



got metadata..?

```
<agent>  
  <name type="personal">Eklund, Jan</name>  
  <role>Instructor</role>  
  <notes>VRA Core XML SEI 2007</notes>  
</agent>
```

# What is the VRA Core?

The VRA Core is a basic element set to consider when developing a data model for a local image collection

The Core can provide a basic element set to be used for data exchange

The Core has the potential to be both a point of departure and a common destination for image collections who wish to manage their data locally, and export local data for display or for inclusion into a larger resource or repository

# Motivations for Developing Core 4 XML Schema

- To bring the Core in concert with CCO guidelines
  - separate subelements for display and index values
  - accommodate collection-level and item-level cataloging
- The need for a more effective mechanism for data exchange
  - separation of work and image metadata facilitates re-aggregation (shared cataloging)
- XML expression of VRA Core data allows integration of image data with other library materials via METS (Metadata Encoding Transfer Standard)

# What is XML?

- XML (Extensible Markup Language) is a markup language much like HTML
- Unlike HTML which is about *displaying* information, XML is about *describing information's structure and meaning*
- Both XML and HTML use **<angle bracketed tags>** around pieces of text
- Basic components in an XML *data* file are **elements, sub-elements, attributes** and **data values**.
- An XML *schema* file contains the rules for what can and cannot reside in an XML data file
- An XSL *stylesheet* file contains instructions for formatting XML data for display

# Why XML?

- **With XML, data can be exchanged between incompatible systems.**
- In the real world, computer systems and databases contain data in incompatible formats. One of the most time-consuming challenges for developers has been to exchange data between such systems over the Internet.
- Converting the data to XML can greatly reduce this complexity and create data that can be read by many different types of applications.



# What does XML Look Like?

```
- <?xml version="1.0" encoding="UTF-8" >
- <vra xsi:schemaLocation="http://www.vraweb.org/vracore4.htm http://gort.ucsd.edu/escowles/vracore4/vra-4.0-restricted.xsd">
- <work id="w_000777" refid="000597" source="History of Art Visual Resources Collection, UCB">
- <agentSet>
- <display>
  Jasper Francis Cropsey (American painter, 1823-1900)
</display>
- <agent>
  <name type="personal" vocab="ULAN" refid="500012491 ">Cropsey, Jasper Francis</name>
- <dates type="life">
  <earliestDate>1823</earliestDate>
  <latestDate>1900</latestDate>
</dates>
  <culture>American</culture>
  <role vocab="AAT" refid="300025136 ">painter</role>
</agent>
</agentSet>
- <dateSet>
```

# XSL Stylesheet Determines Order of Elements

```
- <xsl:stylesheet version="1.0" extension-element-prefixes="java" exclude-result-prefixes="vra">
- <!--
    $img should contain the base of image references, with thumbnails having
    "t.jpg" appended, and full-res images having ".jpg" appended.
-->
  <xsl:param name="img"/>
  <xsl:variable name="cssLocation" select=" ../style.css"/>
  <xsl:output method="xml" encoding="iso-8859-1"/>
  <!-- ROOT TEMPLATE -->
- <xsl:template match="/">
  - <xsl:variable name="title">
    - <xsl:choose>
      - <xsl:when test="//vra:collection">
        - <xsl:for-each select="//vra:collection">
          <xsl:if test="position() != 1">, </xsl:if>
          <xsl:call-template name="title"/>
        </xsl:for-each>
      </xsl:when>
      - <xsl:when test="//vra:work">
        - <xsl:for-each select="//vra:work">
          <xsl:if test="position() != 1">, </xsl:if>
          <xsl:call-template name="title"/>
        </xsl:for-each>
      </xsl:when>
      - <xsl:otherwise>
        <xsl:value-of select="//vra:titleSet/vra:title"/>
      </xsl:otherwise>
    </xsl:choose>
  </xsl:variable>
- </template>
```

# XML + XSL Works with HTML for Web Display

## Autumn - On the Hudson River

### WORK

[id: w\_000777, refid: 000597, source: History of Art Visual Resources Collection, UCB]

agent = Jasper Francis Cropsey (American painter, 1823-1900)

date = 1860

description = Monumental view of the Hudson River Valley painted from memory in the artist's London studio.

inscription = lower center: Autumn - on the Hudson River / J. F. Cropsey / London 1860

location = National Gallery of Art (Washington, DC, USA) 1963.9.1

material = oil paint on canvas

measurements = 151.8 x 274.9 cm (59 3/4 x 108 1/4 in)





# What's new in VRA Core 4.0?

- Qualifiers become attributes
- Separate subelements created for display and index values
- Elements and subelements are contained in sets to allow repeatable values
- Record Type becomes a top-level element called <work>, <collection> or <image>
- Three new elements:
  - Inscription
  - State Edition
  - Textref
- Redefined elements:
  - Type becomes Work Type
  - Creator becomes Agent
  - ID now a sub-element of Location
  - Culture is now called Cultural Context

# Definitions

**Work:** a unique entity such as an object or event. Examples include: a painting, a sculpture, a built work, an object of material culture, a photograph, a manuscript, or a performance.

**Image:** a visual representation of a work either in whole or in part. Examples include: slides, photographic prints, and digital images

**Collection:** an aggregate of items (works or images or both) that are conceptually or physically arranged together for the purpose of cataloging or retrieval. Examples include archival groups that share a common provenance, a series of photographs of the same location, or a hoard of objects made of various materials.

**The same element set may be used to describe a work, an image, or a collection**

# VRA Core 4.0 **Elements**, Subelements, and Attributes

---

- **agent**
  - attribution
  - culture
  - dates (*type*)
    - earliestDate (*circa*)
    - latestDate (*circa*)
  - name (*type*)
  - role
- **culturalContext**
- **date** (*type*)
  - earliestDate (*circa*)
  - latestDate (*circa*)
- **description**
- **inscription**
  - author
  - position
  - text (*type*)
- **location** (*type*)
  - name (*type*)
  - refid (*type*)
- **material** (*type*)
- **measurements** (*type, unit*)
- **relation** (*type, relids*)
- **rights** (*type*)
  - rightsHolder
  - text
- **source**
  - name (*type*)
  - refid (*type*)
- **stateEdition** (*count, num, type*)
  - description
  - name
- **stylePeriod**
- **subject**
  - term (*type*)
- **technique**
- **textref**
  - name (*type*)
  - refid (*type*)
- **title** (*type*)
- **worktype**

