



→ Europeana Semantic Elements Specification and Guidelines

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This document provides the specification of the Europeana Semantic Elements (ESE) and guidance for mapping source data. It is an application profile using Dublin Core (DC) and Europeana elements and this document gives their definitions and other characteristics in the context of Europeana. This Specification replaces the previous documents: the [ESE Specification](#) and [Mapping Guidelines](#).



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1. About the Europeanana Semantic Elements

The Europeanana Semantic Elements (ESE) format provides a basic set of elements for describing objects in the cultural heritage domain in a way that is usable for Europeanana. The current version of the ESE is an updated version of the one that has been used from the start of the Europeanana prototype in November 2008. It is a Dublin Core-based application profile¹ providing a generic set of terms that can be applied to heterogeneous materials thereby providing a baseline to allow contributors to take advantage of their existing rich descriptions.

ESE produces a flat record where it is not always possible to tell if a value applies to the original object or to its digital representation. If possible it would be better to provide your data using the EDM format². All ESE data will be converted to EDM on ingestion but the conversion from ESE may not be as good as if you had provided EDM directly.

The XML schema for ESE checks for basic conformance to this specification and gives instruction about the ordering of the XML elements. Note however that this schema is an extension of the DC terms schema and will therefore accept all DC terms - even those that are not importable into the Europeanana portal. Please include in your metadata only the elements defined in the specification.

All documentation relating to ESE can be found on the ESE web pages at <http://pro.europeana.eu/ease-documentation>

1.1 General rules for mapping source data to ESE

1. Map as many as possible of the original source elements to the available ESE elements.
2. Always use the more specific dcterms refinements if the semantic of the source term clearly corresponds to the narrower term e.g. `dcterms:spatial` or `dcterms:temporal` instead of `dc:coverage`. The table in Annex A shows which elements are refinements of others.
3. Providers are encouraged to include `xml:lang` attributes in all appropriate metadata elements.
4. The persistent link to the provided object should be given as a URL. These may need to be constructed from metadata values and information external to the metadata.
5. If it is difficult to decide which ESE element to map a source term to, consider how best to meet expectations of the user and the functionality of the system.
6. Where there are multiple values for the same element repeat the element for each instance of the value.
7. Consider how the data would perform in response to “who, what, where and when” queries. This therefore encompasses names, types, places and dates.
8. To ensure that your data will be meaningful when displayed in the new context consider adding a prefix or suffix. As a simple example, “100 x 200” could

¹<http://dublincore.org/documents/singapore-framework/>

² <http://pro.europeana.eu/edm-documentation>



become “100 x 200cm”. Such additions are especially important where data from several source elements have been aggregated into one ESElement. For example

Description: D. Nath. Matthaus von Wolf wurde 1724 in Konitz/Westpreußen geboren. 1748 Leibarzt des Bischofs von Posen, Leibarzt des Fürsten Lubomirski und Czartorski,.

Papier

Radierung

The word“Papier”could have been preceded by “Material:”and “Radierung”by “Technik:”as they were taken from those elements in the source data.

1.2 Categorisation of elements

Mandatory elements	Recommended elements
dc:title or dc:description	dcterms:alternative
dc:language for text objects	dc:creator
europeana:dataProvider	dc:contributor
europeana:isShownAt or europeana:isShownBy	dc:date
europeana:provider	dcterms:created
dc:subject or dc:type or dc:coverage or dcterms:spatial	dcterms:issued
europeana:rights	dcterms:temporal
europeana:type	dc:publisher
europeana:UGC (when applicable)	dc:source
	dcterms:isPartOf
	europeana:object
Additional elements	
dc:format	dcterms:isFormatOf
dcterms:extent	dcterms:hasVersion
dcterms:medium	dcterms:isVersionOf
dc:identifier	dcterms:hasPart
dc:rights	dcterms:isReferencedBy
dcterms:provenance	dcterms:references
dc:relation	dcterms:isReplacedBy
dcterms:conformsTo	dcterms:replaces
dcterms:hasFormat	dcterms:isRequiredBy
Elements supplied by Europeana	
europeana:country	europeana:usertag
europeana:language	europeana:year
europeana:uri	

Three elements exist in both the dc and europeana namespaces: “Type” “Language” and “Rights”. These have different uses which are explained in the specifications below.



1.3 How the elements in ESE are described

Element name	
Namespace	The namespace or the source of the element: dc , dcterms or Europeana . More information on the dc metadata terms can be found at http://dublincore.org/documents/dcmi-terms/
URI	The Uniform Resource Identifier used to uniquely identify the element.
Label	The human readable label assigned to the element.
Definition	A definition of the element based on the DC definition for the term where applicable.
Europeana note	A note providing information relating to the usage of the element in Europeana prototype.
Obligation & Occurrence	An indication of the requirement or obligation for the element to be present and its occurrence (how often the element may be repeated) in the metadata.
Example	An example of the xml syntax is provided.
Mapping from other formats	A snippet of xml from other formats, e.g. MODS ³ . Only some elements have these.

³The MODS examples for dc elements are gratefully quoted from <http://www.loc.gov/standards/mods/dcsimple-mods.html>. The examples for dcterms are not taken from this source.



2. The ESE elements

This section lists the ESE elements in alphabetical order, describes their attributes and gives samples of transformations from other metadata formats in some cases.

Note: “Type”, “Language” and “Rights” elements occur in both the **dc** and the **Europeana** namespaces; these elements have different uses. In the tables below, you will find them listed twice, once in each namespace, to describe their different uses.

2.1. alternative	
Namespace	dcterms
URI	http://purl.org/dc/terms/alternative
Label	Alternative Title
Definition	An alternative name for the resource. This can be any form of the title that is used as a substitute or an alternative to the formal title of the resource including abbreviations or translations of the title. Refinement of <code>dc:title</code>
Europeana note	Any alternative title by which the original analog or born digital object is known. This can include abbreviations or translations of the title. If the translation is an exact translation consider using repeated <code>dc:title</code> elements with <code>xml:lang</code> attributes instead.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:alternative xml:lang="en">Travels into Several Remote Nations of the World, in Four Parts.</dcterms:alternative></code> (The original 1726 title for <code><dc:title xml:lang="en">Gulliver's Travels</dc:title></code>)

2.2. conformsTo	
Namespace	dcterms
URI	http://purl.org/dc/terms/conformsTo
Label	Conforms To
Definition	An established standard to which the described resource conforms. Refinement of <code>dc:relation</code> .
Europeana note	The names of standards that the digital object (digitized or born digital) complies with and which are useful for the use of the object.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:conformsTo>W3C WCAG 2.0</dcterms:conformsTo></code> (for an HTML document that conforms to web content accessibility guidelines).

2.3. contributor	
Namespace	dc



URI	http://purl.org/dc/elements/1.1/contributor
Label	Contributor
Definition	An entity responsible for making contributions to the resource.
Europeana note	The name of contributors to the original analog or born digital object. This could be a person, an organisation or a service. Map each name to a separate repeated contributor element if possible. Ideally choose a preferred form of name from an authority source. If you do not use an authority source, use a consistent form of the name e.g. Shakespeare, William.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dc:contributor>Maria Callas</dc:contributor></code>
Mapping from other formats	<p>MODS crosswalk⁴:</p> <pre> <mods:name><mods:namePart>Florida Geological Society</mods:namePart></mods:name> <mods:name><mods:namePart>Florida. Department of Agriculture and Consumer Affairs</mods:namePart></mods:name> <mods:name><mods:namePart>Agricultural Experiment Station/Extension Service (IFAS)</mods:namePart></mods:name> becomes: <dc:contributor>Florida Geological Society</dc:contributor> <dc:contributor>Florida. Department of Agriculture and Consumer Affairs</dc:contributor> <dc:contributor>Agricultural Experiment Station/Extension Service (IFAS) </dc:contributor> </pre> <p>Museumdat example:</p> <pre> <museumdat:museumdat> <museumdat:descriptiveMetadata> <museumdat:eventWrap> <museumdat:indexingEventWrap> <museumdat:indexingEventSet> <museumdat:eventType>Herstellung</museumdat:eventType> <museumdat:indexingActorSet> <museumdat:nameActorSet> <museumdat:nameActor museumdat:type="personalName">Anders, Albert</museumdat:nameActor> </museumdat:nameActorSet> <museumdat:roleActor>Hersteller</museumdat:roleActor> </museumdat:indexingActorSet> </museumdat:indexingEventSet> </museumdat:indexingEventWrap> </museumdat:eventWrap> </museumdat:museumdat> Becomes: <dc:contributor>Anders, Albert</dc:contributor> </pre>

