

Mapping and Implementation Guidelines for the CARARE metadata schema

Version 0.9

Authors

Dimitris Gavrilis, Stavros Angelis and Kate Fernie

Contributors

Christos Papatheodorou, Agiatis Benardou, Panos Constantopoulos, Costis Dallas and Maria Emilia Masci

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Contents

1. Introduction	4
2. Overview of the CARARE schema	5
3. Mapping guidelines	6
4. Implementation guidelines	7
4.1 Record information	8
4.2 Heritage asset identification	13
Heritage asset identification: Appellation	13
Heritage asset identification: Description	14
Heritage asset identification: Actors	15
Heritage asset identification: Designations	16
Heritage asset identification: Conditions	17
Heritage Asset Identification: Characters	19
Heritage asset identification: Repository location	24
Heritage asset identification: Spatial	24
Heritage asset identification: References	29
Heritage asset identification: Relations	33
4.3 Digital Resource	34
Digital Resource: Appellation	34
Digital Resource: Actors	34
Digital Resource: Format	36
Digital Resource: Format details	36
Digital Resource: Medium	36
Digital Resource: Extent	37
Digital Resource: Subject	37
Digital Resource: Spatial	38
Digital Resource: Temporal	40
Digital Resource: Publication Statement	42
Digital Resource: Type	42
Digital Resource: Description	43
Digital Resource: Note	43
Digital Resource: Created	44
Digital Resource: Provenance	44
Digital Resource: Language	44
Digital Resource: Link	45
Digital Resource: isShownAt	45
Digital Resource: resourceMetadataLocation	45
Digital Resource: Relations	46
Digital Resource: Rights	46
4.3 Activity	49
Activity: Appellation	49
Activity: Description	50
Activity: Actors	50
Activity: Event type	51
Activity: Temporal	51
Activity: Spatial	54
Activity: Assessments	59
Activity: Event Method	59
Activity: Materials and Techniques	59
Activity: Relations	60
4.4 Collection information	61
Title	61
Keywords	61

Collection: Contacts	61
Collection: Rights.....	62
Source	63
Language.....	64
Statement.....	64
Creation.....	64
Coverage	65
5. Status of elements: mandatory, recommended, optional	67
6. References	73

1. Introduction

CARARE provides Europeana with an aggregation service to deliver access to digital objects and information resources relating to the archaeological and architectural heritage. This includes a diverse range of materials relating to unique monuments, buildings, landscapes, heritage sites and artefacts provided by national heritage agencies, research organisations and archaeological museums across Europe. The aim is to provide integrated access to the archaeological and architectural heritage in a common online environment.

Each CARARE content provider has created its digital resources and metadata following its own organizational principles, descriptive standards and management procedures. Although the international conventions on conservation of the archaeological and architectural heritage provides common ground between the partner organisations and their information resources, a very diverse range of cultural assets and media formats are being described and there is no universal metadata standard or ontology which has been applied by all of the organisations involved in the network.

CARARE has established a metadata schema to use as a domain specific harvesting protocol in order to mediate between the native metadata collected by its partners and Europeana. This schema defines a set of standard elements which are based on existing standards from the archaeology and architecture domain. The CARARE metadata schema was released in autumn 2010 and updated in spring 2011 following testing by content partners. It is a harvesting schema which is based on MIDAS Heritage, LIDO and the CIDOC CRM.

To use the CARARE schema it is necessary for partners to map elements in their native metadata to the CARARE metadata format. In addition to the mapping it may be necessary for some normalisation or metadata enrichment processes to be carried out to improve machine readability. Once the mapping and normalisation has been carried out, native metadata can be transformed into CARARE schema format and ingested to the CARARE repository ready for supply to Europeana.

The CARARE aggregator has undertaken to carry out the work needed to transform CARARE records into Europeana's preferred metadata format; currently this is an implementation of the Europeana Data Model (EDM version 5.2) designed for the Danube release of Europeana.

This document provides mapping and implementation guidelines for the CARARE metadata schema.

The CARARE schema is online at: <http://www.carare.eu/eng/Resources>

2. Overview of the CARARE schema

The focus of the CARARE schema is on the detailed description of heritage assets (monuments, buildings, landscapes or artefacts) and related digital resources and events in which the heritage asset is represented. The Schema is based on MIDAS Heritage with additional elements from LIDO and ESE (Europeana Semantic Elements) to cover the information needed for the digital resources being made accessible to the CARARE and Europeana service environments.

The Schema has been implemented in an XSD to support the harvesting of metadata from CARARE content providers and its transformation into a standard format. The XSD is made up of a nested set of wrappers and elements which structure records.

The root element of a CARARE record is the CARARE wrap. This contains the four global wrappers which hold descriptive and administrative metadata for:

- Heritage Asset Identification – the monument, historic building, archaeological landscape area, shipwreck, artefact or ecofact being described.
- Digital resource – digital representations and information sources (images, texts, videos, audio, 3D models) of the heritage asset described.
- Activity – events in which the heritage asset has taken part (its creation, adaptation, reconstruction, field investigation, research and any historical events).
- Collection – the collection in which the data being provided forms part, e.g. a national monuments inventory, museum collection, etc.

Each CARARE record contains zero or one heritage asset and one to many digital resources for that heritage asset, together with and zero to many activities and collection descriptions.

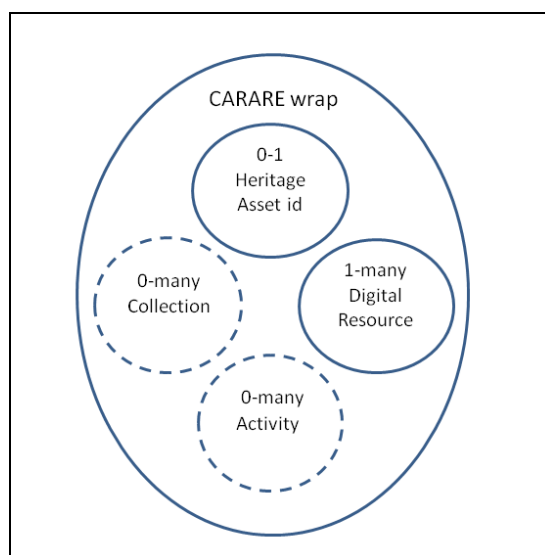


Figure 1 Representation of a CARARE object record.

Each of the four global wrappers contains a set of elements which have mandatory, strongly recommended or optional status. The mandatory elements must be completed for a CARARE record to be valid. Strongly recommended elements support Europeana search functions and retrieval of the content being provided and for this reason these elements should be completed.

3. Mapping guidelines

This chapter explains the general principles of mapping practice for the CARARE schema.

General principles:

1. Map as many as possible of the elements in your original dataset to the available CARARE elements.
2. Consider how your data will support “who, what, where and when” queries, which are supported by the strongly recommended elements. Map these when possible.
3. Where there are options in the CARARE schema choose the specific element(s) which best fit your data (when the semantics of your data fit the specifics of the element).
4. If it is difficult to decide which CARARE element to map a source term to, consider how best to meet expectations of the user and the functionality of the Europeana system.
5. Where your original dataset holds multiple elements which map to same CARARE element, repeat the CARARE element mapping to each instance in your dataset.
6. The persistent link to digital object and/or full information page should be given as a URL. These may need to be constructed from metadata values and information external to the metadata.
7. If it is not possible to map an element in your original dataset to appropriate CARARE elements you can leave it unmapped.
8. Consider adding a constant prefixes or suffixes to your data to make sure that it is meaningful when displayed in Europeana, for example “100 x 200” could become “100 x 200**cm**”. You can use the MINT mapping tool to add constant values.
9. Include the `xml:lang` attribute for text elements so that the language can be known once your data is ingested into a multilingual environment. Use the two-letter language codes from ISO 639-1.

4. Implementation guidelines

This chapter provides implementation guidelines for the CARARE schema, it should be read in conjunction with the CARARE metadata schema outline, version 1.1.

Who is the CARARE schema for?

The CARARE schema is a highly flexible schema which is designed to provide a harvesting profile for the information systems maintained by:

- Heritage managers in local, regional and national organisations who maintain monument inventories to support the conservation of the historic environment in their areas.
- The research community, both in national government organisations and in universities who collect and organise information on their chosen topics and monuments under investigation.
- Archaeological museums, Library special collections, Archaeological archives and Digital Archives who maintain information about historic environment collections and related sites.
- Field workers involved in collecting data in the field, who are creating data archives and 3D models and contributing these to research, national, regional and local institutions.
- Amenity groups and societies whose interest in the nation's heritage prompts them to collect and record information in a systematic fashion.

