



knowledge organisation

Here you can find information about how mythLOD data has been modelled



browse the collection

See the online catalogue and browse the collection through facets



mythLOD: from csv to rdf

The collection workflow

Data from: [Mythologiae](#)

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/DH.arc Digital Humanities Advanced Research Centre
University of Bologna

THE MYTHLOD WORKFLOW



From CSV to RDF with
Mythologiae data

Factual Data

Title: L'enigma della Sfinge

Author: Tuset i Suau, Joan, 1957-^{VI}_{AF}

Keywords: sfinge enigma tuset

Typology: Pittura

Period: Arte contemporanea, XXI secolo (2004)

Description In questa peculiare rappresentazione, la Sfinge assume la forma di una donna nuda, sola e pensosa. I... [Read More](#)

See Also: [Responsible entity website](#)

Assertion

Categories: L'enigma della Sfinge

Canonical Citations: Odissea, XI, 273

Apollodoro, Biblioteca, III, 5-8

Erodoto, Storie, II, 175

Odissea, X

General References:

Cocteau, Jean, 1889-1963. | La Machine Infernale

Apollodorus. | Bibliotheca

Herodotus. | History

Homer. | Odyssey

Provenance

Interpretation Type: Iconographical Approach

Interpretation Criterion: Associazione di Fonti

Interpretation Performer: Morelli, Martina



mythLOD dataset stores
**4260 heterogeneous
artefacts** along with
their metadata

—
An Example

INPUT: THE MYTHOLOGIAE COLLECTION

Mythologiae Collection stores in a **relational database** a set of **heterogeneous artworks** spanning through several cultural institutions, artistic movements, time periods, typologies.

What artworks have in common in the collection is that each of them depicts a **mythological scene or theme**.

Annotators collected the artworks and their **descriptive metadata** (e.g. title, creation date, former location), **interpreted the artworks' content** (e.g. mythological scene) and associated a list of **literary references** that refer to the same mythological scene.

ARIANNA, VENERE E DIONISO

MAY 24, 2022

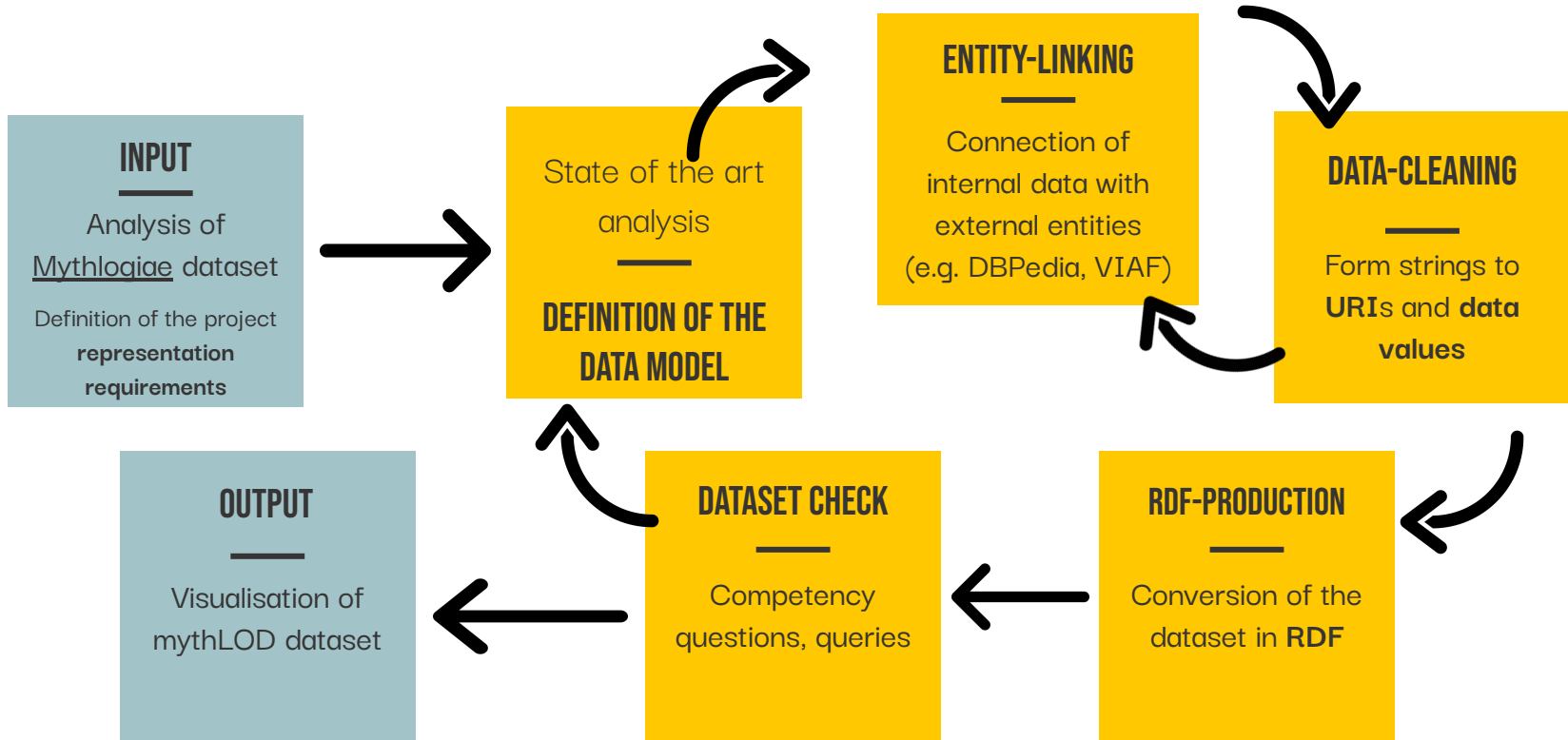
- **Titolo:** Arianna, Venere e Dioniso
- **Autore:** Tintoretto
- **Descrizione:** Venere prende la mano di Arianna, anche Dioniso vuol mano dell'amata
- **Periodo:** Arte moderna
- **Secolo:** XVI secolo
- **Data:** 1576
- **Tipologia:** Pittura
- **Collocazione:** Palazzo Ducale, Venezia
- **Note:** Olio su tela
- **Fonti letterarie classiche:** Publio Ovidio Nasone, Le Metamorfosi, VIII, vv. 177-179
- **Fonti medievali e moderne:** Giovanni Boccaccio, "Amorosa Visione", cap XII vv 14-15, Torquato Tasso, "Rime d'amore" 484, "Feci de'miei desideri" vv. 6-8
- **Riscritture letterarie:** Giovan Battista Marino, Poesie varie, Gli Incontro con Bacco*, p.186-206 *Bacco: Dioniso
- **Riscritture cinematografiche:** Nostra Signora dei Turchi, lung. drammatico, 1968, Italia, Carmelo Bene, 125 min
- **Link al museo:** [click here](#)

No standard has been defined by the annotators

CATEGORIE: **ARIANNA E DIONISO**
SI SPOSANO. KEYWORDS:
ARIANNA, DIONISO, VENEZIA.



WORKFLOW AND DATA-MANAGEMENT [1]



INPUT ANALYSIS, STUDY YOUR DATA

wp_post_status	wp_post_title	wp_post_content	wp_p	wp	wp_post_name	wp_po	wp	wp_p	wp_co	wp	wp_post_author	tx_category
auto-draft	Auto Draft			0		post		open	open	0	Manuela	
auto-draft	Auto Draft			0		post		open	open	0	Gamba Hubert	
publish	Testa di Circe			0	testa-di-circe	post		open	open	0	Gamba Hubert	circe:Circe
inherit	Testa di Circe			3479	3479-revision-v1	revision		closed	closed	0	AnnaZadra	
inherit	Circe invidiosa			6796	6796-revision-v1	revision		closed	closed	0	AnnaZadra	
publish	Circe invidiosa			0	circe-invidiosa	post		open	open	0	Gamba Hubert	circe:Circe
publish	The magic circle			0	the-magic-circle	post		open	open	0	Gamba Hubert	arianna-arianna:immagini
inherit	The magic circle			12156	12156-revision-v1	revision		closed	closed	0	AnnaZadra	
inherit	Emma Hart come Circe	<!-- wp:tadv/classic-p		12172	12172-revision-v1	revision		closed	closed	0	AnnaZadra	
publish	Emma Hart come Circe	<!-- wp:tadv/classic-p		0	emma-hurt-come-ci	post		open	open	0	Gamba Hubert	circe:Circe
inherit	Emma Hart come Circe	<!-- wp:tadv/classic-p		12172	12172-revision-v1	revision		closed	closed	0	AnnaZadra	
publish	La maga Circe			0	la-maga-circe	post		open	open	0	Gamba Hubert	circe:Circe
publish	Circe pensosa, seduta accanto ad			0	circe-pensosa-sedut	post		open	open	0	Gamba Hubert	circe:Circe
inherit	La maga Circe			575	575-revision-v1	revision		closed	closed	0	AnnaZadra	
publish	La maga Circe			0	la-maga-circe-2	post		open	open	0	Gamba Hubert	circe:Circe
inherit												
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inherit												
publish												
publish												
inherit												
inherit												
inherit	Disegno: Circe			14036	14036-revision-v1	revision		closed	closed	0	AlessandraPacini	

MAINTAIN

- Artworks metadata (title, date and place of creation, author..)
- Literary references metadata
- Conceptual categories (mythological themes)

AVOID/DISCARD

- Meaningless information (CMS inherited info)
- Noise in data
- Duplicates (post, revisions etc)

REPRESENTATIONAL REQUIREMENTS

In **information modeling**, a representational requirement refers to the need to accurately represent the **relevant information and data** of a **domain or problem space**. It involves **identifying the entities, attributes, relationships, and constraints involved**, and creating a formal model that represents this information in a structured and organized manner.

