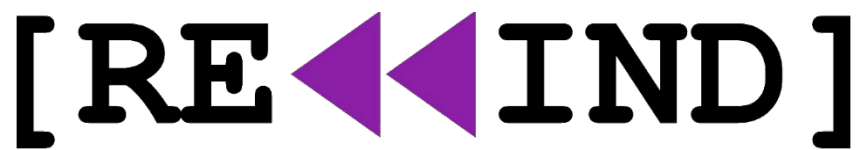


# Mapping Ontology Guidelines for the REWIND Project



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**Action Acronym:** REWIND

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# Mapping Ontology Guidelines for the REWIND Project

## Workflow

The REWIND project analyses European cultural heritage through its reception in travel books written by Latin American women authors who visited Europe at the beginning of the 20th century. The aim is to uncover alternative perspectives and contrast them with the prevailing authorised heritage discourse of the time. In the 20th century, an official and hegemonic discourse about the meaning of European cultural heritage was linked to the interpretation of Western history written by male, white, upper-middle-class and individualist authors. Building on this premise, the project explores the interaction of these women authors with historical buildings, works of art, monuments, musical compositions, and other elements of both tangible (movable and immovable) and intangible cultural heritage as defined by UNESCO. By using these travel books as historical sources, the project seeks to highlight the role of the studied authors as active agents in the construction of polyphonic historical narratives.

Historical narrative sources are often characterised by numerous interconnected references to persons, places, institutions, events, dates, etc.). For this reason, relational databases are widespread in cultural heritage studies. However, we opted for a knowledge graph to structure historical information in a manner compatible with the semantic web model. In the REWIND project, we focused on event instances when modelling cultural heritage data contained in travel books, as we are interested in what is observed, when, where, and by whom (Table 1)

Table 1. Contextual categories

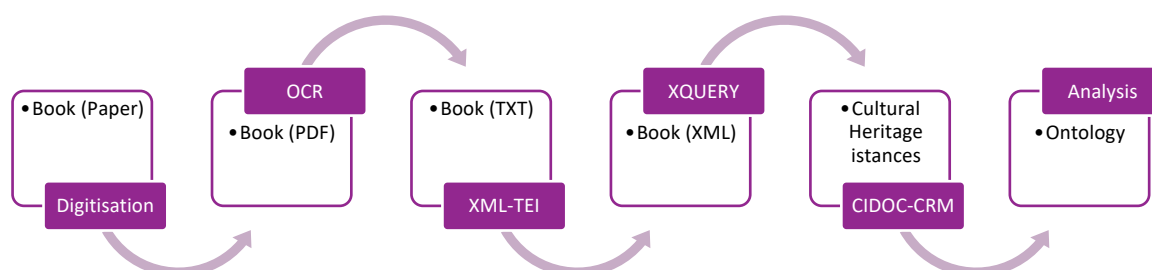
Category	Entity	Class	Thesaurus
Who?	Agent	<a href="#">E21</a> Person	<a href="https://viaf.org">https://viaf.org</a> <a href="https://www.wikidata.org">https://www.wikidata.org</a>
Where?	Place	<a href="#">E53</a> Place	<a href="https://www.geonames.org/">https://www.geonames.org/</a> <a href="https://www.wikidata.org">https://www.wikidata.org</a>
When?	Time	<a href="#">E52</a> Time-Span	
What?	Physical object	<a href="#">E22</a> Human-Made Object	<a href="https://www.wikidata.org">https://www.wikidata.org</a>
	Conceptual object	<a href="#">E28</a> Conceptual Object / <a href="#">E31</a> Document	
	Event	<a href="#">E5</a> Event	

An ontology provides a model for the management and semantic representation of knowledge, defining a set of concepts and describing relationships between them through classes and properties to which values are associated. While humans cannot easily detect such interconnections between places, objects, events, and people, digital approaches enable quantification and pattern recognition. In addition, an ontology makes it possible to link the historical content intrinsic to the text with external information employing linked open data (LOD). We used the CIDOC Conceptual Reference Model (v. 7.1.3, February 2023) developed by ICOM and converted into the ISO 21127:2023 standard,<sup>2</sup> since the heritage conception of the analysed travel books has a museographic character. This model provides an extensible ontology for concepts and information about cultural heritage and museum documentation. The ontology comprises 81 classes and 160 properties organised into a hierarchical structure.