# VRA Core 4.0 Elements, **Subelements**, and Attributes

---

- **agent**
  - **attribution**
  - **culture**
  - **dates** (*type*)
    - **earliestDate** (*circa*)
    - **latestDate** (*circa*)
  - **name** (*type*)
  - **role**
- **culturalContext**
- **date** (*type*)
  - **earliestDate** (*circa*)
  - **latestDate** (*circa*)
- **description**
- **inscription**
  - **author**
  - **position**
  - **text** (*type*)
- **location** (*type*)
  - **name** (*type*)
  - **refid** (*type*)
- **material** (*type*)
- **measurements** (*type, unit*)
- **relation** (*type, relids*)
- **rights** (*type*)
  - **rightsHolder**
  - **text**
- **source**
  - **name** (*type*)
  - **refid** (*type*)
- **stateEdition** (*count, num, type*)
  - **description**
  - **name**
- **stylePeriod**
- **subject**
  - **term** (*type*)
- **technique**
- **textref**
  - **name** (*type*)
  - **refid** (*type*)
- **title** (*type*)
- **worktype**

# VRA Core 4.0 Elements, Subelements, and **Attributes**

---

- **agent**
  - attribution
  - culture
  - dates (*type*)
    - earliestDate (*circa*)
    - latestDate (*circa*)
  - name (*type*)
  - role
- **culturalContext**
- **date** (*type*)
  - earliestDate (*circa*)
  - latestDate (*circa*)
- **description**
- **inscription**
  - author
  - position
  - text (*type*)
- **location** (*type*)
  - name (*type*)
  - refid (*type*)
- **material** (*type*)
- **measurements** (*type, unit*)
- **relation** (*type, relids*)
- **rights** (*type*)
  - rightsHolder
  - text
- **source**
  - name (*type*)
  - refid (*type*)
- **stateEdition** (*count, num, type*)
  - description
  - name
- **stylePeriod**
- **subject**
  - term (*type*)
- **technique**
- **textref**
  - name (*type*)
  - refid (*type*)
- **title** (*type*)
- **worktype**



# Global attributes may be applied to any element or subelement

- dataDate* date a piece of information was captured
- extent* specifies the part of the work, image, or collection the data value describes
- href* hypertext link to another electronic resource
- pref* indicates a preferred value among multiple data values
- refid* unique identifier for the data value
- rules* content rules followed when constructing a data value (ex. AACR2, CCO)
- source* source of the data value
- vocab* controlled vocabulary from which the data value was derived (ex. AAT, TGN, ULAN)
- xml:lang* language of the data value

# Work, Collection, or Image

VRA Core Element	XML element	XML attribute	Data Example
WORK	<b>work</b>	<i>id</i>	w_987654321
		<i>refid</i>	000347
		<i>source</i>	History of Art Visual Resources Collection, UCB
COLLECTION	<b>collection</b>	<i>id</i>	c_876543210
		<i>refid</i>	BANC MSS 67/125 z
		<i>source</i>	Bancroft Library, UCB
IMAGE	<b>image</b>	<i>id</i>	i_765432109
		<i>refid</i>	388438
		<i>source</i>	History of Art Visual Resources Collection, UCB

XML expression for a work record (Arch of Constantine)

**<work** id="w\_987654321" refid="000347" source="History of Art Visual Resources Collection, UCB">... **</work>**

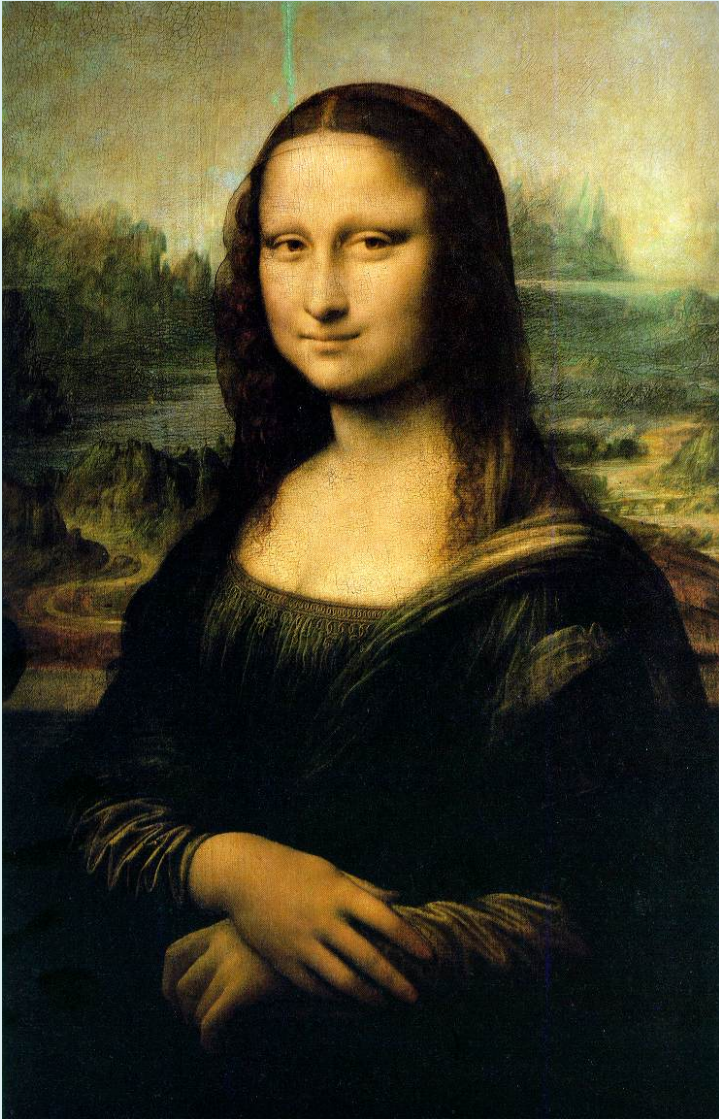
XML expression for a collection record (Joel Asaph Allan Papers, 1883-1884)

**<collection** id="c\_876543210" refid="BANC MSS 67/125 z" source="Bancroft Library, UCB">... **</collection>**

XML expression for an image record (of the Arch of Constantine)

