Architecture Networks

Building Connections Between Collections
• Authoritative data: people, places, events.
• Standardized ontologies/controlled vocabularies.
• Flexible data management and discovery system(s).
• Committed individuals.
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• Learn about projects, tools, systems, and standards relevant to the study of the built environment.

• Establish what a comprehensive, collaborative resource might look like and whom it might serve.

• Gauge interest in participation.
ARLIS/NA Code of Conduct

ARLIS/NA is dedicated to providing collaborative experiences that are free from all forms of harassment, and inclusive of all people. As a professional community we expect conscious actions from our membership to foster a safe, supportive, and positive work environment, including but not limited to acts as simple as respecting the diverse viewpoints and conversations happening within ARLIS/NA, accepting peers for all aspects of who they are personally, and both accepting and receiving constructive critique graciously. ARLIS/NA does not tolerate harassment, and it is important for our membership to understand what constitutes these behaviors. Broadly defined, harassment can include unwelcome or offensive verbal comments or nonverbal expressions publicly or privately, in person, virtually, and/or in written communication. Sexual, discriminatory, or potentially triggering language and imagery is generally inappropriate for any ARLIS/NA event venue, including talks. However, this policy is not intended to constrain responsible scholarly or professional discourse and debate. We welcome engagement with difficult topics, done with respect and care. The ARLIS/NA Code of Conduct Team, comprised of members from the Executive Board and Diversity Committee, is a resource for all members; do not hesitate to contact them for assistance.
Development of the Pacific Coast Architecture Database (PCAD), 2002-2019

Alan Michelson
Head, Built Environments Library
University of Washington, Seattle
California’s Legacy of Innovative Architecture
Origins of the California Architecture Database (CAD) in 2002 at UCLA

UCLA Campus, from Lufkin Conference Center, UCLA, c. 2019

Portrait of Edward H. Fickett, c. 1955, from The Eichler Network article by Dave Weinstein

Stahl House, CSH #22, Los Angeles, 2005, photo from Wikimedia Commons by OVS
PCAD Models—Print and Digital

The Philadelphia Architects and Buildings database began before 2002 as a project of the Athenaeum of Philadelphia, the University of Pennsylvania Architectural Archives, the Philadelphia Historical Commission, the Pennsylvania Historical and Museum Commission, and other local cultural institutions.
California Architecture Database, 2002-2004

Portrait of Stephen Davison, Head, Digital Library Development, California Institute of Technology, photo from DLF Las Vegas 2018
Expansion of CAD to the Pacific Coast Architecture Database, 2004

University of Washington Quad at cherry blossom time, from Geriatric Nursing.org

The Pacific Coast Architecture Database (PCAD) includes a range of information on the buildings and designers of California, Oregon and Washington.
Inclusion: A Range of Design Professionals
Inclusion: Under-Represented Groups
Inclusion: A Range of Building Types
CAD/PCAD Iterations

Iteration 1 (2002-2005)

Iteration 2 (2005)

Iteration 3 (2009)

Iteration 4 (2014)
Future Directions
Built Works Registry

Global IDs for Architecture and the Built Environment

builtworksregistry.org

Margaret Smithglass
Registrar | Digital Content Librarian
Avery Architectural & Fine Arts Library, Columbia University
BWR: the problem

Building name
• Falling Water or *Fallingwater*
• *Kaufmann* or Kauffman House
• Edgar J. Kaufmann Sr. Residence or Kaufmann Desert House

