service... Start Reconciling Cancel

Using facets and filter
Use facets and filters to select subsets of your data to act on. Choose filter methods from the menu of each data column.
Not sure how to get started? [Watch these screencasts](#)

OpenRefine Artist

Facet / Filter Undo / Redo » Access Service API

Reconcile column "ARTIST NAME"

Reconcile each cell to an entity of one of these types:

- ULAN search
/ulan
- TGN search
/tgn
- AAT search
/aat
- Search all Vocabs
/all

Also use relevant details from other columns:

Column	Include?	As Property
ARTISTBIRTH	<input checked="" type="checkbox"/>	<input type="text"/>
ARTISTDEATH	<input checked="" type="checkbox"/>	<input type="text"/>
ARTISTNATIONALITY	<input checked="" type="checkbox"/>	<input type="text"/>
ARTISTGENDER	<input checked="" type="checkbox"/>	<input type="text"/>


Reconcile against type:

Reconcile against no particular type

Auto-match candidates with high confidence

Maximum number of candidates to return

Add Standard Service... Start Reconciling Cancel



E1								
=ARTISTGENDER								
	A	B	C	D	E	F	G	H
1	ARTIST NAME	ARTISTBIRTH	ARTISTDEATH	ARTISTNATIONALITY	ARTISTGENDER			
2	Tamburini							
3	F.A. Bridgman							
4	F.A. Bridgman							
5	F.A. Bridgman							
6	F.A. Bridgman							
7	F.A. Bridgman							
8	Kraus							
9	Ch. Jacque							
10	van Wyngaerd							
11	van Wyngaerd							
12	J. G. Brown							
13	F. de Mesgriny							
14	D. Johnson							
15	A. Stevens							
16	W. Maris							
17	Campriani							
18	Campriani							
19	Compte Calix							
20	Wopfner							
21	J. D. Briscoe							

▼ All	▼ ARTIST NAME	▼ ARTISTBIRTH	▼ ARTISTDEATH	▼ ARTISTNATIONA	▼ ARTISTGENDER
★	1. Tamburini				
★	2. F.A. Bridgman				
★	3. F.A. Bridgman				
★	4. F.A. Bridgman				
★	5. F.A. Bridgman				
★	6. F.A. Bridgman				
★	7. Kraus				
★	8. Ch. Jacque				
★	9. van Wyngaerd				
★	10. van Wyngaerd				
★	11. J. G. Brown				
★	12. F. de Mesgriny				
★	13. D. Johnson				
★	14. A. Stevens				
★	15. W. Maris				
★	16. Campriani				
★	17. Campriani				
★	18. Compte Calix				
★	19. Wopfner				
★	20. J. D. Briscoe				
★	21. J. F. Kensett				
★	22. Geo. A. Baker				
★	23. Eugene Isabey				

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](#)

127.0.0.1:3333/project?project=2033714457201

OpenRefine Artists Names.xlsx [Permalink](#) Open... Export Help

40254 rows Extensions: Wikidata

Show as: rows records Show: 5 10 25 50 rows « first < previous 1 - 50 next > last