**<image** id="i\_765432109" refid="388438" source="History of Art Visual Resources Collection, UCB">... **</image>**

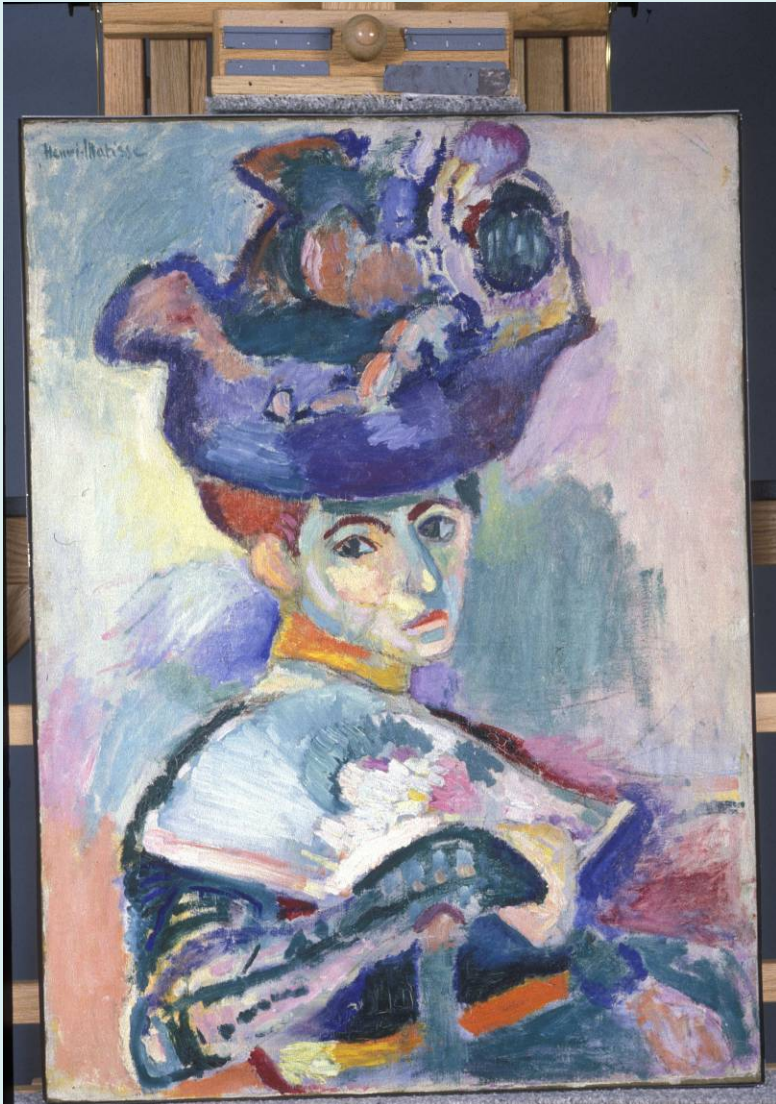
# Agent: Work Record



<b>agent</b>				
	<b>culture</b>			<b>Italian</b>
	<b>dates</b>			
		<i>type</i>		<i>life</i>
			earliestDate	<b>1452</b>
			latestDate	<b>1519</b>
	<b>name</b>			<b>Leonardo da Vinci</b>
		<i>type</i>		<i>personal</i>
	<b>role</b>			<b>painter</b>

```
<agentSet>
  <display>Leonardo da Vinci (1452-1519), Italian painter</display>
  <agent>
    <culture>Italian</culture>
    <dates type="life">
      <earliestDate>1452</earliestDate>
      <latestDate>1519</latestDate>
    </dates>
    <name type="personal">Leonardo da Vinci</name>
    <role>painter</role>
  </agent>
</agentSet>
```

# Agent: Image Record



agent				
	culture			American
	dates			
		type		life
			earliestDate	1954
			latestDate	
	name			Wolf, Julie
		type		personal
	role			photographer

```
<agentSet>
  <display>Julie Wolf (b. 1954) American photographer</display>
  <agent>
    <culture>American</culture>
    <dates type="life">
      <earliestDate>1954</earliestDate>
      <latestDate/>
    </dates>
    <name type="personal">Wolf, Julie</name>
    <role>photographer</role>
  </agent>
</agentSet>
```



# Agent: Unknown Creator



agent			Unknown Roman architect
	culture		Roman (ancient)
	name		Unknown
		type	other
	role		architect

```
<agentSet>  
  <display>Unknown Roman architect</display>  
  <agent>  
    <culture pref="true">Roman (ancient)</culture>  
    <culture>Italian</culture>  
    <name type="other">Unknown</name>  
    <role>architect</role>  
  </agent>  
</agentSet>
```



# Cultural Context



<b>culturalContext</b>		<b>English</b>
	<i>vocab</i>	<i>ULAN Editorial Guidelines Chapter 4.7, Appendix G</i>
	<i>refid</i>	<i>901310</i>

```
<culturalContextSet>  
<culture vocab="ULAN Editorial Guidelines Chapter 4.7,  
Appendix G" refid="901310">English</culture>  
</culturalContextSet>
```

# Foreign Artist in Cultural Context



agent				
	culture			Italian
	dates			
		type		life
			earliestDate	1472
			latestDate	1528
	name			Torrighiano, Pietro
		type		personal
	role			sculptor

culturalContext		English
	vocab	ULAN Editorial Guidelines Chapter 4.7, Appendix G
	refid	901310

<agentSet>

<display>Attributed to Pietro Torrigiano (1472-1528), Italian sculptor</display>

<agent>

<culture>Italian</culture>

<dates type="life">

<earliestDate>1472</earliestDate>

<latestDate>1528</latestDate>

</dates>

<name type="personal">Torrighiano, Pietro</name>

<role>sculptor</role>

</agent>

</agentSet>

<culturalContextSet>

<culturalContext vocab="ULAN Editorial Guidelines Chapter 4.7, Appendix G" refid="901310">English</culturalContext>