Location
• *Mill Run* or Bear Run

Creator
• *Frank Lloyd Wright* (or what about Richard Neutra!)
<table>
<thead>
<tr>
<th>Artstor</th>
<th>Avery</th>
<th>Cornell</th>
<th>AVIADOR</th>
<th>Harvard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title/Name of Building</strong></td>
<td>Fallingwater, Edgar J. Kaufmann House, Kaufmann House</td>
<td>Fallingwater (Kaufmann house).</td>
<td>Falling Water, Edgar J. Kaufmann Residence</td>
<td>Fallingwater, Edgar J. Kaufmann House, Kaufmann House</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Mill Run, Pennsylvania, United States</td>
<td>Bear Run (Pennsylvania), United States</td>
<td>Bear Run, PA, United States, North and Central America</td>
<td>Bear Run, (Pa.), Pennsylvania, United States</td>
</tr>
<tr>
<td><strong>Creator</strong></td>
<td>Wright, Frank Lloyd</td>
<td>Wright, Frank Lloyd</td>
<td>Wright, Frank Lloyd</td>
<td>Wright, Frank Lloyd</td>
</tr>
</tbody>
</table>

BWR | Built Works Registry  
Global IDs for Architecture and the Built Environment
The solution: a registry

Minimum requirements for BWR records:
• Normalized built work name
• Location (lat/long) for disambiguation
• Unique ID number: BWRxxxxxxx

Strategy:
• Use existing data from trusted sources to seed the project
• Establish BWR schema
• Enhance existing metadata to support future LOD applications
Seed collections

- Ingest collections (40+)
  - De-dupe
  - Parse
  - Establish aggregated list of fields across collections
- Map to BWR fields
- Merge all collections
  - De-dupe
  - Enhance (GIS+)
Seed collections

Artstor Digital Library
American Institute of Indian Studies
ART on FILE Collection
Islamic Art and Architecture Collection (Sheila Blair, Jonathan Bloom, Walter Denny)
Bryn Mawr College
Classical Antiquity Lantern Slide Collection
Mellink Archive
Plans of Ancient and Medieval Buildings and Archaeological Sites
Getty Research Institute Photo Archive, Julius Shulman archive
Council of Independent Colleges, Historic Campus Architecture Collection
Library of Congress, Carnegie Survey of Architecture of the South
Princeton University, Department of Art and Archeology, Visual Resources Collection
Society of Architectural Historians, SAHARA
University of California San Diego Libraries
University of Texas at Austin, School of Architecture, Visual Resources Collection
Hal Box and Logan Wagner: Mexican Architecture and Urban Design
Christopher Long: Central European Architecture
World Monument Fund
Avery Architectural & Fine Arts Library, Columbia University Libraries
Avery Index to Architectural Periodicals
AVIADOR Project
Department of Drawings & Archives
Cornell University Library, Knight Visual Resources Collection
Harvard Library
Talend Open Studio: mapping collections to aggregated fields
BWR geolocation strategy

Two geo-coding protocols:

- Records with street addresses: ArcGIS processing with targeted databases, for built works in US and Canada
- Records with city-country: Open Refine Cluster tool used for normalization of city and country names; reconciled normalized names against Freebase databases.

Subsequent mediation by hand using TGN, geonames.org, etc.

Iterative, detail-oriented, time-consuming process

Outcome (builtworksregistry.org) – OpenStreetMap, MapBox
Case Study 1: NYC Landmarks Preservation Commission

- 1248 records
- 1149 street addresses
- ArcGIS /nyc.gov database
- Open Street Map
- no additional mediation
- 80% mapped
Case Study 2: Avery Index to Architectural Periodicals

- 1645 records
- No street addresses
- City – state – country
- Google Earth Pro
- 55-60% mapped
Discovery: named work

1. Lever House
   - Bunsen, Gordon (1909-1990), American architect & Skidmore, Owings & Merrill (1956-).
   - 5740 Park Avenue | Manhattan
   - New York, New York, United States 1959 - 1960
   - ID BWR3777729

2. Unilever House
   - Stephenson and Tunnard
   - Sydney, Australia
   - ID BWR3773012

3. Unilever House
   - Lomax-Simpson, James | Burnet, John James Blackfriars
   - London, England | United Kingdom
   - ID BWR3770953
Discovery: individual built work record
Discovery: common building name