The CARARE schema provides an over-arching standard which covers the information maintained by all of these organisations. It can be adapted to a range of different situations. At its core there are:

- 4 themes (Heritage Asset, Digital Resource, Activity and Collection information) and
- a series of global types (record information, spatial, temporal, rights, appellation, etc) which may be used across the schema to define the information elements.

The schema specifies whether themes and elements are mandatory, strongly recommended or optional. But users have choice over which themes and elements they implement.

For example, the actor global type covers elements for name, roles, contacts, vital dates and associated places. The global type is included within record information and all 4 major themes, but users of the schema have choice over which of the strongly recommended and optional elements to implement in each instance.

The following guidelines suggest procedures for implementing the global types (and their constituent elements) for each of the 4 themes within a CARARE object record, offer mapping guidelines and provide examples of real data.

4.1 Record information

The record information elements are included in the Heritage Asset Identification, Digital Resources, Activity and Heritage Asset Identification References information sets.

The record information elements include:

- ID
- Source
- Country
- Creation
 - Date
 - Actor
- Update
 - Date
 - Actor
- Language
- Rights
 - Credit Line
- Keywords

Record information: ID
Information about this element: The id number for the record in the native inventory system or database; it is normally a unique identifier which is generated automatically by the native system. Mandatory Non-repeating
Example: HA1234567 <car:id>5043</car:id>
Record information: Source
Information about this element: The name of the organisation responsible for the creation of the heritage asset identification record. Recommended Non-repeating Note: This element maps to Europeana: Data Provider
Example: The Hellenic Ministry of Culture <car:source>Scuola Normale Superiore - La Fortuna Visiva di Pompei</car:source>

Record information: Country

Information about this element

The country in which the organisation responsible for the creation of the heritage asset identification record is based.

Recommended
Non-repeating

Example:

Greece

<car:country>Italy</car:country>

Record information: Creation: Date

Information about this element

This is the date when the heritage asset identification record was created.

Recommended
Non-repeating

Example: 2001-02-03

<car:date>2011-03-03</car:date>

Record information: Creation: Actor

Information about these elements:

This set of elements allows the name of the person who created the record to be recorded. The key elements are:

- ID
- Name - the name of the person or organisation
- Roles - the roles of the actor (cataloguer, compiler, etc.) Use of a controlled vocabulary is recommended.
- Contacts – contact information may be included
 - Organisation
 - Address

Optional
Non-repeating

Hint: Ideally choose a preferred form of name from an authority source or use a consistent form of the name e.g. Smith, William.

Example:

Name = Bloggs, Joseph (Recommended element)

Roles = Cataloguer

<car:actor>

<car:name>Scuola Normale Superiore</car:name>

<car:actorType>organization</car:actorType>

```
<car:contacts>e.masci@sns.it</car:contacts>
<car:placeOfActivity
namespace="http://sws.geonames.org/3170647/about.rdf">Pisa</car:placeOfActivity>
</car:actor>
```

Record information: Update: Date

Information about this element

This is the date when the heritage asset identification record was updated.

Optional
Non-repeating

Example: 2005-02-03

```
<car:date>2011-03-07</car:date>
```

Record information: Update: Actor

Information about these elements:

This set of elements allows the name of the person who updated the record to be recorded. The key elements are:

- ID
- Name - the name of the person or organisation
- Roles - the roles of the actor (cataloguer, compiler, etc.) Use of a controlled vocabulary is recommended.
- Contacts – contact information may be included
 - Organisation
 - Address

Optional
Repeating

Hint: Ideally choose a preferred form of name from an authority source or thesauri (e.g. ULAN). If you do not use an authority source, use a consistent form of the name e.g. Shakespeare, William.

Example:

Name = Bloggs, Joseph (Recommended element)

Roles = Cataloguer

```
<car:actor>
<car:name>Scuola Normale Superiore</car:name>
<car:actorType>organization</car:actorType>
<car:contacts>e.masci@sns.it</car:contacts>
</car:actor>
```

Record information: Language

Information about this element

This is the language of the metadata record.

Use of RFC 4646 is highly recommended. Best practice is to use that ISO 639-1 (two letter code)

unless only the ISO639-2 three letter code exists. (ISO 639-3 should not be used.)

**Recommended
Repeating**

Example:

EN

<car:language lang="en" />

Record information: Rights

Information about this element

The rights in the record information group relate to any rights associated with the metadata record itself. Any rights in the digital resource (image, sound file, 3D model etc) must be mapped to the Digital Resources>Rights element group.

CARARE content providers are asked to provide their metadata records under the terms of the Europeana Data Exchange agreement, which calls for metadata records to be placed in the public domain licenced available under the Creative Commons Zero licence. To comply with the Europeana Data Exchange agreement, content providers are requested to implement the elements in the **Record Information>Rights** set as follows:

- Copyright – there should be no copyright on the record metadata; this element is not required or should be null
- Access rights – a statement may be provided, for example providers may refer to a fair use policy such as the one being developed by Europeana.
- Reproduction rights – there should be no reproduction rights associated with the record metadata; this element is not required or should be null
- License – Providers may include a link to the Creative Commons Zero licence at <http://creativecommons.org/publicdomain/zero/1.0/> here if desired.

Optional
Non repeating

Example:

Record information>Rights> Access rights - Metadata are in the public domain (CCO 1.0 Universal Public Domain Dedication). Users are requested to give attribution to the author in any copy, derivative work or citation of the metadata.

Record information>Rights>Licence - CCO 1.0 Universal Public Domain Dedication for metadata: <http://creativecommons.org/publicdomain/zero/1.0/>

Record information: Keywords

Information about this element

Subject keywords

**Optional
Repeating**

Example:

Archaeology; Architecture

```
<car:keywords lang="en"  
namespace="http://www.getty.edu/research/tools/vocabularies/aat/">public  
buildings</car:keywords>
```

4.2 Heritage asset identification

It is strongly recommended that each CARARE contains one Heritage Asset (it may not contain more than one).

Record information
Information about this element: This is information about the record in the native inventory system or database. See section 4.1 above for a detailed description of the elements. Record id is mandatory for all heritage assets.

Heritage asset identification: Appellation

Appellation Name and ID form a mandatory group of elements which may be repeated, e.g. where a monument is known by more than one name or has an ID number in more than one inventory.

Appellation: Appellation id
Information about this element: This is the ID number for the Heritage Asset in the monument inventory. The ID sub-element is the record ID in the CARARE repository and a unique ID will be generated by CARARE on ingest. Mandatory Repeating
Example: SU1234/25 <car:id>8-1-1,2,6</car:id>
Appellation: Appellation name
Information about this element This is the name of the Heritage Asset. Where a monument has a name in an alternate language (not that of the metadata record) the XML lang attribute should be used. Mandatory Repeating
Example: The Geometric Temple of Hera Akraia <car:name lang="it" preferred="true">Basilica</car:name> <car:name lang="it" preferred="false">COMITIUM</car:name>

Heritage asset identification: Description

Description

Information about this element:

This is a free text description of the features of the archaeological monuments, historic buildings, industrial monuments, archaeological landscape areas, shipwreck, artefact or ecofact.

Mandatory
Non-repeating

Example:

The Heraion at Perachora, NW Corinthia, Greece. The complex consists of the Geometric and the Sixth Century BC Temple of Hera Akraia. The Temples were excavated in the beginnings of the 20th century by Humfry Payne and the British School at Athens (BSA) and the excavation material, mainly analogue, is held at the BSA.

<car:description lang="en">regio: 8, insula: 1, civico: 1,2,6. The basilica is located close to the south-east corner of the civil forum of Pompeii, being the southern limit to Via Marina, the road that lead from the harbor to the public square. It is an elongated hall, consisting of a huge central space and a corridor running all around, separated by a row of Ionic brick columns. In front of the hall there is a narrow vestibule, which is accessed from the forum through five openings bordered by four tufa pillars. As many columns as the pillars, aligned with them, lead to the hall through some basalt steps. The whole building is paved with opus signinum, whereas the perimeter walls are covered by First Style paintings and decorated with half-columns similar to those of the central colonnade. At the end of the building there is the tribunal, sort of platform with columns on the front, placed over a vaulted room, which can be reached through two lateral flights. The basilica is considered one of the oldest buildings in the forum; it was probably intended for commercial transactions and administration of justice.</car:description>

Heritage asset identification: Actors

Actors

Information about these elements:

This set of elements allows information about the actors involved with the heritage asset to be recorded. Actors include for example creators, builders, sculptors, painters and historical figures who have an association with the monument or building. The elements are:

- ID
- Name - the name of the person or organisation
- Actor Type - indicate whether the actor is an individual, a group of individuals or an organisation
- Roles - the roles of the actor (creator, custody, repository, curator, architect, sculptor, photographer, compiler, etc.) Use of a controlled vocabulary such as Getty Arts and Architecture thesaurus is recommended, and the vocabulary used may be indicated using the namespace attribute.
- Contacts – contact information may be included if known
- Vital dates
- Place of birth
- Place of death
- Place of activity
- Biographical note

Hint: Provide the name of the actor, the type of the actor (person or corporate body)

Pay to attention to the role sub-element (creator, sculptor, painter

For the actor names, types and roles use authorities or thesauri (e.g. ULAN, AAT)

Optional Repeating

Example:

```
<car:actors>
  <car:id>2236</car:id>
  <car:name>François Mazois</car:name>
  <car:roles>inventor</car:roles>
  - <car:vitalDates>
    <car:birthDate>1783-10-12</car:birthDate>
    <car:deathDate>1826-12-31</car:deathDate>
  </car:vitalDates>
  <car:placeOfBirth>Lorient</car:placeOfBirth>
  <car:placeOfDeath>Paris</car:placeOfDeath>
</car:actors>
```

Heritage asset identification: Designations

This set of elements provides information about any legal protection for a monument or building under national or international law (for example, inscription on the register of World Heritage Site). It is a repeating block as a heritage asset may have be protected under more than one scheme.