</culturalContextSet>

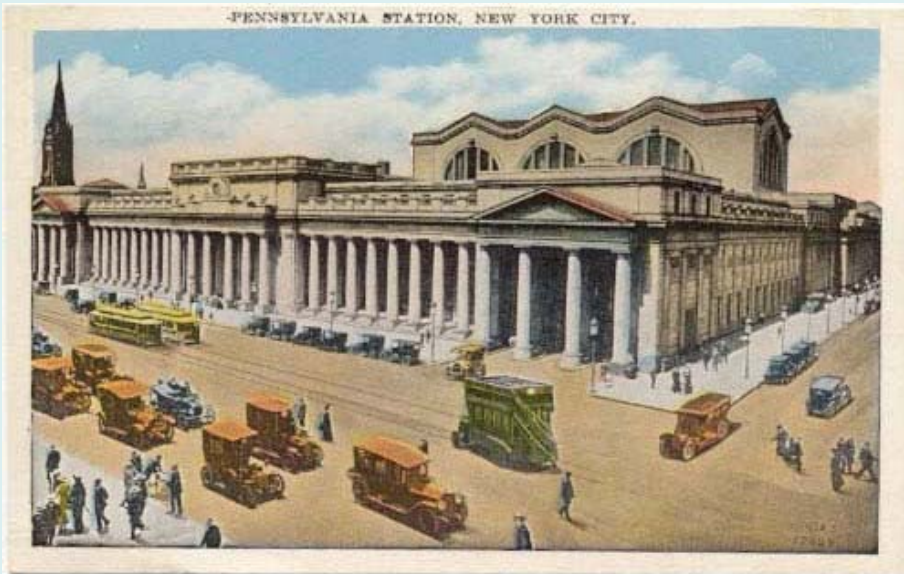
# Date Ranges



<b>date</b>				<b>created c. 250-260</b>
	<i>type</i>			<i>creation</i>
		<b>earliestDate</b>		<b>250</b>
			<i>circa</i>	<i>true</i>
		<b>latestDate</b>		<b>260</b>
			<i>circa</i>	<i>true</i>

```
<dateSet>  
  <display>created c. 250-260</display>  
  <date type="creation">  
    <earliestDate circa="true">250</earliestDate>  
    <latestDate circa="true">260</latestDate>  
  </date>  
</dateSet>
```

# Multiple Dates



date			
	<i>type</i>		<i>creation</i>
		<b>earliestDate</b>	1902
		<b>latestDate</b>	1911
date			
	<i>type</i>		<i>destruction</i>
		<b>earliestDate</b>	1965
		<b>latestDate</b>	1965

```
<dateSet>
  <display>1902-1911 (demolished 1965)</display>
  <date type="creation">
    <earliestDate>1902</earliestDate>
    <latestDate>1911</latestDate>
  </date>
  <date type="destruction">
    <earliestDate>1965</earliestDate>
    <latestDate>1965</latestDate>
  </date>
</dateSet>
```



# Description



## description

Large pedimented sarcophagus probably made for the last king of Sidon, Abdalonymos (d. 312 BCE). Relief on long side A shows the Battle of Issos. Long side B shows Alexander and Abdalonymos hunting.

<descriptionSet>

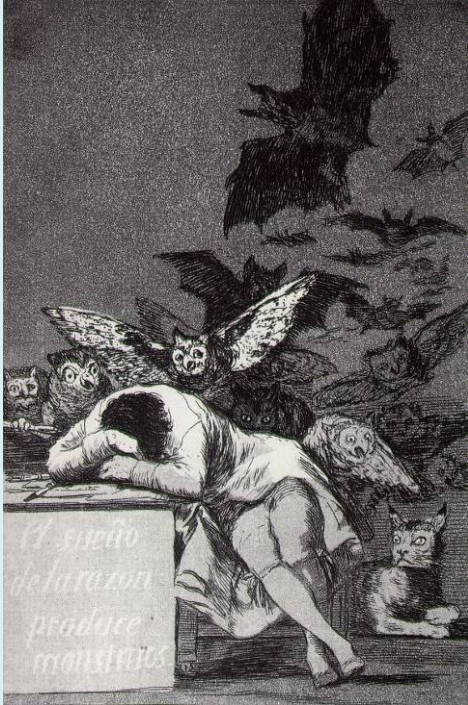
<description>Large pedimented sarcophagus probably made for the last king of Sidon, Abdalonymos (d. 312 BCE). Relief on long side A shows the Battle of Issos. Long side B shows Alexander and Abdalonymos hunting.

</description>

</descriptionSet>



# Inscription



<b>Inscription</b>			
	<b>author</b>		<b>Goya, Francisco</b>
	<b>position</b>		<b>Lower left corner, on side of table</b>
	<b>text</b>		<b>El Sueño de la Razon Produce Monstruos</b>
		<i>type</i>	<i>text</i>
		<i>lang</i>	<i>es</i>
	<b>text</b>		<b>The Sleep of Reason Produces Monsters</b>
		<i>type</i>	<i>translation</i>
		<i>lang</i>	<i>en</i>

<inscriptionSet>

<display>El Sueño de la Razon Produce Monstruos (The Sleep of Reason Produces Monsters) </display>

<inscription>

<author vocab="ULAN" refid="500118936">Goya, Francisco</author>

<position>lower left corner, on side of table</position>

<text type="text" xml:lang="es">El Sueño de la Razon Produce Monstruos</text>

<text type="translation" xml:lang="en">The Sleep of Reason Produces Monsters</text>

</inscription>

</inscriptionSet>

# Location – Work Record



<b>display</b>				<b>Musée du Louvre (Paris, FR) MR 299; discovered Milos (GR)</b>
<b>location</b>				<b>Musée du Louvre (Paris, FR) MR 299</b>
	<i>type</i>			<i>repository</i>
		<b>name</b>		<b>Musée du Louvre</b>
			<i>type</i>	<i>corporate</i>
			<i>Xml:lang</i>	<i>fr</i>
		<b>refid</b>		<b>MR 299</b>
			<i>type</i>	<i>accession</i>
		<b>name</b>		<b>Paris</b>
			<i>type</i>	<i>geographic</i>
			<i>vocab</i>	<i>TGN</i>
			<i>refid</i>	<i>7008038</i>
<b>location</b>				
	<i>type</i>			<i>discovery</i>
		<b>name</b>		<b>Milos</b>
			<i>type</i>	<i>geographic</i>
			<i>vocab</i>	<i>TGN</i>
			<i>refid</i>	<i>7010922</i>
		<b>name</b>		<b>Greece</b>
			<i>type</i>	<i>geographic</i>
			<i>vocab</i>	<i>TGN</i>
			<i>refid</i>	<i>1000074</i>

# Location



<locationSet>

<display> **Musée du Louvre (Paris, FR) MR 299; discovered Milos (GR)**</display>