⁴ You are advised to consider how the role type sub-elements have been used in a MODS record when mapping to dc:contributor from MODS. See <http://www.loc.gov/standards/mods/dcsimple-mods.html>



2.4. country	
Namespace	europaana
URI	http://www.europeana.eu/schemas/ese/country
Label	Country
Definition	The name of the country of the data provider or “Europe” in the case of Europe-wide projects.
Europeana note	Europeana enters the name of the country of the data provider using ISO 3166 country codes ⁵ as part of the ingest process. They can only do this accurately if Providers (aggregators) supply datasets by country. Do not supply a value for this element.
Obligation & Occurrence	Mandatory (Minimum: 1, Maximum: 1)
Example	<code><europaana:country>gr</europaana:country></code>

2.5. coverage	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/coverage
Label	Coverage
Definition	The spatial or temporal topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant. This may be a named place, a location, a spatial coordinate, a period, date, date range or a named administrative entity. Refined by <code>dcterms:spatial</code> and <code>dcterms:temporal</code>
Europeana note	Coverage is the unqualified spatial or temporal coverage of the original analog or born digital object. Use of the more specific <code>dcterms:spatial</code> and <code>dcterms:temporal</code> elements is preferred where possible.
Obligation & Occurrence	Mandatory to supply either <code>dc:coverage</code> or <code>dcterms:spatial</code> or <code>dc:subject</code> or <code>dcterms:spatial</code> or <code>dc:type</code> (Minimum: 0, Maximum: unbounded)
Example	<code><dc:coverage>1995-1996</dc:coverage></code> <code><dc:coverage>Boston, MA</dc:coverage></code>

2.6. created	
Namespace	dcterms
URI	http://purl.org/dc/terms/created
Label	Date Created
Definition	Date of creation of the resource. Refinement of <code>dc:date</code>
Europeana note	This is the date when the original analog or born digital object was created. We recommend the use of ISO 8601 starting with the year and hyphenating

⁵http://www.iso.org/iso/english_country_names_and_code_elements



	the day and month parts: YYYY-MM-DD. See Annex B for date format recommendations
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dcterms:created>1564</dcterms:created> <dcterms:created>Iron Age</dcterms:created>

2.7. creator	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/creator
Label	Creator
Definition	An entity primarily responsible for making the resource. This may be a person, organisation or a service.
Europeana note	This is the name of the creator of the original analog or born digital object. Ideally choose a preferred form of name from an authority source. If you do not use an authority source, use a consistent form of the name e.g. Shakespeare, William. Map each name to a separate, repeated creator element if possible.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dc:creator>Shakespeare, William</dc:creator>

2.8. dataProvider	
Namespace	Europeana
URI	http://www.europeana.eu/schemas/ese/dataProvider
Label	Europeana Data Provider
Definition	The name or identifier of the organisation that contributes data to Europeana
Europeana note	<p>This element is specifically included to allow the name of the organisation who supplies data to Europeana indirectly via an aggregator to be recorded and displayed in the portal. (Aggregator names are recorded in <code>Europeana:provider</code>.)</p> <p>If an organisation provides data directly to Europeana (i.e. not via an aggregator) the values in <code>Europeana:dataProvider</code> and <code>Europeana:provider</code> will be the same.</p> <p>Organisation names should be provided as an ordinary text string until the Europeana Authority File for Organisations has been established. At that point providers will be able to send an identifier from the file instead of a text string.</p> <p>The name provided should be the preferred form of the name in the language the provider chooses as the default language for display in the portal. Only one <code>Europeana:dataProvider</code> can be provided so countries with multiple languages may prefer to concatenate the name in more than one language (See the example below.)</p>



	Note: Europeana Data Provider is not necessarily the institution where the physical object is located.
Obligation & Occurrence	Mandatory (Minimum: 1, Maximum: 1)
Example	<europeana:dataProvider>Lille, Palais des Beaux-Arts</europeana:dataProvider> <europeana:dataProvider>Koninklijke Bibliotheek van België / Bibliothèque royale de Belgique</europeana:dataProvider>

2.9. date

Namespace	dc
URI	http://purl.org/dc/elements/1.1/date
Label	Date
Definition	A point or period of time associated with an event in the lifecycle of the resource. Refined by: <code>dcterms:created</code> and <code>dcterms:issued</code>
Europeana note	Use for a significant date in the life of the original analog or born digital object. We recommend the use of ISO 8601 starting with the year and hyphenating the day and month parts: YYYY-MM-DD. Use <code>dcterms:temporal</code> (or <code>dc:coverage</code>) if the date is associated with the topic of the resource. See Annex B for date format recommendations
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dc:date>17th century</dc:date>

2.10. description

Namespace	dc
URI	http://purl.org/dc/elements/1.1/description
Label	Description
Definition	An account of the resource. Refined by: <code>dcterms:tableOfContents</code>
Europeana note	A textual description of the or the original analog or born digital object, elaborating on the information in the metadata. ESE has a limited number of elements and this can make it difficult to map some of the richer data elements that exist in provider metadata. The following are examples of such data that could be mapped to the description element: <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 where a technique includes reference to a material e.g. wood carving. When the statement is only about the material (wood, ivory) then <code>dcterms:medium</code> should be chosen.)



	<ul style="list-style-type: none"> statements about an event relating to an object <p>See Annex C for further discussion on mapping difficult elements and some interpretations applied.</p>
Obligation & Occurrence	Mandatory to supply either <code>dc:description</code> or <code>dc:title</code> (Minimum: 0, Maximum: unbounded)
Example	<code><dc:description>Illustrated guide to airport markings and lighting signals, with particular reference to SMGCS (Surface Movement Guidance and Control System) for airports with low visibility conditions.</dc:description></code>

2.11. extent

Namespace	<code>dcterms</code>
URI	<code>http://purl.org/dc/terms/extent</code>
Label	Extent
Definition	The size or duration of the resource. Refinement of <code>dc:format</code> .
Europeana note	Size or duration of the digital object and the original object may be recorded.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:extent>13 cm</dcterms:extent></code> (the width of an original object). <code><dcterms:extent>34 minutes</dcterms:extent></code> (the length of an audio file).
Mapping from other formats	EAD example: <code><physdesc></code> <code><dimensions unit= "metric">42.4 x 68 cm</dimensions></code> <code><dimensions unit= "inches">17 inches x 27inches</dimensions></code> <code></physdesc></code> Becomes <code><dcterms:extent>42.4 cm x 68 cm</dcterms:extent></code> <code><dcterms:extent>17 inches x 27inches</dcterms:extent></code>

2.12. format

Namespace	<code>dc</code>
URI	<code>http://purl.org/dc/elements/1.1/format</code>
Label	Format
Definition	The file format, physical medium or dimensions of the resource. Refined by: <code>dcterms:extent</code> and <code>dcterms:medium</code>
Europeana note	The unqualified element can include file format, physical medium or dimensions of the original or the digital object. It is recommended to use this element for the file format of digitised or born-digital objects. Internet Media Types [MIME] are recommended ⁶ . Use the value "3D-PDF" if appropriate.

