

Linked Open Data and the Getty Vocabularies: Expanding Access

GREGG GARCIA

GGARCIA@GETTY.EDU

SOFTWARE ARCHITECT, J PAUL GETTY TRUST



Getty Vocabularies Publications and Formats

Currently available:

- Human-readable web site and search
- Yearly full export in XML and Relational Tables
- Legacy Web services returning XML format
- Linked Data with SPARQL endpoint

Proposed products / services:

- APIs serving JSON(LD) format
- Improved CONA searching
- CSV version with basic fields served through GitHub



The Getty Research Institute

Search Tools & Databases

- ▀ Primo Search
- ▀ Getty Research Portal
- ▀ Collection Inventories & Finding Aids
- ▀ Photo Archive
- ▀ Research Guides & Bibliographies
- ▀ Digital Collections
- ▀ Article & Research Databases
- ▀ Collecting & Provenance Research
- ▀ BHA & RILA
- ▾ Getty Vocabularies
 - ▾ Art & Architecture Thesaurus (AAT) ©
 - ▀ About AAT
 - ▀ AAT: Frequently Asked Questions
 - ▀ How to use AAT
 - ▀ Cultural Objects Name Authority (CONA) ©

Art & Architecture Thesaurus® Online

Search the AAT [? Help](#)

Find Term or ID: [Search](#)

AND OR [Clear](#)

Note:

[Pop-up Search](#)
[Browse the AAT hierarchies](#)

Copyright information

Search Tips

For the Find Term or Note field, you may use **AND** and **OR** (all in upper case) [e.g., 1) windsor chairs, 2) chairs OR rockers, 3) chairs OR rockers OR armchairs, 4) bow-back AND windsor, 5) windsor AND (rockers OR chairs), 6) (windsor OR boston) AND (rockers OR chairs)]. Wildcard is the asterisk (*); right truncation only. To find an exact match rather than a key word in the Find Term field, use quotes [e.g., "chairs"]. If you wish to search the term and note together, click on the buttons for AND or OR.

Have a Question?


- [✉ Contact the Vocabulary Program](#)



Art & Architecture Thesaurus® Online

Full Record Display

[New Search](#)[Previous Page](#)[Help](#)


Click the  icon to view the hierarchy.

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

▪ [Representative Images](#): [1](#) [2](#) [3](#) [4](#) [5](#) [6](#)

ID: 300198841

Record Type: [concept](#)

 **rhyta** (drinking vessels, <vessels for serving and consuming food>, ... Furnishings and Equipment (Hierarchy Name))

Note: Refers to vessels from Ancient Greece, eastern Europe, or the Middle East that typically have a closed form with two openings, one at the top for filling and one at the base so that liquid could stream out. They are often in the shape of a horn or an animal's head, and were typically used as a drinking cup or for pouring wine into another vessel. Drinking was done by holding the rhyton above the drinker's head and catching the stream of liquid in the mouth.

Terms:

rhyta ([preferred](#),C,U,LC,English-P,D,U,PN)
(Greek (transliterated)-P,D,U,PN)
(Spanish,UF,U,PN)

rhyton (C,U,English,AD,U,SN)
(Greek (transliterated),AD,U,SN)
(Spanish,AD,U,SN)

Rhyton (C,U,English,AD,U,SN)

rhytons (C,U,English,UF,U,N)
(French-P,D,U,PN)
(Spanish-P,D,U,PN)

rhea (vessels) (C,U,English,UF,U,N)

rheons (C,U,English,UF,U,N)

rheon (C,U,English,UF,U,N)

ῥυτόν (C,U,Ancient Greek,UF,U,U)

rhütón (C,U,Ancient Greek (transliterated),UF,U,U)

Vocabularies Web Services (Legacy XML)

The Getty Vocabularies Web Services for AAT, ULAN and TGN can be accessed at:

<http://vocabsservices.getty.edu/AATService.asmx>

<http://vocabsservices.getty.edu/ULANService.asmx>

<http://vocabsservices.getty.edu/TGNService.asmx>

Each service shows example requests and responses for programming interfaces done in the available protocols, SOAP 1.1 and 1.2, HTTP GET, and HTTP POST protocols.

Basic Information: <http://www.getty.edu/research/tools/vocabularies/obtain/download.html>

User Instructions: http://www.getty.edu/research/tools/vocabularies/vocab_web_services.pdf

Now available without a login!

Vocabularies Web Services (Legacy XML)

Returns XML data for 8 operations:

GetSubjectTerms

- Returns all terms for a given subject ID along with their language, contributor, and source information

GetTermMatch

- Returns terms that match a given set of search criteria; primarily a text search

GetSubject

- Returns all data elements associated with a VCS subject record for a given subject ID

SyncSubjectId

- Returns the current subject ID for a given subject ID, accounting for whether or not that record has been merged

GetMergedSubjectID

- Returns a list of records with their old and new IDs that have been merged over a given date range

GetParents

- Returns the preferred and non-preferred parent hierarchies for a given subject ID

GetChildren

- Returns all immediate the preferred and non-preferred children for a given subject ID

GetRevisionHistory

- Returns information on edits made to vocabulary data based on a date range and input parameter that indicates which piece of revision history information is desired

rhyta (drinking vessels, <vessels for serving and consuming food>, ... Furni Name))

Note: Refers to vessels from Ancient Greece, eastern Europe, or the Middle East with two openings, one at the top for filling and one at the base so that liquid could flow out. Drinking was done by holding the rhyton above the drinker's head with the liquid in the mouth.

- rhyta** (preferred,C,U,J,C,English-P,D,U, (Greek (transliterated)-P,D,U,PN) (Spanish,AD,U,SN))
- rhyton** (C,U,English,AD,U,SN) (Greek (transliterated),AD,U,SN) (Spanish,AD,U,SN))
- rhytons** (C,U,English,UF,U,N) (French-P,D,U,PN) (Spanish-P,D,U,PN))
- rhea** (vessels) (C,U,English,UF,U,N)
- rheons** (C,U,English,UF,U,N)
- rheon** (C,U,English,UF,U,N)
- ῥυτόν** (C,U,Ancient Greek,UF,U,U)
- rhytón** (C,U,Ancient Greek (transliterated),UF,U,U)
- rytons** (C,U,Dutch-P,D,U,U)
- ryton** (C,U,Dutch,AD,U,U)
- rytons** (C,U,French,UF,U,N)
- riton** (C,U,French,UF,U,N)
- ritóns** (C,U,Spanish,UF,U,N)
- ritón** (C,U,Spanish,UF,U,SN)
- escanciadora** (C,U,Spanish,UF,U,SN)

HTML



XML

REL

Facet/Hierarchy Code: V.TQ

Hierarchical Position:

- Objects Facet
- Furnishings and Equipment (Hierarchy Name) (G)
- Containers (Hierarchy Name) (G)
- containers (receptacles) (G)
- <containers by function or context> (G)
- <culinary containers> (G)
- <containers for serving and consuming food> (G)
- <vessels for serving and consuming food> (G)
- drinking vessels (G)
- rhyta (G)

Additional Parents:

- Objects Facet
- Furnishings and Equipment (Hierarchy Name) (G)
- Containers (Hierarchy Name) (G)
- containers (receptacles) (G)
- <containers by function or context> (G)
- ceremonial containers (G)
- ceremonial vessels (G)
- rhyta (G)

Objects Facet

- Furnishings and Equipment (Hierarchy Name) (G)
- Containers (Hierarchy Name) (G)
- containers (receptacles) (G)
- <containers by form> (G)
- vessels (containers) (G)
- vases (G)
- plastic vases (ancient vessels) (G)
- rhyta (G)

Additional Notes:

Dutch Vaten uit de Griekse oudheid in de vorm van een dierenkop, werf of om wijn in een ander vat te gieten.