<location type="repository">

<name type="corporate">**Musée du Louvre**</name>

<refid> **MR 299**</refid>

</location>

<location type="site">

<name type="geographic" vocab="TGN" refid="7008038">**Paris**</name>

<name type="geographic" vocab="TGN" refid="1000070">**France**</name>

</location>

<location type="discovery">

<name type="geographic" vocab="TGN" refid="7010922">**Milos**</name>

<name type="geographic" vocab="TGN" refid="1000074">**Greece**</name>

</location>

</locationSet>

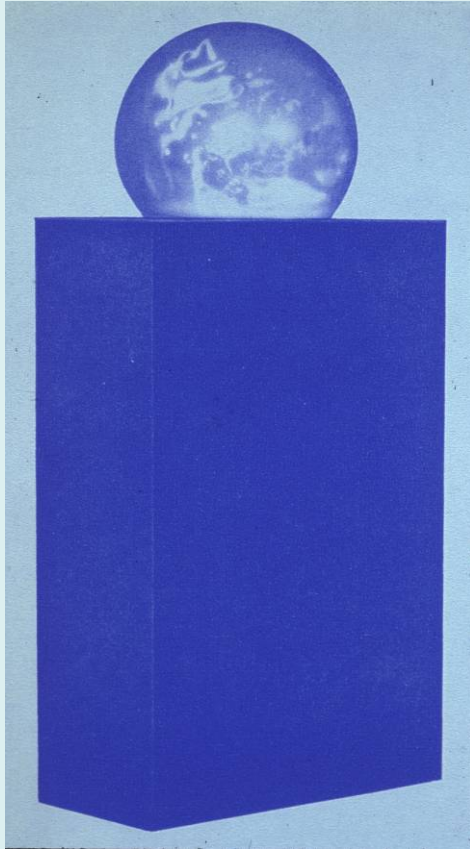
# Material



<b>material</b>		<b>coconut</b>
	<i>type</i>	<i>medium</i>
<b>material</b>		<b>silver</b>
	<i>type</i>	<i>medium</i>

```
<materialSet>  
  <display>coconut shell with silver  
    ornamentation</display>  
  <material type="medium">coconut</material>  
  <material type="medium">silver</material>  
</materialSet>
```

# Measurements



<b>measurements</b>		<b>139.7</b>
	<i>type</i>	<i>height</i>
	<i>unit</i>	<b>cm</b>
	<i>extent</i>	<i>base</i>
<b>measurements</b>		<b>76.2</b>
	<i>type</i>	<i>width</i>
	<i>unit</i>	<b>cm</b>
	<i>extent</i>	<i>base</i>
<b>measurements</b>		<b>76.2</b>
	<i>type</i>	<i>depth</i>
	<i>unit</i>	<b>cm</b>
	<i>extent</i>	<i>base</i>
<b>measurements</b>		<b>76.2</b>
	<i>type</i>	<i>diameter</i>
	<i>unit</i>	<b>cm</b>
	<i>extent</i>	<i>globe</i>

<measurementsSet>

<display>base 139.7 (H) x 76.2 (W) x 76.2 (D); globe 76.2 (Diameter)</display>

<measurements type="height" unit="cm" extent="base">139.7</measurements>

<measurements type="width" unit="cm" extent="base">76.2</measurements>

<measurements type="depth" unit="cm" extent="base">76.2</measurements>

<measurements type="diameter" unit="cm" extent="globe">76.2</measurements>

</measurementsSet>



# Relationship Types: Restricted Schema Type Values

Relationship Type	Reciprocal Relationship Type
<b>&lt;general - default&gt;</b>	
relatedTo	relatedTo
<b>&lt;hierarchical - group/collection/series to parts&gt;</b>	
partOf	largerContextFor
formerlyPartOf	formerlyLargerContextFor
<b>&lt;a work and its components&gt;</b>	
componentOf	components
partnerInSetWith	partnerInSetWith
<b>&lt;works that are related as steps in the creation process&gt;</b>	
preparatoryFor	basedOn
studyFor	studies
cartoonFor	cartoons
modelFor	models
planFor	plans
counterProofFor	counterProofs
printingPlateFor	printingPlates
reliefFor	impressions
prototypeFor	prototypes

Relationship Type	Reciprocal Relationship Type
<b>&lt;works designed to be displayed together&gt;</b>	
designedFor	contexts
mateOf	mateOf
partnerInSetWith	partnerInSetWith
pendantOf	pendantOf
exhibitedAt	venueFor
<b>&lt;works copied after or depicting other works&gt;</b>	
copyAfter	copies
depicts	depictedIn
derivedFrom	sourceFor
facsimileOf	facsimiles
replicaOf	replicas
versionOf	versions
<b>&lt;work to image relationships&gt;</b>	
imageOf	images

# Relation – Works and Component Works



## Relation in the component work record

**Telephos frieze** (component work)

XML work id = w\_223009

<b>relation</b>		
	<i>type</i>	<i>componentOf</i>
	<i>relids</i>	w_900322

## Reciprocal relation in the work record

**Altar of Zeus** (work)

XML work id=w\_900322

<b>relation</b>		
	<i>type</i>	<i>largerContextFor</i>
	<i>relids</i>	w_223009

XML in the work record for the Telephos frieze (component work) record

```
<relationSet>
  <relation type="componentOf" relids="w_900322"></relation>
</relationSet>
```

XML in the work record for the Altar of Zeus (work) record

```
<relationSet>
  <relation type="largerContextFor" relids="w_223009"></relation>
</relationSet>
```

# Relation – Works and Collections

## Small diadem with pendants (work)

Local work id = 18706

XML work record id = w\_123456



## Priam's Treasure (Related collection)

Local work id = 18697

XML collection record id = c\_987654

## Relation in the work record

relation		
	<i>type</i>	<i>partOf</i>
	<i>relids</i>	c_987654



## Reciprocal relation in the collection record

relation		
	<i>type</i>	<i>largerContextFor</i>
	<i>relids</i>	w_123456

XML in the work record for the Small diadem with pendants

**<relationSet>**

**<display>From Treasure A, Schliemann find</display>**

**<notes>From Treasure A, Schliemann find</notes>**

**<relation type="partOf" relids="c\_987654" source="History of Art Visual Resources Collection, UCB" refid="18697">Priam's Treasure</relation>**

**</relationSet>**

# Relation – Images, Works, and Collections

## Detail of Pendant ends (image)

Local image id = 534928

XML image id = i\_456789



## Small diadem with pendants (work)

Local work id = 18706

XML work record id = w\_123456



## Priam's Treasure (Related collection)

Local work id = 18697

XML collection record id = c\_987654



## Relation in the image record

relation		
	type	imageOf
	relids	w_123456



## Relation in the work record



relation		
	type	part of
	relids	c_987654
	type	imagels
		i_456789



## Relation in the collection record



relation		
	type	largerContextFor
	relids	w_123456

## XML in the work record for the Small diadem with pendants

<relationSet>

<display>From Priam's Treasure (Treasure A, Schliemann find)</display>

<notes>From Priam's Treasure (Treasure A, Schliemann find)</notes>

<relation type="partOf" relids="c\_987654" source="History of Art Visual Resources Collection, UCB" refid="18697">Priam's Treasure</relation>