Representational requirements are important to **ensure** that the resulting **model is comprehensive, accurate, and effective in representing** the domain.

MYTHLOD PROBLEM SPACE

- (1) The formalisation of the relationships (identified by domain experts) between visual artworks attested in the collection and related literary sources.

REPRESENTATIONAL REQUIREMENTS IN MYTHLOD

- (1) Artwork metadata (time, place, author)
- (2) Artwork interpretation (theme)
- (3) Literary Reference (author, title, book, chapter, lines)

REVIEWING STATE OF ART, REUSE OR CREATE?

Now that the representational requirements of the project are defined, it's time to **define a data model**.

Should I reuse existing ontologies or I create a new one from scratch?

Before deciding, you should review the state of the art and understand if you can model your data on your representational requirements with an ontology that already exists. If no, the solution can be to create a new ontology.

STATE OF THE ART SURVEY IN MYTHLOD

- (1) Artwork metadata and interpretation
 - (a) CIDOC-CRM
 - (b) DCterms
 - (c) EDM (Europeana Data Model)
 - (d) FRBRoo
- (2) Literary Reference
 - (a) FRBR
 - (b) FRBRoo
 - (c) SPAR ontologies (Fabio, Cito)
 - (d) HUCit

MUSEUM DOMAIN

LIBRARY
DOMAIN

REUSING, PROS AND CONS

PROS

- (1) Reuse of fully functional data model (implemented, tested, documented) - time saving
- (2) In particular, domain ontologies are developed by outstanding institutions, this guarantees trust
- (3) Guarantees interoperability

CONS

- (1) Verbose solutions
- (2) Modelling is sometimes too general for the project purposes
- (3) Not always guaranteed that the resource will be online in the future

REUSED ONTOLOGIES IN MYTHLOD

- (1) Artwork metadata and interpretation
 - (a) FRBRoo [2]
 - (b) DCterms
- (2) Literary Reference
 - (a) FRBRoo
 - (b) DCterms
 - (c) HUCit [3]

CIDOC CRM AND FRBR

The CIDOC Conceptual Reference Model (CRM) is a theoretical and practical tool for **information integration in the field of cultural heritage**. [...]

The CIDOC CRM achieves this by providing definitions and a **formal structure for describing the implicit and explicit concepts and relationships used in cultural heritage documentation** and of general interest for the querying and exploration of such data.

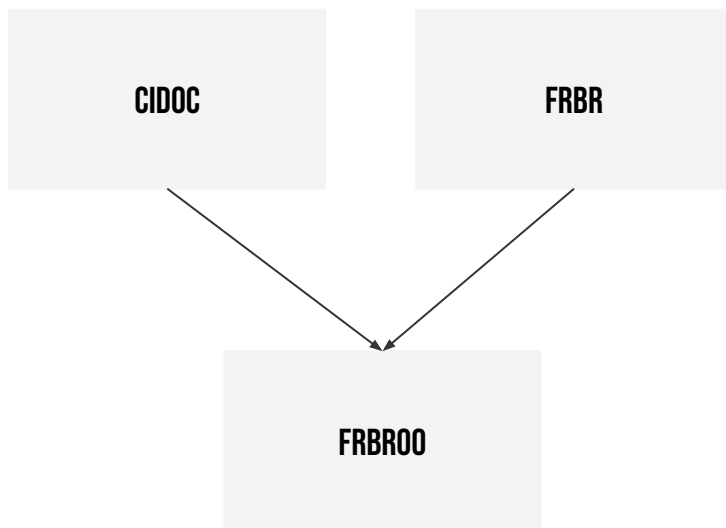
Built and maintained by **ICOM** (International Council of Museums) and adopted from several museums world-wide

The FRBR conceptual model [...] proposes the creation of bibliographic concepts (“work”, “expression”, “manifestation” and “item”) and a new way to **formalise relations between these bibliographic entities**.

The so called WEMI-Model (Work, Expression, Manifestation and Item model) tries to identify the core aspects of **publications** and is the foundation of the FRBR family.

Built and maintained by **IFLA** (International Federation of Library Associations and Institutions) and adopted from several libraries world-wide

FRBROO



It is mythLOD backbone ontology

FRBROO is the **object-oriented** version of the **FRBR family** of conceptual models **harmonised with CIDOC CRM**. It is a **formal ontology** that captures and represents the underlying semantics of bibliographic information and therefore facilitates the integration, mediation, and **interchange of bibliographic and museum information**.

With FRBROO it is possible to express both CIDOC and FRBR domains plus some new aspects not concerned by the two previous models.

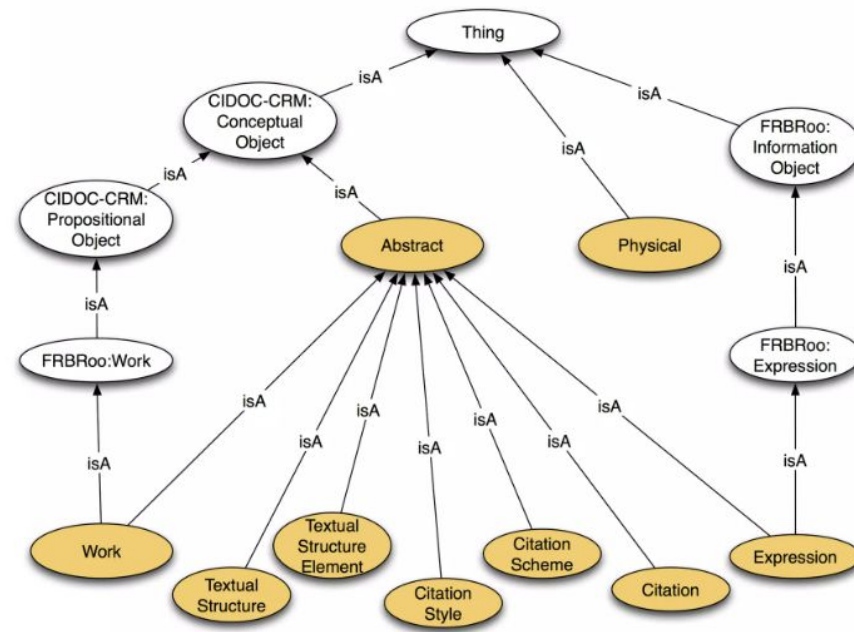
- (1) Textual elements as an unicum (e.g. manuscripts)
- (2) Performing arts

HUCIT

HuCit's Overview

HuCit is a formal ontology which extends CIDOC and FRBRoo models to represent canonical citations.