Abbey Church of Notre Dame
BWR ID: BW13790374
BWR Name: Abbey Church of Notre Dame
BWR Variant Name: Abbaye de Notre-Dame | Notre-Dame
Date: 1000 - 1199
Location: Bernay, Eure, France
Latitude: 49.09
Longitude: 0.6
Abbey churches
Work Type: 

1. Church of Notre Dame
   - Address: 1900 W 18th Street, New York, New York, United States 10001
2. Rectory of the Church of Notre Dame
   - Address: 420 West 14th Street, Manhattan, New York, New York, United States 10011
3. Wendell Clincial School
   - Address: Western, Victoria, Australia
4. Basilique Notre Dame de la Paix
   - Address: Vincennes, France
5. Notre Dame
   - Address: Alençon, France
6. Notre Dame du Chnstel
   - Address: Auday, France
7. Notre Dame des Pennes, France
8. Abbey Church of Notre Dame
   - Address: Bernay, Eure, France
Discovery: advanced search
Discovery: part-whole relationship
New contributions
• Launched 2015
• Global: 190 countries
• Disambiguates 70,000 built works from one another using name, location and unique ID

Project Team
Project Director: Carole Ann Fabian (Former Director, Avery Library)
Artstor: James Shulman, William Ying
Getty: Murtha Baca, David Farneth
BWR Project Manager: Margaret Smithglass
Built Works Registry

Margaret Smithglass
Registrar | Digital Content Librarian, Avery Library, Columbia University
ms4762@columbia.edu
builtworksregistry.org
Built to Last

Cataloging Architectural Heritage Information using CONA and ULAN

Robin Johnson, Editor, Vocabulary Program, Getty Research Institute
RJohnson@getty.edu
The Getty vocabularies are resources containing structured terminology for art, architecture, decorative arts, archival materials, visual surrogates, conservation, and bibliographic materials.

Compliant with international standards, they provide authoritative information for catalogers, researchers, and data providers.

The vocabularies grow through contributions. In the new linked, open environments, they provide a powerful conduit for research and discovery for digital art history.

- **AAT (Art & Architecture Thesaurus ©)**: e.g., orthographic drawings, amphora, oil paint, oleieverf, peintures à l’huile, acetylolysis, sintering, 玉器, Jadekünste, Olmeca, Rinascimento, Chen-Yen (Buddhism), watercolors, and asa-no-ha-toji

- **TGN (Getty Thesaurus of Geographic Names ©)**: e.g., Diospolis, Acalán, Ottoman Empire, Mogao, Ch‘i’en-fu-tung, Ganges River, गंगा नदी

- **ULAN (Union List of Artist Names ©)**: e.g., Charles Vandenhove et associés, Mark Rothko, Cai Xiang, 葵襄, Crevoile Master, Rajaraja Museum

- **IA (Gettley Iconography Authority)**: e.g., Bouddha couché, शिव (Hindu deity), Shiva, French Revolution, Adoration of the Magi, Flood of Deucalion, Xīboǐa, Nifheim

- **CONA (Cultural Objects Name Authority ©)**: e.g., Chayasomesvara Temple, Empire State Building, Hagia Sofía, Αγία Σοφία, Mona Lisa, Portrait of Lisa Gherardini, La Gioconda, Livre de la Chasse, Le déjeuner sur l’herbe
Compiles titles/names and other information for works of art, architecture, and other cultural works, current and historical, documented as items or in groups, whether works are extant, destroyed, or never built.

Unique, persistent IDs

LINKS to Getty Vocabularies, outside resources, contribs

Status: In development: We have loaded 6,000 test records. BWR is the first large load of architectural records.

Goal: great potential long term, but begin with targeted contributions, architecture, works depicted in visual surrogates, etc.