Spanish Refiérase a vasijas de la Antigua Grecia, Europa del Este, o del son cerradas pero con dos aberturas, una en el extremo superior para pod para que el líquido pudiera salir. A menudo tienen la forma de un cuerno o t lo común usadas como copas para beber o para vaciar vino en otras vasija:

Related concepts:

- distinguished from **drinking horns** (drinking vessels, <vessels for serving and consuming Equipment (Hierarchy Name) [300043229]
- distinguished from **stirrup cups** (drinking vessels, <vessels for serving and consuming Equipment (Hierarchy Name) [300197140]
- distinguished from **sturzbechers** (beakers (drinking vessels), drinking vessels, ... Furni Name)) [300197148]

```
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xsi:noNamespaceSchemaLocation="http://vocabservices.getty.edu
- <Subject Subject_ID="300198841">
- <Parent_Relationships>
- <Preferred_Parent>
<Parent_Subject_ID>300194567</Parent_Subject_ID>
<Relationship_Type>Parent/Child</Relationship_Type>
<Historic_Flag>Current</Historic_Flag>
<Parent_String>drinking vessels [300194567], vessels for ser
[300198938], containers
containers [300197577],
(receptades) [30019719
and Equipment (Hierarchy
300000000 [300000000]
<Hier_Rel_Type>Genus/Species-BTG</Hier_Rel_Type>
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<Non-Preferred_Parent>
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<Historic_Flag>Current</Historic_Flag>
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vessels (containers) [300193015], containers by form [30
(receptades) [300197197], Containers (Hierarchy Name)
and Equipment (Hierarchy Name) [300264551], Objects Fa
300000000 [300000000] </Parent_String>
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</Non-Preferred_Parent>
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<Relationship_Type>Parent/Child</Relationship_Type>
<Historic_Flag>Current</Historic_Flag>
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containers by function or context [300197200], containers
[300197197], Containers (Hierarchy Name) [300045611],A
Equipment (Hierarchy Name) [300264551], Objects Fac
[300000000] </Parent_String>
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</Parent_Relationships>
- <Descriptive_Notes>
- <Descriptive_Note>
<Note_Text>Refers to vessels from Ancient Greece, eastern
that typically have a dosed form with two openings, one at
at the base so that liquid could stream out. They are often
an animal's head, and were typically used as a drinking cup
another vessel. Drinking was done by holding the rhyton al
and catching the stream of liquid in the mouth.</Note_Text:
<Note_Language>English</Note_Language>
+ <Note_Contributors>
+ <Note_Sources>
</Descriptive_Note>
- <Descriptive_Note>
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+ <Note_Contributors>
+ <Note_Sources>
</Descriptive_Note>
- <Descriptive_Note>
<Note_Text>Refiérase a vasijas de la Antigua Grecia, Europa
Oriente, que típicamente son cerradas pero con dos abertu
superior para poder llenarlas, y otra en la base para que el
menudo tienen la forma de un cuerno o una cabeza de anir
usadas como copas para beber o para vaciar vino en otras
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+ <Note_Contributors>
+ <Note_Sources>
</Descriptive_Note>
- <Record_Type>Concept</Record_Type>
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- <Terms>
- <Preferred_Term>
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<Term_ID>1000198841</Term_ID>
- <Term_Languages>
- <Term_Language>
<Language>English</Language>
<Preferred>Preferred</Preferred>
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```

NA	3	C	NA	P	300022903	knives, gauge	1000148239	U
NA	1	C	NA	P	300022904	hand knives	1000022904	U
NA	2	C	NA	V	300022904	hand knife	1000301485	U
NA	3	C	NA	V	300022904	knives, hand	1000148438	U
NA	1	C	NA	P	300022905	hawkbill knives	100022905	U
NA	2	C	NA	V	300022905	hawkbill knife	1000301486	U
NA	3	C	NA	V	300022905	knives, hawkbill	1000148438	U
NA	1	C	NA	P	300263064	sky	1000263064	U
NA	1	C	NA	P	300263109	planets	1000263109	U
NA	1	C	NA	P	300263252	opus romanum	1000263252	U
1	C	NA	P		300263365	World Wide Web	1000263365	U
NA	1	C	NA	P	300174226	longitudinal ridge ribs	1000174226	U
NA	1	C	NA	P	300174227	transverse ridge ribs	1000174227	U
NA	2	C	NA	V	300027909	congressional committee report	100027909	U
NA	3	C	NA	V	300027909	reports, congressional committee	100027909	U
NA	1	C	NA	P	300027919	House of Commons bills	1000027919	U
NA	2	C	NA	V	300027919	House of Commons bill	1000300903	U
NA	3	C	NA	V	300027919	bills, House of Commons	1000141389	U
NA	1	C	NA	P	300124499	House of Lords bills	1000124499	U
NA	2	C	NA	V	300124499	House of Lords bill	1000300904	U
NA	3	C	NA	V	300124499	bills, House of Lords	1000141396	U
A	1	C	NA	P	300028339	bathymetric maps	1000028339	U
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NA	4	C	NA	V	300028339	bathymetric charts	1000028340	U
NA	5	C	NA	V	300028339	charts, bathymetric	1000175330	U
NA	2	C	NA	V	300023515	warp-weighted loom	1000301664	U
NA	3	C	NA	V	300023515	looms, warp-weighted	1000151066	U
NA	4	C	NA	V	300023515	loom, warp-weighted	1000151067	U
NA	5	C	NA	V	300023515	warp-weighted vertical looms	1000023515	U
NA	1	C	NA	P	300023524	circular needles	1000023524	U
NA	2	C	NA	V	300023524	circular needle	1000301665	U
NA	3	C	NA	V	300023524	needles, circular	1000147106	U
NA	3	C	NA	V	300022804	knife, fettling	1000147750	U
NA	4	C	NA	V	300022804	knives, fettling	1000147749	U
NA	1	C	NA	P	300393236	anthotypes	1000597313	U
NA	2	C	NA	V	300393236	anthotype	1000597314	U
NA	3	C	NA	V	300393236	phytotype	1000597315	U
NA	1	C	NA	P	300393237	microfadeometers	1000597316	U
NA	2	C	NA	V	300393237	microfadeometer	1000597317	U
NA	1	C	NA	P	300393239	shengengiz	1000597319	U
NA	1	C	NA	P	300393240	Gilded Age	1000597320	U
NA	1	C	NA	P	300393241	doughboys	1000597321	U
NA	2	C	NA	V	300393241	doughboy	1000597322	U
NA	1	C	NA	P	300024500	chemistry equipment	1000024500	U
A	2	C	NA	V	300024500	chemical apparatus	1000024501	U
NA	3	C	NA	V	300024500	chemical equipment	1000122474	U
NA	4	C	NA	V	300024500	chemical t & e	1000060194	U
NA	5	C	NA	V	300024500	chemical technology equipment	1000024500	U
NA	1	C	NA	P	300393253	world religions	1000597351	U
NA	6	C	NA	V	300024500	chemical tools	1000122478	U
NA	1	C	NA	P	300023515	warp-weighted looms	1000023515	U
NA	4	C	NA	V	300023523	needles, knitting	1000148871	U

Basics of Linked Data

- Universal Resource Identifier (URI) – “an ASCII string used to identify things on the Semantic Web” (<http://www.w3.org/wiki/URI>)
 - <http://vocab.getty.edu/aat/300198841>
 - <http://vocab.getty.edu/tgn/1000193>
- URIs are linked to each other through triples composed of subject-predicate-object relationships
 - `<http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2008/05/skos-xl#prefLabel> <http://vocab.getty.edu/aat/term/1000198841-en> .`
 - `<http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2004/02/skos/core#prefLabel> "rhyta"@en .`
- The definitions of data elements and links described by ontologies
 - <http://www.w3.org/2004/02/skos/core#>
 - <http://www.w3.org/ns/prov#>
 - <http://purl.org/dc/elements/1.1/>
- Data is delivered to a requesting agent through a triple serialization using HTTP
RDF/XML, Notation-3 (N3), Turtle, N-Triples, RDFa, JSON, JSON-LD

LOD Serializations from vocab.getty.edu

```
aat_300198841.json x
1
2 "head" : {
3   "vars" : [ "Subject", "Predicate", "Object" ]
4 },
5 "results" : {
6   "bindings" : [ [
7     "Subject" : {
8       "type" : "uri",
9       "value" : "http://vocab.getty.edu/aat/300198841"
10    },
11    "Predicate" : {
12      "type" : "uri",
13      "value" : "http://www.w3.org/1999/02/22-rdf-syntax-ns#type"
14    },
15    "Object" : {
16      "type" : "uri",
17      "value" : "http://vocab.getty.edu/ontology/Subject"
18    }
19  ], {
20    "Subject" : {
21      "type" : "uri",
22      "value" : "http://vocab.getty.edu/aat/300198841"
23    },
24    "Predicate" : {
25      "type" : "uri",
26      "value" : "http://www.w3.org/1999/02/22-rdf-syntax-ns#type"
27    },
28    "Object" : {
29      "type" : "uri",
30      "value" : "http://www.w3.org/2004/02/skos/core#Concept"
31    }
32  }
33 ]
}
```

JSON

```
aat_300198841.jsonld x
43 {
44   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
45   "@value" : "2008-02-05T15:13:36"
46 }, {
47   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
48   "@value" : "2010-10-28T11:19:07"
49 }, {
50   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
51   "@value" : "2010-10-28T11:20:16"
52 }, {
53   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
54   "@value" : "2011-01-07T12:18:43"
55 }, {
56   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
57   "@value" : "2014-07-31T13:54:38"
58 }, {
59   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
60   "@value" : "2014-07-31T15:49:13"
61 }, {
62   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
63   "@value" : "2014-07-31T15:56:08"
64 }, {
65   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
66   "@value" : "2014-08-01T08:38:17"
67 }, {
68   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
69   "@value" : "2008-10-30T15:53:12"
70 }, {
71   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
72   "@value" : "2002-11-18T11:54:47"
73 }, {
74   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
75   "@value" : "2001-07-26T22:15:13"
76 }, {
77   "@type" : "http://www.w3.org/2001/XMLSchema#dateTime",
78   "@value" : "2002-11-18T11:54:47"
79 }
}
```

JSONLD