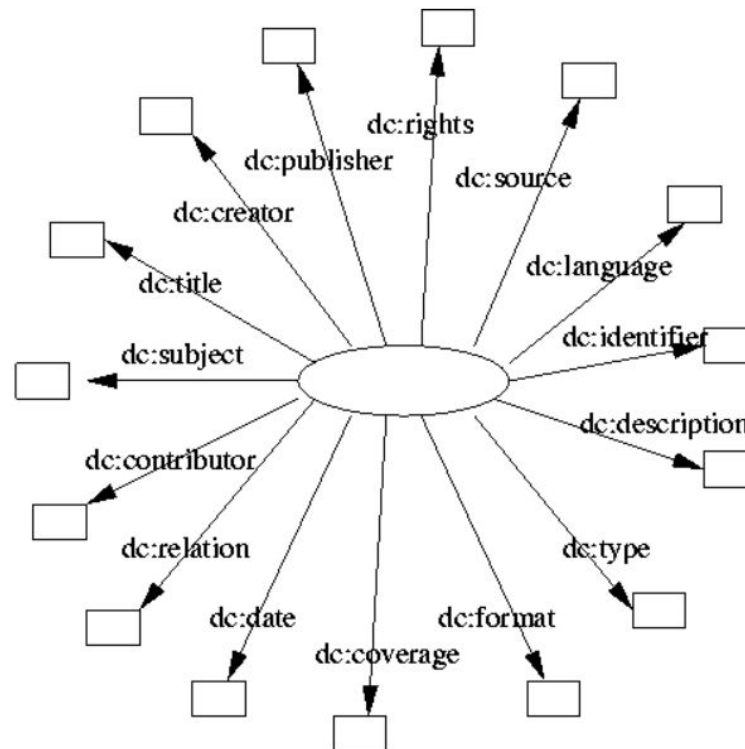
It is HuCit has been reused to specialise FRBRoo expressivity on canonical citations



DCTERMS

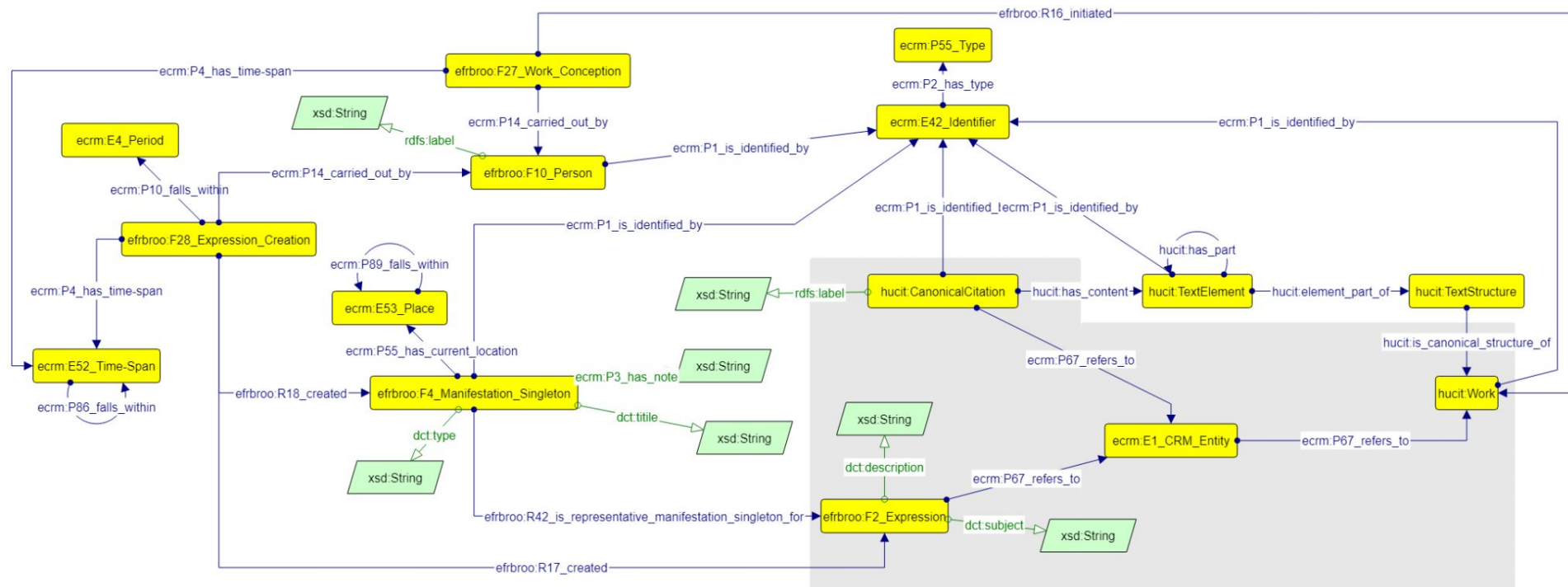
Dublin Core Terms (DCTerms) is a lightweight ontology which records basic metadata about **cataloging information**.

It is DCTerms has been reused in mythLOD to represent the items' basic information instead of reusing FRBRoo (too verbose for some simple tasks)



MYTHLOD MODEL

Modelling of (1) artwork metadata, (2) interpretation of the artwork theme and (3) bibliographic references metadata



DATA-CLEANING: FROM STRINGS TO URIS

SPLIT MULTIPLE VALUES

Unchaining multiple values in a single cell.

For example:

The string “Pan, Gli Dei” refers to two separate categories: “Pan” and “Gli Dei”.

We split this values and recorded as two different URIs.

```
https://purl.org/vpq/mythlod/data/categ/pan and  
https://purl.org/vpq/mythlod/data/categ/gli-dei
```

CASE BY CASE DISAMBIGUATION

Disambiguating different strings referring to the same value

For example,

1. Giacomo, Leopardi, Canti
2. Giacomo Leopardi, Canti
3. Leopardi Giacomo, Canti

Refer to the same entity, they need to be uniformed (e.g.

```
https://purl.org/vpq/mythlod/data/work/leopardi-giacomo-canti)
```

STRINGS CONVERSION INTO URIS

For URIs: replacing spaces, special characters, accents etc.. (e.g. “Enea nella penisola italica” → `https://purl.org/vpq/mythlod/data/categ/enea-nella-penisola-italica)`

For Literals (other data-types): dates, numbers, URLs sometimes need to be adjusted to be machine-readable (e.g. “1998” → `“01-01-1998”^^xsd:date)`

ENTITY LINKING

Manual, automatic, semi-automatic.

I used **OpenRefine** (<https://openrefine.org>)

This helps you with disambiguation and also to get external information from external dataset.

ALIGNMENTS IN MYTHLOD

Artworks' authors + VIAF ID and DBpedia

References' authors + VIAF ID and DBpedia

Places + Wikidata and Geonames

ENTITY LINKING, SOME EXAMPLES

Reconciliation of different strings for the same **author**, for example

- Labels in the CSV: “Ovid” or “Ovidio”
- mythLOD URI for Ovid: <https://purl.org/vpq/mythlod/data/person/ovid>
- VIAF URI for Ovid: <https://viaf.org/viaf/88342447>
- VIAF label for Ovid: “Ovid, 43 B.C.-17 or 18 A.D.”

Record in mythLOD:

```
<https://purl.org/vpq/mythlod/data/person/ovid> a efrbroo:F10_Person ;
```

```
    rdfs:label "Ovid, 43 B.C.-17 or 18 A.D."^^xsd:string ;
```

```
    owl:sameAs <https://viaf.org/viaf/88342447> .
```

ENTITY LINKING, SOME EXAMPLES

Getting external information (e.g. lat and long) for artwork's **holding institutions locations**, for example:

- Labels in the CSV: "Kunsthistorisches Museum"
- mythLOD URI for this institution: <https://purl.org/vpq/mythlod/data/place/kunsthistorisches-museum>
- Wikidata URI for this institution: <https://www.wikidata.org/Q95569>
- Wikidata latitude and longitude values: 48.203611111111,16.361666666667

Record in mythLOD:

```
<https://purl.org/vpq/mythlod/data/place/kunsthistorisches-museum> a ecrm:E53_Place ;  
  rdfs:label "Kunsthistorisches Museum"^^xsd:string ;  
  ecrm:P2_has_type <https://purl.org/vpq/mythlod/data/type/collocazione> ;  
  ecrm:P89_falls_within <https://purl.org/vpq/mythlod/data/place/austria>,  
<https://purl.org/vpq/mythlod/data/place/wien> ;  
  owl:sameAs <http://sws.geonames.org/6354990>,  
  <http://worldcat.org/identities/lccn-n50056014>,  
  <https://id.loc.gov/authorities/names/n50056014>,  
  <https://www.wikidata.org/Q95569> ;  
  wdt:P625 "48.203611111111,16.361666666667"^^xsd:string .
```

RDF PRODUCTION

WHERE ARE WE IN THE WORKFLOW?

- (1) Input data has been surveyed and analysed
- (2) The data model has been defined
- (3) Input data has been cleaned, disambiguated and enriched



RDF-PRODUCTION

Creation of the actual Knowledge Base which stores the cleaned data following the data model.