The elements include: Protection type, Grade, Date from, Date to and Display date.

Designations: Protection type
Information about this element This is information about the type of protection for a monument or building under national or international law. Optional Repeating
Example: Scheduled Ancient Monument Listed Building
Designations: Grade
Information about this element This is the grade of protection afforded to the heritage asset. Optional Repeating
Example: Grade 1 Listed Building
Designations: Date from
Information about this element This is the date when the protection came into force. Date type Optional Repeating
Example: 1903-05-19

Designations: Date to
<p>Information about this element</p> <p>This is the date when the protection ceased.</p> <p>Date type</p> <p>Optional Repeating</p>
<p>Example:</p> <p>2005-09-11</p>
Designations: Display date
<p>Information about this element</p> <p>This is an additional element that may be used to map dates which do not conform to the XML date type. The element is used to display the date or period to the users.</p> <p>Optional Repeating</p>
<p>Example:</p> <p>September 1954</p>

Heritage asset identification: Conditions

This set of elements provides information about observations of the condition of a monument or building. These are normally observations by professional field investigators carried out as part of routine monitoring and conservation management. It is a repeating block as the heritage asset may have been observed a number of times.

The elements are:

- Condition
- Condition assessment
- Condition date
- Relations

Conditions: Condition
<p>Information about this element:</p> <p>This is the observed condition of a monument or building.</p> <p>Optional Repeating</p>
<p>Example:</p> <p>Poor</p>

Good, fair, bad, poor, part destroyed, under restoration

Conditions: Condition Assessment

Information about this element:

A detailed assessment of the condition of a Heritage Asset and any treatment required and an estimation of the percentage of the monument affected.

Optional Repeating

Example

The Sixth Century Temple of Hera Akraia: the west end is relatively well-preserved, while the east end, where the depth of earth was always negligible, is so far destroyed that even the precise length of the building is now uncertain. The south-east corner and most of the south wall have completely disappeared. This corner would in the present configuration of the land lie over the steeply rising shore, and it must have rested on a retaining wall, every trace of which has likewise disappeared. The complete disappearance of so much of the eastern half of the building is due to the systematic depredations of the peasants in search of building material. A modern lime-kiln, sunk inside the Temple between the east end of the south wall and the west end of the southern central foundations, again hastened the process of destruction, and doubtless devoured many of the roof-tiles in the building.

Conditions: Condition Date

Information about this element:

This is the date when the condition assessment was made

Date type

Optional
Repeating

Example:

1932

Conditions: Relations

Information about this element:

These elements allow for a relation to be created between the condition assessment and an Activity record

Optional
Repeating

Example:

Type of relation:
Target of relation:

Heritage Asset Identification: Characters

The elements include:

- Heritage Asset Type
- Temporal
 - Time span
 - Start date
 - End date
 - Dimension
 - Date range qualifier
 - Period name
 - Display date
 - Scientific date
 - Scientific date method
- Materials
- Inscriptions
- Dimensions
- Craft

Characters: Heritage Asset Type

Information about this element:

Classification of the monument, building, landscape feature, artefact or ecofact primarily with respect to its function or use, e.g. house.

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Term

Namespace – this is the name/location of the controlled vocabulary from which the term is taken.

Recommended Repeating

Hint: This element maps to Subject and will be used in subject searches. It is highly recommended that one or more heritage asset types are provided.

This is a repeating element.

Example:

Term = Temple

```
<car:heritageAssetType>public building</car:heritageAssetType>
```

Characters: Temporal: Timespan: Start Date

Information about this element:

This is the calendar date when the heritage asset first came into existence, e.g. the date when a house was built.

Date type

**Recommended
Repeating**

Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.

Example

Characters: Temporal: Timespan: End Date

Information about this element:

This is the calendar date when the heritage asset ceased to exist, e.g. the date when a house was destroyed.

Date type

**Recommended
Repeating**

Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.

Example

Characters: Temporal: Timespan: Dimension

Information about this element:

This group of elements allows for an archaeological date to be captured

**Optional
Repeating**

Example:

Measurement unit = year

Value = 474

Type = BC

Characters: Temporal: Timespan: Date range qualifier

Information about this element:

This is the nature of the time span given (e.g. throughout, at some time during, etc.) Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional
Repeating

Example:

During

Characters: Temporal: Period name

Information about this element

This is name given to the period in history when something occurred. The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Recommended
Repeating

Example:

Bronze age

```
<car:periodName lang="en">Roman</car:periodName>  
<car:periodName lang="it">Età Romana</car:periodName>
```

Characters: Temporal: Display date

Information about this element:

A free text field used to display the date or period for users (e.g. early 19th century, 1950s). The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Optional
Repeating

Example:

Sixth century BC

```
<car:displayDate lang="en">before 79 a.C.</car:displayDate>  
<car:displayDate lang="it">ante 79 d.C.</car:displayDate>
```

Characters: Temporal: Scientific date

Information about this element:

This is the date according to scientific dating methods recorded precisely as received from the specialist.

**Optional
Repeating**

Example:

1250 bp +/-30 PBN-1675'

Characters: Temporal: Scientific date method

Information about this element:

This is the scientific dating method.

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

**Optional
Repeating**

Example:

Radiocarbon dating

Characters: Materials

Information about this element:

These are the basic materials of which a monument is composed.

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

**Optional
Repeating**

Example:

Stone

Characters: Inscriptions

Information about this element:

This is text inscribed on a monument or building, if any.

The element may be repeated using the XML:lang attribute if the element value is available in

alternate languages.

A preferred/alternate attribute may be used to indicate which value is preferred. The type of inscription may be indicated using an attribute. Use of a controlled vocabulary to indicate the type of inscription is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional
Repeating

Example:

Characters: Dimensions

Information about these elements:

These are the dimensions of the heritage asset and may be repeated to allow for the length, width, height, area to be recorded.

Optional
Repeating

Example:

Measurement type = length
Units = metres
Scale =
Value = 255

Characters: Craft

Information about these elements:

This is a set of additional information to register any known details about ships wrecked at sea including the specific type of vessel, its place of registration, last journey, cargo, manner and date of loss.

Optional
Repeating

Example:

Placeofregistration = Athens
Nationality = Greek
Constructionmethod = Clinker
Propulsion = Sail
Lastjourneydetails
 Departure = Athens
 Destination = Rome
 Cargo = Olive oil
 Mannerofloss = Shipwreck
 Dateofloss = 1923-12-02

Heritage asset identification: Repository location

Repository location

Information about this element:

This is the identification of the institution with custody of the heritage asset (artefact) where known, and possibly its current location.

Optional
Repeating

Example:

Wiltshire Heritage Archaeological and Natural History Society museum, Devizes

Heritage asset identification: Spatial

Use for the location or area covered by a heritage asset.

Spatial: Location set: Named location

Information about this element:

This is the name of a place or location which is relevant to the heritage asset being described.

The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Use of a controlled vocabulary such as <http://www.geonames.org/> is recommended, and the vocabulary used may be indicated using an attribute.

