

Getty Vocabularies – ITWG Technical Update

Gregg Garcia
Software Architect, Getty Digital

Getty Vocabularies Publications and Services

Full XML and Tab-delimited Relational Tables

- <http://www.getty.edu/research/tools/vocabularies/obtain/download.html>
- Now published with monthly update to Vocabs web site and LOD site
- License or login no longer required

Vocabulary Web Site

- <http://www.getty.edu/research/tools/vocabularies/>
- Human-readable search, hierarchy and full-record display

Legacy XML Web Services

- http://www.getty.edu/research/tools/vocabularies/vocab_web_services.pdf
- License or login no longer required

Linked Data with SPARQL Endpoint

- <http://vocab.getty.edu>
- Vocabularies modeled in SKOS and Schema.org

Reconciliation Service for OpenRefine

- <http://services.getty.edu/vocab/reconcile/>
- Accessible using OpenRefine tool or HTTP GET

Projects Completed Since the Last ITWG

AAT Translation Loads

- 2612 Chinese translated records from Academica Sinica, 14921 French translated new and existing records from the Canadian Heritage Information Network, 463 Italian translated records from Biblioteca dell'Accademia, 1202 translated records and 80 new records from the Netherlands Institute for Art History

Reconciliation Service for OpenRefine

- Search service for matching terms/names/places with Vocab IDs using a robust visual tool
- Use of OpenRefine for processing contributor data

Provenance-ULAN Person Alignment Project

- People from Getty Provenance Index loaded and reconciled with ULAN as a precursor to all Getty data sets being combined in the Linked.Art model

Development of Linked.Art Vocabularies Profile

- AAT/TGN/ULAN described with simple CRM patterns
- Creation of data pipelines that feed an overall Getty data infrastructure

Vocabularies Linked.Art Profile Preview

New LOD Profile Preview (AAT)

```
{
  "@context": "https://linked.art/ns/v1/linked-art.json",
  "id": "http://vocab.getty.edu/aat/300198841",
  "type": "Type",
  "subject_of": [
    {
      "id": "http://vocab.getty.edu/aat/scopeNote/137203",
      "type": "LinguisticObject",
      "content": "Verweist auf ein Gef\u00e4\u00df aus dem antiken Griechenland, Osteuropa oder dem Mittleren Osten, das typischerweise eine geschlossene Form mit zwei \u00d6ffnungen hat, eine auf der Oberseite zum Einf\u00fcllen, eine auf der Unterseite, damit die Fl\u00fcssigkeit herauslaufen kann. Es hat oft die Form eines Horns oder Tierkopfes und wurde typischerweise als Trinkgef\u00e4\u00df oder zum Ausgie\u00dfen von Wein in ein anderes Gef\u00e4\u00df benutzt. Getrunken wurde, indem das Rhyton \u00fcber den Kopf des Trinkenden gehalten und die Fl\u00fcssigkeit mit dem Mund aufgefangen wurde.",
      "classified_as": [
        {
          "id": "http://vocab.getty.edu/aat/300435416",
          "type": "Type",
          "_label": "descriptive note"
        }
      ]
    },
    {
      "id": "http://vocab.getty.edu/aat/300198841#description-300198841-contributor-10000232",
      "type": "Name",
      "content": "Staatliche Museen zu Berlin Preussischer Kulturbesitz (Berlin, Germany)",
      "identifies": "http://vocab.getty.edu/aat/contrib/10000232",
      "classified_as": [
        {
          "id": "http://vocab.getty.edu/aat/300403974",
          "type": "Type",
          "_label": "contributors"
        }
      ]
    }
  ],
  "referred_to_by": [
    {
      "id": "http://vocab.getty.edu/aat/300198841#description-300198841-source-2000084808",
      "type": "Name",
      "content": "Institut f\u00fcr Museumsforschung",
      "identifies": "http://vocab.getty.edu/aat/source/2000084808",
      "classified_as": [
        {
          "id": "http://vocab.getty.edu/aat/300311936",
          "type": "Type",
          "_label": "primary sources"
        }
      ]
    }
  ],
  "language": [
    {
      "id": "http://vocab.getty.edu/language/de",
      "type": "Language",
      "_label": "de"
    }
  ]
},
```