Contributions? vocab@getty.edu

Sample record

CONA ID: 700000141

Titles/Names:
Hagia Sophia (en) 1000000300
Ayasofya (tr) 1000000301
Ագիա Σοφία (el) 1000000311
Agia Sofia 1000000302
Agia Sophia 1000000303
Haghia Sophia 1000000304
Sainte-Sophie (fr) 1000014725
Santa Sofia (es) 1000014726
Sancta Sophia (la) 1000000305
Sancta Sapientia (la) 1000000306
Holy Wisdom (en) 1000000307
Saint Sophia (en) 1000000308
圣索菲亚大教堂 (zh) 1000014727

Catalog Level: item

Work Types:
church (historical) 1000000309
mosque (historical) 1000000310
museum 1000000312
basilica 1000000313

Classification: architecture

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

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

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

Styles:
Byzantine | Ottoman

General Subject:
architecture Types: isness
religion and mythology Extent: purpose
Specific Subjects:
Holy Wisdom (Christian allegory)

Contributors:
VP; BWR

Sources:
CONA
Cultural Objects
Name Authority®

Compiles titles/names and other information for works of art, architecture, and other cultural works, current and historical, documented as items or in groups, whether works are extant, destroyed, or never built.

Unique, persistent IDs
LINKS to Getty Vocabularies, outside resources, contribs

Status: In development: We have loaded 9,000 test records. BWR is the first large load of architectural records
Goal: great potential long term, but begin with targeted contributions, architecture, works depicted in visual surrogates, etc.
Contributions? vocab@getty.edu

Sample record

CONA ID: 700000141

Titles/Names:

Hagia Sophia (en) 1000000300
[VP,BWR,AVERY,BHA,FDA]
Xydis, Chancel Barrier of Hagia Sophia (1947) title
Theoharidou, Architecture of Hagia Sophia (1988) title
Maidstone, Hagia Sophia (1988) title
Built Works Registry [online] (2015-)

Sancta Sophia (cs) 1000000305
Sancta Sapientia (la) 1000000304
Holy Wisdom (en) 1000000306
Saint Sophia (en) 1000000303
圣索菲亚大教堂 (zh) 1000000308

Catalog Level: item

Work Types: church (historical) museum basilica

Classification: architecture

Dimensions: central dome: diameter 31 meters (102 feet); height 56 meters (184 feet)

 Styles: Byzantine | Ottoman

General Subject: architecture Type: isness religion and mythology Extent: purpose
Specific Subjects: Holy Wisdom (Christian allegory)

Contributors: VP; BWR
CONA ID: 700009250
Catalog level: item  Class.: architecture
Work Type: multipurpose building
Titles: Wiltern Theater
  Warner Brothers Western (historical)
Creation Date: 1930-1931; restoration began in 1981
Style: Art Deco  Culture: American
General Subject: architecture  Type: isness
Current Location: City of Los Angeles (California, United States)
Address Note: 34.0611°N 118.3078°W ; 3790 Wilshire Blvd, Los Angeles, CA 90010
Dimensions: 12 stories; 155 ft (47 m) in height, originally 2,344 seats
Mat. & Tech.: high-rise, applied masonry exterior: clad in bright turquoise tile with gold accents
Event: landmark status
  Note: National Register of Historic Places, 1979
Descriptive Note: High rise office complex housing a noted theater on the ground floors, located at Wilshire Boulevard and Western, at the western edge of the Koreatown neighborhood of Los Angeles. Designed as a vaudeville house...
CONA ID 700000090  Class. architecture
Work Type: house
Title: Case Study House No. 21
Title: Bailey House Title: CSH #21
Creator: architect: Pierre Koenig
Creation Date: 1956-1958; renovated 1998
Dimensions: 1 story, 1320 square feet, 4 rooms and 2 baths, on a 110 x 160 foot lot
Mat & Tech: steel frame and flat roof deck
Current Location: Los Angeles (California, USA)  Address Note: 34.116634 - 118.391623; 038 Wonderland Park Avenue, Hollywood Hills, Los Angeles, 90046
Possible implementations of CONA