<relation type="imagels" relids="i\_456789" source="History of Art Visual Resources Collection, UCB" refid="534928">Detail showing pendant ends of long side chains</relation>

</relationSet>

# Relation: Images and Collections



Relation in the image record

relation		
	<i>type</i>	<i>imageOf</i>
	<i>relids</i>	c_987654



Relation in the collection record



relation		
	<i>type</i>	<i>largerContextFor</i>
	<i>relids</i>	i_534950, i_534951

## **Priam's Treasure** (Related collection)

Local work id = 18697

XML collection record id = c\_987654

XML in the image record of each related image

**<relationSet>**

**<display>From Priam's Treasure (Treasure A, Schliemann find)</display>**

**<notes>From Priam's Treasure (Treasure A, Schliemann find)</notes>**

**<relation type="partOf" relids="c\_987654 " source="History of Art Visual Resources Collection, UCB">Priam's Treasure</relation>**

**</relationSet>**

# Rights



rights			
	<i>type</i>		<i>copyrighted</i>
		<b>rightsHolder</b>	<b>History of Art Visual Resources Collection, U.C. Berkeley</b>
		<b>text</b>	<b>© History of Art Visual Resources Collection, U.C. Berkeley. May be used for academic publication without restrictions.</b>

## XML in an image record

**<rightsSet>**

**<display>© History of Art Visual Resources Collection, U.C. Berkeley. May be used for academic publication without restrictions.</display>**

**<rights type="copyrighted">**

**<rightsHolder>History of Art Visual Resources Collection, U.C. Berkeley</rightsHolder>**

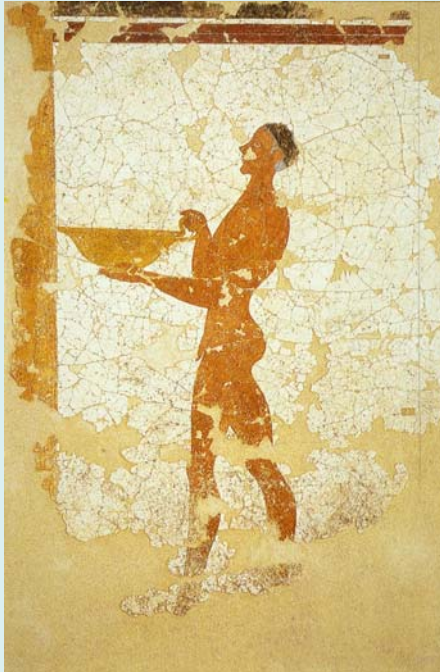
**<text>© History of Art Visual Resources Collection, U.C. Berkeley. May be used for academic publication without restrictions.</text>**

**</rights>**

**</rightsSet>**



# Source – Copystand Image Record



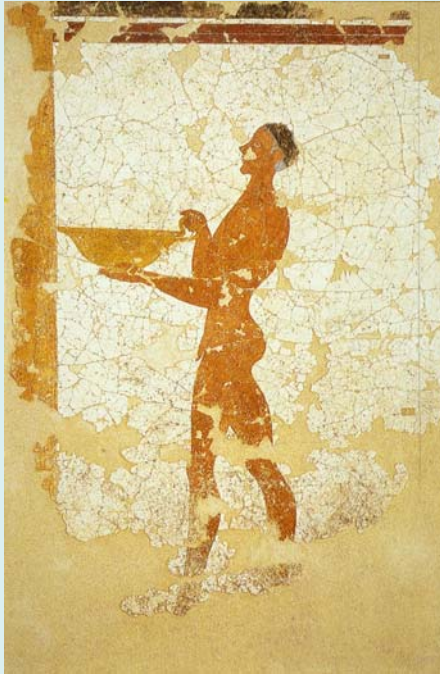
<b>source</b>			
	<b>name</b>		<b>Doumas, Christos, The Wall Paintings of Thera, Athens: Kapon Editions, 1992, p. 147, fig. 111</b>
		<i>type</i>	<i>book</i>
	<b>refid</b>		<b>9602202742</b>
		<i>type</i>	<i>ISBN</i>

## XML in an image record

```
<sourceSet>
  <display>Doumas, Christos, The Wall Paintings of Thera, Athens: Kapon Editions, 1992, p. 147, fig.
  111</display>
  <source>
    <name type="book">Doumas, Christos, The Wall Paintings of Thera, Athens: Kapon Editions, 1992,
    p. 147, fig. 111</name>
    <refid type="ISBN">9602202742</refid>
  </source>
</sourceSet>
```



# Source – Work Record

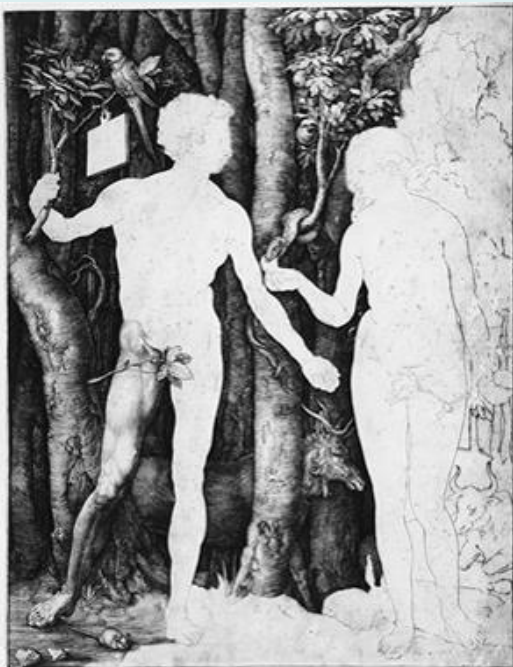


<b>source</b>			<b>Grove Art Online (accessed 2/28/2006)</b>
		<i>dataDate</i>	<b>2006-02-28</b>
	<b>name</b>		<b>Grove Art Online</b>
		<i>type</i>	<i>electronic</i>
	<b>refid</b>		<b><a href="http://www.groveart.com/shared/views/article.html?section=art.084489.1">http://www.groveart.com/shared/views/article.html?section=art.084489.1</a></b>
		<i>type</i>	<i>URI</i>