Recommended
Repeating

Example:

Stonehenge

```
<car:namedLocation lang="en"
namespace="http://sws.geonames.org/">Pompeii</car:namedLocation>
```

Spatial: Location set: Address

Information about these elements:

A set of elements to record the postal address of the heritage asset where applicable, for example the address of a historic building. The elements are:

Building name
Number in Road
Road name
Town or City
Postcode or Zipcode
Locality
Admin area

Country
Optional Non-repeating
Example: <pre><car:address> <car:townOrCity authority="http://sws.geonames.org/3170336/about.rdf">Pompeii</car:townOrCity> <car:postcodeOrZipcode>80045</car:postcodeOrZipcode> <car:locality lang="it">Scavi archeologici di Pompei</car:locality> <car:adminArea authority="http://sws.geonames.org/3181042/about.rdf">Campania</car:adminArea> <car:country lang="en">Italy</car:country> </car:address></pre>
Spatial: Location set: Geopolitical area
Information about this element: <p>This is the name of an administrative region which does not form part of the address, for example Scotland, England, Tuscany etc. May also be used for a historical geopolitical area, or an administrative unit (e.g. as defined in the INSPIRE directive).</p> <p>Use of a controlled vocabulary such as http://www.geonames.org/ is recommended, and the vocabulary used may be indicated using an attribute.</p>
Optional Non-repeating
Example: Tuscany
Spatial: Location set: Geopolitical area type
Information about this element: This is the type of geopolitical area.
Optional Non-repeating
Example: Region
Spatial: Location set: Cadastral reference
Information about this element: Optional Non-repeating
Example:

Spatial: Location set: Historical name

Information about this element:

This is a historical place name relevant to the heritage asset.

The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Optional
Non-repeating

Example:

Wessex

Spatial: Spatial reference system

Information about this element

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. The EPSG code for the spatial reference system is preferred, see the EPSG registry:

<http://www.epsg-registry.org/>

Recommended
Non-repeating

Example:

EPSG:4327

WGS84

Spatial: Cartographic reference: Spatial feature type

Information about this element:

This describes how a feature is depicted in a GIS.

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional
Non-repeating

Example:

Point, line, polygon, multi-point, multi-line or multi-polygon

Spatial: Cartographic reference: Coordinates

Information about these elements:

This set of elements allows the X, Y and Z coordinates for the heritage asset to be recorded.

Recommended
Non-repeating

Example:

X = 3410
Y = 7659
Z = 510

Spatial: Geometry: Bounding box

Information about these elements:

This set of elements allows the maximum and minimum X and Y coordinates for a bounding box which contains the heritage asset to be recorded.

Optional
Non-repeating

Example:

MaxX = 3410
MaxY = 7650
MinX = 3390
MinY = 7620

Spatial: Geometry: Quickpoint

Information about these elements:

This set of elements allows the X and Y coordinates for the centre of the heritage asset to be recorded.

Optional
Non-repeating

Example:

X = 3410
Y = 7659

```
<car:quickpoint>  
<car:x>40.75000</car:x>  
<car:y>14.48333</car:y>  
</car:quickpoint>
```

Spatial: Geometry: Entity

Information about this element:

GML, Well-known text (WKT).

Optional
Non-repeating

Example:

Spatial: Geometry: Stored precision

Information about this element:

This is the delivery precision (the precision of a coordinate as stored in the system, and as delivered to users).

Optional
Non-repeating

Example:

Spatial: Geometry: Height

Information about this element:

This is the height (or Z coordinate) of the heritage asset.

Optional
Non-repeating

Example:

500

Spatial: Geometry: Area

Information about this element:

This is the area covered by the heritage asset in units.

Optional
Non-repeating

Example:

2500

Spatial: Representations

Information about this element:

This is how a feature is represented on a map.

Optional
Non-repeating

Example:

Filled circle

Heritage asset identification: References

References: Record information

Information about this element:

This is catalogue information about the reference, for example if it has been recorded in a related database system.

Optional
Non-repeating

Example:

References: Appellation

Information about these elements:

In the context of references, Appellation Name is the title of the reference and Appellation ID is the ID associated with the reference, for example it could be the ISBN number of a book.

The elements can be repeated if the reference is known by more than one title or ID.

Optional
Repeating

Example:

ID: 23890/12

Name: 'Fyfield Down and Chantry'

<car:appellation>

<car:name lang="it">Les Ruines de Pompéi, dessinées et mesurées par F. Mazois, pendant les années MDCCCIX, MDCCCX, MDCCCXI... (ouvrage continué par M. Gau), Parigi, 1812 - 1838</car:name>

<car:id>3100</car:id>

</car:appellation>

References: Actors

Information about these elements:

This set of elements allows the name(s) and roles of the actors associated with the reference to be recorded. The main elements are:

- ID
- Name - the name of the person or organisation
- Actor Type - indicate whether the actor is an individual, a group of individuals or an organisation
- Roles - the roles of the actor (authors, contributors, editors, creators, etc.) Use of a controlled vocabulary such as Getty Arts and Architecture thesaurus is recommended, and the vocabulary used may be indicated using the namespace attribute.
- Contacts – contact information may be included if known
- Vital dates – the date of birth and/or date of death may be recorded if known.
- Biographical note

Hint: Ideally choose a preferred form of name from an authority source or thesauri (e.g. ULAN). If you do not use an authority source, use a consistent form of the name e.g. Shakespeare, William.

Optional Repeating

Example:

```
<car:actors>
  <car:id>2236</car:id>
  <car:name>François Mazois</car:name>
  <car:roles>author</car:roles>
  <car:vitalDates>
    <car:birthDate>1783-10-12</car:birthDate>
    <car:deathDate>1826-12-31</car:deathDate>
  </car:vitalDates>
  <car:placeOfBirth>Lorient</car:placeOfBirth>
  <car:placeOfDeath>Paris</car:placeOfDeath>
</car:actors>
```

References: Type

Information about this element:

This is the type of reference material, for example archive, file, record, book, chapter, article etc. Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional Non-repeating

Example:

Book

```
<car:type>monographs</car:type>
```

References: Medium

Information about this element:

This is the medium or physical carrier of the resource.

Optional
Non-repeating

Example:

Paper

References: Extent

Information about this element:

This is information about the size or extent of the reference.

Optional
Non-repeating

Example:

20 pages

<car:extent>voll. I-IV vol. I (1812-1824); vol. II (1824); vol. III (1829); vol. IV (1838)</car:extent>

References: Subject

Information about this element:

The topic of the resource. Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional
Repeating

Example:

Ship-building

References: Rights

Information about this element:

A statement of rights associated with the reference materials.

Optional
Repeating

Example:

Rights:Credit Line: © Mary Smith 2001

<car:rights>© Firenze, Biblioteca Nazionale Centrale - su concessione del Ministero per i beni e le attività culturali - all rights reserved</car:rights>

References: Publication statement

Information about these elements:

This set of elements allows details about the Publisher, place of publication and date of publication to be recorded.

**Optional
Repeating**

Example:

Publisher = Oxford University Press

Place – of publication = Oxford

Date – of publication = 1986

```
<car:publicationStatement>  
<car:publisher>Scuola Normale Superiore, Pisa, IT</car:publisher>  
<car:placeOfPublication>http://pompei.sns.it/querysources/showSource.asp?Path=../&id=2086&  
Lang=I</car:placeOfPublication>  
</car:publicationStatement>
```

References: Note

Information about this element:

This is a free text note which allows additional information about the reference to be recorded.

**Optional
Non-repeating**

Example:

See page 19.

References: Relations

Information about these elements:

These elements allow relations between the reference and other resources to be created, for example a relation between the reference and an activity or an external copy of the materials.

Hint: The relations can be used to relate a reference to the heritage asset in a chapter in a book and a digital copy of the chapter which has been made available online by another organisation.

**Optional
Repeating**

Example:

Type of relation = Is Derivative Of

Target of relation = [Http://www.a.copy.is.available.online.here](http://www.a.copy.is.available.online.here)

```
<car:sourceOfRelation>3100</car:sourceOfRelation>  
<car:typeOfRelation>hasPart</car:typeOfRelation>  
<car:targetOfRelation>2096</car:targetOfRelation>
```


Heritage asset identification: Relations

This is information about the relations between the heritage asset being recorded and events, digital resources or other heritage assets.

Relations: Source of the relation

Information about this element:

This is the ID number of the source record.

**Optional
Repeating**

Example:

123478

<car:sourceOfRelation>**3100**</car:sourceOfRelation>

Relations: Type of the relation

Information about this element:

This is information about the type of relationship between the heritage asset and the other resource.

**Optional
Repeating**

Example:

- Is Represented by – associates a heritage asset with an information resource in which it is represented.
- Is Successor Of – e.g. a church is successor of an earlier church on the same site.
- Happened At – relates a heritage asset to the events which happened at that place.
- Was Present At – this relation associates the heritage asset with the Event that they were present at.
- Has Part – used for objects that incorporate other objects, e.g. a complex monument is related to a number of monuments that lie within its area.
- hasEvent – associates a heritage asset with an Activity.

<car:typeOfRelation>**hasPart**</car:typeOfRelation>

Relations: Target of the relation

Information about this element:

This is the ID number of the related heritage asset, event or digital resource.

**Optional
Repeating**

Example:

123478

<car:targetOfRelation>**2096**</car:targetOfRelation>

4.3 Digital Resource

Record information

Information about this element:

This is information about the record in the native inventory system or database. See below for a detailed description of the elements.