RDF-PRODUCTION IN MYTHLOD

mythLOD stores 4260 artworks (=4260 rows in the input CSV), an automatic solution was needed

mythLOD Knowledge Base has been produced via [RDFLib Python library](#).

```
@prefix co: <http://purl.org/co/> .
@prefix crm: <http://www.cidoc-crm.org/cidoc-crm/> .
@prefix dct: <http://purl.org/dc/terms/> .
@prefix ecrm: <http://erlangen-crm.org/current/> .
@prefix efrbroo: <http://erlangen-crm.org/efrbroo/> .
@prefix hico: <http://purl.org/emmedi/hico/> .
@prefix hucit: <http://purl.org/net/hucit#> .
@prefix myth: <https://purl.org/vpq/mythlod/data/> .
@prefix np: <http://www.nanopub.org/nschema#> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix prov: <http://www.w3.org/ns/prov#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix schema: <http://schema.org/> .
@prefix wdt: <http://www.wikidata.org/prop/direct/> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .

myth:assertion3343 {
  <https://purl.org/vpq/mythlod/data/item/3343-expression> ecrm:P67_refers_to <https://purl.org/vpq/mythlod/data/item/3343-expression> .
}

myth:pubInfo280 {
  myth:np-280 prov:wasAttributedTo <https://purl.org/vpq/mythlod/data/person/dharc> .
  prov:wasGeneratedAtTime "2020-08-24T09:00:00"^^xsd:dateTime .
}

myth:provenance622 {
  myth:assertion622 prov:wasGeneratedAtTime "2019-05-16T13:37:00"^^xsd:dateTime ;
  prov:wasGeneratedBy <https://purl.org/vpq/mythlod/data/int-act/622> .

  <https://purl.org/vpq/mythlod/data/int-act/622> a prov:InterpretationAct ;
  hico:hasInterpretationCriterion myth:hermeneutic-analysis ;
  hico:hasInterpretationType myth:iconographic-approach ;
  prov:wasAttributedTo <https://purl.org/vpq/mythlod/data/person/gamba-hubert> .
}
```

The dataset can be reused to become the source of web visualisations



Mythologieae Catalogue
X
homepage knowledge organisation ◀ collection credits

Browse the MythLOD collection through facets over the layered model

4260 Results

Deselect all filters

- Factual Data Collocation
- Factual Data Period
- Factual Data Keywords
- Factual Data Type
- Factual Data Author
- Assertion Category
- Assertion Reference Type
- Assertion References
- Assertion References Authors
- Pronomance Interpretation Type
- Pronomance Interpretation Criterion
- Pronomance Interpretation Performer

Factual Data

Title: Enea alla corte di Latino

Author: Bol, Ferdinand, 1616?-1680? *VZ*

Keywords: **latino**, **enea**, **bol**, **guerra di troia**, **italia**, **cavale**

Typology: Pittura

Collocation: Rijksmuseum, Amsterdam (Netherlands)

Period: Arte moderna, XVII secolo (1661-1664)

Description Enea si congratula con uno dei quattro capitani delle navi che hanno partecipato a una gara. Tutti e...

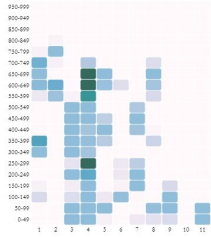
[Read More](#)

Which is the distribution of Aeneis citation in mythLOD collection?


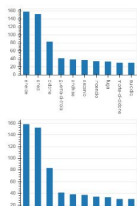
The heatmap represents Aeneis ontological distribution in mythLOD collection.

Since each Aeneis citation in the dataset shares at least one category with a named object, the heatmap graphically represents the distribution of Aeneis facts which are related in the collection along with the named depicted themes (conceptual categories).

The x-axis represent Aeneis books, while 10-lines-groups are represented on y-axis.



Group degree with conceptual categories (depicted concepts), better are represented together all the hierarchical and conceptual congruence shared between the named objects and Aeneis, taking into account how many times they co-occur in mythLOD dataset.

REFERENCES

[1] Pasqual, Valentina, e Francesca Tomasi. 2022. "Linked Open Data Per La Valorizzazione Di Collezioni Culturali: Il Dataset MythLOD". AIB Studi 62 (1):149-68. <https://doi.org/10.2426/aibstudi-13301>.

[2] Bekiari, Chryssoula, et al. 2017. "Definition of FRBROo: A conceptual model for bibliographic information in object-oriented formalism." <https://repository.ifla.org/handle/123456789/659>.

[3] Matteo Romanello and Michele Pasin. 2013. "Citations and annotations in classics: old problems and new perspectives. In Proceedings of the 1st International Workshop on Collaborative Annotations in Shared Environment: metadata, vocabularies and techniques in the Digital Humanities (DH-CASE '13). Association for Computing Machinery, New York, NY, USA, Article 2, 1-8. <https://doi.org/10.1145/2517978.2517981>.

[] Daquino, Marilena, Valentina Pasqual, and Francesca Tomasi. 2020. "Knowledge Representation of Digital Hermeneutics of Archival and Literary Sources". JLIIS.It 11 (3):59-76. <https://doi.org/10.4403/jlis.it-12642>.

THE PROJECT



From CSV to RDF with
Mythologiae data

THE IDEA: VENUS (MYTHOLOGY)

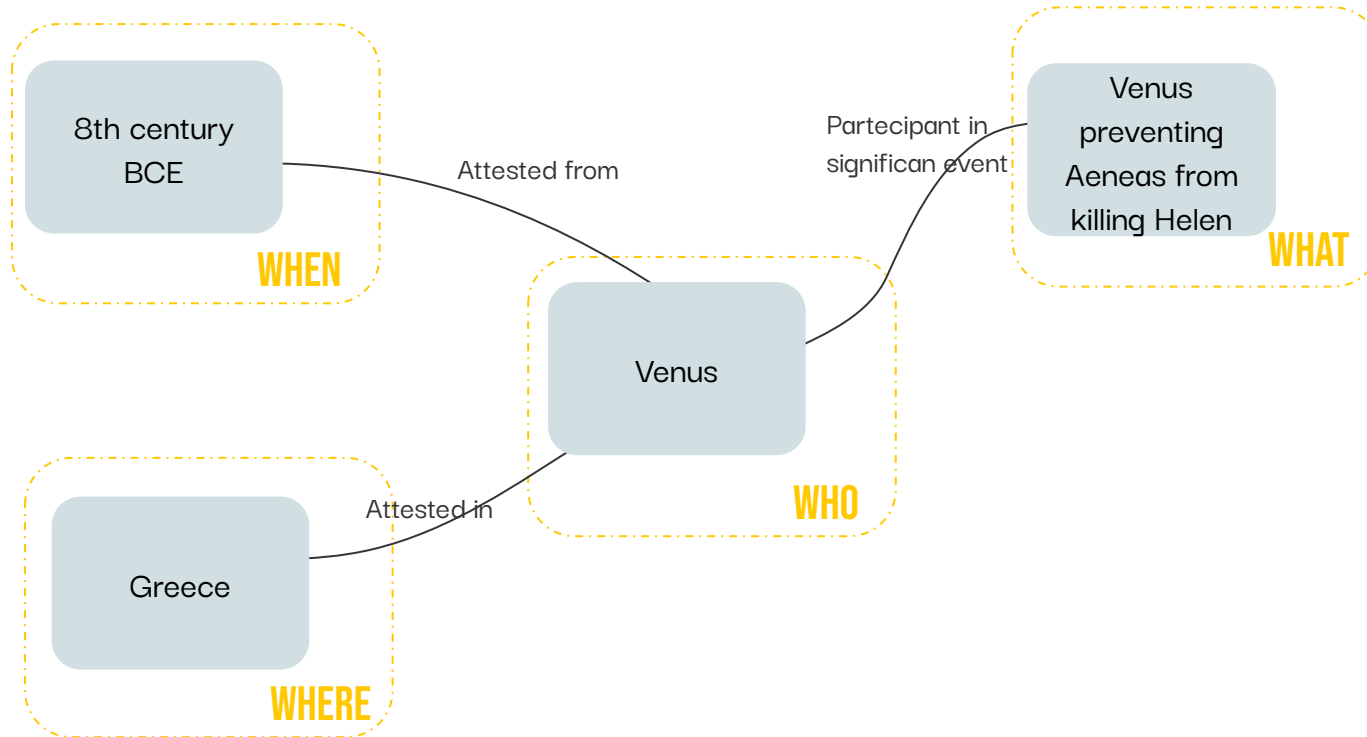
*Venus is a Roman goddess, whose functions encompass **love, beauty, desire**, sex, fertility, prosperity, and victory. In Roman **mythology**, she was the ancestor of the Roman people through her son, Aeneas, who survived the fall of Troy and fled to Italy. Julius Caesar claimed her as his ancestor. Venus was central to many religious festivals, and was revered in Roman religion under numerous cult titles.*

The Romans adapted the myths and iconography of her **Greek counterpart Aphrodite** for Roman art and Latin literature. In the later classical tradition of the West, Venus became **one of the most widely referenced deities of Greco-Roman mythology** as the embodiment of love and sexuality. She is usually depicted nude in paintings.