All ARTIST NAME ARTISTBIRTH ARTISTDEATH ARTISTNATIONALITY ARTISTGENDER

	ARTIST NAME	ARTISTBIRTH	ARTISTDEATH	ARTISTNATIONALITY	ARTISTGENDER
1.	Tamburini				
	<input checked="" type="checkbox"/> Tamburini, Arnaldo (27)				
	<input checked="" type="checkbox"/> Tamburini, Giovanni Maria (17)				
	<input checked="" type="checkbox"/> Tamburini, Francisco (17)				
	<input checked="" type="checkbox"/> Tamburini, Aronne (16)				
	<input checked="" type="checkbox"/> Tamburini, Arnaldo, Jr. (16)				
	<input checked="" type="checkbox"/> Tamburini, Gabriele (16)				
	<input checked="" type="checkbox"/> Tamburini Dalmau, Josep (16)				
	<input checked="" type="checkbox"/> Tamburini, Giovanni Agostino (16)				
	<input checked="" type="checkbox"/> Tamburini, Giovanni Agostino (16)				
	<input checked="" type="checkbox"/> Create new item				
2.	F.A. Bridgman				
	<input checked="" type="checkbox"/> Bridgman, Frederick Arthur (17)				
	<input checked="" type="checkbox"/> Bridgman, G. (17)				
	<input checked="" type="checkbox"/> Bridgman, David (16)				
	<input checked="" type="checkbox"/> Bridgman, Henry (16)				
	<input checked="" type="checkbox"/> Bridgman, George Brant (16)				
	<input checked="" type="checkbox"/> Turner, F.A. (14)				
	<input checked="" type="checkbox"/> Bridgman, Charles J. (14)				
	<input checked="" type="checkbox"/> Porsche, Ferdinand Alexander (11)				
	<input checked="" type="checkbox"/> Wolff, Friedrich Anton (10)				
	<input checked="" type="checkbox"/> Benedict, Fred (9)				
	<input checked="" type="checkbox"/> Clark, Frederick Ambrose (9)				

Match this Cell Match All Identical Cells Cancel

Tamburini, Arnaldo
(Italian painter, count, 1843-1901)

Comment on works: genre, Portraits

Artists Names.xlsx.html 36/38 B, 0 secs left Show all

OpenRefine Artists Names.xlsx

Facet / Filter Undo / Redo 11 / 11

Refresh Reset All Remove All

ARTIST NAME: judgment change

3 choices Sort by: name count

(blank) 128
 matched 214
 none 39912

Facet by choice counts

ARTIST NAME: best candidate's score change reset

0.00 — 71.00

Numeric 39794 Non-numeric 0 Blank 460 Error 0

Add column based on column ARTIST NAME

New column name

On error set to blank store error copy value from original column

Expression Language No syntax error.

Preview History Starred Help

row	value	cell.recon.best.id
1.	Tamburini	ulan/500004858
2.	F.A. Bridgman	ulan/500021576
3.	F.A. Bridgman	ulan/500021576
4.	F.A. Bridgman	ulan/500021576
5.	F.A. Bridgman	ulan/500021576
6.	F.A. Bridgman	ulan/500021576
7.	Kraus	ulan/500018567

OK Cancel

« first < previous 1 - 50 next > last »

Extensions: Wikidata

ARTISTNATION/ ARTISTGENDER

Johnson, David (28)
 Johnson, Reginald D. (17)

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/> & its wiki
- <https://librarycarpentry.org/lc-open-refine/>
- & <https://data-lessons.github.io/dh-openrefine/> (OpenRefine Lessons for Digital Humanities)
- Programming Historian:
<https://programminghistorian.org/en/lessons/cleaning-data-with-openrefine>
- Owen Stephens for the British Library (with apologies for the URL)
http://www.meanboyfriend.com/overdue_ideas/wp-content/uploads/2014/11/Introduction-to-OpenRefine-handout-CC-BY.pdf

For Further Reading (Sampling)

- Baca, Murtha, ed. [Introduction to Metadata](#) 3rd edition, online, 2018.
- [Dublin Core Metadata Initiative](#)
- Christopher Morse, Rashmi Singhal, & Jud Harward [“Research Databases and the Future of Digital Humanities Applications,”](#)
- Stephen Ramsey, [“Databases,”](#) *A Companion to Digital Humanities*, 2004.
- David M. Kroenke, et al. *Database Concepts*, Pearson (currently in its 9th edition)
- Katie Rawson and Trevor Munoz, “Against Cleaning,” <http://curatingmenus.org/articles/against-cleaning/> from the Curatin Menus project (

Getty

Questions?

Thank you.

Anne Helmreich
Associate Director, Digital Initiatives
Getty Research Institute

Patricia Harpring
Managing Editor, Getty Vocabulary Program
Getty Research Institute

Getty