```
aat_300198841.rdf x
1 <?xml version="1.0" encoding="UTF-8"?>
2 <rdf:RDF
3   xmlns:aat="http://vocab.getty.edu/aat/"
4   xmlns:aat_contrib="http://vocab.getty.edu/aat/contrib/"
5   xmlns:aat_rel="http://vocab.getty.edu/aat/rel/"
6   xmlns:aat_rev="http://vocab.getty.edu/aat/rev/"
7   xmlns:aat_scopeNote="http://vocab.getty.edu/aat/scopeNote/"
8   xmlns:aat_source="http://vocab.getty.edu/aat/source/"
9   xmlns:aat_source_rev="http://vocab.getty.edu/aat/source/rev/"
10  xmlns:aat_term="http://vocab.getty.edu/aat/term/"
11  xmlns:adms="http://www.w3.org/ns/adms#"
12  xmlns:bibo="http://purl.org/ontology/bibo/"
13  xmlns:bio="http://purl.org/vocab/bio/0.1/"
14  xmlns:cc="http://creativecommons.org/ns#"
15  xmlns:dc="http://purl.org/dc/elements/1.1/"
16  xmlns:dcat="http://www.w3.org/ns/dcat#"
17  xmlns:dct="http://purl.org/dc/terms/"
18  xmlns:dctype="http://purl.org/dc/dcmitype/"
19  xmlns:fmt="http://www.w3.org/ns/formats/"
20  xmlns:foaf="http://xmlns.com/foaf/0.1/"
21  xmlns:gvp="http://vocab.getty.edu/ontology#"
22  xmlns:gvp_lang="http://vocab.getty.edu/language/"
23  xmlns:iso="http://purl.org/iso25964/skos-thes#"
24  xmlns:luc="http://www.ontotext.com/owlim/lucene#"
25  xmlns:ontogeo="http://www.ontotext.com/owlim/geo#"
26  xmlns:owl="http://www.w3.org/2002/07/owl#"
27  xmlns:prov="http://www.w3.org/ns/prov#"
28  xmlns:ptop="http://www.ontotext.com/proton/prototop#"
29 >
```

RDF

```
aat_300198841.nt x
1 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://vocab
2 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w
3 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w
4 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyta"@es .
5 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyta"@el-latn .
6 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyta"@en .
7 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@el-latn .
8 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@es .
9 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
10 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhytons"@es .
11 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhytons"@en .
12 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhytons"@fr .
13 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhea (vessels)"@en .
14 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rheons"@en .
15 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rheon"@en .
16 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "ruiF05u093C5u003C4u003C3u003B@grc .
17 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "ruiu016Dtu00F3n@grc-latn .
18 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "u0480A0u5766u09152u0676F@zh-hant .
19 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "u0892D(u720u0676F@zh-hant .
20 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "u092D(u0676F@zh-hant .
21 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "lu06E0i1 tu001CEn ji u00104 b u00113i@zh-latn-piny
22 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "lai tai jiu bei@zh-latn-pinyin-x-notone .
23 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "lai tai an chiu pei@zh-latn-wadegile .
24 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhytons"@en .
25 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhytons"@el .
26 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
27 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhytons"@fr .
28 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
29 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
30 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
31 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
32 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
33 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
34 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
35 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
36 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
37 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
38 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
39 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
40 <http://vocab.getty.edu/aat/300198841> <http://www.w3.org/2000/01/rdf-schema#label> "rhyton"@en .
```

N-Triples