Venus in Wikipedia: [https://en.wikipedia.org/wiki/Venus_\(mythology\)](https://en.wikipedia.org/wiki/Venus_(mythology))

Aphrodite in Wikipedia: <https://en.wikipedia.org/wiki/Aphrodite>

THE IDEA CONCEPTUALISATION



THE PROJECT

KNOWLEDGE ORGANISATION

- ELABORATE MODELS

ITEMS (1)

Source: Museo Del Prado



TECHNICAL DATA



Inventory number

P001394

Authors

Rubens, Peter Paul; Brueghel the Elder, Jan (Jan 'Velvet' Brueghel)

Title

The Sense of Sight

Date

1617

Technique

Oil

Support

Panel

Dimension

Height: 64.7 cm; Width: 109.50001 cm

Series

Serie Los Sentidos / The Five Senses

Provenance

Collection of Ramiro Núñez de Guzmán, II duke of Medina de las Torres; Royal Collection (Real Alcázar, Madrid, Pieza donde S. M.

RELATED ARTWORKS



The Sense of Hearing

Oil on panel, 1617 - 1618

BRUEGHEL THE ELDER, JAN (JAN 'VELVET'
BRUEGHEL)



The Sense of Smell

ITEMS (2)

Source: The MET



Artwork Details

Overview

Title: Venus preventing Aeneas from killing Helen

Signatures, Inscriptions, and Markings

Artist: Attributed to Johann Tobias Sergel (Swedish, Stockholm 1740–1814 Stockholm)

Former Attribution: Anonymous, French, 18th century

Date: late 18th century

Provenance

Medium: Pen and brown ink, brown wash, over graphite

Dimensions: Sheet: 9 1/8 x 12 1/4 in. (23.2 x 31.1 cm)

Classification: Drawings

Credit Line: Purchase, Guy Wildenstein Gift, 2012

Accession Number: 2012.278

THE HARVARD CLASSICS
EDITED BY CHARLES W. ELIOT LL.D.



VIRGIL'S ÆNEID
TRANSLATED BY JOHN DRYDEN

WITH INTRODUCTIONS AND NOTES

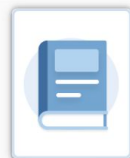
VOLUME 13



P. F. COLLIER & SON COMPANY
NEW YORK

ITEMS (4)

Source: WordCat



Virgil's Æneid

Autori: [Virgil](#) (Autore), [John Dryden](#) (Traduttore)

Libro a stampa, Inglese, 1909

Edizione: [Visualizza tutti i formati e le edizioni](#)

Editore: P.F. Collier & Son, New York, 1909

Serie: [Harvard classics](#), v. 13, volume 13

Genere: Epic poetry, Latin Translations into English

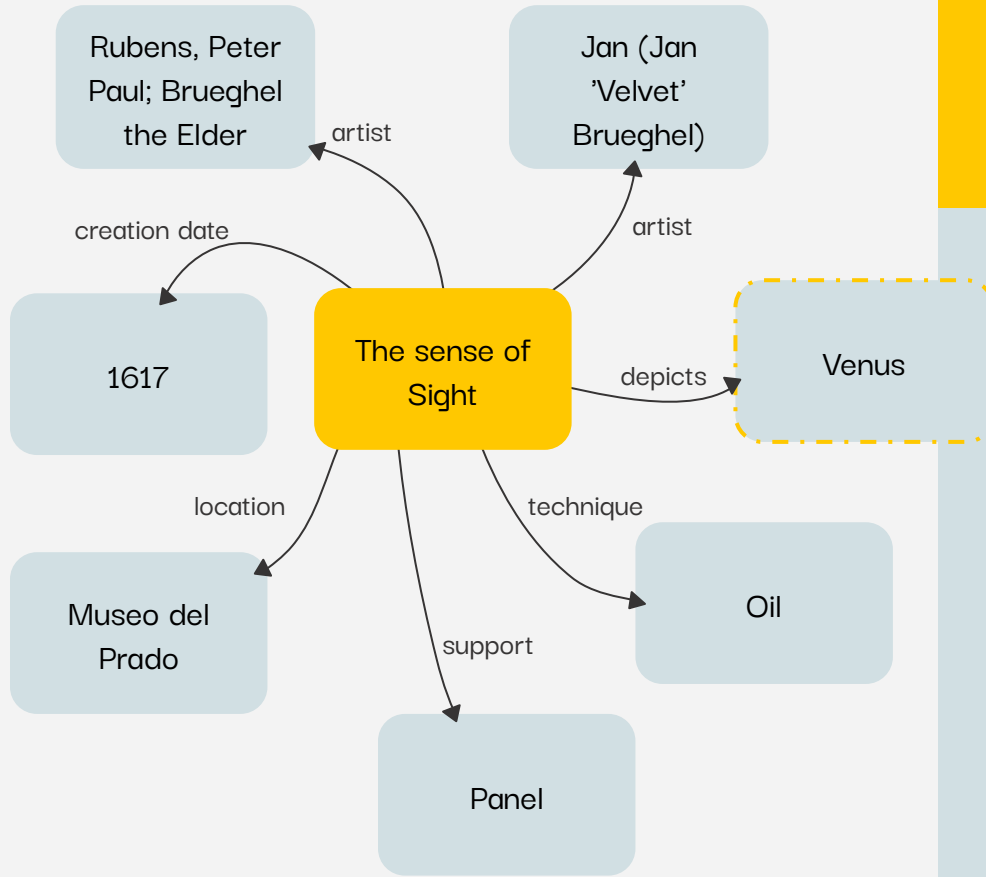
Descrizione fisica: 432 pages : frontispiece (portrait) ; 23 cm.

Numero/Identificativo univoco OCLC: 1231149

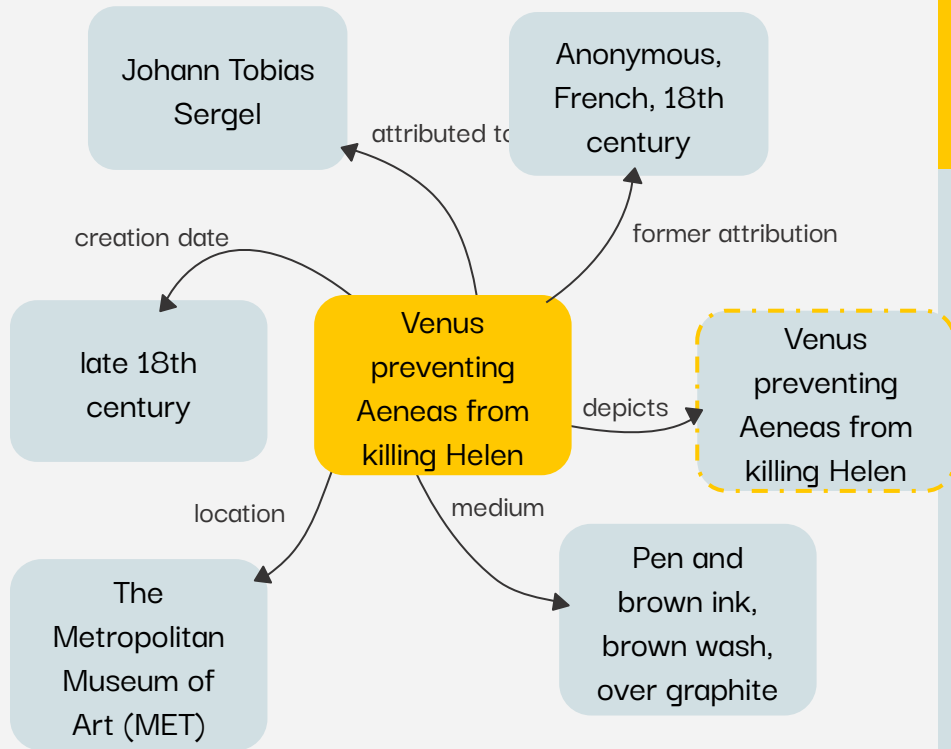
Soggetti: [Aeneas \(Legendary character\)](#)
[Aeneas \(Legendary character\) Poetry](#)
[Epic poetry](#)
[Epic poetry, Latin](#)
[Epic poetry, Latin Translations into English](#)
[Mostra più informazioni...](#) ▾

Inserimento di moduli fisici aggiuntivi: Online version:
[Virgil's Æneid](#)
[Virgil](#)
[1411560693](#)