Record id is mandatory for all digital resources.

Digital Resource: Appellation

Appellation Name and ID form a mandatory group of elements which may be repeated.

Appellation: Appellation

Information about these elements:

In the context of a digital resource, Appellation Name is the title of the resource and Appellation ID is the ID by which it can be identified.

Appellation ID is mandatory

Repeating

Example:

View of south side of the Temple of Hera Akraia
12340025

```
<car:name lang="it">François Mazois, Les Ruines de Pompéi, dessinées et mesurées par F. Mazois, pendant les années MDCCCIX, MDCCCX, MDCCCXI... (ouvrage continué par M. Gau), vol. III, 1829, Tav. XXI</car:name>
<car:id>MA3_0056_0021_0</car:id>
```

Digital Resource: Actors

Actors

Information about these elements:

This set of elements allows information about the actors involved with the digital resource to be recorded. Actors include for example photographers, artists, sculptors, painters and historical figures who have an association with the subject content of the resource.

- ID
- Name - the name of the person or organisation
- Actor Type - indicate whether the actor is an individual, a group of individuals or an organisation
- Roles - the roles of the actor (creator, photographer, artists, sculptor, painter, etc.) Use of a controlled vocabulary such as Getty Arts and Architecture thesaurus is recommended, and

the vocabulary used may be indicated using the namespace attribute.

- Contacts – contact information may be included if known
- Vital dates
- Place of birth
- Place of death
- Place of activity
- Biographical note

Hint: Ideally choose a preferred form of name from an authority source or thesauri (e.g. ULAN). If you do not use an authority source, use a consistent form of the name e.g. Shakespeare, William.

Optional Repeating

Example:

- ID
- Name – Palfrey, Jane
- Actor Type - Individual
- Roles - Photographer
- Contacts
 - Organisation – British School at Athens
 - Address
- Vital dates
 - 1900s <Date of Birth>
 - 1980s <Date of Death>
- Place of birth - London
- Place of death - Glasgow
- Place of activity - Greece
- Biographical note – Wife of Humphrey Payne, archaeologist.

```
<car:actors>
  <car:id>2022</car:id>
  <car:name>Robert Adam</car:name>
  <car:roles>engraver</car:roles>
- <car:vitalDates>
  <car:birthDate>1728</car:birthDate>
  <car:deathDate>1792</car:deathDate>
</car:vitalDates>
  <car:placeOfBirth>Kirkaldy</car:placeOfBirth>
  <car:placeOfDeath>London</car:placeOfDeath>
</car:actors>
```

Digital Resource: Format

Format

Information about this element:

This is the file format of the resource. Recommended best practice is to use a controlled vocabulary such as the list of Internet Media Types (MIME).

**Recommended
Repeating**

Example:

JPEG
<car:format>image/jpeg</car:format>

Digital Resource: Format details

Format details

Information about this element:

This is for additional information about the file or its production that could be of use in selecting an appropriate viewer for the resource, such as specific codecs used.

**Optional
Repeating**

Example:

VRML viewer required

Digital Resource: Medium

Medium

Information about this element:

This is the medium or physical carrier of the resource.

**Optional
Repeating**

Example:

Hard disk

Digital Resource: Extent

Extent

Information about this element:

This is information about the size or extent of the resource including the unit of measurement.

**Optional
Repeating**

Example:

360 Kbytes

Digital Resource: Subject

Subject

Information about this element:

This is information the subject of the digital resource, this can include topics, people and places (but use the spatial and temporal elements where the native data allows).

Use of a controlled vocabulary such as Getty Arts and Architecture thesaurus is recommended, and the vocabulary used may be indicated using an attribute.

Hint: Use well known authorities such as AAT, LCSH, or national subject headings to describe the subject of your material.

**Optional
Repeating**

Example:

Temple

<car:subject>**basilica**</car:subject>

<car:subject>**public buildings**</car:subject>

<car:subject>**view of mural painting**</car:subject>

Digital Resource: Spatial

Spatial: Location set: Named location

Information about this element:

This is the name of a place or location which is represented in the digital resource being described.

The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Use of a controlled vocabulary such as <http://www.geonames.org/> is recommended, and the vocabulary used may be indicated using an attribute.

**Recommended
Repeating**

Example:

Pompeii

Spatial: Location set: Address

Information about these elements:

A set of elements to record for example the postal address of a historic building represented in the digital resource.

**Optional
Non-repeating**

Example:

Building name: Temple of Hera Akraia

Town or City:

Locality:

Admin area: Corinth

Country: Greece

Spatial: Spatial reference system

Information about this element

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. The EPSG code for the spatial reference system is preferred, see the EPSG registry:

<http://www.epsg-registry.org/>

**Recommended
Non-repeating**

Example:

EPSG:4327

WGS84

Spatial: Cartographic reference: Coordinates

Information about these elements:

This set of elements allows the X, Y and Z coordinates for the centre point represented in the digital resource being recorded.

Recommended
Non-repeating

Example:

X = 3410

Y = 7659

Z = 510

Spatial: Geometry: Bounding box

Information about these elements:

This set of elements allows the maximum and minimum X and Y coordinates for a bounding box which is represented in the digital resource (for example the area covered by a digitised map or plan).

Optional
Non-repeating

Example:

MaxX = 3410

MaxY = 7650

MinX = 3390

MinY = 7620

Please note that the full set of spatial elements may be used when recording digital resources, the most frequently implemented elements have been suggested above.

Digital Resource: Temporal

Use for dates associated with the topic of the resource for example the temporal coverage of an image of a Neolithic monument captured in 1932 includes both 'Neolithic' and '1932'.

For digitised copies of historic photographs include the date when the original photograph was taken (the date of the view of the monument); use the 'created' element for the date when the photograph was digitised.

Temporal: Timespan: Start Date
<p>Information about this element:</p> <p>This is the calendar date when the topic of the digital resource first came into existence, e.g. the date when a house which is the subject of an image was built.</p> <p>Date type</p> <p>Recommended Repeating</p> <p>Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.</p>
<p>Example</p> <pre><car:startDate>1748-01-01</car:startDate></pre>
Temporal: Timespan: End Date
<p>Information about this element:</p> <p>This is the calendar date when the topic of the digital resource first came into existence, e.g. the date when a house which is the subject of an image was destroyed.</p> <p>Date type</p> <p>Recommended Repeating</p> <p>Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.</p>
<p>Example</p> <pre><car:endDate>1899-12-31</car:endDate></pre>

Temporal: Timespan: Dimension

Information about this element:

This group of elements allows for an archaeological date to be captured

Optional
Repeating

Example:

Measurement unit = year

Value = 474

Type = BC

Temporal: Timespan: Date range qualifier

Information about this element:

This is the nature of the time span given (e.g. throughout, at some time during, etc.) Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional
Repeating

Example:

During

Temporal: Period name

Information about this element

This is name given to the period in history when something occurred. The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Recommended
Repeating

Example:

Bronze age

Temporal: Display date

Information about this element:

A free text field used to display the date or period for example where the date of an image is uncertain. The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

**Optional
Repeating**

Example:

1950s

Digital Resource: Publication Statement**Publication statement**

Information about these elements:

This set of elements allows details about the Publisher, place of publication and date of publication to be recorded.

**Optional
Repeating**

Note: The name of the publisher of the digital object or the original physical object in the case of a digitisation.

Example:

Publisher = Oxford University Press

Place of publication = Oxford

Date of publication = 1986

Digital Resource: Type**Type**

Information about these elements:

This is the nature or genre of the resource and may include the genre of the digitised object, for example drawing, painting or sculpture. Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using the namespace attribute.

**Recommended
Repeating**

Example:

Plan

Map

Drawing 3D model

Digital Resource: Description

Description
<p>Information about this element:</p> <p>This is a free text description of the digital object or the original image or other object in the case of a digitisation. It should elaborate on the information in the metadata.</p> <p>It can be used to map additional statements available in the native metadata if these add to the description of the object, for example:</p> <ul style="list-style-type: none">- statements relating to a technique applied to an object in terms of technology or craftsmanship e.g. carving, pressing, shoe making, binding- statements about an event relating to an object <p>The note element may be used to map additional information.</p> <p>Mandatory Non-repeating</p>
<p>Example:</p> <p>Image of the south west side of the Heraion at Perachora, NW Corinthia, Greece taken in 1932 by Jane Palfrey during the excavations by Humfry Payne of the British School at Athens excavations.</p>

Digital Resource: Note

Note
<p>Information about this element:</p> <p>This is an additional free text note about the digital resource. The note element may be used to map information available in the original metadata which do not easily map to other CARARE elements.</p> <p>Optional Repeating</p>
<p>Example:</p>

Digital Resource: Created

Created
Information about this element
This is the date when the digital resource was created, for example the date when a photograph was digitised or the date when the original image was captured.
Optional Non-repeating
Example: 2001-02-03

Digital Resource: Provenance

Provenance
Information about this element
A statement of any changes in ownership and custody of the resource since its creation that are significant for its authenticity, integrity, and interpretation.
Optional Non-repeating
Example: The publication rights to the 3D model were transferred from the Digitisation company to the Museum.