Records for destroyed or ephemeral works, possibly linked to other works depicting them

Destroyed, ephemeral triumphal arch

CONA ID 700001288
Class.: architecture
Work Type: triumphal arch (memorial arch)
Title: Arc de Triomphe du Trône
Location: Paris (France)
Creator: based on designs by Charles Perrault (French architect, 1613-1688), built by Claude Perrault (French architect, physician, scientist, 1613-1688)
Date: begun 1670, demolished 1716
Materials: stone and plaster
Dimensions: unavailable
General subject: architecture
Type: isness
Specific Subject: Louis XIV
Extent: honoree ephemeral structure
Extent: purpose
Possible implementations of CONA

Records for works never realized

Movable works linked to unrealized work

J. R. Pope’s designs for pyramidal Lincoln Memorial, Washington DC

CONA ID 700008523

Pyramid design for the Lincoln Memorial

Class: drawings
Work Type: drawing
Title: Pyramid design for the Lincoln Memorial
Creator: architect: John Russell Pope; draftsman: attributed to Rockwell Kent
Date: 1912
Location: National Archives (Washington, DC)

CONA ID 700009598

Pyramid Lincoln Memorial

Class: architecture
Work Type: unrealized work
Title: Pyramid Lincoln Memorial
Creator: John Russell Pope
Materials: masonry
Location: unrealized work

Images may be under additional copyright

Patricia Harpring © 2019 J. Paul Getty Trust. For educational purposes only. Do not distribute.
CONA ID 700008435 Class: prints and drawings
Work Type: measured drawing
Title: External elevation of the model for St. Peter's
Title Flag: descriptive
Creator: circle of Etienne Dupérac
Subject: • elevation • Model of St. Peter's
Related Work: Model of St. Peter's
Date: probably late 1560s
Medium: brown ink on paper
Dimensions: 5 x 4 x 2 m
Scale: 1:15
Current Location: Metropolitan Museum of Art (New York, New York, USA); 49.92.91

CONA ID 700008436 Class: sculpture
Work Type: half model
Title: Half Model for the Dome and Drum for St. Peter's, Rome
Title Flag: descriptive
Creators: Michelangelo and Giacomo della Porta; Luigi Vanvitelli
Date: 1558-1561
Medium: linden wood, gesso, paint
Dimensions: 5 x 4 x 2 m (without modern base)
Scale: 1:15
Current Location: Musei Vaticani (Vatican City, Italy)
Descriptive Note: The model was probably completed under the direction of Michelangelo during...

CONA ID 700008437 Class: prints and drawings
Work Type: design drawing
Title: Section and Elevation of the Dome and Drum of St. Peter's
Title Flag: descriptive
Creator: Michelangelo (Florentine sculptor, painter, architect, 1475-1564)
Date: mid 1550s
Medium: incised lines, charcoal with traces of brown ink on paper
Dimensions: 270 x 267 cm
Type, Purpose, Method of Representation: Descriptive Note: This is the only known drawing where...
Subject/Built Work: • section • elevation • Dome (St. Peter's Basilica, Rome)
Related Work: Dome (St. Peter's Basilica, Rome)
Relationship type: design for
Current Location: Musée des Beaux Arts (Lille, France) Collection Wicar, 93-94

CONA ID 700002014 Class: architecture
Work Type: basilica cathedral
Title: Old Saint Peter's Basilica
Title: Antica basilica di San Pietro in Vaticano
Title: Antigua Basílica de San Pedro
Creators: principal architects: Donato della Porta, ...
Date: constructed in 4th century
Material: masonry
Location: Vatican (Rome, Italy)