⁶<http://www.iana.org/assignments/media-types/>



	It is recommended to use the more specific elements <code>dcterms:extent</code> (dimensions) and <code>dcterms:medium</code> (physical medium) when appropriate.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dc:format>image/jpeg</dc:format></code>
Mapping from other formats	MODS crosswalk example: <code><mods:physicalDescription><mods:form>text/html</mods:form></mods:physicalDescription></code> Becomes <code><dc:format>text/html</dc:format></code>

2.13. hasFormat

Namespace	dcterms
URI	http://purl.org/dc/terms/hasFormat
Label	Has Format
Definition	A related resource that is substantially the same as the pre-existing described resource, but in another format. Refinement of <code>dc:relation</code> . See also <code>dcterms:isFormatOf</code> .
Europeana note	Use <code>dcterms:hasVersion</code> for differences in version.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:hasFormat>http://upload.wikimedia.org/wikipedia/en/f/f3/Europeana_logo.jpg</dcterms:hasFormat></code> where the resource being described is a tiff image file.

2.14. hasPart

Namespace	dcterms
URI	http://purl.org/dc/terms/hasPart
Label	Has Part
Definition	A related resource that is included either physically or logically in the described resource. Refinement of <code>dc:relation</code> . See also <code>dcterms:isPartOf</code> .
Europeana note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:hasPart>Maps.added.22231</dcterms:hasPart></code> The identifier for another map which is part of this one.



2.15. hasVersion	
Namespace	dcterms
URI	http://purl.org/dc/terms/hasVersion
Label	Has Version
Definition	A related resource that is a version, edition, or adaptation of the described resource. Changes in version imply substantive changes in content rather than differences in format. Refinement of <code>dc:relation</code> . See also <code>dcterms:isVersionOf</code> .
Europeana note	Use <code>dcterms:hasFormat</code> for differences in format.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:hasVersion>The Sorcerer's Apprentice (translation by Edwin Zeydel, 1955)</dcterms:hasVersion></code> . In this example the 1955 translation is a version of the described resource.

2.16. identifier	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/identifier
Label	Identifier
Definition	An unambiguous reference to the resource within a given context.
Europeana note	This is the identifier for the original analog or born digital object. Use <code>europa:isShownBy</code> for the URL of the provided digital object. If the URL is already included in the <code>dc:identifier</code> element in the existing metadata, keep it and repeat the information in <code>europa:isShownBy</code> .
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dc:identifier>urn:isbn:9780387097466</dc:identifier></code>
Mapping from other formats	MODS crosswalk example: <code><mods:identifier type="uri">http://palmm.fcla.edu/feol/</mods:identifier></code> Becomes <code><dc:identifier>http://palmm.fcla.edu/feol/</dc:identifier></code>

2.17. isFormatOf	
Namespace	dcterms
URI	http://purl.org/dc/terms/isFormatOf
Label	Is Format Of
Definition	A related resource that is substantially the same as the described resource, but in another format. Refinement of <code>dc:relation</code> . See also <code>dcterms:hasFormat</code> .
Europeana	



note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dcterms:isFormatOf>Europeana_logo.tiff</dcterms:isFormatOf> where the resource being described is a png image file.

2.18. isPartOf

Namespace	dcterms
URI	http://purl.org/dc/terms/isPartOf
Label	Is Part Of
Definition	A related resource in which the described resource is physically or logically included. Refinement of <code>dc:relation</code> . See also <code>dcterms:hasPart</code> .
Europeana note	Use for the name of the collection which the digital object is part of.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dcterms:isPartOf>Crace Collection of Maps of London</dcterms:isPartOf>

2.19. isReferencedBy

Namespace	dcterms
URI	http://purl.org/dc/terms/isReferencedBy
Label	Is Referenced By
Definition	A related resource that references, cites, or otherwise points to the described resource. Refinement of <code>dc:relation</code> . See also <code>dcterms:references</code> .
Europeana note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dcterms:isReferencedBy>Till, Nicholas (1994) <i>Mozart and the Enlightenment: Truth, Virtue and Beauty in Mozart's Operas</i> , W. W. Norton & Company</dcterms:isReferencedBy>

2.20. isReplacedBy

Namespace	dcterms
URI	http://purl.org/dc/terms/isReplacedBy
Label	Is Replaced By
Definition	A related resource that supplants, displaces, or supersedes the described resource. Refinement of <code>dc:relation</code> . See also <code>dcterms:replaces</code> .
Europeana	



note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dcterms:isReplacedBy>http://dublincore.org/about/2009/01/05/bylaws/</dcterms:isReplacedBy> where the resource described is an older version (http://dublincore.org/about/2006/01/01/bylaws/)

2.21. isRequiredBy

Namespace	dcterms
URI	http://purl.org/dc/terms/isRequiredBy
Label	Is Required By
Definition	A related resource that requires the described resource to support its function, delivery or coherence. Refinement of <code>dc:relation</code> . See also <code>dcterms:requires</code> .
Europeana note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dcterms:isRequiredBy>http://www.myslides.com/myshow.ppt</dcterms:isRequiredBy> where the image being described is required for an online slideshow.

2.22. isShownAt

Namespace	Europeana
URI	http://www.europeana.eu/schemas/ese/isShownAt
Label	Is Shown At
Definition	An unambiguous URL reference to the digital object on the provider's web site in its full information context. Refinement of <code>dc:relation</code> . See also <code>Europeana:isShownBy</code> .
Europeana note	This is a URL that will be active in the Europeana interface to give access to the provided digital object displayed on the provider's web site in its full information context. Use <code>Europeana:isShownAt</code> if you display the digital object with extra information (such as header, banner etc) or if the object is only accessible by clicking another icon on the local page or for digital objects embedded in HTML pages (even where the page is extremely simple). Examples of using this element are provided in Annex D.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: 1) But either <code>isShownAt</code> OR <code>isShownBy</code> is Mandatory
Example	<Europeana:isShownAt>http://www.photo.rmn.fr/cf/htm/CPICZ.aspx?E=2C6NU0VFLVNY</Europeana:isShownAt>



2.23. isShownBy	
Namespace	europaana
URI	http://www.europeana.eu/schemas/ese/isShownBy
Label	Is Shown By
Definition	An unambiguous URL reference to the digital object on the provider's web site in the best available resolution/quality. Refinement of <code>dc:relation</code> . See also <code>europaana:isShownAt</code> .
Europeana note	This is a URL that will be active in the Europeana interface. It will lead users to the digital object on the provider's website where they can view or play it. The digital object needs to be directly accessible by the URL and reasonably independent at that location. If the URL includes short copyright information with the pointer to the object it can be entered in <code>europaana:isShownBy</code> . Note that it may be possible to construct URLs to objects that are embedded in HTML by right-clicking on the object and using the metadata identifier. In this case please provide the direct URL in <code>europaana:isShownBy</code> as well as the link provided in <code>europaana:isShownAt</code> . Examples of using this element are provided in Annex D.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: 1) But either <code>isShownBy</code> OR <code>isShownAt</code> is Mandatory
Example	<code><europaana:isShownBy>http://resolver.kb.nl/resolve?urn=urn:gvn:RA01:30051001524450</europaana:isShownBy></code>

2.24. issued	
Namespace	dcterms
URI	http://purl.org/dc/terms/issued
Label	Date Issued
Definition	Date of formal issuance (e.g., publication) of the resource. Refinement of <code>dc:date</code> .
Europeana note	The date when the original analog or born digital object was issued or published. It may be used to generate the <code>europaana:year</code> . See Annex B for date format recommendations.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:issued>1993</dcterms:issued></code>
Mapping from other formats	MODS example: <code><mods:originInfo><mods:dateIssued encoding="iso8601">20030331</mods:originInfo><mods:dateIssued></code> becomes <code><dcterms:issued>20030331</dcterms:issued></code>



	Note that the hyphenated form is preferred e.g. 2003-03-31
--	--

2.25. isVersionOf

Namespace	dcterms
URI	http://purl.org/dc/terms/isVersionOf
Label	Is Version Of
Definition	A related resource of which the described resource is a version, edition, or adaptation. Changes in version imply substantive changes in content rather than differences in format. Refinement of <code>dc:relation</code> . See also <code>dcterms:hasVersion</code> .
Europeana note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:isVersionOf>ESE Version 0.5</dcterms:isVersionOf></code>