Digital Resource: Language

Language
Information about this element
This is the language of the resource, e.g. the language of a digitised text, the language of the subtitles or a voice-over in a movie or a Virtual Reality model of a monument.
Use of RFC 4646 is highly recommended. Best practice is to use that ISO 639-1 (two letter code) unless only the ISO639-2 three letter code exists. (ISO 639-3 should not be used.)
Optional Repeating
Example: EN

Digital Resource: Link

Link
Information about this element This is the URL of the resource. A reference to the digital object on the content provider's web site in the best available resolution/quality (i.e. a link to the resource as a text, image, sound, or video file, not to the webpage that contains it). The data given here will allow the automatic generation of a thumbnail by Europeana for its functionality.
Mandatory Non-repeating
Example: http://pompei.sns.it/immagini/ext/MP0/MP0_0196.jpg

Digital Resource: isShownAt

isShownAt
Information about this element This is the URL to the digital object on the content provider's website in its full information context (i.e. a link to the webpage that contains the digital object and contextual information).
Optional Non-repeating
Example: http://pompei.sns.it/prado_front_end/index.php?page=Home&id=5118

Digital Resource: resourceMetadataLocation

resourceMetadataLocation
Information about this element This is a pointer to other information about the resource making the resource available
Optional Non-repeating
Example:

Digital Resource: Relations

This is information about the relations between the digital resource being recorded and events, digital resources or other heritage assets. There should be at least one relation to a heritage asset.

Relations: Type of the relation
Information about these elements: This is information about the type of relationship between the heritage asset and the other resource.
Recommended Repeating
Example: <ul style="list-style-type: none">• Is Representation Of – associates an information resource to the object that it represents, e.g. a digital image is a representation of the monument which is the target of the relation.• Is Derivative Of – a version of another resource• Is Next In Sequence – the ordered parts of a resource, e.g. the pages in a book or an ordered sequence of 3D models showing the change of a monument over time.• Is Related To – a general relationship between objects• Has Part – used for objects that incorporate other objects, e.g. a multimedia has parts consisting of a number of digital resources.• Is Part of – used for the collection of which the digital resource is a part.
Relations: Target of the relation
Information about this element: This is the ID number of the related heritage asset, event or digital resource.
Recommended Repeating
Example: 123478

Digital Resource: Rights

Information about the rights associated with the digital resource itself. The information elements include:

- Copyright
 - Rights holder;
 - Rights dates;
 - Credit line (statement)
- Access rights
 - Granted to
 - Conditions
 - Date from
 - Date to
 - Statement

- Reproduction rights
 - Statement
 - Contacts
 - Fees

License – a URI indicating a license or conditions for the use of the object or data, e.g. a Creative Commons license¹ or the public domain mark². Use as an alternative

Rights: Copyright
<p>Information about these elements</p> <p>These elements allow for any copyright in the digital resource to be recorded including the name of the rights holder if any, the date the right came into force if any, and a credit line or statement.</p> <p>Note: If the digital resource has been placed in the public domain this should be indicated in the credit line (the rights holder and rights dates elements will be empty).</p> <p>Optional – Rights holder and Rights dates Recommended – Credit line Repeating</p>
<p>Example:</p> <ul style="list-style-type: none"> • Rights holder = An Organisation • Rights dates = 1998 • Credit line (statement) = An Organisation © 1998 <ul style="list-style-type: none"> • Rights holder = • Rights dates = • Credit line (statement) = Public Domain
Rights: Access Rights
<p>Information about these elements</p> <p>These elements allow for any access rights that have been granted to the digital resource to be recorded including the name of the person or organisation to whom the rights have been granted, any conditions which apply, the date the right came into force and the date when the right ceases, and a statement.</p> <p>Optional Repeating</p>
<p>Example:</p> <ul style="list-style-type: none"> • Granted to = AN Organisation • Conditions = Educational Use • Date from = 20-10-2008 • Date to = • Statement = Access is granted for use in teaching and learning materials for non-commercial purposes.

¹ <http://creativecommons.org/about/licenses/>

² <http://creativecommons.org/publicdomain/mark/1.0/>

Rights: Reproduction Rights

Information about these elements

These elements allow for a statement to be made about reproduction of the digital resource including whether any rights are granted or fees applied, the contacts elements allow contact details for a point of contact within the organisation to be recorded.

**Optional
Repeating**

Example:

- Statement = Reproductions of the digital resource are available by arrangement, please contact our help desk for more information.
- Contacts
 - Name = Jane Bloggs
 - Role = Help Desk
 - Organisation = The Museum
 - Address
 - Phone = +NN NNN NNNN (include the international dialling code)
 - Fax = +NN NNN NNNN (include the international dialling code)
 - Email = publications@theMuseum.eu
- Fees =

Rights: Licence

Information about this element

A statement of the licence (if any) under which the digital resource is being made available. Use of the Creative Commons licences is suggested (<http://creativecommons.org/>).

**Optional
Repeating**

Example

CC BY 3.0 <http://creativecommons.org/licenses/by/3.0/>

4.3 Activity

Record information
Information about this element: This is information about the record in the native inventory system or database. See below for a detailed description of the elements. Record id is mandatory for all activities.

Activity: Appellation

Appellation Name and ID form a mandatory group of elements which may be repeated, e.g. where an activity is known by more than one name.

Appellation: Appellation id
Information about this element: This is the ID number for the Activity in the inventory. Mandatory Repeating
Example: 123499
Appellation: Appellation name
Information about this element This is the name of the Activity or Event. Where an Activity has a name in an alternate language (not that of the metadata record) the XML lang attribute should be used. Mandatory Repeating
Example: Excavations of Hera Akraia by the British School of Athens

Activity: Description

Description
Information about this element: This is the description of the activity or event which took place. This is free text.
Mandatory Non-repeating
Example: The Temples were excavated in the beginnings of the 20th century by Humfry Payne and the British School at Athens (BSA).

Activity: Actors

Actors
Information about these elements: This set of elements allows information about the actors involved in the activity or the event. Actors include for example excavators, surveyors, builders, sculptors, painters and historical figures who were involved in the activity.
<ul style="list-style-type: none">• ID• Name - the name of the person or organisation• Actor Type - indicate whether the actor is an individual, a group of individuals or an organisation• Roles - the roles of the actor (creator, custody, repository, curator, architect, sculptor, photographer, compiler, etc.) Use of a controlled vocabulary such as Getty Arts and Architecture thesaurus is recommended, and the vocabulary used may be indicated using the namespace attribute.• Contacts – contact information may be included if known• Vital dates• Place of birth• Place of death• Place of activity• Biographical note
Hint: Ideally choose a preferred form of name from an authority source or thesauri (e.g. ULAN). If you do not use an authority source, use a consistent form of the name e.g. Shakespeare, William.
Optional Repeating
Example: <ul style="list-style-type: none">• ID• Name• Actor Type• Roles• Contacts

- Organisation
- Address
- Vital dates
- Place of birth
- Place of death
- Place of activity
- Biographical note

Activity: Event type

Event type

Information about this element:

This is classification of the type of event or activity which took place, e.g. survey, archaeological excavation, rebuilding. Use of a controlled vocabulary is recommended.

- Term
- Namespace – this is the name/location of the controlled vocabulary from which the term is taken.

Example:

Archaeological excavation

Activity: Temporal

Temporal: Timespan: Start Date

Information about this element:

This is the calendar date when the activity or event first began, e.g. the date when an archaeological excavation started.

Date type

Recommended Repeating

Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.

Example

04-01-1984

Temporal: Timespan: End Date

Information about this element:

This is the calendar date when the activity or event ended, e.g. the date when the archaeological excavation finished.

Date type

**Recommended
Repeating**

Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.

Example

30-04-1984

Temporal: Timespan: Dimension

Information about this element:

This group of elements allows for an archaeological date to be captured

**Optional
Repeating**

Example:

Measurement unit = year

Value = 474

Type = BC

Temporal: Timespan: Date range qualifier

Information about this element:

This is the nature of the time span given (e.g. throughout, at some time during, etc.) Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

**Optional
Repeating**

Example:

Throughout

Temporal: Period name

Information about this element

This is name given to the period in history when something occurred, for example the period when a house was built.

The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

**Recommended
Repeating**

Example:

Renaissance

Temporal: Display date

Information about this element:

A free text field used to display the date or period for users (e.g. early 19th century, 1950s). The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

**Optional
Repeating**

Example:

Late 19th century

Temporal: Scientific date

Information about this element:

If the activity resulted in scientific dating of materials excavated from a site, this element allows the date to be recorded precisely as received from the specialist.