In the REWIND project, we implemented a workflow consisting of an initial phase to identify elements of European cultural heritage mentioned in travel books through XML-TEI encoding, followed by a second phase in which these data are exported to the ontological model for analysis (Figure 1). Once

<sup>2</sup> [https://cidoc-crm.org/html/cidoc\\_crm\\_v7.1.3.html](https://cidoc-crm.org/html/cidoc_crm_v7.1.3.html)

the text was encoded in a computer-readable format using XML-TEI, we extracted the information related to the elements of European cultural heritage referenced by the authors in their travel writing and integrated it into the ontological model. The XQuery language facilitated the browsing of XML-TEI files to locate all heritage references and transfer them to a knowledge graph created with Protégé software.<sup>3</sup> This process is relatively straightforward because the semantic labelling employed is based on the classes and properties defined in the ontology, ensuring that the information is both correlated and interoperable.



**Figure 1. Workflow of the REWIND project.**

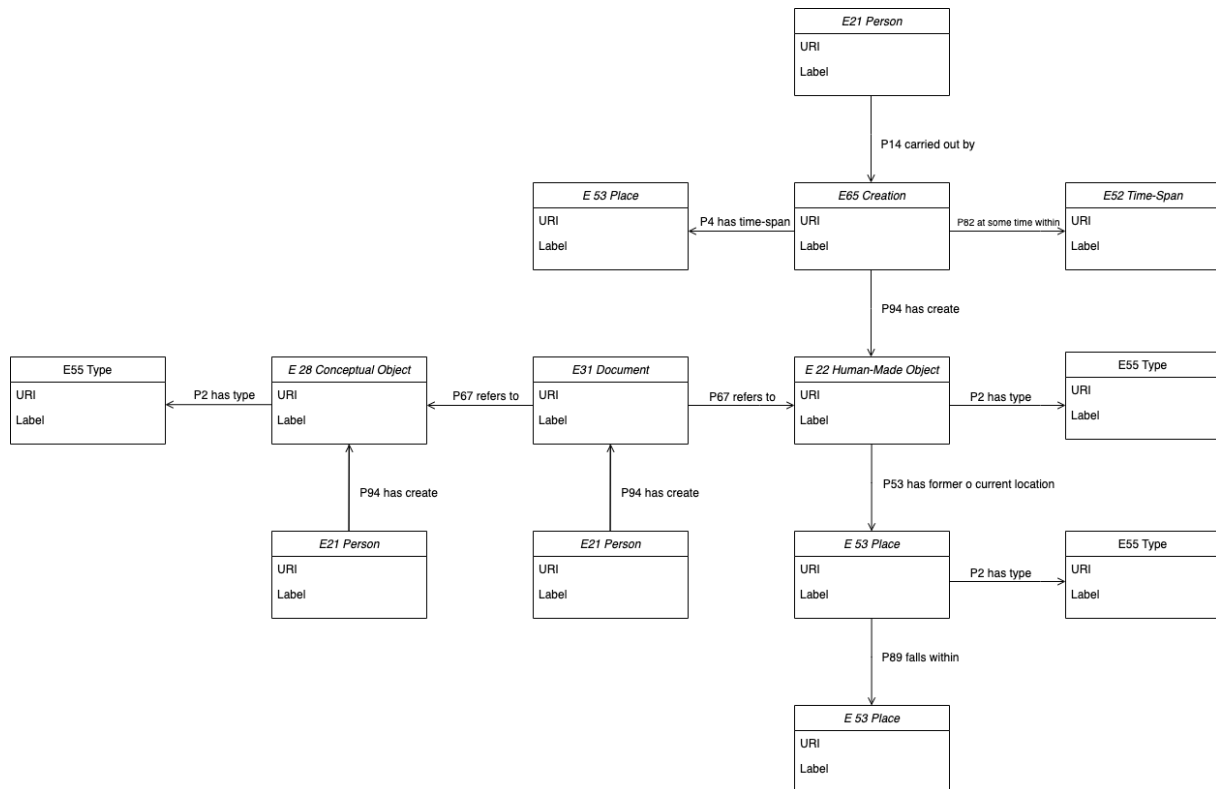
We have developed and implemented the REWIND project's ontology in an \*.OWL file. The REWIND Ontology is published and maintained by Alba Comino under the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0).