2.26. language

Namespace	dc
URI	http://purl.org/dc/elements/1.1/language
Label	Language
Definition	A language of the resource.
Comment	The recommended best practice is to use a controlled vocabulary such as RFC 4646 (http://www.rfc-archive.org/getrfc.php?rfc=4646) which, in conjunction with ISO 639, defines two- and three-letter primary language tags. Either a coded value or text string can be represented here.
Europeana note	Use this element for the language of textual objects and also where there is a language aspect to other objects e.g. sound recordings, posters, newspapers etc). If there is no language aspect to the digital object (e.g. a photograph), please ignore this element. This element is not for the language of the metadata of a resource, which may be described in <code>xml:lang</code> attribute. See <code>europaana:language</code> .
Obligation & Occurrence	Mandatory for Text objects. Strongly recommended for other object types if there is a language aspect. (Minimum: 0, Maximum: unbounded)
Example	<code><dc:language>en</dc:language></code>
Mapping from other formats	<code><mods:language authority="rfc4646">eng</mods:language></code> becomes <code><dc:language>eng</dc:language></code>



2.27. language	
Namespace	Europeana
URI	http://www.europeana.eu/schemas/ese/language
Label	Europeana Language
Definition	A standardised representation of the name of a language used to support the language facet in the portal.
Europeana note	A standardised ISO language code ⁷ is added as the value for this element by the Data Ingestion Team as part of the ingestion process based on the language of the data provider. Do not provide a value for this element.
Obligation & Occurrence	Optional (except for textual objects where a value has been provided for <code>dc:language</code> . (Minimum:0, Maximum: unbounded)
Example	<code><Europeana:language>eng</Europeana:language></code>

2.28. medium	
Namespace	dcterms
URI	http://purl.org/dc/terms/medium
Label	Medium
Definition	The material or physical carrier of the resource. Refinement of <code>dc:format</code> .
Europeana note	This is the medium of the original analog or born digital object. It can be difficult to map terms from heterogeneous domains to <code>dcterms:medium</code> . Examples of some interpretations used in the prototype can be found in the section on difficult elements in Annex C of this document.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:medium>metal</dcterms:medium></code>

2.29. object	
Namespace	Europeana
URI	http://www.europeana.eu/schemas/ese/object
Label	Object
Definition	The URL of a suitable source image in the best resolution available on the web site of the data provider from which small images could be generated for use in the portal. This will often be the same URL as given in <code>Europeana:isShownBy</code> .
Europeana note	The specifications for suitable source images and details of their use and processing in Europeana can be found in the Europeana Portal Image Policy. Please consult this document before entering a URL in this metadata element. Note that there is no requirement to provide an image in any other format than those readily available on the providers website.

⁷http://www.loc.gov/standards/iso639-2/php/code_list.php



	<p>If a record contains several pages in a PDF, the front page is used as the source of the images. If a record contains several image files, the first file that appears is used as the source. Please ensure that the page that will be used is an appropriate image to represent the object e.g. it does not contain the colour scale used in the digitisation process.</p> <p>If it is not possible to generate a suitable image a default icon corresponding to the Europeana type of object will be displayed.</p>
Obligation & Occurrence	Optional (Minimum: 0, Maximum: 1)
Example	<code><europeana:object>http://www.mimo-db.eu/media/SMS-MM/IMAGE/M114_01.jpg<europeana:object ></code>

2.30. provenance	
Namespace	dcterms
URI	http://purl.org/dc/terms/provenance
Label	Provenance
Definition	A statement of any changes in ownership and custody of the resource since its creation that are significant for its authenticity, integrity and interpretation. This may include a description of any changes successive custodians made to the resource.
Europeana note	This relates to the ownership and custody of the original analog or born digital object.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:provenance>Donated by The National Library in 1965</dcterms:provenance></code>

2.31. provider	
Namespace	europeana
URI	http://www.europeana.eu/schemas/ese/provider
Label	Europeana Provider
Definition	Name of the organization that delivers data to Europeana.
Europeana note	<p>The <code>europeana:provider</code> is the organization that sends the data to Europeana, and this is not necessarily the institution that holds or owns the original or digitised object. Where data is being supplied by an aggregator or project <code>europeana:provider</code> is the name of aggregator/project. The name of the content holder can be recorded in the <code>europeana:dataProvider</code> element. If the content holder supplies data directly to Europeana then the name should appear in both these elements.</p> <p>Organisation names should be provided as an ordinary text string until the</p>



	<p>Europeana Authority File for Organisations has been established. At that point providers will be able to send an identifier from the file instead of a text string.</p> <p>The name provided should be the preferred form of the name in the language the provider chooses as the default language for display in the portal. Only one <code>europaana:provider</code> can be provided so countries with multiple languages may prefer to concatenate the name in more than one language (See the example below).</p> <p>The name should be in the original language(s).</p>
Obligation & Occurrence	Mandatory (Minimum: 1, Maximum: 1)
Example	<pre><europaana:provider>Het Geheugen van Nederland</europaana:provider> <europaana:provider>Koninklijke Bibliotheek van België / Bibliothèque royale de Belgique</europaana:provider></pre>

2.32. publisher	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/publisher
Label	Publisher
Definition	An entity responsible for making the resource available. Examples of a publisher include a person, an organisation and a service.
Europeana note	The name of the publisher of the original analog or born digital object.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dc:publisher>Oxford University Press</dc:publisher></code>
Mapping from other formats	<p>MODS example:</p> <pre><mods:originInfo><mods:publisher>Oxford University Press</mods:publisher></mods:originInfo></pre> <p>becomes</p> <pre><dc:publisher>Oxford University Press</dc:publisher></pre>

2.33. references	
Namespace	dcterms
URI	http://purl.org/dc/terms/references
Label	References
Definition	<p>A related resource that is referenced, cited, or otherwise pointed to by the described resource. Refinement of <code>dc:relation</code>.</p> <p>See also <code>dcterms:isReferencedBy</code>.</p>
Europeana note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)



Example	<dcterms:references>Honderd jaar Noorse schilderkunst</dcterms:references>
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2.34. relation	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/relation
Label	Relation
Definition	A related resource. The recommended best practice is to identify the resource using a formal identification scheme.
Europeana note	This is information about resources that are related to the original analog or born digital object. It has been used for a wide range of relationships and it is recommended to use one of the several more specific relationship refinements where appropriate. If possible this value should be a URI. Refined by: dcterms:isVersionOf; dcterms:hasVersion; dcterms:isReplacedBy; dcterms:replaces; dcterms:isRequiredBy; dcterms:requires; dcterms:isPartOf; dcterms:hasPart; dcterms:isReferencedBy; dcterms:references; dcterms:isFormatOf; dcterms:hasFormat; dcterms:conformsTo; europeana:isShownBy; europeana:isShownAt
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dc:relation>maps.crace.1/33</dc:relation> (This is the shelf mark for a map held in the British Library's Crace Collection).