## XML in a work record

```
<sourceSet>
  <display>Grove Art Online (accessed 2/28/2006)</display>
  <source dataDate="2006-02-28">
    <name type="electronic">Grove Art Online</name>
    <refid type="URI">http://www.groveart.com/shared/views/article.html?section=art.084489.1</refid>
  </source>
</sourceSet>
```

# State Edition - State



<b>display</b>			<b>1st state of 5. Both figures in outline only, except Adam's right leg</b>
<b>stateEdition</b>			
	<i>type</i>		<i>state</i>
	<i>num</i>		<i>1</i>
	<i>count</i>		<i>5</i>
		<b>name</b>	<b>1<sup>st</sup> state</b>
		<b>description</b>	<b>Both figures in outline only, except Adam's right leg</b>

XML expression for a work record for the 1st state of a single print

**<stateEditionSet>**

**<display>1st state of 5. Both figures in outline only, except Adam's right leg</display>**

**<stateEdition type="state" num="1" count="5" source=" Hollstein, F.W.H., German Engravings Etchings and Woodcuts ca. 1400-1700, Vol. VII, p. 5">**

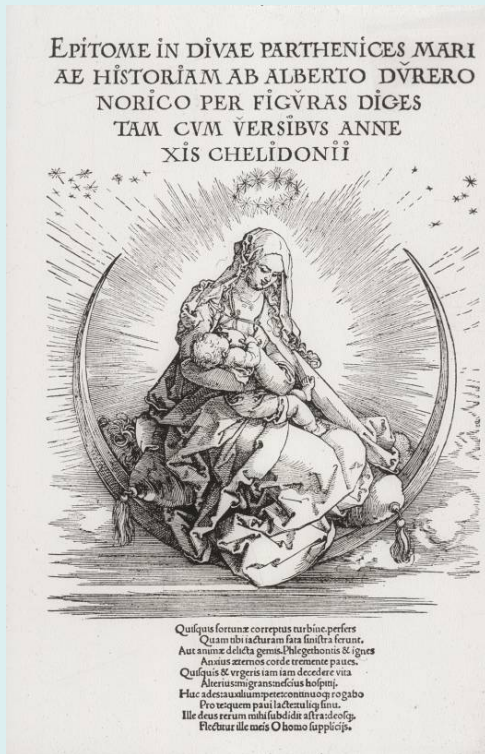
**<name>1st state</name>**

**<description> Both figures in outline only, except Adam's right leg</description>**

**</stateEdition>**

**</stateEditionSet>**

# State Edition – Page from a Specific Edition



<b>display</b>			<b>Edition of 1511. Title page (1/20) with Latin text by Chelidonius</b>
<b>stateEdition</b>			
		<i>type</i>	edition
		<i>source</i>	Hollstein, F.W.H., German Engravings Etchings and Woodcuts ca. 1400-1700, Vol. VII, p. 152
	<b>name</b>		<b>Edition of 1511</b>
	<b>description</b>		with Latin text by Chelidonius
<b>stateEdition</b>			
		<i>type</i>	impression
		<i>num</i>	1
		<i>count</i>	20
	<b>name</b>		<b>Title page</b>

XML expression for a work record for the title page from an edition of prints

```
<stateEditionset>
  <display>Edition of 1511. Title page (1/20) with Latin text by Chelidonius</display>
  <stateEdition type="edition" source="Hollstein, F.W.H., German Engravings Etchings and Woodcuts ca. 1400-1700, Vol. VII, p. 152">
    <name>Edition of 1511</name>
    <description> with Latin text by Chelidonius</description></stateEdition>
  <stateEdition type="impression" num="1" count="20" source=" Hollstein, F.W.H., German Engravings Etchings and Woodcuts ca. 1400-1700, Vol. VII, p. 152">
    <name>Title page</name></stateEdition>
</stateEditionSet>
```

# Style Period



<b>stylePeriod</b>		<b>French</b>
	<i>vocab</i>	<i>AAT</i>
	<i>refid</i>	<i>300111188</i>
<b>stylePeriod</b>		<b>Gothic</b>
	<i>vocab</i>	<i>AAT</i>
	<i>refid</i>	<i>300020775</i>

XML expression for a work record

```
<stylePeriodSet>  
  <display>French Gothic</display>  
  <stylePeriod vocab="AAT" refid="300111188">French</stylePeriod>  
  <stylePeriod vocab="AAT" refid="300020775">Gothic</stylePeriod>  
</stylePeriodSet>
```



# Subject - Topics



XML expression for a work record

<b>subject</b>			
	<b>term</b>		<b>nudes</b>
		<i>type</i>	descriptiveTopic
		<i>vocab</i>	AAT
		<i>refid</i>	300189568
	<b>term</b>		<b>Apples in art</b>
		<i>type</i>	descriptiveTopic
		<i>vocab</i>	LCSH
		<i>refid</i>	sh 96012271
	<b>term</b>		<b>Temptation and Fall (Genesis 3:1-7)</b>
		<i>type</i>	iconographicTopic
		<i>vocab</i>	Iconclass
		<i>refid</i>	71A4

```

<subjectSet>
  <display>nudes; Apples in art; Temptation and Fall (Genesis 3:1-7)</display>
  <subject type="descriptiveTopic" vocab="AAT" refid="300189568">nudes</subject>
  <subject type="descriptiveTopic" vocab="LCSH" refid="sh 96012271">Apples in art</subject>
  <subject type="iconographicTopic" vocab="Iconclass" refid="71A4">Temptation and Fall (Genesis 3:1-7) </subject>
</subjectSet>
  
```



# Subject - Names

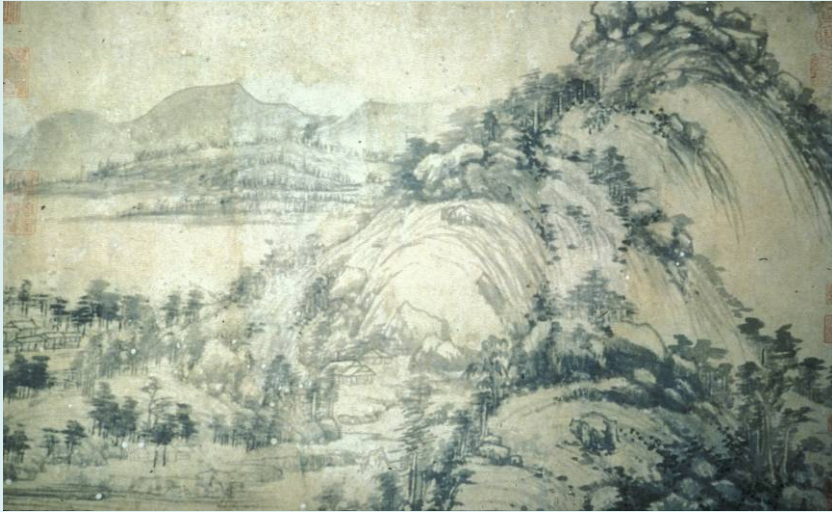


subject			
	term		<b>Chaplin, Charlie, 1889-1977</b>
		type	<i>personalName</i>
		vocab	LCNAF
		refid	n 79126907
	term		<b>gears</b>
		type	<i>descriptiveTopic</i>
		vocab	AAT
		refid	300125467