```
aat_300198841.ttl x
52 @prefix ian_source_rev: <http://vocab.getty.edu/ian/source/rev/> .
53 @prefix ian_term: <http://vocab.getty.edu/ian/term/> .
54 @prefix vaem: <http://www.linkedmodel.org/schema/vaem#> .
55 @prefix vann: <http://purl.org/vocab/vann/> .
56 @prefix vcard: <http://www.w3.org/2006/vcard/ns#> .
57 @prefix vdpp: <http://data.lirmm.fr/ontologies/vdpp#> .
58 @prefix voaf: <http://purl.org/voccommons/voaf#> .
59 @prefix voag: <http://voag.linkedmodel.org/voag#> .
60 @prefix void: <http://rdfs.org/ns/void#> .
61 @prefix wdr: <http://www.w3.org/2007/05/powder-s#> .
62 @prefix wgs: <http://www.w3.org/2003/01/geo/wgs84_pos#> .
63 @prefix ww: <http://vocab.org/waiver/terms/> .
64 @prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
65
66 aat:300198841 a gvp:Subject , skos:Concept , gvp:Concept ;
67 rdfs:label "rhyta"@es , "rhyta"@en , "rhyta"@en , "rhyton"@el-latn , "rhyton"@es , "rhyton"
68 rdfs:seeAlso <http://vocab.getty.edu/vow/AATFullDisplay?find=and&AATnote=&subjectid=300198841> .
69 dct:created "1991-10-02T08:00:00"^^xsd:dateTime ;
70 dct:modified "1998-12-03T00:00:00"^^xsd:dateTime , "2001-07-26T22:03:43"^^xsd:dateTime , "2004-0
71 skos:changeNote aat:rev:5000057716 , aat_rev:5001147623 , aat_rev:5001147624 , aat_rev:500114762
72 gvp:broader aat:300198333 , aat:300198865 , aat:300194567 ;
73 gvp:broaderGenericExtended aat:300194507 , aat:300197197 , aat:300198938 , aat:300197200 , aat:3001857
74 gvp:broaderExtended aat:300194507 , aat:300197197 , aat:300198938 , aat:300197200 , aat:300185700 ;
75 gvp:broaderPreferredExtended aat:300197197 , aat:300198938 , aat:300197200 , aat:300198700 , aat:300198700 ;
76 gvp:broaderPreferred "drinking vessels , <vessels for serving and consuming food> , <containers for se
77 skos:note aat_scopeNote:34994 , aat_scopeNote:83378 , aat_scopeNote:71214 , aat_scopeNote:119579
78 gvp:parentStringAbbrev "drinking vessels , <vessels for serving and consuming food> , ... Objects
79 gvp:displayOrder "19"^^xsd:positiveInteger ;
80 skos:xl:prefLabel aat_term:1000198841-en , aat_term:1000198841-el-Latn , aat_term:1000316909-fr ,
81 skos:prefLabel "rhyta"@el-latn , "rhyta"@en , "rhytons"@es , "rhytons"@fr , "莱坦潘杯"@zh-hant , "Rhyton
82 skos:altLabel aat_term:1000198841-es , aat_term:1000297235-es , aat_term:1000297235-el-Latn , "Rhyton
83 gvp:broaderGeneric aat:300198333 , aat:30019865 , aat:300194567 ;
84 gvp:broaderPreferred aat:300194567 ;
85 gvp:broader aat:300198333 , aat:30019865 , aat:300194567 ;
86 iso:broaderGeneric aat:300198333 , aat:30019865 , aat:300194567 ;
87 gvp:broaderNonPreferred aat:300198333 , aat:30019865 , aat:300194567 ;
88 gvp:prefLabelGVP aat_term:1000198841-en ;
89 gvp:prefLabelOVP aat_term:1000198841-en ;
90 skos:inScheme <http://vocab.getty.edu/aat/> ;
```

Turtle/N3

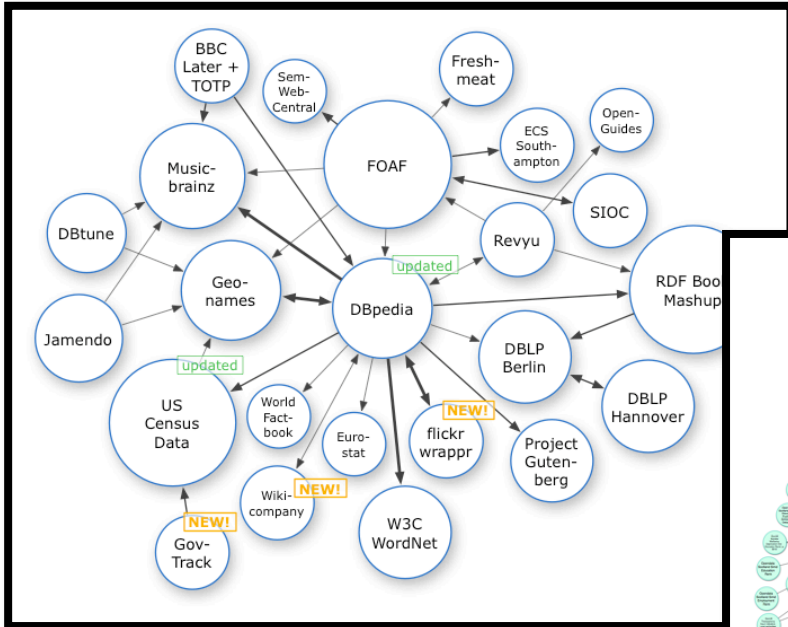
Existing Standards (Ontologies) Used

- **Thesaurus information:** SKOS, SKOSXL, ISO 25964
- **Common properties:** Dublin Core (DC), Dublin Core Terms (DCT)
- **Sources and contributors:** Bibliographic Ontology (BIBO), Friends of a Friend (FOAF)
- **Geographic information:** W3C Geo Ontology (WGS)
- **Revision History:** Provenance (PROV)
- **System properties:** Resource Description Framework (RDF), RDF Schema (RDFS), Web Ontology Language (OWL), and XML Schema Definition (XSD)
- **Implementation of the conversion:** RDB to RDF Mapping Language (R2RML)

Link to the HTML version of the full documentation:

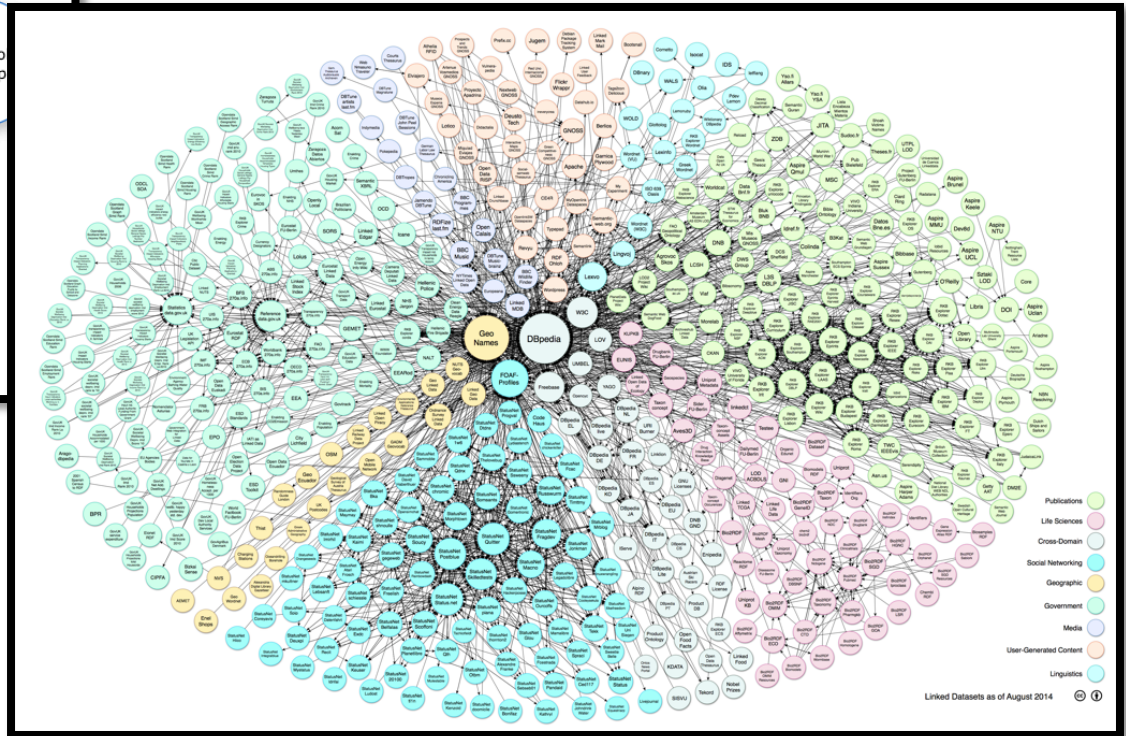
<http://vocab.getty.edu/doc/>

Growth of the LOD Cloud since 2007



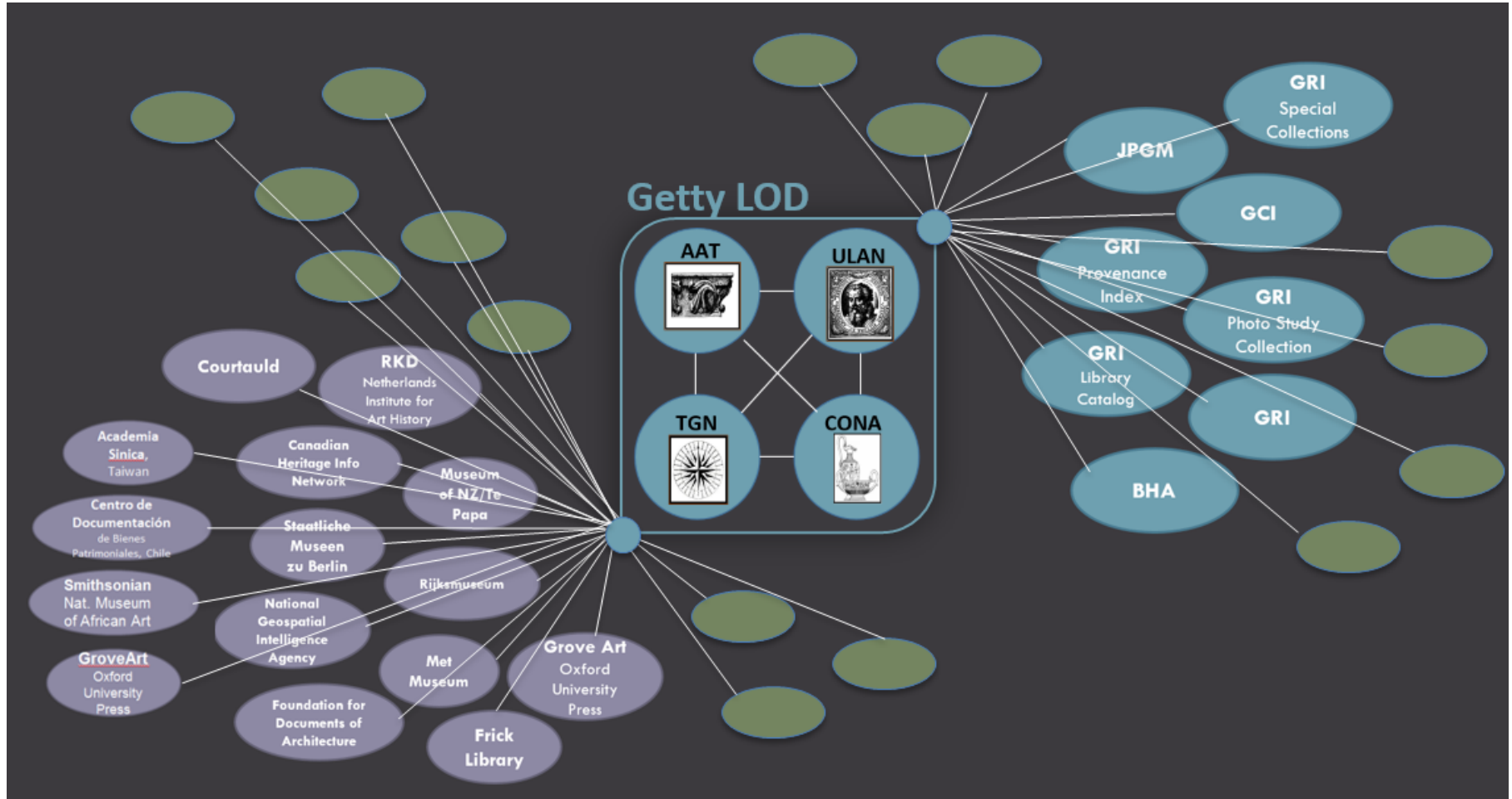
View of LOD as of October 2007
12 Datasets

LOD as of August 2014
570 Datasets



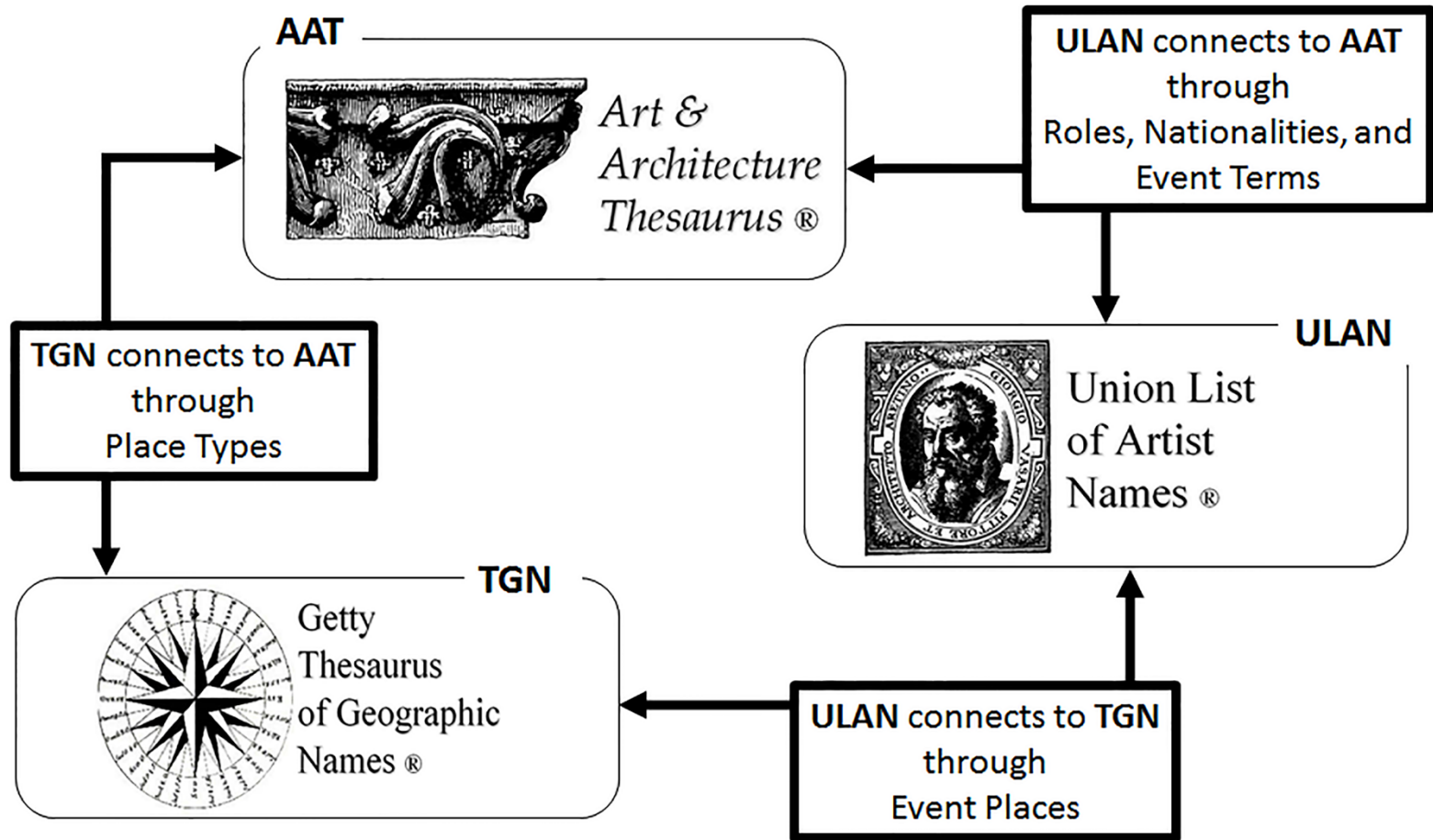
<http://lod-cloud.net/>

Our vocabularies expressed as LOD can be used to connect other resources



Linking Possibilities: Getty Vocabularies

<http://vocab.getty.edu>





The Getty Vocabularies

Welcome to the SPARQL endpoint vocab.getty.edu

The Getty Vocabularies: The AAT, TGN, ULAN, and CONA contain structured terminology for art and other material culture, archival materials, visual surrogates, and bibliographic materials. Compliant with international standards, they provide authoritative information for catalogers and researchers, and can be used to enhance access to databases and Web sites. The Getty Vocabularies are produced by the Getty Vocabulary Program (GVP) and grow through contributions.

NOW Available:



The Art & Architecture Thesaurus (AAT) ®

Catherine wheel or rose window? AAT is a structured vocabulary, including terms, descriptions, and other information for generic concepts related to art and architecture.



The Getty Thesaurus of Geographic Names (TGN) ®

London or Londinium? TGN is a structured vocabulary, including names, descriptions, and other information for places important to art and architecture.



The Union List of Artist Names (ULAN) ®

Titian or Tiziano Vecellio? ULAN is a structured vocabulary, including names, biographies, and other information about artists and architects.

Ontology Update Note: There are changes to the ontology and mapping, see [Version 2.0 Changes](#) and [Version 3.0 Changes](#).

Documentation and Downloads:

- **GVP Semantic Representation:** [HTML](#) (for linking), [PDF](#) (for printing).
Sections [GVP URLs and Prefixes](#) and [Semantic Resolution](#) describe the used URIs and provide examples. All prefixes that we use are in [prefixes.ttl](#).
Comprehensive [Sample Queries](#) are included.
- **GVP ontology:** [HTML](#), [RDF/XML](#), [Turtle](#)
- **Datasets:** (N-Triples Zip, see doc section [Export Files](#) before using!):
 - AAT: [full.zip](#) (all statements), [explicit.zip](#) (only explicit statements)
 - TGN: [full.zip](#) (all statements), [explicit.zip](#) (only explicit statements)
 - ULAN: [full.zip](#) (all statements), [explicit.zip](#) (only explicit statements)
- **VOID:** [void.ttl](#) (see doc section [Descriptive Information](#))
- **Associative Relationship Types:** Full Matrix by Codes [PDF](#)|[Excel](#)
- **General information about the [Linked Open Data](#) projects**

Explore the Dataset:

- **Text search:** Use 'AII/AAT/TGN/ULAN' to select the vocabulary. Enter either text or concept ID in the query box. Multiple words in the text are 'AND'ed. Use 'Brief' to search only

Documentation and Downloads:

- **GVP Semantic Representation:** [HTML](#) (for linking), [PDF](#) (for printing).

Sections [GVP URLs and Prefixes](#) and [Semantic Resolution](#) describe the used URIs and provide examples. All prefixes that we use are in [prefixes.ttl](#). Comprehensive [Sample Queries](#) are included.

- **GVP ontology:** [HTML](#), [RDF/XML](#), [Turtle](#)

- **Datasets:** (NTriples Zip, see doc section [Export Files](#) before using!):

- AAT: [full.zip](#) (all statements), [explicit.zip](#) (only explicit statements)
- TGN: [full.zip](#) (all statements), [explicit.zip](#) (only explicit statements)