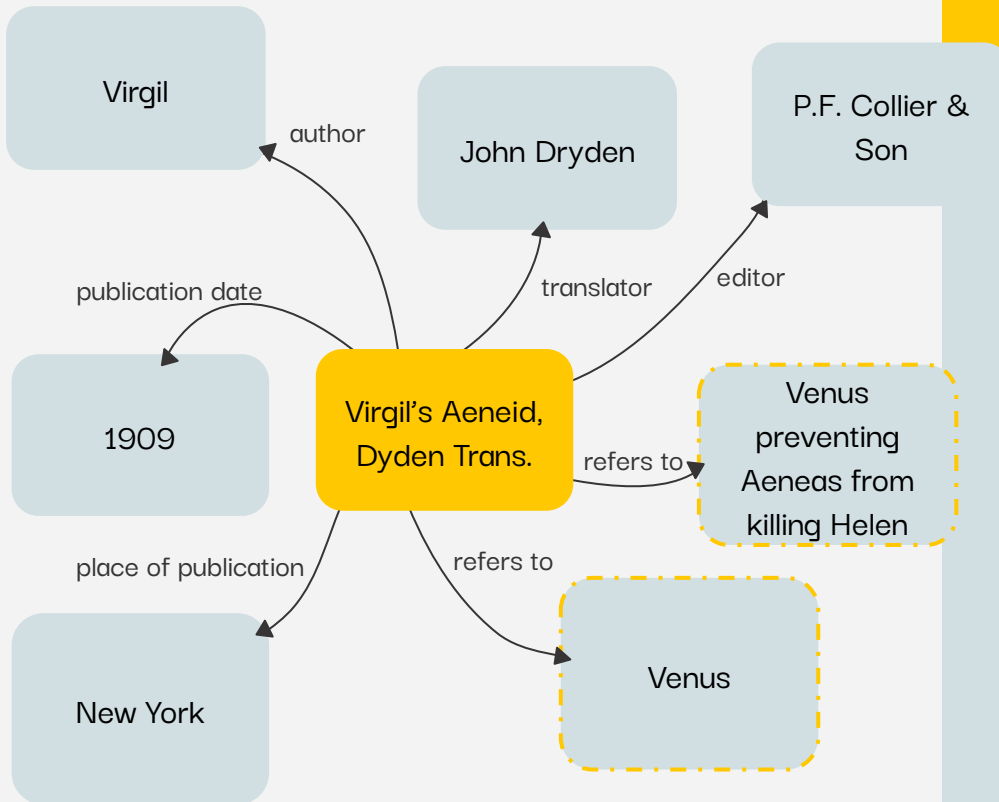
[Mostra meno informazioni](#) ^



- **WHO:**
 - Artist: Rubens, Peter Paul; Brueghel the Elder, Jan (Jan 'Velvet' Brueghel)
- **WHAT:**
 - Depicts: Venus
 - Technique: Oil
 - Support: Panel
- **WHERE:**
 - Location: Museo del Prado
- **WHEN:**
 - Date of creation: 1617



- **WHO:**
 - Attributed to: Johann Tobias Sergel
 - Former attribution: Anonymous, French, 18th century
- **WHAT:**
 - Depicts: Venus preventing Aeneas from killing Helen
 - Medium: Pen and brown ink, brown wash, over graphite
- **WHERE:**
 - Location: The Metropolitan Museum of Art (MET)
- **WHEN:**
 - Date of creation: late 18th century



- **WHO:**
 - Author: Virgil
 - Translator: Drydens
 - Editor: P.F. Collier & Son
- **WHAT:**
 - Depicts: Venus preventing Aeneas from killing Helen; Venus
- **WHERE:**
 - Publication place: New York
- **WHEN:**
 - Publication date: 1909

METADATA ANALYSIS AND MAPPING

Museo del Prado documentation.

The ontology used is The Museo del Prado's Digital Semantic Model, based on CIDOC CRM and integrates other ontologies such as eFRBR.

The MET

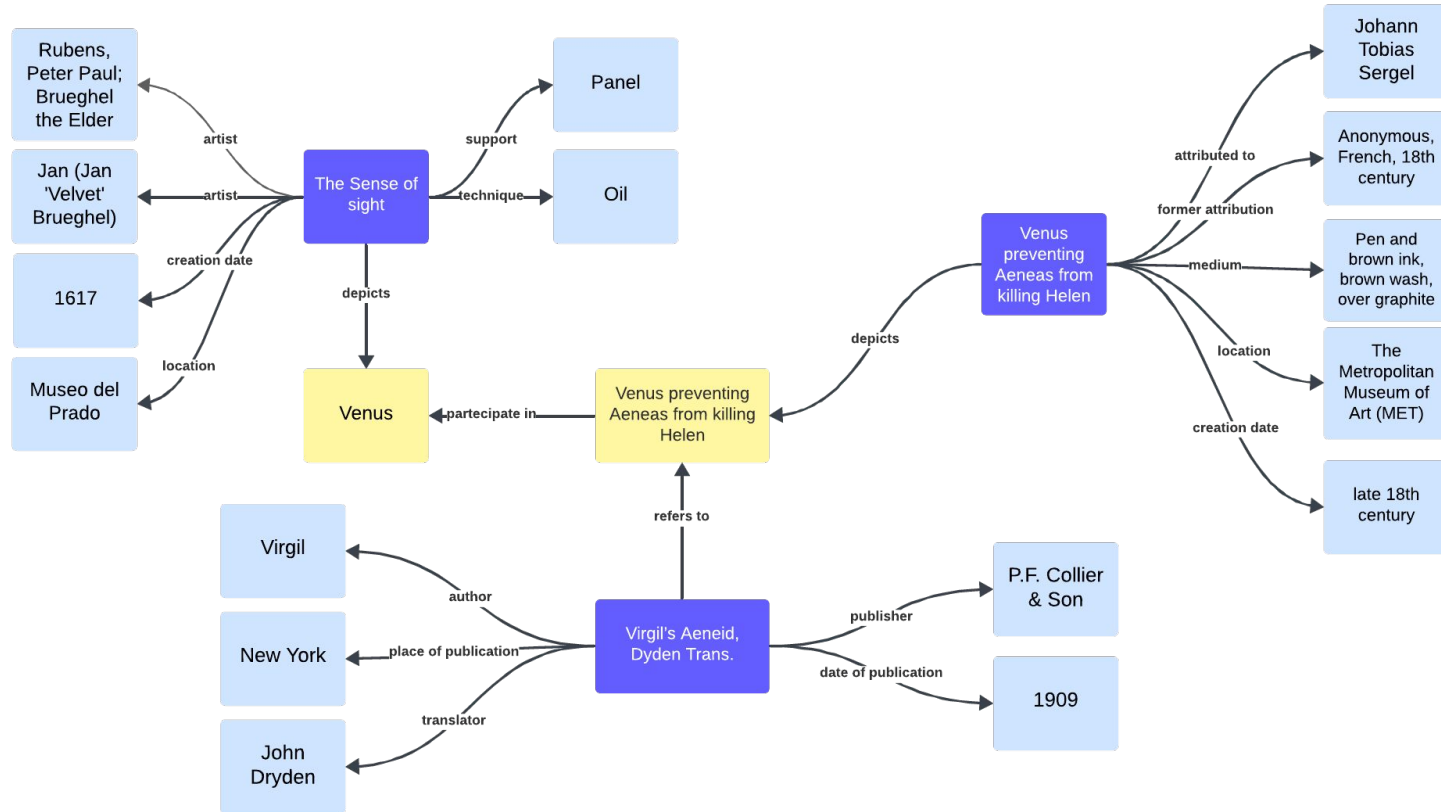
No documentation is available, but a CSV file can be found with all the museum items. We can still derive categories from here:

<https://github.com/metmuseum/openaccess>.