## Model Components

The REWIND Ontology is based on CIDOC CRM (v. 7.1.3, February 2024). The model can be understood as a set of interlinked components that describe aspects of the cultural heritage referenced in the travel books comprising the REWIND Project corpus.<sup>4</sup>

<sup>3</sup> <https://protege.stanford.edu/>

<sup>4</sup> Comino Comino, A. (2024). REWIND Corpus (1.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.14093621>



## Classes

A class is a category of items corresponding to real-world entities with common traits. In the REWIND project, we use the following classes from the CIDOC-CRM model:

### E5 Event

- Definition: This class comprises distinct, delimited and coherent processes and interactions of a material nature, in cultural, social or physical systems, involving and affecting instances of E77 Persistent Item in a way characteristic of the kind of process. Typical examples are meetings, births, deaths, actions of decision taking, making or inventing things, but also more complex and extended ones such as conferences, elections, building of a castle, or battles.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E5\\_Event](http://cidoc-crm.org/cidoc-crm/7.1.3/E5_Event)
- Use: We use **E5 Event** class to refer to the moment when the travellers observe a cultural heritage element.

### E12 Production

- Definition: This class comprises activities that are designed to, and succeed in, creating one or more new items.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E12\\_Production](http://cidoc-crm.org/cidoc-crm/7.1.3/E12_Production)
- Use: We use **E12 Production** to refer to the creation of **E22\_Human-Made\_Object**.

### E21 Person

- Definition: This class comprises real persons who are alive or assumed to have lived.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E21\\_Person](http://cidoc-crm.org/cidoc-crm/7.1.3/E21_Person)
- Use: We use **E21\_Person** to identify the women authors of the travel books studied, as well as the creators of the cultural heritage elements mentioned in these works.
- Thesaurus: We create the instances of the **E21\_Person** class using the corresponding URIs from [VIAF](#) or [WIKIDATA](#).

### E22 Human-Made Object

- Definition: This class comprises all persistent physical objects of any size that are purposely created by human activity and have physical boundaries that separate them completely in an objective way from other objects. The class also includes all aggregates of objects made for functional purposes of whatever kind, independent of physical coherence, such as a set of chessmen.
- URI: [http://www.cidoc-crm.org/cidoc-crm/E22\\_Human-Made\\_Object](http://www.cidoc-crm.org/cidoc-crm/E22_Human-Made_Object)
- Use: We use **E22\_Human-Made\_Object** to identify the tangible cultural heritage elements mentioned in the travel books of the REWIND project corpus. Immovable heritage items are considered to be places (**E53\_Place**) since they can contain movable heritage.
- Thesaurus: We create the instances of the **E22\_Human-Made\_Object** class using the corresponding URIs from [WIKIDATA](#).

### E28 Conceptual Object

- Definition: This class comprises non-material products of our minds and other human produced data that have become objects of a discourse about their identity, circumstances of creation, or historical implication.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E28\\_Conceptual\\_Object](http://cidoc-crm.org/cidoc-crm/7.1.3/E28_Conceptual_Object)
- Use: We use **E28\_Conceptual\_Object** to identify the intangible cultural heritage elements mentioned in the travel books of the REWIND project corpus, such as musical compositions.
- Thesaurus: We create instances of the **E28\_Conceptual\_Object** class using the corresponding URIs from [WIKIDATA](#).