- ULAN: [full.zip](#) (all statements), [explicit.zip](#) (only explicit statements)

- **VOID:** [void.ttl](#) (see doc section [Descriptive Information](#))

- **Associative Relationship Types:** [Full Matrix by Codes](#) [PDF](#)[Excel](#)

- **General information about the [Linked Open Data](#) projects**

Full Text Search – Brief Results



Getty Vocabularies: LOD

SPARQL

Any ▾

yute

Search

Brief ▾

Results for "yute" (6 of 6)

Subject	Term	Parents	Scope Note	Type
aat:300375512	Hibiscus cannabinus (species)	Hibiscus (genus), Malvaceae (family), ... Agents Facet	Species of fast growing herbaceous annual plant, with stalks growing to 5.5 m (18 feet) in height. It is probably native to southern Asia, though its exact natural origin is unknown. It is widely d...	Concept
aat:300014244	jute board	fiberboard, fiber products, ... Materials Facet	A strong plyboard containing no jute fiber but made typically from sulfate and wastepaper pulp, used especially for shipping containers.	Concept
aat:300014045	jute (fiber)	plant fiber, natural fiber, ... Materials Facet	Bast fiber derived from either of two East Indian plants (Corchorus olitorius and C. capsularis). The pale brown fibers are soft, lustrous, and coarse, ranging in length from 4 to 10 feet. The brit...	Concept
tgn:2786554	Yutes Run	Allegheny, Pennsylvania, ... World		PhysPlaceConcept
tgn:7475035	Yutengping	Miaoli Xian, Chung-hua Min-kuo, ... World		AdminPlaceConcept
tgn:7415324	Yuteriaica, Río	Oaxaca, México, ... World		PhysPlaceConcept

Full Text Search – Full Results



Getty Vocabularies: LOD

SPARQL

Any ▾

yute

Search

Full ▾

Results for "yute" (11 of 11)

Subject	Term	Parents	Scope Note	Type
aat:300375512	Hibiscus cannabinus (species)	Hibiscus (genus), Malvaceae (family), ... Agents Facet	Species of fast growing herbaceous annual plant, with stalks growing to 5.5 m (18 feet) in height. It is probably native to southern Asia, though its exact natural origin is unknown. It is widely d...	Concept
aat:300014076	burlap	canvas, <textile materials by process or technique>, ... Materials Facet	Coarse canvas made of jute, used mainly for sacks and wrapping.	Concept
aat:300014244	jute board	fiberboard, fiber products, ... Materials Facet	A strong plyboard containing no jute fiber but made typically from sulfate and wastepaper pulp, used especially for shipping containers.	Concept
aat:300253474	buckram	<textile materials by finishing process>, <textile materials by process or technique>, ... Materials Facet	Heavy weave cotton, jute, or linen textile stiffened with glue, size, or starch and used for interlinings in garments, box making, bookbinding, etc.	Concept
aat:300015203	oakum	caulking compound, sealing compound, ... Materials Facet	Loosely twisted hemp or jute fiber impregnated with tar or a tar derivative and used in caulking seams, as of wooden ships, and packing joints, as of pipes.	Concept
aat:300014078	canvas	<textile materials by process or technique>, textile materials, ... Materials Facet	Closely woven textile made in various weights, usually of flax, hemp, jute, or cotton, used especially for sails, tarpaulins, awnings, upholstery, and as a support for oil painting. Also used for a...	Concept
aat:300131081	oilcloth	<textile materials by finishing process>, <textile materials by process or technique>, ... Materials Facet	Textile of woven cotton, jute, or hemp, treated with oil and pigment and used as a waterproof covering.	Concept



rhyta

Source: <http://vocab.getty.edu/aat/300198841>

Subject (100 of 424)

Predicate

Object

All

Website

Hierarchy

Download in: JSON

RDF

N3/Turtle

N-Triples

Inference

Explicit and implicit

Statements in which the resource exists as a subject.

Predicate	Object
rdf:type	gvp:Concept , gvp:Subject , skos:Concept
rdfs:label	Rhyta@de , Rhyton@en , escanciadora@es , lai t'an chiu pei@zh-latn-wadegile , lai tan jiu bei@zh-latn-pinyin-x-notone , lái tǎn jiǔ bēi@zh-latn-pinyin-x-hanyu , rhea (vessels)@en , rheon@en , rheons@en , rhyta@es , rhyta@el-latn , rhyta@en , rhyton@es , rhyton@en , rhyton@el-latn , rhytons@es , rhytons@en , rhytons@fr , rhútón@grc-latn , riton@fr , ritons@fr , ritón@es , ritóns@es , ryton@nl , rytons@nl , ρυτόν@grc , 莱坦酒杯@zh-hant , 角杯@zh-hant , 角状杯@zh-hant
rdfs:seeAlso	http://www.getty.edu/vow/AATFullDisplay?find=&logic=AND&note=&subjectid=300198841
dcterms:contributor	aat_contrib:10000000 , aat_contrib:10000088 , aat_contrib:10000131 , aat_contrib:10000205 , aat_contrib:10000250
skos:scopeNote	aat_scopeNote:119579 , aat_scopeNote:119580 , aat_scopeNote:34904 , aat_scopeNote:77124 , aat_scopeNote:83378
skos:inScheme	aat
skos:prefLabel	Rhyta@de , lai t'an chiu pei@zh-latn-wadegile , lai tan jiu bei@zh-latn-pinyin-x-notone , lái tǎn jiǔ bēi@zh-latn-pinyin-x-hanyu , rhyta@el-latn , rhyta@en , rhytons@es , rhytons@fr , rytons@nl , 莱坦酒杯@zh-hant
skos:altLabel	Rhyton@en , escanciadora@es , lái tǎn jiǔ bēi@zh-latn-pinyin-x-hanyu , rhea (vessels)@en , rheon@en , rheons@en , rhyta@es , rhyton@es , rhyton@en , rhyton@el-latn , rhytons@en , rhútón@grc-latn , riton@fr , ritons@fr , ritón@es , ritóns@es , ryton@nl , ρυτόν@grc , 角杯@zh-hant , 角状杯@zh-hant
skos:note	aat_scopeNote:34904 , aat_scopeNote:77124 , aat_scopeNote:83378 , aat_scopeNote:119579 , aat_scopeNote:119580 , aat_rev:5000057716 , aat_rev:5001147623 , aat_rev:5001147624 , aat_rev:5001147625 , aat_rev:5001147626 , aat_rev:5001147627 , aat_rev:5001147628 , aat_rev:5001147629 , aat_rev:5001504912 , aat_rev:5001504913 , aat_rev:5001692934 , aat_rev:5001693073 , aat_rev:5001693074 , aat_rev:5001708327 , aat_rev:5001708329



1.2.1	Version 3.0
1.2.2	Version 3.1
1.2.3	Version 3.2
1.2.4	Version 3.3
2	Finding Subjects
2.1	Top-level Subjects
2.2	Descendants of a Given Parent
2.3	Subjects by Contributor Id
2.4	Subjects by Contributor Abbrev
2.5	Preferred Ancestors
2.6	Full Text Search Query
2.7	Case-insensitive Full Text Search Query
2.8	Exact-Match Full Text Search Query
2.9	Find Person Occupations by broaderExtended
2.10	Find Person Occupations by Double FTS
2.11	Find Quartz Timepieces by Double FTS
2.12	Find Subject by Exact English PrefLabel
2.13	Find Subject by Language-Independent PrefLabels
2.14	Combination Full-Text and Exact String Match
2.15	Find Subject by Any Label
2.16	Find Ordered Subjects
2.17	Find Ordered Collections
2.18	Get Subjects in Order
2.19	Find Contributors by Vocabulary
2.20	Find Sources by Vocabulary
3	Getting Information
3.1	All Data For Subject
3.2	All Data for Terms of Subject
3.3	Subject Preferred Label
3.4	Preferred and Vernacular Terms
3.5	Historic Information on Relations
3.6	Historic Information of Terms
3.7	Preferred Terms for Contributors
3.8	Preferred Terms for Sources
3.9	Concepts Related by Particular Associative Relation
3.10	Recently Created Subjects
3.11	Recently Modified Subjects
3.12	Recent Revision Actions
3.13	OpenRefine Reconciliation Service
3.14	Smart Resource Title
4	TGN-Specific Queries
4.1	Places by Type

Query:

```

1 select ?Subject ?Term ?Parents ?Descr ?ScopeNote ?Type (coalesce(?Type1,?Type2) as ?ExtraType) {
2   ?Subject luc:term "fishing* AND vessel*"; a ?typ.
3   ?typ rdfs:subClassOf gvp:Subject; rdfs:label ?Type.
4   filter (?typ != gvp:Subject)
5   optional {?Subject gvp:placeTypePreferred [gvp:prefLabelGVP [xl:literalForm ?Type1]]}
6   optional {?Subject gvp:agentTypePreferred [gvp:prefLabelGVP [xl:literalForm ?Type2]]}
7   optional {?Subject gvp:prefLabelGVP [xl:literalForm ?Term]}
8   optional {?Subject gvp:parentStringAbbrev ?Parents}
9   optional {?Subject foaf:focus/gvp:biographyPreferred/schema:description ?Descr}
10  optional {?Subject skos:scopeNote [dct:language gvp_lang:en; rdf:value ?ScopeNote]}

```

 Include inferred Expand results over equivalent URIs

Submit

OPTIONAL {?parent gvp:broaderPreferred ?grandParent}}

2.6 Full Text Search Query

This is the query used for the [Full Text Search](#).

```

select ?Subject ?Term ?Parents ?Descr ?ScopeNote ?Type (coalesce(?Type1,?Type2) as ?ExtraType) {
  ?Subject luc:term "fishing* AND vessel*"; a ?typ.
  ?typ rdfs:subClassOf gvp:Subject; rdfs:label ?Type.
  filter (?typ != gvp:Subject)
  optional {?Subject gvp:placeTypePreferred [gvp:prefLabelGVP [xl:literalForm ?Type1]]}
  optional {?Subject gvp:agentTypePreferred [gvp:prefLabelGVP [xl:literalForm ?Type2]]}
  optional {?Subject gvp:prefLabelGVP [xl:literalForm ?Term]}
  optional {?Subject gvp:parentStringAbbrev ?Parents}
  optional {?Subject foaf:focus/gvp:biographyPreferred/schema:description ?Descr}
  optional {?Subject skos:scopeNote [dct:language gvp_lang:en; rdf:value ?ScopeNote]}

```

- If the user selected **Brief**, we use predicate luc:term (just before the red text), for **Full**, we use predicate luc:text
- If the user selected only one of the vocabularies (e.g. AAT), we add a clause like

```
?subject skos:inScheme aat:
```

The following result columns are included:

- Subject
- GVP preferred Term
- Abbreviated Parent string

Two field pairs that the FTS concatenates (if present):

- Description (ULAN one-line biography) and

SPARQL Query Using AAT to Find TGN Data

Get all nations from TGN for a lookup list:

Find “Nation” concept in AAT -> 300128207

Query LOD -> `select * {?s gvp:placeType aat:300128207;
gvp:prefLabelGVP/xl:literalForm ?pTerm}`



Getty Vocabularies: LOD

SPARQL

Queries

Any ▾

Search...

Search

Brief ▾

Results: (200 of 214)

Download SPARQL Results in: [JSON](#) | [XML](#) | [CSV](#) | [TSV](#)

s	pTerm
tgn:8697459	Republic of China
tgn:7000490	Australia@en
tgn:7005668	Belau@pau
tgn:7016612	Afghānestān@prs-latn
tgn:1000009	Antigua and Barbuda@en
tgn:1000220	Federated States of Micronesia@en
tgn:7000493	Fiji@en

What do the artists of these works of art have in common?



Joseph Heintz, the elder
The Toilette of Venus

Robert Macpherson
The Campagna near Rome



Jean-Honoré Fragonard
Ruins of an Imperial Palace, Rome



All three were active in Italy but were not Italian.

SPARQL Query