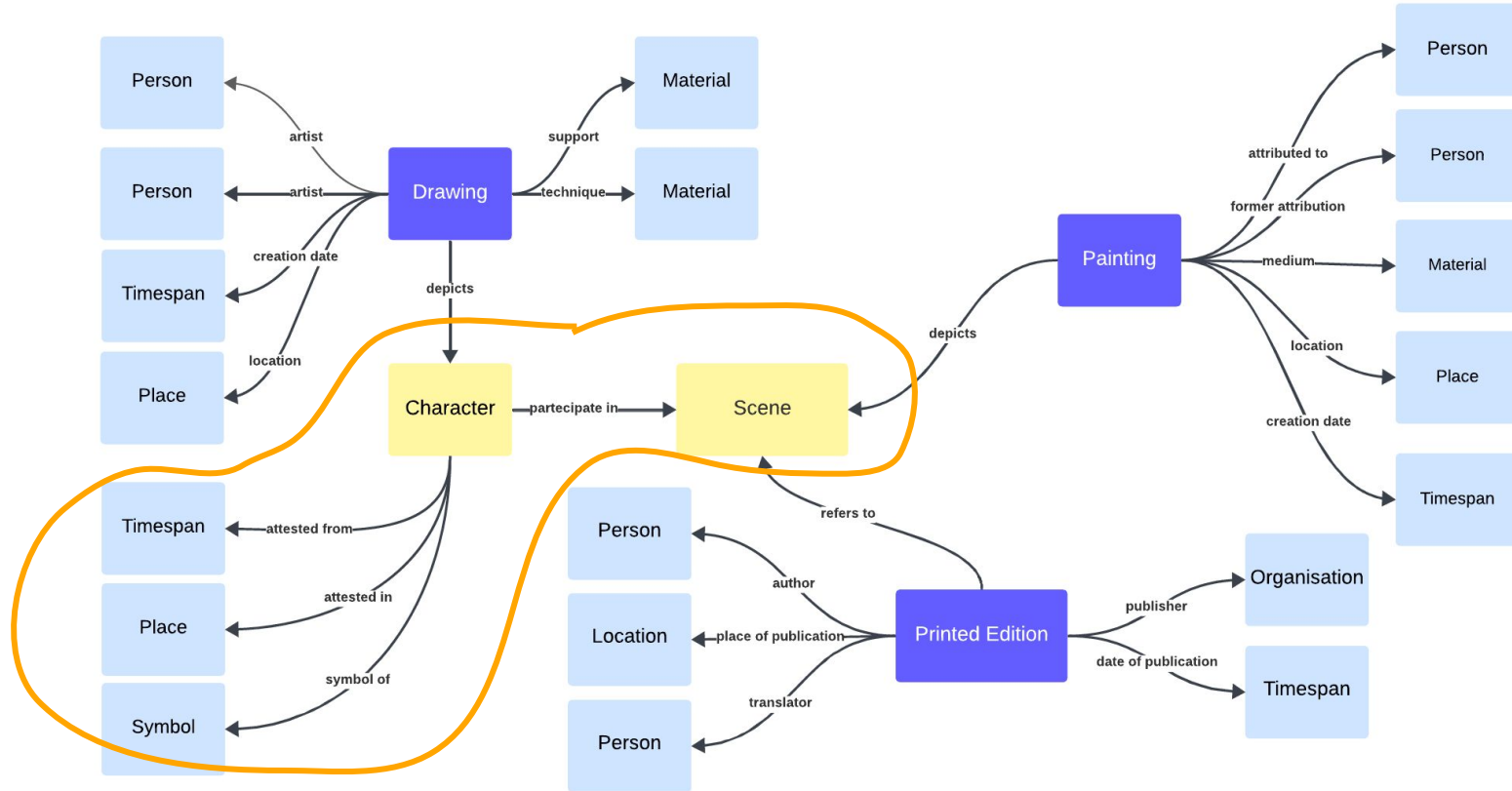
Worldcat ontology

For printed books, see class WorldCat Text

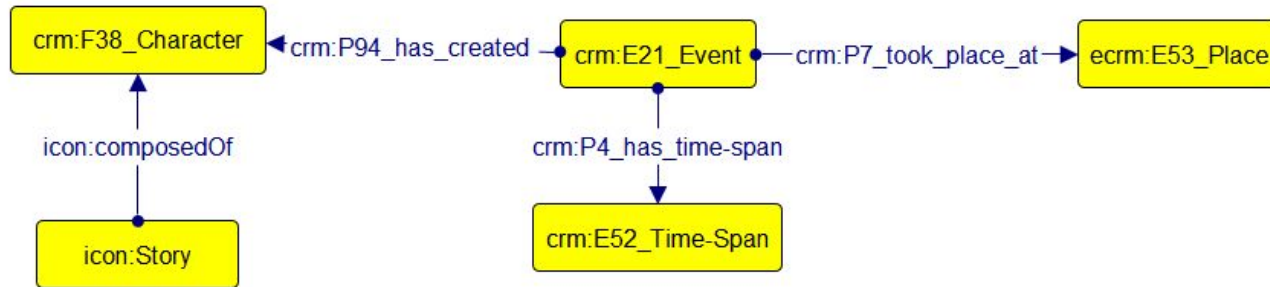
THEORETICAL MODEL



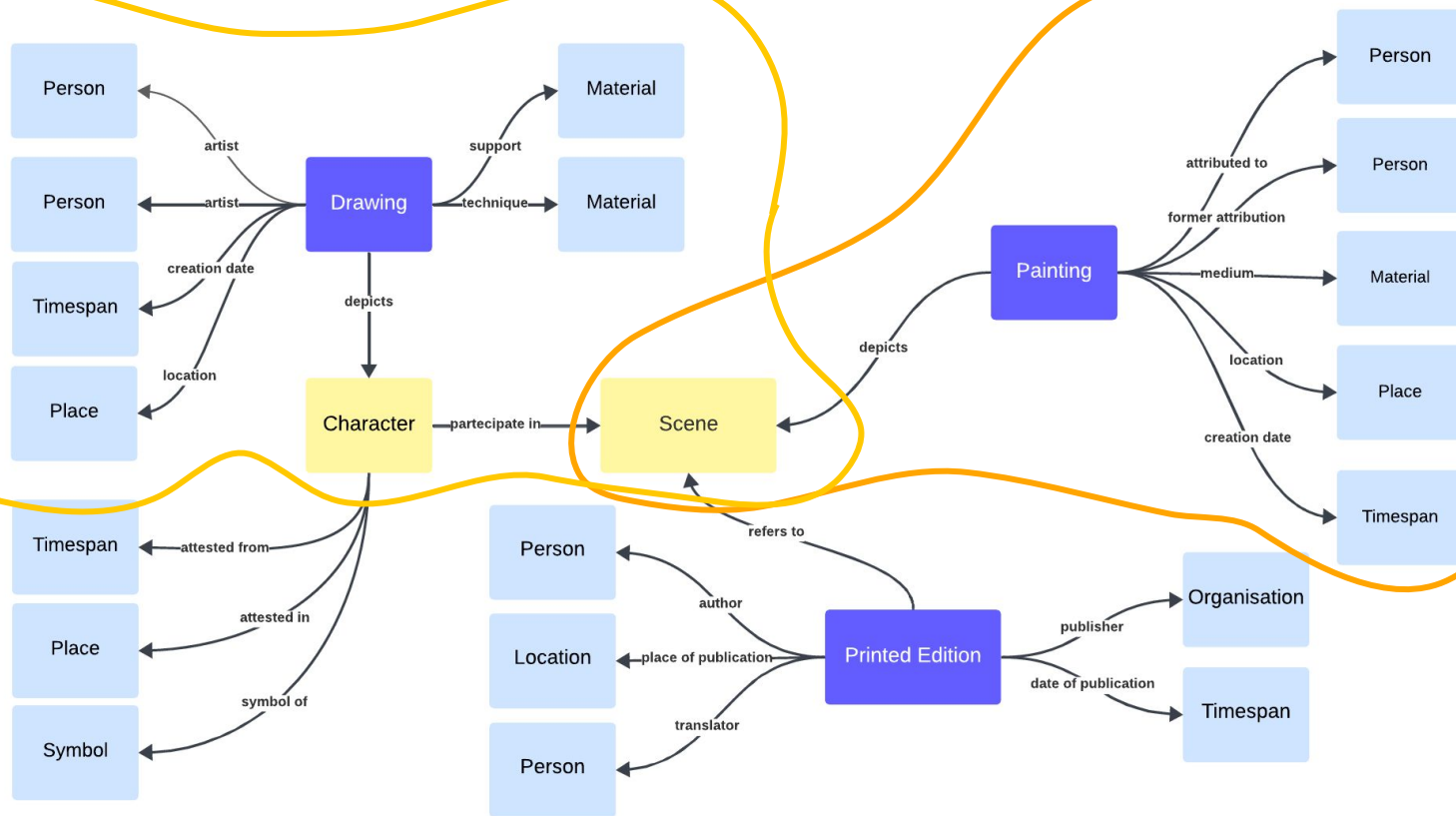
THEORETICAL MODEL: CHARACTER DEFINITION