New LOD Profile Preview (AAT)

```
{
  "id": "http://vocab.getty.edu/aat/term/1000298877-en",
  "type": "Name",
  "alternative": [
    {
      "id": "http://vocab.getty.edu/aat/300033618#qualified-1000298877-en",
      "type": "Name",
      "content": "painting (visual work)",
      "language": [
        {
          "id": "http://vocab.getty.edu/language/en",
          "type": "Language",
          "_label": "en"
        }
      ]
    }
  ],
  "content": "painting",
  "classified_as": [
    {
      "id": "http://vocab.getty.edu/term/POS/SingularNoun",
      "type": "Type",
      "_label": "Singular Noun"
    },
    {
      "id": "http://vocab.getty.edu/term/type/AlternateDescriptor",
      "type": "Type",
      "_label": "Alternate Descriptor"
    }
  ],
  "referred_to_by": [
    {
      "id": "http://vocab.getty.edu/aat/300033618#term-1000298877-contributor-10000000",
      "type": "Name",
      "content": "Getty Vocabulary Program",
      "identifies": "http://vocab.getty.edu/aat/contrib/10000000",
      "classified_as": [
        {
          "id": "http://vocab.getty.edu/aat/300403974",
          "type": "Type",
          "_label": "contributors"
        }
      ]
    }
  ],
}
```

New LOD Profile Preview (AAT)



Art & Architecture Thesaurus

Home Search About Language: English

rhyta

[Download concept as JSON](#) [Show API](#)

Unique ID: [Copy Link](#)

Concept Descriptions

Notes that describe a concept and clarify its meaning within the context of the AAT.

[Chinese \(traditional\)](#) [Dutch](#) [English](#) [German](#) [Spanish](#)

Vessels from Ancient Greece, eastern Europe, or the Middle East that were typically made as 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.

New LOD Profile Preview (AAT)

Concept Descriptions

Notes that describe a concept and clarify its meaning within the context of the AAT.

Chinese (traditional)

Dutch

English

German

Spanish

Vessels from Ancient Greece, eastern Europe, or the Middle East that were typically made as 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.

Sources:

Encyclopædia Britannica. Britannica Online. Chicago: Encyclopædia Britannica, Inc., 2002-. <http://www.eb.com/> (1 July 2002).

J. Paul Getty Museum. [online] Los Angeles: J. Paul Getty Trust, 2000-. <http://www.getty.edu/art/collections/> (1 January 2003).

Contributors:

Getty Vocabulary Program

<http://vocab.getty.edu/aat/scopeNote/34904>

New LOD Profile Preview (AAT)

Concept Descriptions

Notes that describe a concept and clarify its meaning within the context of the AAT.

Chinese (traditional) Dutch English German Spanish

Vessels from Ancient Greece, eastern Europe, or the Middle East that were typically made as 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.

Sources:

J. Paul Getty Museum. [online] Los Angeles: J. Paul Getty Trust, 2000-.
<http://www.getty.edu/art/collections/> (1 January 2003).

Encyclopædia Britannica. Britannica Online. Chicago: Encyclopædia Britannica, Inc., 2002-.
<http://www.eb.com/> (1 July 2002).

Contributors:

Each object within the *subject_of* array is a single term used to describe this concept. They follow the *Linked Art Linguistic Object* pattern. Expand

They each may have one or more *referred_to_by* blocks, each of which is another Linguistic Object. These are *classified_as* various types, and more information about the type URLs can be found in the *uses_terms* section below.

```
"subject_of": [
  {
    "id": "http://vocab.getty.edu/aat/scopeNote/34904",
    "type": "LinguisticObject",
    "value": "Vessels from Ancient Greece, eastern Europe",
    "language": "en",
    "referred_to_by": [
      {
        "id": "http://vocab.getty.edu/aat/300198841#des",
        "type": "Name",
        "value": "Getty Vocabulary Program",
        "identifies": "http://vocab.getty.edu/aat/contr",
        "classified_as": [
          "http://vocab.getty.edu/aat/300403974"
        ]
      }
    ]
  },
]
```

New LOD Profile Preview (AAT)

Terms for this Concept

Words or phrases that represent the concept. Each comes with information like language and source to help guide selection of the appropriate term.