2.35. replaces	
Namespace	dcterms
URI	http://purl.org/dc/terms/replaces
Label	Replaces
Definition	A related resource that is supplanted, displaced, or superseded by the described resource. Refinement of dc:relation. See also dcterms:isReplacedBy.
Europeana note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dcterms:replaces>http://dublincore.org/about/2006/01/01/bylaws/</dcterms:replaces> where the resource described is a newer version (http://dublincore.org/about/2009/01/05/bylaws/)

2.36. requires	
Namespace	dcterms
URI	http://purl.org/dc/terms/requires



Label	Requires
Definition	A related resource that is required by the described resource to support its function, delivery or coherence. Refinement of <code>dc:relation</code> . See also <code>dcterms:isRequiredBy</code> .
Europeana note	
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:requires>http://ads.ahds.ac.uk/project/userinfo/css/oldbrowsers.css</dcterms:requires></code> where the resource described is a HTML file at <code>http://ads.ahds.ac.uk/project/userinfo/digitalTextArchiving.html</code>

2.37. rights	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/rights
Label	Rights
Definition	Information about rights held in and over the resource.
Europeana note	This is a free text element and should be used for information about intellectual property rights or access arrangements for the digital object that is additional to the controlled value provided in <code>europa:rights</code> . Compare the use of this element with <code>europa:rights</code> before making a mapping decision. A record may contain both elements but do not duplicate values in both elements: <code><europa:rights>http://www.europeana.eu/rights/rr-f/</europa:rights></code> <code><dc:rights>Kilmarnock House Trust (David Jones)</dc:rights></code>
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dc:rights>Copyright © British Library Board</dc:rights></code>

2.38. rights	
Namespace	europa
URI	http://www.europeana.eu/schemas/ese/rights
Label	Europeana Rights
Definition	Information about copyright of the digital object that is specified in <code>isShownBy</code> and <code>isShownAt</code> and, by extension, to the preview images used in the portal.
Europeana note	The value in this element is a URI taken from the set of those defined for use in Europeana. A list can be found at http://pro.europeana.eu/available-rights-statements . The URIs consist of a code indicating the copyright status of an object attached to the domain name where that status is defined. The domain will be either the <code>europa.eu</code> domain or the <code>creativecommons.org</code> domain.



	The rights statement will be represented as a badge below the preview on the object page.
Obligation & Occurrence	Mandatory (Minimum: 1, Maximum: 1)
Example	<europeana:rights>http://creativecommons.org/licenses/by/3.0/</europeana:rights> <europeana:rights>http://www.europeana.eu/rights/rr-f/</europeana:rights>

2.39. source	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/source
Label	Source
Definition	A related resource from which the described resource is derived in whole or in part.
Europeana note	This element can be used for several different types of source that are related to the object (such as reference sources). It should not be used for the names of providers or holding organisations.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<dc:source>Security Magazine pp 3-12</dc:source>

2.40. spatial	
Namespace	dcterms
URI	http://purl.org/dc/terms/spatial
Label	Spatial Coverage
Definition	Spatial characteristics of the resource. Refinement of <code>dc:coverage</code> .
Europeana note	Information about the spatial characteristics of the original analog or born digital object, i.e. what the resource represents or depicts in terms of space. This may be a named place, a location, a spatial coordinate or a named administrative entity.
Obligation & Occurrence	Mandatory to supply either <code>dcterms:spatial</code> or <code>dc:subject</code> or <code>dc:type</code> or <code>dc:coverage</code> (Minimum: 0, Maximum: unbounded)
Example	<dcterms:spatial>Portugal</dcterms:spatial>
Mapping from other formats	EAD example: <controlaccess> <geogname role="country of coverage" source="tgn">United States</geogname> <geogname role="state of coverage" source="tgn">California</geogname> <geogname role="city of coverage" source="tgn">San Francisco</geogname> </controlaccess> Becomes <dcterms:spatial>United States</dcterms:spatial> <dcterms:spatial>California</dcterms:spatial> <dcterms:spatial>San Francisco</dcterms:spatial>



2.41. subject	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/subject
Label	Subject
Definition	The topic of the resource
Europeana note	This is the subject of the original analog or born digital object. Use repeated instances of the element for multiple subject values.
Obligation & Occurrence	Mandatory to supply either <code>dc:subject</code> or <code>dc:type</code> or <code>dc:coverage</code> or <code>dcterms:spatial</code> (Minimum: 0, Maximum: unbounded)
Example	<code><dc:subject>submarine</dc:subject></code>
Mapping from other formats	<p>MODS example:</p> <pre> <mods:subject><mods:topic>Environmental sciences</mods:topic></mods:subject> <mods:subject><mods:topic>Geology</mods:topic></mods:subject> <mods:subject><mods:topic>Agriculture</mods:topic></mods:subject> </pre> <p>becomes</p> <pre> <dc:subject>Environmental sciences</dc:subject> <dc:subject>Geology</dc:subject> <dc:subject>Agriculture</dc:subject> </pre> <p>EAD 2002 XML example:</p> <pre> <controlaccess> <persname role="subject" rules="aacr2">Casey, James P.</persname> <persname role="subject" rules="aacr2">Cora, Charles</persname> <subject source="lctgm">Bays</subject> <subject source="lctgm">Vessels</subject> </controlaccess> <controlaccess> <geogname role="country of coverage" source="tgn">United States</geogname> <geogname role="state of coverage" source="tgn">California</geogname> <geogname role="site of coverage" source="tgn">Golden Gate (channel)</geogname> </controlaccess> </pre> <p>becomes</p> <pre> <dc:subject">Casey, James P.</dc:subject> <dc:subject">Cora, Charles</dc:subject> <dc:subject>Bays</dc:subject> <dc:subject>Vessels</dc:subject> <dcterms:spatial>United States</dcterms:spatial> <dcterms:spatial>California</dcterms:spatial> <dcterms:spatial>Golden Gate (channel)</dcterms:spatial> </pre>

2.42. tableOfContents	
Namespace	dcterms
URI	http://purl.org/dc/terms/tableOfContents



Label	Table Of Contents
Definition	A list of subunits of the resource. Refinement of <code>dc:description</code> .
Europeana note	A list of the units within the original analog or born digital resource object.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:tableOfContents>Chapter 1. Introduction, Chapter 2. History</dcterms:tableOfContents></code>
Mapping from other formats	MODS example: <code><mods:tableOfContents>1. Introduction, 2. Contents of Elements, 3. Mapping, 4. Changes Made for MODS Version 3.2</mods:tableOfContents></code> Becomes <code><dcterms:tableOfContents>1. Introduction, 2. Contents of Elements, 3. Mapping, 4. Changes Made for MODS Version 3.2</dc:terms:tableOfContents></code>

2.43. temporal

Namespace	dcterms
URI	http://purl.org/dc/terms/temporal
Label	Temporal Coverage
Definition	Temporal characteristics of the resource. Refinement of <code>dc:coverage</code>
Europeana note	The temporal characteristics of the original analog or born digital object, i.e. what the resource is about or depicts in terms of time. This may be a period, date or date range
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<code><dcterms:temporal>Roman Empire</dcterms:temporal></code>

2.44. title

Namespace	dc
URI	http://purl.org/dc/elements/1.1/title
Label	Title
Definition	A name given to the resource. Typically, a Title will be a name by which the resource is formally known. Refined by: <code>dcterms:alternative</code>
Europeana note	The title of the original analog or born digital object. Please use <code>xml:lang</code> attributes for direct translations of the title.
Obligation & Occurrence	Mandatory to supply either <code>dc:title</code> or <code>dc:description</code> (Minimum: 0, Maximum: unbounded)
Example	<code><dc:title xml:lang="it">Otto settimane</dc:title></code> <code><dc:title xml:lang="en">Eight weeks</dc:title></code> .
Mapping from other formats	Where many objects share the same title, for example where there are many issues of a periodical, consider aggregating the title values with information



	<p>from another element to give a more useful, non-ambiguous display.</p> <p><i>Example:</i> <dc:title>A-Z : Luxemburger illustrierte Wochenschrift</dc:title> <dc:description>1933-12-24 (Numéro 01)</dc:description></p> <p>Aggregate the values using a full stop as a separator to give: <dc:title>A-Z : Luxemburger illustrierte Wochenschrift. 1933-12-24 (Numéro 01)</dc:title></p> <p>MODS crosswalk example <mods:titleInfo><mods:title>Florida Environments Online</mods:title></mods:titleInfo> becomes <dc:title>Florida Environments Online</dc:title></p> <p>Note that MODS defines several Type attributes and sub-elements for the <titleInfo> element which may more accurately be mapped to dcterms:alternative⁸.</p> <p>EAD 2002 XML example: <unittitle>The Golden Gate entrance to the bay of San Francisco: sunrise</unittitle> becomes <dc:title>The Golden Gate entrance to the bay of San Francisco: sunrise</dctitle></p>
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2.45. type	
Namespace	dc
URI	http://purl.org/dc/elements/1.1/type
Label	Type
Definition	The nature or genre of the resource. Type includes terms describing general categories, functions, genres, or aggregation levels for content. The recommended best practice is to select a value from a controlled vocabulary (for example, the DC Type vocabulary is available at http://dublincore.org/documents/dcmi-type-vocabulary/).
Europeana note	The type of the original analog or born digital object as recorded by the content holder, this element typically includes values such as photograph, painting, sculpture etc. Although the portal needs normalised values to support type-related functions it is desirable to keep the original local values as well. Thus, all these original values should be mapped to this element. A separate <code>europaena:type</code> element has been added to contain the normalised value.