### E31 Document

- Definition: This class comprises identifiable immaterial items that make propositions about reality.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E31\\_Document](http://cidoc-crm.org/cidoc-crm/7.1.3/E31_Document)
- Use: We use **E31\_Document** to identify the travel books that comprise the REWIND project's corpus and are interpreted as historical sources.
- Thesaurus: We create the instances of the **E31\_Document** class using the corresponding URIs from [WIKIDATA](#).

### E52 Time-Span

- Definition: This class comprises abstract temporal extents, in the sense of Galilean physics, having a beginning, an end, and a duration.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E52\\_Time-Span](http://cidoc-crm.org/cidoc-crm/7.1.3/E52_Time-Span)
- Use: We use **E52\_Time-Span** to express specific dates or periods of time related to cultural heritage elements, such as their chronology.

### E53 Place

- Definition: This class comprises extents in the natural space where people live, in particular on the surface of the Earth, in the pure sense of physics: independent from temporal phenomena and matter. They may serve describing the physical location of things or phenomena or other areas of interest.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E53\\_Place](http://cidoc-crm.org/cidoc-crm/7.1.3/E53_Place)
- Use: We use **E53\_Place** to model places related to cultural heritage elements, such as the location of a monument.
- Thesaurus: We create the corresponding instances for the **E53\_Place** class using URIs from [GeoNames Gazetteer](#) for settlements, countries, city-states, and archaeological sites, and from [WIKIDATA](#) for places related to immovable cultural heritage, such as museums.

## E55\_Type

- Definition: This class comprises concepts denoted by terms from thesauri and controlled vocabularies used to characterize and classify instances of CIDOC CRM classes.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E55\\_Type](http://cidoc-crm.org/cidoc-crm/7.1.3/E55_Type)
- Use: We use **E55\_Type** to characterise and classify instances of the classes **E22\_Human-Made\_Object**, **E28\_Conceptual\_Object**, and **E53\_Place**. It corresponds to the **@type** attribute used in the XML-TEI tagging for the **<objectName>** and **<placeName>** entities.
- Thesaurus: We use the [ROSSIO Thesaurus](#) to establish the different types of cultural heritage items and places because controlled vocabularies are a form of knowledge representation that limits the meaning of the terms used to define an object or an idea, overcoming the drawbacks of natural language, such as synonymy or polysemy.

Class	Type	Description	ROSSIO Thesaurus' URI
E53_Place	Inhabited place <sup>5</sup>	Village, towns and cities	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_41936eb6">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_41936eb6</a>
	City-State	Independent political entity	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c4cb58bb">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c4cb58bb</a>
	Country	Independent political entity	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_371634e3">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_371634e3</a>
	Archaeological site	A populated place that no longer exists	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_362610b4">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_362610b4</a>
	Stock exchange	Stock exchange	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_40302bd6">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_40302bd6</a>
	Parliament building	Parliament building	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_82d37689">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_82d37689</a>
	Library	Library	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_d6246221">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_d6246221</a>
	Exhibition	Exhibition (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_2c6f2837">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_2c6f2837</a>
	Museum	Museum (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c1f9f621">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c1f9f621</a>
	Garden	Garden (open space)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_9e8639a6">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_9e8639a6</a>
	Theatre	Theatre (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_797259d4">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_797259d4</a>
	Hospital	Hospital (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4e8b6767">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4e8b6767</a>
	Retirement home	Retirement homes	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8bcce930">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8bcce930</a>
	Abbey	Abbey (monastery)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_03b2a241">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_03b2a241</a>

<sup>5</sup> The type "Inhabited place" corresponds to the @type="settlement" in the XML-TEI encoding.