**Optional
Repeating**

Example:

1250 bp +/-30 PBN-1675'

Temporal: Scientific date method

Information about this element:

This is the scientific dating method.

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional
Repeating

Example:

Radiocarbon dating

Activity: Spatial

Use for the location or area covered by the activity or historical event.

Spatial: Location set: Named location

Information about this element:

This is the name of a place or location which is relevant to the activity or event being described. The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred. Use of a controlled vocabulary such as <http://www.geonames.org/> is recommended, and the vocabulary used may be indicated using an attribute.

Recommended
Repeating

Example:

Pompeii

Spatial: Location set: Address

Information about these elements:

A set of elements to record the postal address of the activity or event where applicable, for example if the activity relates to a survey of a historic building use for the address of the building.

Optional
Non-repeating

Example:

Building name:
Number in Road:
Road name:
Town or City:
Postcode or Zipcode:
Locality:
Admin area:
Country:

Spatial: Location set: Geopolitical area

Information about this element:

This is the name of an administrative region which does not form part of the address, for example Scotland, England, Tuscany etc. May also be used for a historical geopolitical area, or an administrative unit (e.g. as defined in the INSPIRE directive).

Use of a controlled vocabulary such as <http://www.geonames.org/> is recommended, and the vocabulary used may be indicated using an attribute.

Optional
Non-repeating

Example:

Tuscany

Spatial: Location set: Geopolitical area type

Information about this element:

This is the type of geopolitical area.

Optional
Non-repeating

Example:

Region

Spatial: Location set: Cadastral reference

Information about this element:

Optional
Non-repeating

Example:

Spatial: Location set: Historical name

Information about this element:

This is a historical place name relevant to the activity or event.

The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Optional
Non-repeating

Example:

Wessex

Spatial: Spatial reference system

Information about this element

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. The EPSG code for the spatial reference system is preferred, see the ESPG registry:

<http://www.epsg-registry.org/>

Recommended
Non-repeating

Example:

EPSG:4327

WGS84

Spatial: Cartographic reference: Spatial feature type

Information about this element:

This describes how a feature is depicted in a GIS.

Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.

Optional
Non-repeating

Example:

Point, line, polygon, multi-point, multi-line or multi-polygon

Spatial: Cartographic reference: Coordinates

Information about these elements:

This set of elements allows the X, Y and Z coordinates for the activity or event to be recorded.

Recommended
Non-repeating

Example:

X = 3410
Y = 7659
Z = 510

Spatial: Geometry: Bounding box

Information about these elements:

This set of elements allows the maximum and minimum X and Y coordinates for a bounding box which contains the activity or event to be recorded.

Optional
Non-repeating

Example:

MaxX = 3410
MaxY = 7650
MinX = 3390
MinY = 7620

Spatial: Geometry: Quickpoint

Information about these elements:

This set of elements allows the X and Y coordinates for the centre of the activity or event to be recorded.

Optional
Non-repeating

Example:

X = 3410
Y = 7659

Spatial: Geometry: Entity

Information about this element:

GML, Well-known text (WKT).

Optional
Non-repeating

Example:

Spatial: Geometry: Stored precision

Information about this element:

This is the delivery precision (the precision of a coordinate as stored in the system, and as delivered to users).

Optional
Non-repeating

Example:

Spatial: Geometry: Height

Information about this element:

This is the height (or Z coordinate) of the activity or event.

Optional
Non-repeating

Example:

500

Spatial: Geometry: Area

Information about this element:

This is the area covered by the activity or event in units.

Optional
Non-repeating

Example:

2500

Spatial: Representations

Information about this element:

This is how a feature is represented on a map.

Optional
Non-repeating

Example:

Filled circle

Activity: Assessments

Assessments
<p>Information about this element:</p> <p>This is allows for any assessments made of the monument during the event to be recorded, e.g. of the condition of the monument. Use of a controlled vocabulary is recommended.</p> <ul style="list-style-type: none">• Term• Namespace – this is the name/location of the controlled vocabulary from which the term is taken.
<p>Optional Non-repeating</p>
<p>Example:</p> <p>The monument was found to be partially destroyed by coastal erosion.</p>

Activity: Event Method

Event Method
<p>Information about this element:</p> <p>This is the method by which the event was carried out.</p>
<p>Optional Non-repeating</p>
<p>Example:</p> <p>Open area excavation</p>

Activity: Materials and Techniques

Materials and Techniques
<p>Information about this element:</p> <p>This is the materials and/or techniques used during the event, for example the building materials used during the restoration of a building. Use of a controlled vocabulary is recommended, and the vocabulary used may be indicated using an attribute. No particular common vocabulary is recommended for use.</p>
<p>Optional Non-repeating</p>
<p>Example:</p> <p>Portland Stone</p>

Activity: Relations

This is information about the relations between the activity and event being recorded and heritage assets, digital resources or other events.

Relations: Type of the relation
Information about this element: This is information about the type of relationship between the activity and the other resource. Optional Repeating
Example: <ul style="list-style-type: none">• Is Related To – a general relationship between objects
Relations: Target of the relation
Information about this element: This is the ID number of the related heritage asset, event or digital resource. Optional Repeating
Example: 123478

4.4 Collection information

The following elements provide a collection level description of the resources being harvested.

Title

Title
Information about this element
This is the title of the collection. The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.
Recommended Repeating
Example: National Monuments Inventory

Keywords

Keywords
Information about this element
Subject keywords. Use of a controlled vocabulary such as Getty Arts and Architecture Thesaurus is recommended, and the vocabulary used may be indicated using an attribute.
Optional Repeating
Example: Archaeology; Architecture

Collection: Contacts

Contacts
Information about these elements
These elements allow for the details of a point of contact within the organisation to be recorded.
Optional Repeating
Example: <ul style="list-style-type: none">• Name = Jane Bloggs• Role = Help Desk• Organisation = The Museum• Address

- Building name
- Number in Road
- Road name
- Town or City
- Postcode or Zipcode
- Locality
- Admin area
- Country
- Phone = +NN NNN NNNN (include the international dialling code)
- Fax = +NN NNN NNNN (include the international dialling code)
- Email = publications@theMuseum.eu

Collection: Rights

This provides a general statement about the rights associated with the collection as a whole.

Rights: Copyright

Information about these elements

These elements allow for a general statement about copyright in the collection to be recorded including the name of the rights holder if any, the date the right came into force if any, and a credit line or statement.

Note: If the digital resource has been placed in the public domain this should be indicated in the credit line (the rights holder and rights dates elements will be empty).

Optional – Rights holder and Rights dates

Recommended – Credit line

Repeating

Example:

- Rights holder = An Organisation
- Rights dates = 1998
- Credit line (statement) = An Organisation © 1998

Rights: Access Rights

Information about these elements

These elements allow for any access rights that have been granted to the collection to be recorded including the name of the person or organisation to whom the rights have been granted, any conditions which apply, the date the right came into force and the date when the right ceases, and a statement.

Optional

Repeating

Example:

- Granted to = AN Organisation
- Conditions = Educational Use
- Date from = 20-10-2008
- Date to =

<ul style="list-style-type: none"> • Statement = Access is granted for use in teaching and learning materials for non-commercial purposes.
<p>Rights: Reproduction Rights</p> <p>Information about these elements</p> <p>These elements allow for a statement to be made about reproduction of the collection including whether any rights are granted or fees applied, the contacts elements allow contact details for a point of contact within the organisation to be recorded.</p> <p>Optional Repeating</p>
<p>Example:</p> <ul style="list-style-type: none"> • Statement = Reproductions of materials held in the collection are available by arrangement, please contact our help desk for more information. • Contacts <ul style="list-style-type: none"> ○ Name = Jane Bloggs ○ Role = Help Desk ○ Organisation = The Museum ○ Address ○ Phone = +NN NNN NNNN (include the international dialling code) ○ Fax = +NN NNN NNNN (include the international dialling code) ○ Email = publications@theMuseum.eu • Fees =
<p>Rights: Licence</p> <p>Information about this element</p> <p>A statement of the licence (if any) under which the collection is being made available. Use of the Creative Commons licences is suggested (http://creativecommons.org/).</p> <p>Optional Repeating</p>
<p>Example</p> <p>CC BY 3.0 http://creativecommons.org/licenses/by/3.0/</p>

Source

<p>Source</p> <p>The name of the organisation responsible for the collection.</p> <p>Recommended Non-repeating</p> <p>Note: Maps to Europeana: Data Provider</p>
<p>Example:</p> <p>The Hellenic Ministry of Culture</p>

Language

Language
Information about this element
This is the language of the metadata records for the collection.
Use of RFC 4646 is highly recommended. Best practice is to use that ISO 639-1 (two letter code) unless only the ISO639-2 three letter code exists. (ISO 639-3 should not be used.)
Recommended Repeating
Example: EN

Statement

Record information: Statement
Information about this element
This is a free text description of the collection.
Recommended Repeating
Example: EN

Creation

Information about how the collection was created.