⁸ See also <http://www.loc.gov/standards/mods/v3/mods-userguide-elements.html>



	Providers are recommended to map the values entered in this element to the five material types used in Europeana: TEXT, IMAGE, SOUND, VIDEO and 3D. See <code>europaena:type</code> below.
Obligation & Occurrence	Mandatory to supply either <code>dc:type</code> or <code>dcterms:spatial</code> or <code>dc:subject</code> or <code>dcterms:spatial</code> or <code>dc:coverage</code> (Minimum:0, Maximum: unbounded)
Example	<code><dc:type>painting</dc:type></code> <code><dc:type>coin</dc:type></code>
Mapping from other formats	EAD 2002 XML example: <code><controlaccess></code> <code><genreform source="aat">color lithographs</genreform></code> <code><genreform source="aat">marines (visual works)</genreform></code> <code></controlaccess></code> becomes <code><dc:type>color lithographs</dc:type></code> <code><dc:type>marines (visual works)</dc:type></code>

2.46. type	
Namespace	europaena
URI	http://www.europeana.eu/schemas/ese/type
Label	Europeana Type
Definition	The Europeana material type of the resource.
Europeana note	<p>To support portal functionality all digital objects in Europeana must be classified as one of the five Europeana types using upper case letters: TEXT, IMAGE, SOUND, VIDEO or 3D. (Provide "3D-PDF" as the value in <code>dc:format</code> as appropriate.)</p> <p>Objects categorised as VIDEO should actually be moving images and not static images of objects related to or about videos. A typical example would be an object found at YouTube.</p> <p>Original type values should be recorded in <code>dc:type</code> and each value mapped to a <code>europaena:type</code> value. See below.</p>
Obligation & Occurrence	Mandatory (Minimum: 1, Maximum: 1)
Example	<code><europaena:type>TEXT</europaena:type></code> (upper-case) <code><europaena:type>3D</europaena:type></code> (number and upper-case)
Mapping from other formats	<p>The categorisation should be based on another type element in the source data. If it is difficult to categorise all digital objects into five types, please consult us. A difficult example is a PDF file of an old manuscript. Some may categorise it as an image, others may regard it as a text. We, therefore, recommend you do not use file formats (cf. <code>dc:format</code>) for the categorisation.</p> <p>It is highly recommended to classify the objects, taking users needs into account.</p>



Example of Type mapping spreadsheet:		
Local terms <dc:type xml:lang="pl">	Europeana Type Classification	Translation (<dc:type xml:lang="en">)
Czasopismo	TEXT	periodical
dokument życia społecznego	TEXT	pamphlet, ephemera
druk muzyczny	TEXT	music prints
Fotografia	IMAGE	photography
Grafika	IMAGE	print
Książka	TEXT	book
Pocztówka	IMAGE	postcard

2.47. ugc

Namespace	europaana
URI	http://www.europeana.eu/schemas/ese/ugc
Label	UGC
Definition	This element is used to identify user generated content (also called user created content). It should be applied to all digitised or born digital content contributed by the general public or collected by Europeana through a crowdsourcing initiative or project.
Europeana note	The only value this element can take is "true" to indicate that the object is user generated. It should be entered in lower case. If the content is not user generated then the element should not be provided. This element should not be used for content donated to a legal institution by a private body and then delivered to Europeana or content generated by users through the portal or other social media services such as tags or comments.
Obligation & Occurrence	Mandatory when applicable (Minimum: 0, Maximum:1)
Example	<europaana:ugc>true</europaana:ugc> (Note: must be lower case)

2.48. unstored

Namespace	europaana
URI	http://www.europeana.eu/schemas/ese/unstored
Label	Unstored
Definition	This is a container element which can include all relevant information that otherwise cannot be mapped to another element in the ESE.
Europeana note	The <code>europaana:unstored</code> element is provided in order to include important information for indexing purposes. Usage of this element cannot be guaranteed over time so it is recommended not to use it.
Obligation & Occurrence	Optional (Minimum: 0, Maximum: unbounded)
Example	<europaana:unstored>National Gallery, London</europaana:unstored>



	(Where the National Gallery was the previous location of the object; but there is no other element suitable for this information.)
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2.49. uri	
Namespace	europeana
URI	http://www.europeana.eu/schemas/ese/uri
Label	Europeana URI
Definition	An unambiguous URI to the resource within Europeana's context.
Europeana note	<p>This is a record identifier for the object in the Europeana system. It is created by Europeana based on the unique identifiers provided in the source metadata. Do not supply a value for this element.</p> <p>Please note that in cases where a provider supplies two or more records with the same record identifier, only the first record is kept by Europeana. Subsequent records with the same identifier are discarded.</p>
Obligation & Occurrence	Mandatory – supplied by Europeana (Minimum: 1, Maximum: 1)
Example	<code><europeana:uri>http://www.europeana.eu/resolve/record/004/A7F7E0E6600/</europeana:uri></code>

2.50. userTag	
Namespace	europeana
URI	http://www.europeana.eu/schemas/ese/userTag
Label	User Tag
Definition	This is a tag created by a user through the Europeana interface.
Europeana note	These are tags created by registered users.
Obligation & Occurrence	Optional (Minimum:0, Maximum: unbounded)
Example	<code><europeana:userTag>My favorite food!</europeana:userTag></code>

2.51. year	
Namespace	europeana
URI	http://www.europeana.eu/schemas/ese/year
Label	Europeana Year
Definition	A point of time associated with an event in the life of the original analog or born digital object.
Europeana note	This is a 4 digit year in the Gregorian calendar (e.g. 1523), which is derived by Europeana from date values in the source metadata and may be used in portal functionality. Do not provide a value for this element.
Obligation &	Optional (Minimum:0, Maximum: unbounded)



Occurrence	
Example	<code><europeana:year>1523</europeana:year></code>



Annex A - Table of elements and their refinements

The Europeana Semantic Element set consists of the 15 original Dublin Core metadata elements⁹, a subset of the DC terms¹⁰ and a set of fourteen elements which were created to meet Europeana's needs.

Source	Element	Element Refinement(s)
DC	title	alternative
DC	creator	
DC	subject	
DC	description	tableOfContents
DC	publisher	
DC	contributor	
DC	date	created; issued
DC	type*	
DC	format	extent; medium
DC	identifier	
DC	source	
DC	language*	
DC	relation	isVersionOf; hasVersion; isReplacedBy; replaces; isRequiredBy; requires; isPartOf; hasPart; isReferencedBy; references; isFormatOf; hasFormat; conformsTo
Europeana		isShownBy; isShownAt
DC	coverage	spatial; temporal
DC	rights*	
DC terms	provenance	
Europeana	country	
Europeana	dataProvider	
Europeana	language*	
Europeana	object	
Europeana	provider	
Europeana	rights*	
Europeana	type*	
Europeana	UGC	
Europeana	unstored	
Europeana	uri	
Europeana	userTag	
Europeana	year	

⁹<http://dublincore.org/documents/dces/>

¹⁰<http://dublincore.org/documents/dcmi-terms/>



Annex B - Date formats

We recommend the use of ISO 8601 starting with the year and hyphenating the day and month parts: YYYY-MM-DD. As there are many ways of expressing dates and time periods and the values will display in the full record in whatever form they are supplied. The values will also be used as the basis for locating the object in the Timeline and the Date facet in the portal and this must be a machine readable date. If you are using the more precise date terms of `dcterms:created` or `dcterms:issued` these will also be used for the Timeline and Date facet.