Baptistery	Baptistery	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_28d21976">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_28d21976</a>
Belltower	Bell Tower	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_3ee6c6c4">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_3ee6c6c4</a>
Chapel	Chapel (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_a7d157f1">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_a7d157f1</a>
Church	Church (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_0f8e1db3">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_0f8e1db3</a>
Convent	Convent (built Complex)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_04bf2f56">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_04bf2f56</a>
Monastery	Monastery (built Complex)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_6efa5146">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_6efa5146</a>
Mosque	Mosque (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_6443575f">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_6443575f</a>
Sanctuary centres	Sanctuary centre	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4120e769">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4120e769</a>
Synagogue	Synagogue (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_e01ee1da">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_e01ee1da</a>
Temple	Temple (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_54e6f4bb">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_54e6f4bb</a>
Castle	Castle	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_52413f39">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_52413f39</a>
House	House	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c50e520b">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c50e520b</a>
Palace	Palace	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_23c82c1e">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_23c82c1e</a>
Catacomb	Catacomb	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_65adf379">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_65adf379</a>
Cemetery	Cemetery	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_74116a6e">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_74116a6e</a>
Grave	Grave	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8dcb5263">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8dcb5263</a>
Pantheon	Pantheon (mausoleum)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_d58caa78">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_d58caa78</a>
Amphitheatre	Amphitheatre (built work)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8e98c86c">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8e98c86c</a>
Forum	Forum (open space)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_f3abb2ff">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_f3abb2ff</a>
Loggia	Loggia	<a href="http://vocab.getty.edu/page/aat/300004137">http://vocab.getty.edu/page/aat/300004137</a>
Roman basilica	Basilica (work by form)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_47b5d0ec">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_47b5d0ec</a>



	Roman bath	Bath house	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_fb3eaeef">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_fb3eaeef</a>
	Aqueduct	Aqueduct	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_1729c249">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_1729c249</a>
	Bridge	Bridge	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_ab54759c">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_ab54759c</a>
	City gate	City gate	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4c9c9ab9">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4c9c9ab9</a>
	City wall	City wall	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_5e2638f8">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_5e2638f8</a>
	Clock tower	Clock tower	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_5d81ca82">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_5d81ca82</a>
	Square	Square	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_1a7f7248">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_1a7f7248</a>
	Tower	Tower (building)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_1a09c683">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_1a09c683</a>
<b>E28_ Conceptual Object (Intangible cultural heritage)</b>	Book	Book	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c292d2e6">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_c292d2e6</a>
	Film	Film	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_43a53312">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_43a53312</a>
	Opera (music)	Opera	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_cdd4776f">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_cdd4776f</a>
	Poem	Poem	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4cfea957">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_4cfea957</a>
<b>E22_Human-Made_Object (Tangible cultural heritage)</b>	Architectural element	Architectural elements	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_83ac03e1">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_83ac03e1</a>
	Bust	Bust (sculpture)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8043c98a">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8043c98a</a>
	Fountain	Fountain	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_a50a4fab">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_a50a4fab</a>
	Grave	Grave	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8dcb5263">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_8dcb5263</a>
	Imagery	Imagery (statue)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_87dd46fe">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_87dd46fe</a>
	Medallion	Medallion (decorative element)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_e97e0d5e">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_e97e0d5e</a>
	Memorial	Memorial (monument)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_45f84cc5">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_45f84cc5</a>
	Memorial column	Memorial column	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_896a6586">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_896a6586</a>
	Obelisk	Obelisk	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_10629c91">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_10629c91</a>

Painting	Painting	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_db4b964c">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_db4b964c</a>
Relief	Relief (sculpture)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_f29e3321">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_f29e3321</a>
Sarcophagus	Sarcophagus	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_69c85dc6">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_69c85dc6</a>
Statue	Statue (freestanding statue)	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_ed9d983b">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_ed9d983b</a>
Triumphal arch	Triumphal arch	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_6b87f195">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_6b87f195</a>
Wall painting	Wall painting	<a href="http://vocabs.rossio.fcsh.unl.pt/tesauro/c_91c63e58">http://vocabs.rossio.fcsh.unl.pt/tesauro/c_91c63e58</a>

### E65 Creation

- Definition: This class comprises events that result in the creation of conceptual items or immaterial products, such as legends, poems, texts, music, images, movies, laws, types, etc.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/E65\\_Creation](http://cidoc-crm.org/cidoc-crm/7.1.3/E65_Creation)
- Use: We use **E65 Creation** to refer to the creation of **E28\_Conceptual\_Object**.