```
select ?x ?name ?bio ?birth {
  {select distinct ?x
   {?x foaf:focus/bio:event/(schema:location | (schema:location/gvp:broaderExtended)) tgn:1000080-place}}
  ?x gvp:prefLabelGVP/xl:literalForm ?name;
  foaf:focus/gvp:biographyPreferred [
    schema:description ?bio;
    gvp:estStart ?birth].
  filter ("1550"^^xsd:gYear <= ?birth && ?birth <= "1900"^^xsd:gYear)
  filter exists {?x gvp:broaderExtended ?facet.
    filter (?facet in (ulan:500000002))}
  filter not exists {
    ?x foaf:focus/(schema:nationality | (schema:nationality/gvp:broaderExtended)) aat:300111198}}
```

Participated in an event
that took place in Italy

In the
Person, Artist Facet

Nationality is
NOT Italian

- Just one of the ways to get interesting results using all three vocabularies.
- The full URIs are:
 - Italy: <http://vocab.getty.edu/tgn/1000080-place>
 - Person, Artists facet: <http://vocab.getty.edu/ulan/500000002>
 - Italian (culture or style): <http://vocab.getty.edu/aat/300111198>



Vocabularies Reconciliation

- ▶ Reconciliation is the process of connecting local data to vocabulary concepts/people/places
- ▶ OpenRefine (openrefine.org) is a tool for cleaning, transforming and extending data with web services and external data
- ▶ Getty Vocabularies sample queries for using OpenRefine:
http://vocab.getty.edu/queries#OpenRefine_Reconciliation_Service



- [2.16 Find Subject by Any Label](#)
- [2.17 Find Ordered Subjects](#)
- [2.18 Find Ordered Collections](#)
- [2.19 Get Subjects in Order](#)
- [2.20 Find Contributors by Vocabulary](#)
- [2.21 Find Sources by Vocabulary](#)
- 3 Getting Information**
 - [3.1 All Data For Subject](#)
 - [3.2 All Data for Terms of Subject](#)
 - [3.3 Subject Preferred Label](#)
 - [3.4 Preferred and Vernacular Terms](#)
 - [3.5 Historic Information on Relations](#)
 - [3.6 Historic Information of Terms](#)
 - [3.7 Preferred Terms for Contributors](#)
 - [3.8 Preferred Terms for Sources](#)
 - [3.9 Concepts Related by Particular Associative Relation](#)
 - [3.10 Recently Created Subjects](#)
 - [3.11 Recently Modified Subjects](#)
 - [3.12 Recent Revision Actions](#)
 - 3.13 OpenRefine Reconciliation Service**
 - [3.14 Smart Resource Title](#)
- 4 TGN-Specific Queries**
 - [4.1 Places by Type](#)
 - [4.2 Places with English or GVP Label](#)
 - [4.3 Places by Direct and Hierarchical Type](#)
 - [4.4 Breakdown of Sovereign States by Type](#)
 - [4.5 Inhabited Places That Were Sovereign States](#)
 - [4.6 Places by Type and Parent Place](#)
 - [4.7 Places by Type with placeTypePreferred](#)
 - [4.8 Places by Triple FTS](#)
 - [4.9 Places by FTS Parents](#)
 - [4.10 Capitals by Association](#)
 - [4.11 Members of the European Union](#)

Query:

1

3.13 OpenRefine Reconciliation Service

[OpenRefine](#) (formerly Google Refine) is a popular and powerful tool for working with messy tabular data: cleaning it; transforming it (including to LOD); extending it with web services; linking it to structured databases. It was originally used for populating Freebase, then open sourced by Google. DERI created some [useful extensions](#): Reconcile & interlink, Export RDF. [LODRefine](#) is a repackaging of these extensions, adding reconciliation against DBpedia, Crowd-sourcing, and Statistics. It was popularized for use by GLAM professionals by Ruben Verborgh, Seth Holland and Max De Wilde through the sites <http://openrefine.org/> and <http://freeyourmetadata.org/>.

A [question has been asked](#) whether GVP LOD can be used as an OpenRefine reconciliation service. The DERI extension includes a "SPARQL full-text search-based Reconciliation" that unfortunately cannot be used, because there's no way to specify that the `luc:term` index should be used (see [issue/33](#)). Nevertheless, one can use the GVP SPARQL service by querying for a fixed label (similar to [Find Subject by Exact English PrefLabel](#)), getting JSON format and parsing the result. Inge van Stokkom of the Rijksmuseum [worked out a detailed solution](#). We reproduce it here with a few changes. Assume you have NL labels and you want to look them up in AAT and fetch the AAT identifier and the EN `prefLabelGVP`:

- Create a column by fetching a URL based on the column that contains the terms

```
'http://vocab.getty.edu/sparql.json?query=select+distinct*{?x+skos:inScheme+aat::(xl:prefLabel|xl:altLabel)/gvp:term'' + escape(value, 'url') + '@nl}'
```

- Parse the JSON to obtain the URL:

```
value.parseJson().results.bindings[0].x.value
```

- Parse the identifier out of the URL by adding a column based on this column:

```
value[27,37]
```

- Use another query to fetch `prefLabelGVP`:

```
'http://vocab.getty.edu/sparql.json?query=select*where{?x+gvp:prefLabelGVP[skosxl:literalForm?label];dc:identifier'' + escape(value, 'url') + '@nl}'
```

- Parse the JSON to obtain the label:

```
value.parseJson().results.bindings[0].label.value
```

See [Combination Full-Text and Exact String Match](#) for another variant of a query that may work better for reconciliation.

OpenRefine Example

The screenshot shows the OpenRefine web interface. At the top, the browser address bar shows '127.0.0.1:3333'. The OpenRefine logo and tagline 'A power tool for working with messy data.' are visible. The main area displays a project named 'TMSFields.xlsx' with a table of data. The table has three columns: 'Column 1', 'Column 2', and 'Column 3'. The data rows are numbered 1 through 12. Below the table, there is a 'Parse data as' section with various file format options. The 'Excel files' option is selected. To the right of the file format options, there are settings for 'Worksheets to Import' (Sheet1, 546 rows) and checkboxes for 'Ignore first', 'Parse next', 'Discard initial', and 'Load at most' lines. On the far right, there are checkboxes for 'Store blank rows', 'Store blank cells as nulls', and 'Store file source'. An 'Update Preview' button is located at the bottom right of the parsing options section. On the left side, there is a sidebar with navigation options: 'Create Project', 'Open Project', 'Import Project', and 'Language Settings'. At the bottom left, there is a version number 'Version 2.6-rc2 [TRUNK]' and links for 'Help' and 'About'.

	Column 1	Column 2	Column 3
1.	Sling-bullets		1551880
2.	Finials	Art & Architecture Thesaurus®	1551895
3.	Scaraboids		1551845
4.	Architraves	Art & Architecture Thesaurus®	1551851
5.	Xylophones	Art & Architecture Thesaurus®	1551862
6.	Ephemera	Art & Architecture Thesaurus®	1547300
7.	Akroteria	Beazley Archive Dictionary	1547799
8.	Chalices	GettyGuide glossary term	1551735
9.	Staters	Art & Architecture Thesaurus®	1551749
10.	Medallions	GettyGuide glossary term	1551779
11.	Sestertii	Art & Architecture Thesaurus®	1551796
12.	Herde		1551798

Parse data as

Excel files (selected)

Worksheets to Import: Sheet1 546 rows

Ignore first 0 line(s) at beginning of file

Parse next 1 line(s) as column headers

Discard initial 0 row(s) of data

Load at most 0 row(s) of data

Store blank rows

Store blank cells as nulls

Store file source (file names, URLs) in each row

Update Preview

Version 2.6-rc2 [TRUNK]

Help
About

OpenRefine Example

The screenshot shows the OpenRefine web interface. The browser address bar displays `127.0.0.1:3333/project?project=1844835252820`. The page title is "Refine TMSFields.xlsx". A modal dialog box is open, titled "Add column by fetching URLs based on column Column 1".

Dialog Box Details:

- New column name:**
- Throttle delay:** milliseconds
- On error:** set to blank store error
- Formulate the URLs to fetch:**
 - Expression:** `'http://vocab.getty.edu/sparql.json?query=select+distinct*{?x+skos:inScheme+aat; (xl:prefLabel|xl:altLabel)/gvp:term"' + escape(toLowercase(trim(value)), 'url') + "'@en}'`
 - Language:** General Refine Expression Language (GREL)
 - Status:** No syntax error.
- Preview:**

row	value	URL
		<code>'http://vocab.getty.edu/sparql.json?query=select+distinct*{?x+skos:inScheme+aat; (xl:prefLabel xl:altLabel)/gvp:term"' + escape(toLowercase(trim(value)), 'url') + "'@en}'</code>
1.	Sling-bullets	<code>http://vocab.getty.edu/sparql.json?query=select+distinct*{?x+skos:inScheme+aat; (xl:prefLabel xl:altLabel)/gvp:term"sling-bullets"@en}</code>
2.	Finials	<code>http://vocab.getty.edu/sparql.json?query=select+distinct*{?x+skos:inScheme+aat; (xl:prefLabel xl:altLabel)/gvp:term"finials"@en}</code>
3.	Scaraboids	<code>http://vocab.getty.edu/sparql.json?query=select+distinct*{?x+skos:inScheme+aat; (xl:prefLabel xl:altLabel)/gvp:term"scaraboids"@en}</code>

Buttons: OK, Cancel

Facet / Filter

Undo / Redo 7

25 rows

Show as: rows records

Show: 5 10 25 50 rows

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](#)

<input type="checkbox"/> All	<input type="checkbox"/> Column 1	<input type="checkbox"/> Reconcile1	<input type="checkbox"/> Column 2
<input type="checkbox"/> <input type="checkbox"/>	1.	Sling-bullets	
<input type="checkbox"/> <input type="checkbox"/>	2.	Finials	http://vocab.getty.edu/aat/300002280 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	3.	Scaraboids	http://vocab.getty.edu/aat/300265272
<input type="checkbox"/> <input type="checkbox"/>	4.	Architraves	http://vocab.getty.edu/aat/300001780 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	5.	Xylophones	http://vocab.getty.edu/aat/300041976 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	6.	Ephemera	http://vocab.getty.edu/aat/300028881 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	7.	Akroteria	Beazley Archive Dictionary
<input type="checkbox"/> <input type="checkbox"/>	8.	Chalices	http://vocab.getty.edu/aat/300194762 GettyGuide glossary term
<input type="checkbox"/> <input type="checkbox"/>	9.	Staters	http://vocab.getty.edu/aat/300191666 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	10.	Medallions	http://vocab.getty.edu/aat/300077357 GettyGuide glossary term
<input type="checkbox"/> <input type="checkbox"/>	11.	Sestertii	http://vocab.getty.edu/aat/300037270 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	12.	Hecte	
<input type="checkbox"/> <input type="checkbox"/>	13.	Cistophori	http://vocab.getty.edu/aat/300191362 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	14.	Wreaths	http://vocab.getty.edu/aat/300220784 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	15.	Gum Bichromate	http://vocab.getty.edu/aat/300053501 Looking at Photographs: A Guide to Technic
<input type="checkbox"/> <input type="checkbox"/>	16.	Landscapes	http://vocab.getty.edu/aat/300008626 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	17.	Situlai	http://vocab.getty.edu/aat/300198870 GettyGuide glossary term
<input type="checkbox"/> <input type="checkbox"/>	18.	Barometers	http://vocab.getty.edu/aat/300195808 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	19.	Photographs	http://vocab.getty.edu/aat/300046300 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	20.	Epistolaries	http://vocab.getty.edu/aat/300026465 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	21.	Kalpides	http://vocab.getty.edu/aat/300198846 GettyGuide glossary term
<input type="checkbox"/> <input type="checkbox"/>	22.	Law Books	
<input type="checkbox"/> <input type="checkbox"/>	23.	Breastplates	http://vocab.getty.edu/aat/300036753 Art & Architecture Thesaurus®
<input type="checkbox"/> <input type="checkbox"/>	24.	Cups and Saucers	GettyGuide
<input type="checkbox"/> <input type="checkbox"/>	25.	Distemper on linen	GettyGuide glossary term



Art & Architecture Thesaurus® Online

Search Results

[New Search](#)

[Previous Page](#)

[Help](#)

Find Name: **Akroteria**

Logic:

Note:


1 result

[View Selected Records](#)

[Select All Records](#)

[Clear All](#)

[First](#) [Previous](#) [Next](#) [Last](#)
Page: 1

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


-  **acroteria**
(<culminating and edge ornaments for architectural>, architectural elements, ... Components
(hierarchy name)) [300002214]
Akroteria

[New Search](#)

[First](#) [Previous](#) [Next](#) [Last](#)
Page: 1

ID: 300002214

Record Type: concept

 **acroteria** (<culminating and edge ornaments for architectural>, architectural elements, ... Components (hierarchy name))

Note: The figures or ornaments at the lower angles or apex of a pediment, generally supported on plinths.

Terms:

acroteria (preferred,C,U,LC,English-P,D,U,PN)

acroterion (C,U,English,AD,U,SN)

acroterium (C,U,English,UF,U,N)

acroters (C,U,English,UF,U,N)

平底三角牆頂飾底 (C,U,Chinese (traditional)-P,D,U,U)

三角楣頂屋頂雕像 (C,U,Chinese (traditional),UF,U,U)

三角楣頂雕像底座 (C,U,Chinese (traditional),UF,U,U)

雕刻飾物 (C,U,Chinese (traditional),UF,U,U)

脊頭 (C,U,Chinese (traditional),UF,U,U)

山牆飾物底座 (C,U,Chinese (traditional),UF,U,U)

píng dǐ sān jiǎo qiáng dǐng shì dǐ (C,U,Chinese (transliterated Hanyu Pinyin)-P,UF,U,U)

ping di san jiao qiang ding shi di (C,U,Chinese (transliterated Pinyin without tones)-P,UF,U,U)

p'ing ti san chiao ch'iang ting shih ti (C,U,Chinese (transliterated Wade-Giles)-P,UF,U,U)

acroteriën (C,U,Dutch-P,D,U,U)

Akroterien (C,U,German,D,PN)

Akroterion (C,U,German-P,AD,SN)

Akroter (C,U,German,UF,SN)

Akrotere (C,U,German,UF,PN)

Akroteren (C,U,German,UF,PN)

Akroteria (C,U,German,UF,PN)

acróteras (C,U,Spanish-P,D,U,PN)

acrótera (C,U,Spanish,AD,U,SN)

acroterio (C,U,Spanish,AD,U,SN)

acrotera (C,U,Spanish,UF,U,SN)

Community Support Forum

NEW TOPIC



Help

Shared publicly

31 of many topics

We hope the community will use this [gettyvocablod](#) forum to ask questions, discuss issues, and find solutions related to the technical aspects of this publication. Usage examples are especially welcome.



Welcome to our community discussio... announcement
By Getty Vocabularies LOD - 1 post - 75 views 6/11/15



Why ISO-8859-1 c... content-negotiation encoding sparql
By Christopher Johnson - 7 posts - 18 views Apr 10



large results download limits performance sparql ulan
By Matthew Lincoln - 2 posts - 22 views Mar 8



Getty vocabulary in S... sparql usage-story visualization
By Sandor Kopacsi - 13 posts - 69 views Feb 19



Getting more data out of ULAN sparql ulan
By Vladimir Alexiev - 3 posts - 50 views Jan 31



ULAN Import Error Completed ulan
By Nabeel Ahmed - 2 posts - 18 views Jan 13



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By Ykje - 3 posts - 23 views 12/22/15



Help with a query ulan
By Karan - 2 posts - 25 views 12/22/15



Wrongly merged biographies
By Gabriel Kerneis - 2 posts - 13 views 12/15/15

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pelias/pelias

pelias - Pelias is a modular open-source geocoder using ElasticSearch for fast geocoding.
[github.com](#)



21 May



Who's On First @alloftheplaces

you know / just indexing a copy @thegetty's

Embed

[View on Twitter](#)

Some Useful Resources and Links

Tim Berners-Lee TED Talk

- http://www.ted.com/talks/tim_berniers_lee_the_year_open_data_went_worldwide.html

Europeana Video

- Sometimes a picture is worth a thousand words – in this case, it's a video
- <http://vimeo.com/36752317>

Eero Hyvönen's book

- *Publishing and Using Cultural Heritage Linked Data on the Semantic Web*

Linked Open Data in Libraries Archives and Museums (LODLAM)

- <http://lodlam.net/>

Open Memory Project

- <http://summit2015.lodlam.net/2015/04/21/challenge-entry-open-memory-project>

Links to Vocabularies Resources

Developer SPARQL Endpoint

<http://vocab.getty.edu>

General Information about our LOD project

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

About the Getty Vocabularies in general

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

Public Forum

<https://groups.google.com/forum/#!forum/gettyvocablod>

Examples of ID 300198841

Human readable: <http://vocab.getty.edu/page/aat/300198841>

Machine readable: <http://vocab.getty.edu/aat/300198841>