The values in the date elements will be used by the europeana normalisation process to generate values for `europeana:year` element. `europeana:year` will contain a standard four digit year of the Gregorian calendar (e.g. 1523). The value supplied may not be in this standard form but the normalisation process will attempt to identify a four digit year from the value supplied. Ideally therefore the value in this element should contain a year in the form yyyy. For example:

```
<dc:date>1933-12-24</dc:date> generates<europeana:year>1933</europeana:year>  
<dc:date>1914-1918</dc:date> generates<europeana:year>1914</europeana:year>  
<dc:date>19780403</dc:date> generates<europeana:year>1978</europeana:year>
```

Objects where no `europeana:year` value can be generated will not appear in the Timeline or Date facet so please add a date element containing a relevant four digit value.

Before the Common Era, Before Christ or Before Present dates

Currently, the Europeana portal cannot use BC, BCE or BP dates but such dates should be retained in the mapped metadata (i.e. `dc:date`) in order to be present for future development of the portal.

Textual date values

Textual time periods will display in a result list but cannot be represented in the Timeline or Date facet and should also be provided as numeric dates.

Example where the provider has a specific time period defined:

```
<localtimeperiod>Roman Britain</localtimeperiod>
```

Transform and map as e.g.

```
<dc:date>0043</dc:date> and <dc:date>0410</dc:date>
```

which will generate

```
<europeana:year>0043</europeana:year> and  
<europeana:year>0410</europeana:year>
```

Example where text is used:

```
<localtimeperiod>17th century</localtimeperiod>
```

Transform and map also as

```
<dc:date>1601</dc:date>and <dc:date>1700</dc:date>
```

which will generate:

```
<europeana:year>1601</europeana:year> and  
<europeana:year>1700</europeana:year>
```



Annex C - Difficult elements

When mapping from diverse rich metadata formats to the relatively simple set provided by ESE it can be difficult to decide where an element belongs. To obtain a better and more accurate representation of rich and more granular data structures it is recommended to use EDM instead. However, this section attempts to summarise some of the interpretations that were made during the mapping for the prototype and still apply to ESE data.

C.1. Techniques and materials related to the object

It is sometimes difficult to map information about the techniques and materials used in relation to an object to ESE. This section summarises information that may already have been stated in a particular element as well.

dc:format should be used if the semantic is not clear enough to distinguish the following cases:

- If data includes information about the craftsmanship or technology related to the object (i.e. pressing, binding, carving, shoe making etc), the preferred mapping is to **dc:description** as the data will then be displayed in the result.
- If data includes information about the physical materials of the object (i.e. ivory, wooden, cast-iron etc), the preferred mapping is to **dcterms:medium**
- If data includes information about both two cases described above, it is recommended to map it to preferably **dc:description**

Examples from the film domain include the following examples. Again **dc:format** is used as the generic element but in some cases the refinements could be applied.

- *FilmManifestation/Duration* - **dcterms:extent**
(1 min, 4 min, 1 min 30 sec, 2 min, 3 min, 4 min 8 sec)
- *FilmManifestation/CarrierAspect* - **dc:format**
(1:1,33, 16:9 86 1:1,37, 1:2,35)
- *FilmManifestation/CarrierFormat* - **dc:format**
(35 mm, DVD, 16 mm, VHS)
- *FilmManifestation/Colour* - **dc:format**
(Black and White, Colour, tinted)
- *FilmCopy/CarrierType* - **dc:format**
(Positive, Digital file, n/a, Video tape, Duplicate negative, Reversal positive, Negative)
- *FilmCopy/CarrierMaterial* - **dcterms:medium**
(Acetate, Polyester, Nitrate)



C.2. Events and roles

It is accepted that it is not easy to record event and role data in ESE. The following are suggestions.

If data includes information about events related to the object, it is recommended to map it to preferably **dc:description**

Data may include information about people/actors in events. If you are confident that it is directly related to the object itself, the preferred mapping is to **dc:contributor**. If you are not sure, for example, the people/actors may be related to what is depicted in image, use **dc:description**. **dc:creator** should only be used if you are confident about the relationship between the object and the actor (e.g. maybe an attribute indicates the actor is the creator of the object).

If data includes information about the type of the agent roles in events (e.g. mask maker, builder, actress, archaeologist etc), the names of agent have to be mapped to **dc:contributor**. A notable example for agent roles is MARC Relators. According to DCMI, most of MARC Relators would correspond to refinements of **dc:contributor**. Representing the role itself (i.e., the relator) will require data representation mechanisms well outside the scope of ESE. Providers are encouraged to use EDM or extensions of it.

For more information, please see these websites:

Using Dublin Core – Appendix, roles

http://dublincore.org/documents/usageguide/appendix_roles.shtml

MARC relator terms and Dublin Core <http://dublincore.org/usage/documents/relators/>

Relators <http://id.loc.gov/vocabulary/relators.html>

C.3. Multiple resources described in one record

It will be difficult to decide on the best mapping for some objects. This example is just one instance and decisions such as these should be made on a case by case basis by those who are familiar with the content of any particular collection. In this example, a physical flint arrowhead is depicted in a photograph which is digitized as jpeg.

No	Value	Original field name	Solution adopted
1	Title Neolithic arrowhead from Southern Iraq	Name	dc:title
2	Unknown	Actor	dc:creator
3	Neolithic	Period	dc:date
4	image/jpeg	Format	dc:format
5	1.5 cm X 3cm	Dimension	dcterms:extent
6	flint	Material	dcterms:medium
7	Iraq	Origin	dc:subject
8	London; BM	Current Location	dcterms:provenance



The mappings of items 1 to 6 are imperfect but adequate for searching given the limitations of ESE metadata. However, for items 7 and 8 the choice is a bit more difficult. In this case it is suggested that number 7 should be mapped to **dc:subject** as Iraq is one of the subjects in the image of the arrowhead i.e. it appears as the background with the arrowhead in the foreground. The image is not a photograph of the excavation in Iraq which would more readily justify the use of **dcterms:spatial**. For number 8 where the relationship of the object to the location is less obvious, the generic **dcterms:provenance** is adequate in these circumstances.

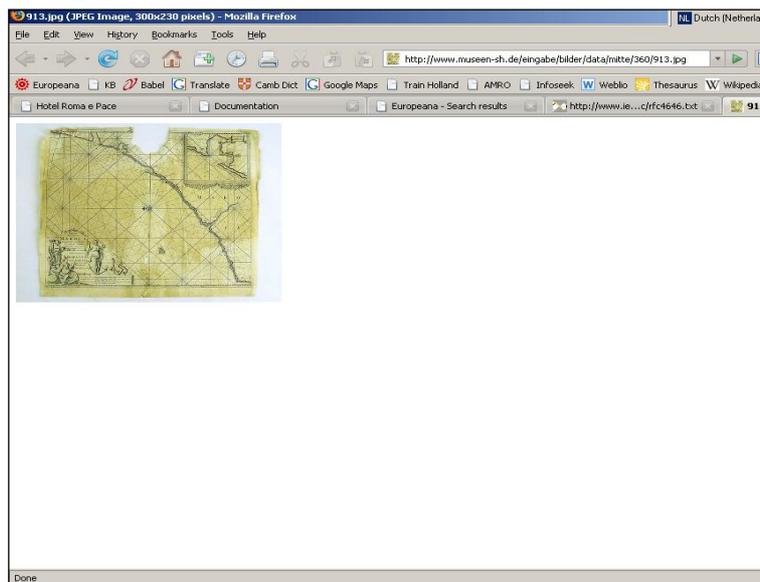
This suggestion provides some general principles for these complex cases:

- where an image depicts a place, typically a landscape painting or photograph, use **dc:coverage** or **dcterms:spatial**
- where the place depicted is incidental to the story of the object depicted, use **dc:subject**
- where the relationship is not obvious the fall-back mapping is **dc:description**
- where the emphasis of the semantic is on the history of custody and ownership, use **dcterms:provenance**

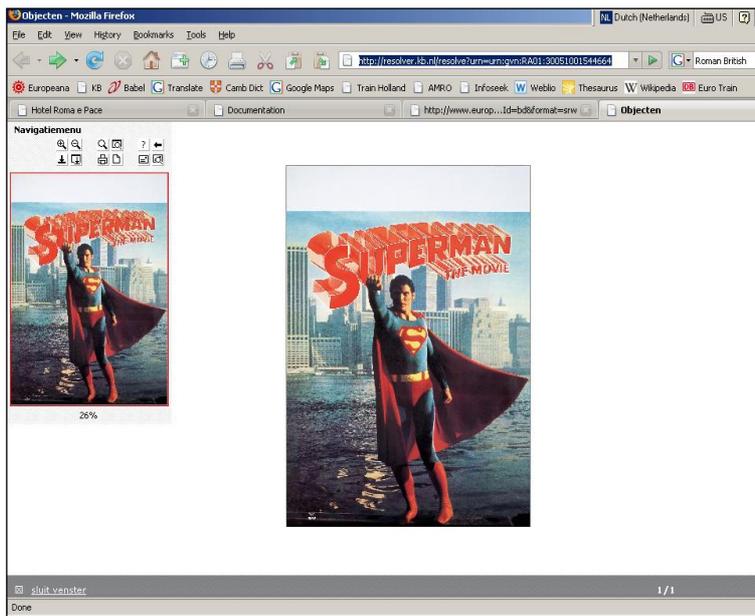
Annex D - Examples of **europena:isShownBy** and **europena:isShownAt**

europena:isShownBy should contain the URL that gives a direct link to the digital object. The digital object needs to be reasonably independent and directly accessed by the URL.

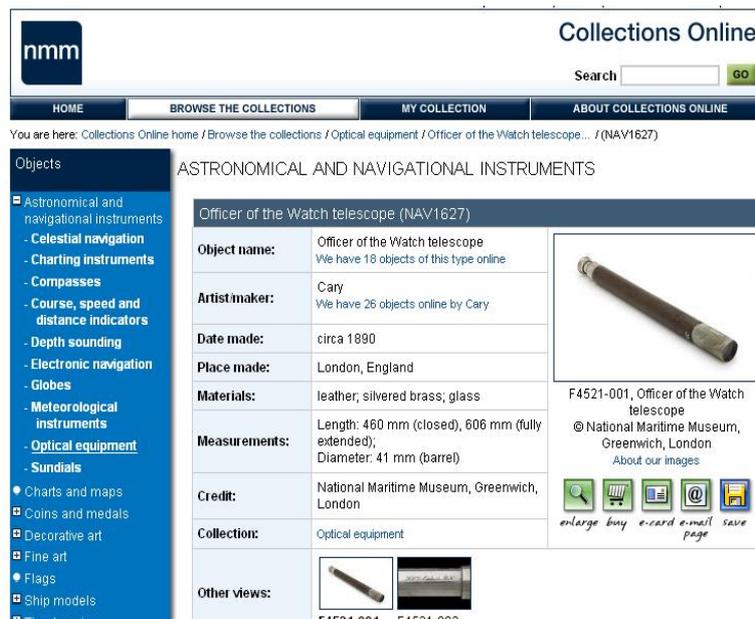
Europeana:isShownAt should contain a URL where the object is displayed within an information context or is accessed indirectly via another link.



Example 1 – isShownBy
This is clearly **isShownBy** because the URL leads to the JPEG image itself (note the “jpg” extension in the URL).
<http://www.museen-sh.de/eingabe/bilder/data/mitte/360/913.jpg>

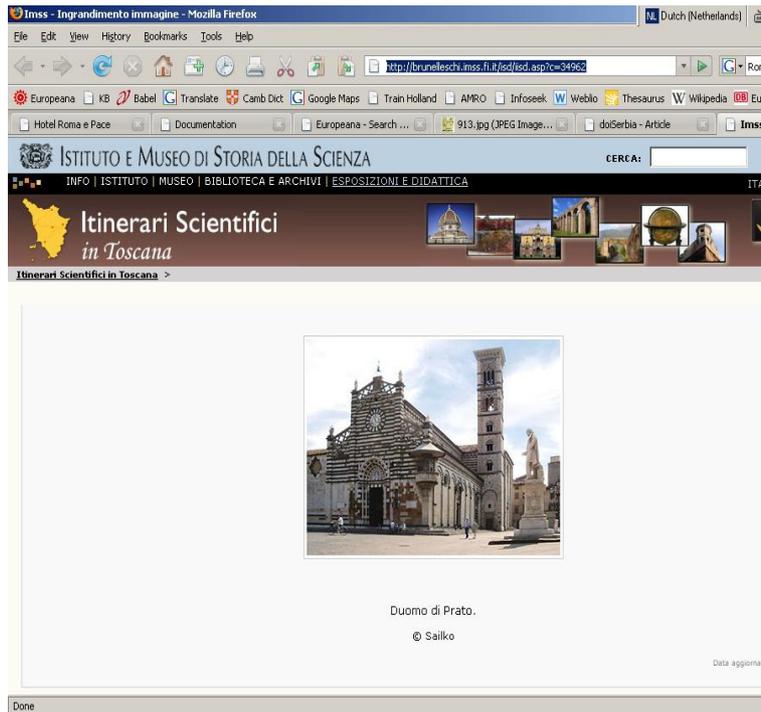


Example 2 - isShownBy
This could be interpreted differently as there is a small set of navigation tools with the image. **isShownBy** is still appropriate however as there is no other accompanying information – no banner or HTML frame etc. Immediate access to the digital object is the main criterion.
<http://resolver.kb.nl/resolve?urn=urn:gvn:RA01:30051001544664>



Example 3 – isShownAt
This is clearly **isShownAt** because the object is embedded in HTML web page.
<http://www.nmm.ac.uk/collections/explore/object.cfm?ID=NAV1627>

Consider constructing the URL of the object by right-clicking it to see the identifier. This could then be used with external data to construct a value for **isShownBy**



Example 4 – isShownAt
Although the web page is very simple showing only one object (digital photo), this should be **isShownAt** because there is a banner etc
<http://brunelleschi.imss.fi.it/isd/iisd.asp?c=34962>



Example 5 – isShownAt
The red circle shows the “Full Text” hyperlink which allows the users to link to the pdf file. The URL of this website is **isShownAt**, while the URL of PDF is **isShownBy**.
<http://www.doiserbia.nbs.bg.ac.yu/Article.aspx?ID=0352-51390212887G&AspxAutoDetectCookieSupport=1>



Document history and acknowledgements

Version	Editor	Updated	Comments
v3.4.1 ESE and v2.1.1 Guidelines ¹¹	Robina Clayphan	2012-09-19 to 30-04-2013	Amend example in europeana:object and make UGC lower case. Amend text and link in europeana:rights. europeana:language and dc:language notes modified.
July 2013 Merger of ESE Spec v3.4.1 and Guidelines v2.1.1 to make one document – the ESE Specification and Guidelines			
	Robina Clayphan	2013-07-14	ESE Specification format retained. “General Rules for Mapping” copied in. All other-format mappings included. All additional comments included. Lengthier pieces of text from Guidelines added as Annexes. All reference to display and other functions deleted. General update of text.

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¹¹ The previous version of the ESE Specification can be found here <http://pro.europeana.eu/documents/900548/dc80802e-6efb-4127-a98e-c27c95396d57> and the Mapping Guidelines here <http://pro.europeana.eu/documents/900548/683de455-27a7-4dd6-81c7-928120957dfa>.