+ ῥυτόν (Ancient Greek)	Type of Term: Used for Term
+ rhútón (Ancient Greek (transliterated))	Type of Term: Used for Term
+ 莱坦酒杯 (Chinese (traditional))	Type of Term: Descriptor
+ 角杯 (Chinese (traditional))	Type of Term: Used for Term
+ 角状杯 (Chinese (traditional))	Type of Term: Used for Term
+ lái tǎn jiǔ bēi (Chinese (transliterated Hanyu Pinyin))	Type of Term: Used for Term
+ lái tǎn jiǔ bēi (Chinese (transliterated Hanyu Pinyin))	Type of Term: Used for Term
+ lai tan jiu bei (Chinese (transliterated Pinyin without tones))	Type of Term: Used for Term
+ lai t'an chiu pei (Chinese (transliterated Wade-Giles))	Type of Term: Used for Term
+ ryton (Dutch)	Type of Term: Alternate Descriptor
+ rytons (Dutch)	Type of Term: Descriptor
- rhyta (English)	Type of Term: Descriptor Part of Speech: Plural Noun

New LOD Profile Preview (AAT)

— **rhyta** (English) Type of Term: **Descriptor** | Part of
Speech: **Plural Noun**

Sources:

CDMARC Subjects: Library of Congress Subject Headings. Washington, DC: Library of Congress, Cataloging Distribution Service, 1988-. Quarterly, with each issue cumulative.

Encyclopædia Britannica. Britannica Online. Chicago: Encyclopædia Britannica, Inc., 2002-. <http://www.eb.com/> (1 July 2002).

Boardman, John. El Arte Griego. Barcelona: Destino, 1996.

Contributors:

Getty Conservation Institute, The Getty Center (Los Angeles, California)

Getty Vocabulary Program

Centro de Documentación de Bienes Patrimoniales (Dirección de Bibliotecas, Archivos y Museos; Santiago, Chile)

<http://vocab.getty.edu/aat/term/1000198841>

```
"identifies": "http://vocab.getty.edu/aat/cont",
"classified_as": [
  "http://vocab.getty.edu/aat/300403974"
]
},
{
  "id": "http://vocab.getty.edu/aat/300198841#ter",
  "type": "Name",
  "value": "TAA: Tesouro de Arte & Arquitectura.",
  "identifies": "http://vocab.getty.edu/aat/sourc",
  "classified_as": [
    "http://vocab.getty.edu/aat/300311936"
  ]
}
],
{
  "id": "http://vocab.getty.edu/aat/term/1000589084-z",
  "type": "Name",
  "value": "角杯",
  "language": "zh-hant",
  "classified_as": [
    "http://vocab.getty.edu/term/type/UsedForTerm"
  ],
  "referred_to_by": [
    {
```

Activity Streams

```
{
  "@context": "https://www.w3.org/ns/activitystreams",
  "summary": "The Getty Vocabularies Activity Stream",
  "type": "OrderedCollection",
  "id": "http://vocabgateway.getty.edu/activity-stream/aat/page/549",
  "startIndex": 1,
  "totalItems": 54830,
  "totalPages": 549,
  "maxPerPage": 100,
  "partOf": {
    "id": "http://vocabgateway.getty.edu/activity-stream/",
    "type": "OrderedCollection"
  },
  "first": {
    "id": "http://vocabgateway.getty.edu/activity-stream/aat/page/1",
    "type": "OrderedCollectionPage"
  },
  "last": {
    "id": "http://vocabgateway.getty.edu/activity-stream/aat/page/549",
    "type": "OrderedCollectionPage"
  },
  "previous": {
    "id": "http://vocabgateway.getty.edu/activity-stream/aat/page/548",
    "type": "OrderedCollectionPage"
  },
}
```

```
"orderedItems": [
  {
    "@context": "https://www.w3.org/ns/activitystreams",
    "partOf": {
      "id": "https://vocabgateway.getty.edu/activity-stream",
      "type": "OrderedCollection"
    },
    "id": "http://vocabgateway.getty.edu/activity-stream/aat/787d56",
    "type": "Create",
    "actor": null,
    "object": {
      "id": "http://vocab.getty.edu/aat/300000572",
      "type": "Type"
    },
    "created": "1988-01-01T00:00:00",
    "updated": "2013-03-29T10:01:49",
    "published": "2020-01-09T13:59:22"
  },
]
```

Goals for Vocabularies Tech Projects

Better Support for Developers

- New online Linked.Art profile in JSON-LD with a clear visualization and documentation

Reconciliation Service Upgrade

- Data additions/corrections for better search
- Implement data extension API
- Improvements to search algorithm (boost results based on number of contributors and sources, 'noted' places, normalization)
- Consider other search types (roles, terms, nations, etc.)

More Co-referencing

- VIAF, Wikidata, CHIN

New Infrastructure for Vocab Systems

- Data profiles described with simple CRM patterns kept in-sync using activity streams
- Planning for a new Vocabularies production system

High Value Data Loads

- Contributed translations have highest priority
- Pre-processing of contributions using OpenRefine