XML expression for an image record

```
<subjectSet>  
  <display>Charlie Chaplin; gears</display>  
  <subject type="personalName" vocab="LCNAF" refid="n 79126907">Chaplin, Charlie, 1889-1977</subject>  
  <subject type="descriptiveTopic" vocab="AAT" refid="300125467 ">gears</subject>  
</subjectSet>
```

# Subject – Geographic Place Names



XML expression for an image record

```
<subjectSet>
  <display>Fuchun mountains (China); Zhejiang (province); mountains</display>
  <subject type="geographicPlace" vocab="LCSH" refid="sh 87003851 ">Fuchun mountains (China)</subject>
  <subject type="geographicPlace" vocab="TGN" refid="7002076">Zhejiang</subject>
  <subject type="descriptiveTopic" vocab="AAT" refid="300008795 ">mountains</subject>
</subjectSet>
```

subject			
	term		<b>Fuchun mountains (China)</b>
		type	geographicPlace
		vocab	LCSH
		refid	sh 87003851
	term		<b>Zhejiang</b>
		type	geographicPlace
		vocab	TGN
		refid	7002076
	term		<b>mountains</b>
		type	descriptiveTopic
		vocab	AAT
		refid	300008795

# Technique

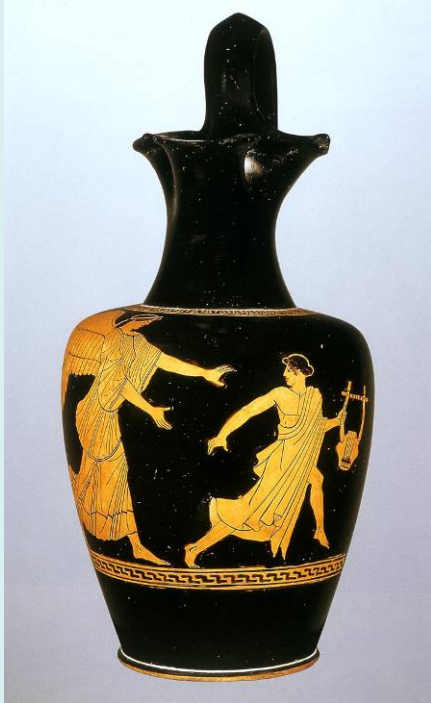


technique		illumination
	<i>vocab</i>	AAT
	<i>refid</i>	300220539
technique		painting
	<i>vocab</i>	AAT
	<i>refid</i>	300054216

XML expression for a work record

```
<techniqueSet>
  <display>illumination; painting</display>
  <technique vocab="AAT" refid="300220539">illumination</stylePeriod>
  <technique vocab="AAT" refid="300054216">painting</stylePeriod>
</techniqueSet>
```

# Textref



<b>display</b>			<b>ARV2 922 (77)</b>
<b>textref</b>			
	<b>name</b>		Beazley, J.D., Attic Red-Figure Vase Painters (2 <sup>nd</sup> Edition), New York: Hacker Art Books, 1984
		<i>type</i>	corpus
	<b>refid</b>		<b>p. 922, no. 77</b>
		<i>type</i>	citation
		<i>source</i>	Denoyelle, Martine, Chefs-d'Oeuvre de la Ceramique Grecque dans les Collections du Louvre, Paris: Reunion des Musées Nationaux, 1994

XML expression for a work record

```
<textrefSet>
  <display>ARV 922 (77)</display>
  <textref>
    <name type="corpus">Beazley, J.D., Attic Red-Figure Vase Painters (2nd Edition), New York: Hacker Art
      Books, 1984</name>
    <refid type="citation" source="Denoyelle, Martine, Chefs-d'Oeuvre de la Ceramique Grecque dans les Collections du Louvre,
      Paris: Reunion des Musées Nationaux, 1994">p. 922, no. 77</refid>
  </textref>
</textrefSet>
```

# Title



<b>title</b>		<b>Arnolfini Marriage</b>
	<i>type</i>	cited
	<i>pref</i>	true
	<i>source</i>	Grove Dictionary of Art Online
<b>title</b>		<b>Portrait of Giovanni (?) Arnolfini and his Wife ("The Arnolfini Portrait")</b>
	<i>type</i>	repository
	<i>pref</i>	false
	<i>source</i>	National Gallery of Art (London, GB)

XML expression for a work record

```
<titleSet>  
  <display>Arnolfini Marriage</display>  
  <title type="cited" pref="true" source="Grove Dictionary of Art Online">Arnolfini Marriage</title>  
  <title type="repository" pref="false" source="National Gallery of Art (London, GB)">Portrait of Giovanni (?)  
    Arnolfini and his Wife ("The Arnolfini Portrait")</title>  
</titleSet>
```



# Work Type



XML expression for a work record

```
<worktypeSet>  
  <display>Colored pencil drawing</display>  
  <worktype vocab="AAT" refid="300033973">drawing</worktype>  
  <worktype vocab="LCSH" refid="sh 87007531">Colored pencil drawing</worktype>  
</worktypeSet>
```

XML expression for an image record

```
<worktypeSet>  
  <worktype vocab="AAT" refid="300215302">digital image</worktype>  
</worktypeSet>
```

<b>worktype</b>		<b>drawing</b>
	<i>vocab</i>	AAT
	<i>refid</i>	300033973
<b>worktype</b>		<b>Colored pencil drawing</b>
	<i>vocab</i>	LCSH
	<i>refid</i>	sh 87007531

<b>worktype</b>		<b>digital image</b>
	<i>vocab</i>	AAT
	<i>refid</i>	300215302

# Herding Cats: VRA Core + CCO + XML = Sharable Metadata