CONA ID 70000016 Class: architecture
Work Type: basilica cathedral
Title: Basilica di San Pietro in Vaticano
Title: San Pietro in Vaticano
Title: Petersdom
Title: New St. Peter's
Title: Basilica Sancti Petri
Title: Basilique de Saint-Pierre
Creators: principal architects: Donato della Porta, ...
Creation Date: second church on the site; constructed in 1506, constructed 1546 to 1564 and 1580s to 1626
Mat & Tech: masonry
Dimensions: length 730 feet (220 m); width 500 feet (150 m); height of dome above street level 452 feet (138 m)
Location: Rome (Italy) 41°54′21″N 12°27′12″E

CONA ID 7000016 Class: architecture
Work Type: dome
Title: Dome of Saint Peter's
Creator: Michelangelo
Date: designed mid-1550s
Medium: brick, with iron chain compression ring
Dimensions: 42 m (138 feet); height of dome: 138 m (452 feet) above the street, 119 m (390 feet) above the floor

RELATIONSHIPS BETWEEN WORKS may be rich and complex

• St. Peter’s in Rome and its dome
  • study for
  • part of
  • predecessor of
  • depiction of
  • model for
Establish the Focus

- Maintain separate records for the movable work (model or drawing) and the built work depicted
- Link the work depicted through Associative Relationships (for the few critical two-way relationships) or through Specific Subject, which is a one-way relationship from movable work to the built work

architectural model

CONA ID: 700001994 Catalog Level: item
Class.: architecture work Type: building complex
Getty Center (building complex; Richard Meier (American, born 1934); Richard Meier & Partners Architects; designed: 1984-1991, construction...
Note: Complex of 12 buildings housing the Getty's collection of European and American art from the Middle Ages to the present. Design elements, gardens, and open spaces combine in the design by Richard Meier of the Getty Center to unite the parts of the J. Paul Getty Trust. Buildings contain the Getty Museum, the Getty Research Institute, the Getty Foundation, the Getty Conservation Institute, the J. Paul Getty Trust, and meal facilities.

Titles:
Getty Center (preferred, C,U, English - P,U, U)

Catalog Level: item
Work Types:
- complex (buildings and sites) [300000202] (preferred)
- art center [300005138] (objects facet, built environment, single built works by specific type, single built works by function, cultural centers (buildings))

Classifications:
- architecture (preferred)
- Modern art

built work
**Work Type**

**CONA ID 700009530  Catalog Level: item**
**Title:** Kinkaku-ji  
**Golden Pavilion**

**Work Type:**
- temple
- shariden
- reconstructed architecture

**Date:** established in 1397; destroyed by arson in 1950, reconstructed in 1955
  
  **Qualifier:** established  
  **Start:** 1397  
  **End:** 1397

  **Qualifier:** reconstruction  
  **Start:** 1950  
  **End:** 2003

**Event:** destruction

**Display date:** by arson, 1950

- For reconstructed works, include information about both the original and the reconstruction
- Make a separate record for the original work if enough critical information differs from the reconstruction so as to make it difficult to fully describe both in the same record (in the example below, both the original and reconstruction are described in one record)
Sample record

ULAN_ID: 500014514

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

Nationalities:
Spanish (pref)
Catalan

Roles:
artist (pref)
architect
landscape architect
furniture designer

Gender: male

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

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

Contributors:
VP, JPGM, Avery, FRICK, WCl, Prov, GRLPSC, BHA, CCA

Sources:
## Processing contributions: Link to ULAN, AAT, TGN, IA

Getty vocabularies merge contributed records if duplicates

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

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

- Candidates for merging
- Automatically merged or rejected for merging
- Possible but not enough firm data = passed to human editors
- Long experience in perfecting algorithms → Reconciliation tools are under development by Getty Digital
Links between vocabularies

- E.g., **roles** in ULAN (e.g., artist, watercolorist, portraitist, patron, emperor) = controlled by *Agents Facet* in AAT

- Going from hand-made lists to LOD required cleaning up inconsistencies
Current and Future Goal:

• Relationships from the Getty vocabularies to other resources within the Getty and outside
• E.g., Provenance Index data
Arches is...

a modern open source software platform purpose-built for organizations to independently host to manage their own cultural heritage data
Essential requirements for development:

- software **free**
- based on international **standards**
- purpose built & **customizable**
- permissions-based **access**
Essential requirements for development:

- capture the full **complexity** of cultural heritage data
- capture the **relationships** between resources
- use **controlled vocabularies**
- data structured to **protect knowledge** for future
Building a Search

Results: 787

2218 S HOBART BLVD

THOMAS W. PHILLIPS RESIDENCE

Soffer House
Research indicates that the property contains an excellent example of residential architecture designed by noted architect Eric Lloyd Wright; the project is a 1922 remodel of...

Hearn Residence
A remarkably intact and well-preserved example of the work of Lloyd Wright. Exhibits quality of design, but does not fit neatly into any of the post-war styles of Modernism.

2233 S HOBART BLVD
Related Resources

- Frank Lloyd Wright
- Teague House
- Storer House
- Hollyhock House

Related Resources

- Heritage Resources
- People and Organizations
- Information Resources

Storer House Plaque
1 out of 1 relations loaded
Read more

John Storer
1 out of 1 relations loaded
Read more

Eric Lloyd Wright
1 out of 1 relations loaded
Load more

R.M. Schindler
1 out of 2 relations loaded
Load more
Time Wheel

Click on a block to set a filter, double-click to zoom in, double-click center to zoom out.

Essential requirements for development:

- capture the full complexity of cultural heritage data
- capture the relationships between resources
- use controlled vocabularies
- data structured to protect knowledge for future
Essential requirements for development:

- data structured to protect knowledge for future
- CIDOC Conceptual Reference Model
NAME
E41 Appellation

HERITAGE RESOURCE
E18 Physical Thing

P1 is identified by
HERITAGE RESOURCE
E18 Physical Thing

NAME
E41 Appellation

QV 66

P1 is identified by
Name

Enter a name for the heritage resource and name type (i.e. Primary, Alternative, etc.) You may add additional names as necessary.

Name Type
- Select an option

Name
- Enter text
HERITAGE RESOURCE
E18 Physical Thing

BRANCH

NAME TYPE
E55 Type

NAME
E41 Appellation

P1 is identified by

P2 has type
HERITAGE RESOURCE

RESOURCE MODEL
Interoperability / Linked Open Data

- data structured to **protect knowledge** for future
  - CIDOC Conceptual Reference Model
- Currently in development to fully support export and publishing of Arches data as **JSON-LD**
Known arches activity (as of January 2019)
Airport Theme Building Exterior and Interior Lobby

The property meets the criteria for HCM designation because it reflects the broad cultural, political, economic or social history of the nation, state, or community as an iconic Modernist structure embodying the nation's postwar ideologies. Serving as the symbolic gate to Los Angeles, the futuristic design was intended to convey a new prosperity and the embrace of technological innovation. The property contains a restaurant, office space, and an observation deck.

Cabrillo Beach Bathhouse
• England Oblique Aerial Photography (OBAP)

• National Record of the Historic Environment (WARDEN)

• Greater London Historic Environment Record (GLHER)

• National Maritime Heritage Inventory

• Heritage Vocabularies for England
The online heritage information and management system for the City of Lincoln

Arcade lets you explore Lincoln's rich heritage in new ways - from an individual historic building, to the development of the Roman city of Lindum Colonia. Explore the Arcade site and use our powerful search engine to discover more about this ancient city.

Click one of the buttons below to find out about the ways you can search Arcade.

Map Search >  Time Search >  Advanced Search >
Final thoughts

- Arches can serve as the platform for a collaborative research tool

- Arches implementations may be able to be used as data sources for such a tool
cultural heritage data management platform

www.archesproject.org / @archesproject

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