### Properties

A property expresses a relationship between two classes. Moreover, a property is also defined with reference to its domain (the class for which the property is formally defined) and its range (the class that comprises all potential property values). In the REWIND project, we use the following properties from the CIDOC-CRM model:

#### P2 has type

- Definition: This property allows sub-typing of CIDOC CRM entities – a form of specialisation – through the use of a terminological hierarchy, or thesaurus.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/P2\\_has\\_type](http://cidoc-crm.org/cidoc-crm/7.1.3/P2_has_type)
- Use: We use **P2\_has\_type** to define the typology of instances corresponding to the classes **E22\_Human-Made\_Object**, **E28\_Conceptual\_Object**, and **E53\_Place**.
- Domain: **E22\_Human-Made\_Object**, **E28\_Conceptual\_Object** and **E53\_Place**.
- Range: **E55\_Type**.

#### P53 has former or current location

- Definition: This property identifies an instance of **E53 Place** as the former or current location of an instance of **E18 Physical Thing**.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/P53\\_has\\_former\\_or\\_current\\_location](http://cidoc-crm.org/cidoc-crm/7.1.3/P53_has_former_or_current_location)
- Use: We use **P53\_has\_former\_or\_current\_location** to indicate the geolocation of an instance of the classes **E22\_Human-Made\_Object** and **E53\_Place**.
- Domain: **E22\_Human-Made\_Object** and **E53\_Place**.
- Range: **E53\_Place**.

#### P67 refers to

- Definition: This property documents that an instance of **E89 Propositional Object** makes a statement about an instance of **E1 CRM Entity**.

- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/P67\\_refers\\_to](http://cidoc-crm.org/cidoc-crm/7.1.3/P67_refers_to)
- Use: We use **P63\_refers\_to** to indicate that a cultural heritage element has been cited in one of the books from the REWIND project corpus.
- Domain: **E22\_Human-Made\_Object** and **E28\_Conceptual\_Object**.
- Range: **E31\_Document**.

#### P89 falls within

- Definition:
- This property identifies an instance of **E53 Place** that falls wholly within the extent of another instance of **E53 Place**.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/P89\\_falls\\_within](http://cidoc-crm.org/cidoc-crm/7.1.3/P89_falls_within)
- Use: We use **P89\_falls\_within** to indicate that a settlement or immovable cultural heritage element is located within a city, as well as to indicate that a city belongs to a country.
- Domain: **E53\_Place**.
- Range: **E53\_Place**.

#### P94 has created

- Definition: This property links an instance of **E65 Creation** to the instance of **E28 Conceptual Object** created by it.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/P94\\_has\\_created](http://cidoc-crm.org/cidoc-crm/7.1.3/P94_has_created)
- Use: We use **P94\_has\_created** to indicate the authorship of instances of the **E28\_Conceptual Object** and **E31\_Document** classes.
- Domain: **E65\_Creation**.
- Range: **E28\_Conceptual Object**.

#### P108 has produced

- Definition: This property identifies the instance of **E24 Physical Human-Made Thing** that came into existence as a result of the instance of **E12 Production**.
- URI: [http://cidoc-crm.org/cidoc-crm/7.1.3/P108\\_has\\_produced](http://cidoc-crm.org/cidoc-crm/7.1.3/P108_has_produced)
- Use: We use **P108\_has\_produced** to indicate the authorship of instances of the **E12 Production** class.
- Domain: **E12\_Production**.
- Range: **E22\_Human-Made\_Object**