Created On
Information about this element
This is the date when the collection of data being harvested was created.
Recommended Non-repeating
Example: 2011-02-03
Creation: Query
Information about these elements:
This provides information about the query which was used to extract the data
Optional

Non-repeating

Example:

All records within the National Monuments inventory created after 1st January 2010.

All monuments and protected buildings.

Coverage

Use to describe the general coverage of the collection as a whole, includes both temporal and spatial coverage.

Coverage: Temporal: Timespan: Start Date

Information about this element:

This is the calendar date of the earliest materials in the collection.

Date type

**Optional
Repeating**

Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.

Example

Coverage: Temporal: Timespan: End Date

Information about this element:

This is the calendar date of the latest materials in the collection

Date type

**Optional
Repeating**

Note: Where a specific time period is defined this may be transformed to provide a start date and end date, for use in the Europeana timeline. For example, period = Roman Britain could become start date = 0043 and end date 0410.

Example

Coverage: Temporal: Period name

Information about this element

This is name given to the periods in history covered by the collection. Use of a controlled vocabulary is recommended

Recommended

Repeating

Example:

Prehistoric; Historic; Modern

Coverage: Temporal: Display date

Information about this element:

A free text field used to display information about the dates covered by the collection. The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

**Optional
Repeating**

Example:

Sixth century BC to 19th century AD.

Coverage: Spatial: Location set: Named location

Information about this element:

This can be used for the names of places or location covered by the collection. This may be a place name, a location, a country, a region names or other named location.

The element may be repeated using the XML:lang attribute if the element value is available in alternate languages. A preferred/alternate attribute may be used to indicate which value is preferred.

Use of a controlled vocabulary such as <http://www.geonames.org/> is recommended, and the vocabulary used may be indicated using an attribute.

**Recommended
Repeating**

Example:

Italy
Emilia Romagna
Bologna

5. Status of elements: mandatory, recommended, optional

Mandatory	Mandatory where class is present	Recommended	Optional
Carare id	Heritage asset: Record Information id	Collection: Title	Collection: Keywords
Digital resource: Record information id	Heritage asset: Appellation id	Collection: Rights	Collection: Contacts
Digital resource: Appellation id	Heritage asset: Appellation name	Collection: Source	Collection: Statement
Digital resource: Appellation name	Heritage asset: Description	Collection: Language	Collection: Creation
Digital resource: Description	Activity: Record information record id	Heritage asset: Characters Heritage asset type	Collection: Creation Createdon
Digital resource: Link	Activity: Appellation id	Heritage asset: Characters Temporal: Time span start date	Collection: Creation Query
	Activity: Appellation name	Heritage asset: Characters Temporal: Time span end date	Collection: Coverage
		Heritage asset: Characters Temporal: Period name	Collection: Temporal
		Heritage asset: Spatial Location set Named location	Collection: Spatial
		Heritage asset: Spatial: Spatial reference system	
		Digital resource: Format	Heritage asset: Actors
		Digital resource: Spatial Location set Named location	Heritage asset: Designations
		Digital resource: Spatial: Spatial reference system	
		Digital resource: Subject	Heritage asset: Designations Protection type
		Digital resource: Temporal Time span start date	Heritage asset: Designations Grade
		Digital resource: Temporal Time span end date	Heritage asset: Designations Date from
		Digital resource: Temporal Period	Heritage asset: Designations Date to

		name	
		Digital resource: Type	Heritage asset: Conditions Condition
		Digital resource: Relations	Heritage asset: Conditions Condition Assessment
		Digital resource: Rights Copyright Credit line (statement)	Heritage asset: Conditions Condition Date
		Digital resource: Relations Source of relation	Heritage asset: Conditions Relations
		Digital resource: Relations Type of relation	Heritage asset: Characters Materials
		Digital resource: Relations Target of relation	Heritage asset: Characters Inscriptions
		Activity: Description	Heritage asset: Characters Dimensions
		Record information: Source	Heritage asset: Characters Craft Placeofregistration
		Record information: Country	Heritage asset: Characters Craft Constructionmethod
		Record information: Creation Actor	Heritage asset: Characters Craft Propulsion
		Record information: Language (of the metadata record)	Heritage asset: Characters Craft Lastjourneydetails Departure
		Record information: Rights Copyright Credit line (statement)	Heritage asset: Characters Craft Lastjourneydetails Destination
		Rights: Copyright Credit line (statement)	Heritage asset: Characters Craft Lastjourneydetails Cargo
		Temporal: Time span start date	Heritage asset: Characters Craft Lastjourneydetails Mannerofloss
		Temporal: Time span end date	Heritage asset: Characters Craft Lastjourneydetails Dateofloss
		Temporal: Time span Period name	Heritage asset: Repository location
		Spatial: Location set Named location	Heritage asset: References Appellation id
		Spatial: Spatial	Heritage asset:

		reference system	References Appellation name
		Spatial: Coordinates: X	Heritage asset: References Actors
		Spatial: Coordinates: Y	Heritage asset: References Type
			Heritage asset: References Medium
			Heritage asset: References Extent
			Heritage asset: References Subject
			Heritage asset: References Rights
			Heritage asset: References Publication statement: Publisher
			Heritage asset: References Publication statement: Place – of publication
			Heritage asset: References Publication statement: Date
			Heritage asset: References Note
			Heritage asset: References Relations
			Heritage asset: Relations
			Digital resource: Actors
			Digital resource: Format Details
			Digital resource: Medium
			Digital resource: Extent
			Digital resource: Publication statement
			Digital resource: Note
			Digital resource: Created
			Digital resource: Provenance
			Digital resource: Language
			Digital resource: IsShownAt
			Digital resource: Resource metadata location
			Activity: Description
			Activity: Actors
			Activity: Actors
			Activity: Spatial
			Activity: Assessments
			Activity: Event method

			Activity: Materials and techniques
			Activity: Relations
			Record information: Type
			Record information: Creation Date
			Record information: Update Date
			Record information: Update Actor
			Record information: Keywords
			Rights: Copyright Rights holder
			Rights: Copyright Rights dates
			Rights: Access rights: Granted to
			Rights: Access rights: Conditions
			Rights: Access rights: Date from
			Rights: Access rights: Date to
			Rights: Access rights: Statement
			Rights: Reproduction rights: Statement
			Rights: Reproduction rights: Contacts
			Rights: Reproduction rights: Fees
			Rights: Licence
			Dimensions: Measurement type
			Dimensions: Units
			Dimensions: Scale
			Dimensions: Value
			Temporal: Time span Dimension
			Temporal: Time span Date range qualifier
			Temporal: Display date
			Temporal: Scientific Date
			Temporal: Scientific Date Method
			Spatial: Location set Address: Building name
			Spatial: Location set Address: Number in road
			Spatial: Location set Address: Road name
			Spatial: Location set

			Address: Town or city
			Spatial: Location set Address: Postcode or zipcode
			Spatial: Location set Address: Locality
			Spatial: Location set Address: Admin area
			Spatial: Location set Address: Country
			Spatial: Location set Geopolitical area
			Spatial: Location set Geopolitical area type
			Spatial: Location set Cadastral reference
			Spatial: Location set Historical name
			Spatial: Cartographic reference Spatial feature type
			Spatial: Coordinates: Z
			Spatial: Cartographic reference Geometry
			Spatial: Cartographic reference Bounding Box: maxX
			Spatial: Cartographic reference Bounding Box: maxY
			Spatial: Cartographic reference Bounding Box: minx
			Spatial: Cartographic reference Bounding Box: minY
			Spatial: Cartographic reference Quickpoint: X
			Spatial: Cartographic reference Quickpoint: Y
			Spatial: Cartographic reference Entity
			Spatial: Cartographic reference Stored precision
			Spatial: Cartographic reference Height
			Spatial: Cartographic reference Area
			Spatial: Cartographic reference Representations
			Actors: ID
			Actors: Name

			ActorType
			Actors: Roles
			Actors: Contacts: Name
			Actors: Contacts: Role
			Actors: Contacts: Organisation
			Actors: Contacts: Address
			Actors: Contacts: Phone
			Actors: Contacts: Fax
			Actors: Contacts: Email
			Actors: Vital dates
			Actors: Place of birth
			Actors: Place of death
			Actors: Place of activity
			Actors: Biographical note

6. References

Europeana v1.0, Metadata Mapping and Normalisation Guidelines for the Europeana Semantic Elements, Version 2.0.1, 24/01/2011