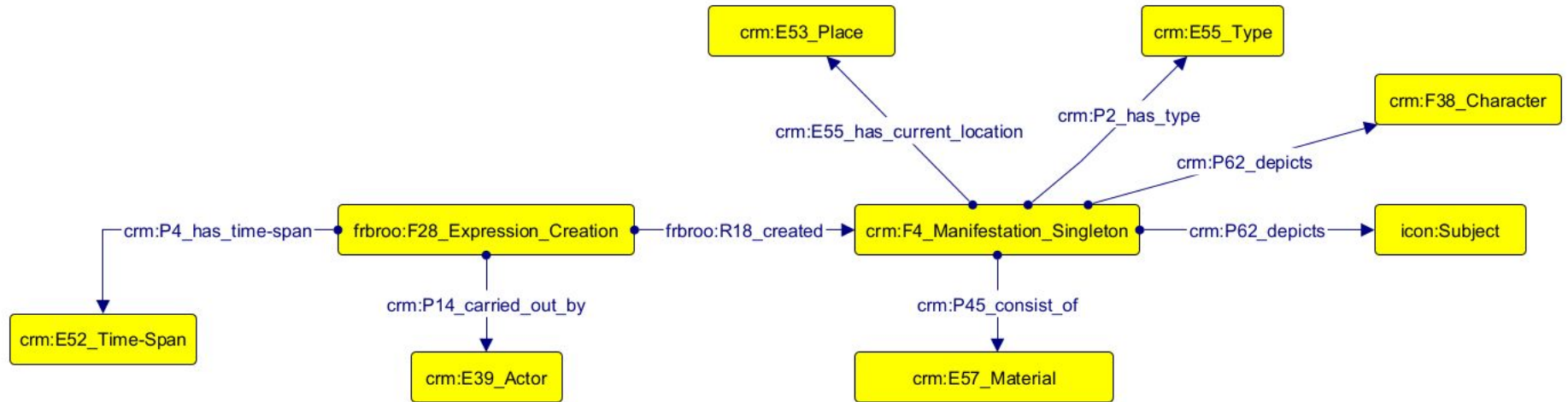
CONCEPTUAL MODEL: CHARACTER DEFINITION



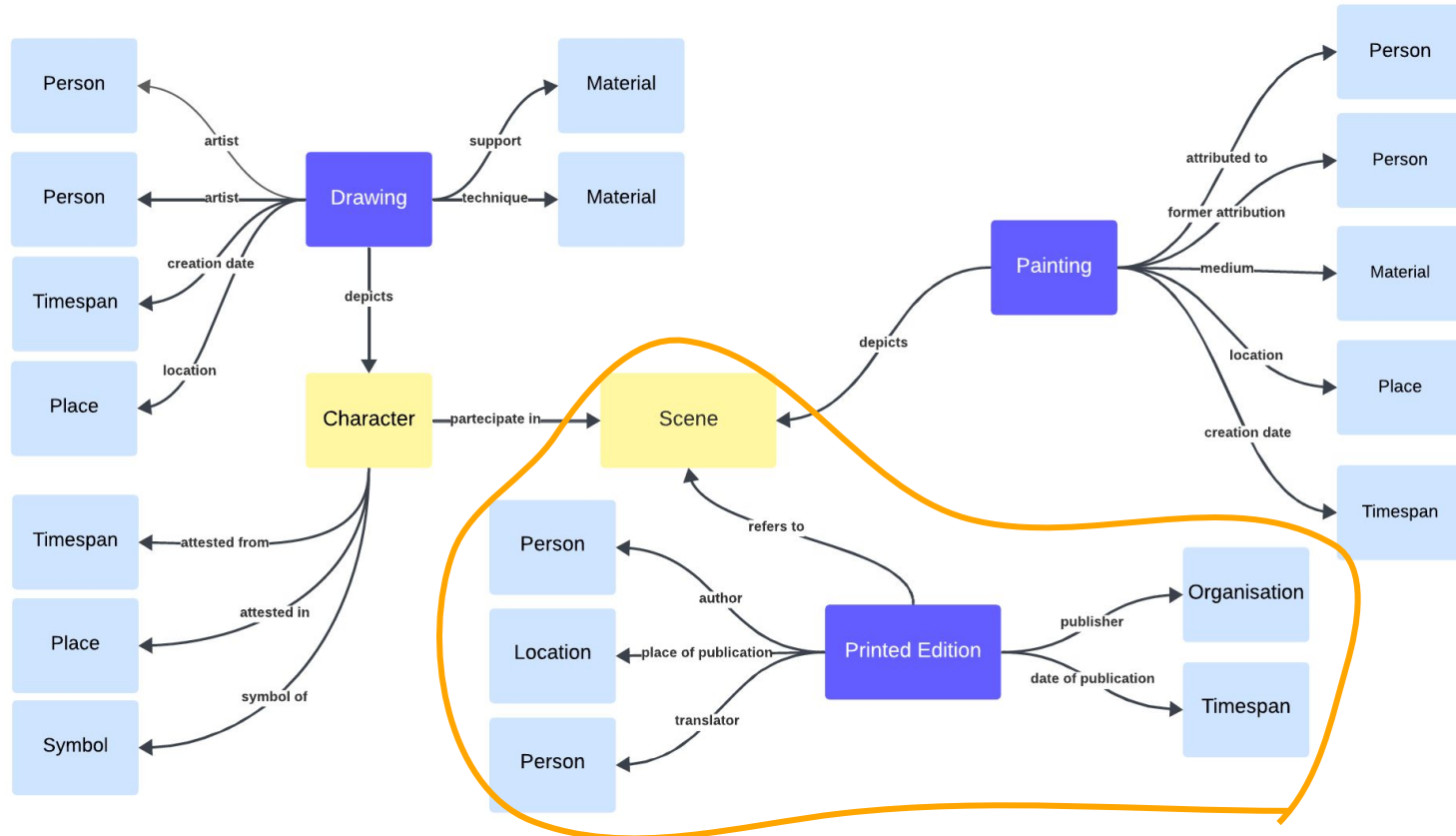
THEORETICAL MODEL: PAINTINGS AND DRAWINGS



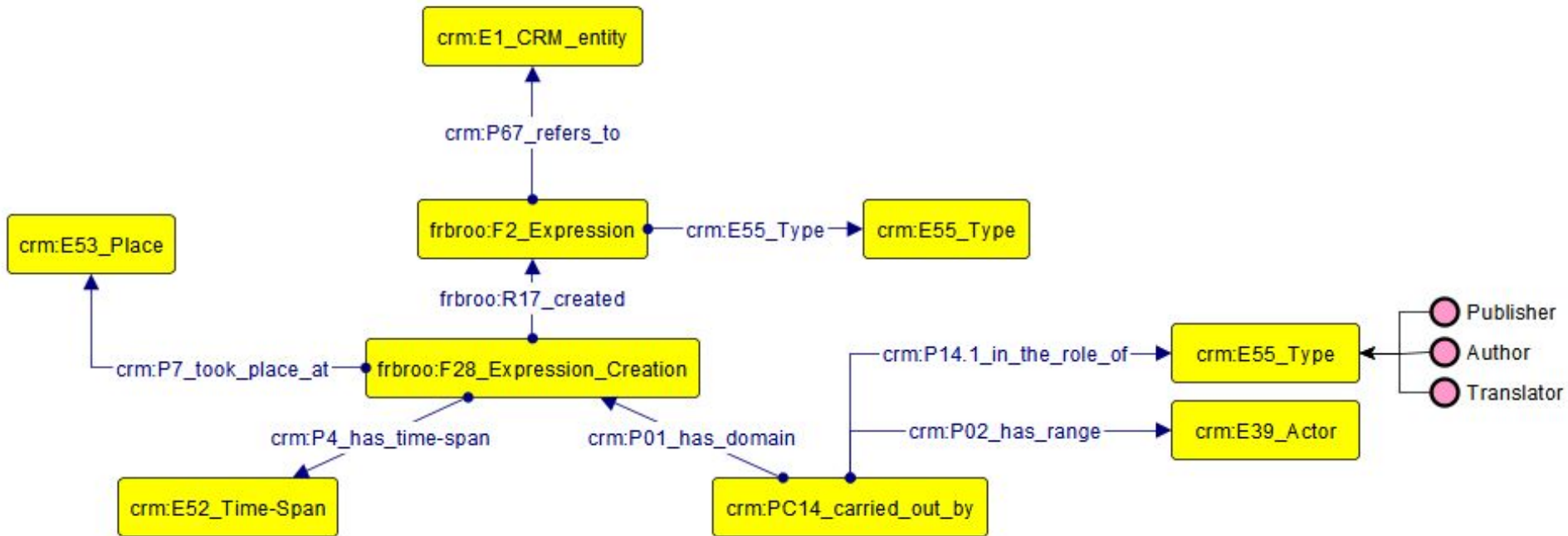
CONCEPTUAL MODEL: VISUAL ARTWORK



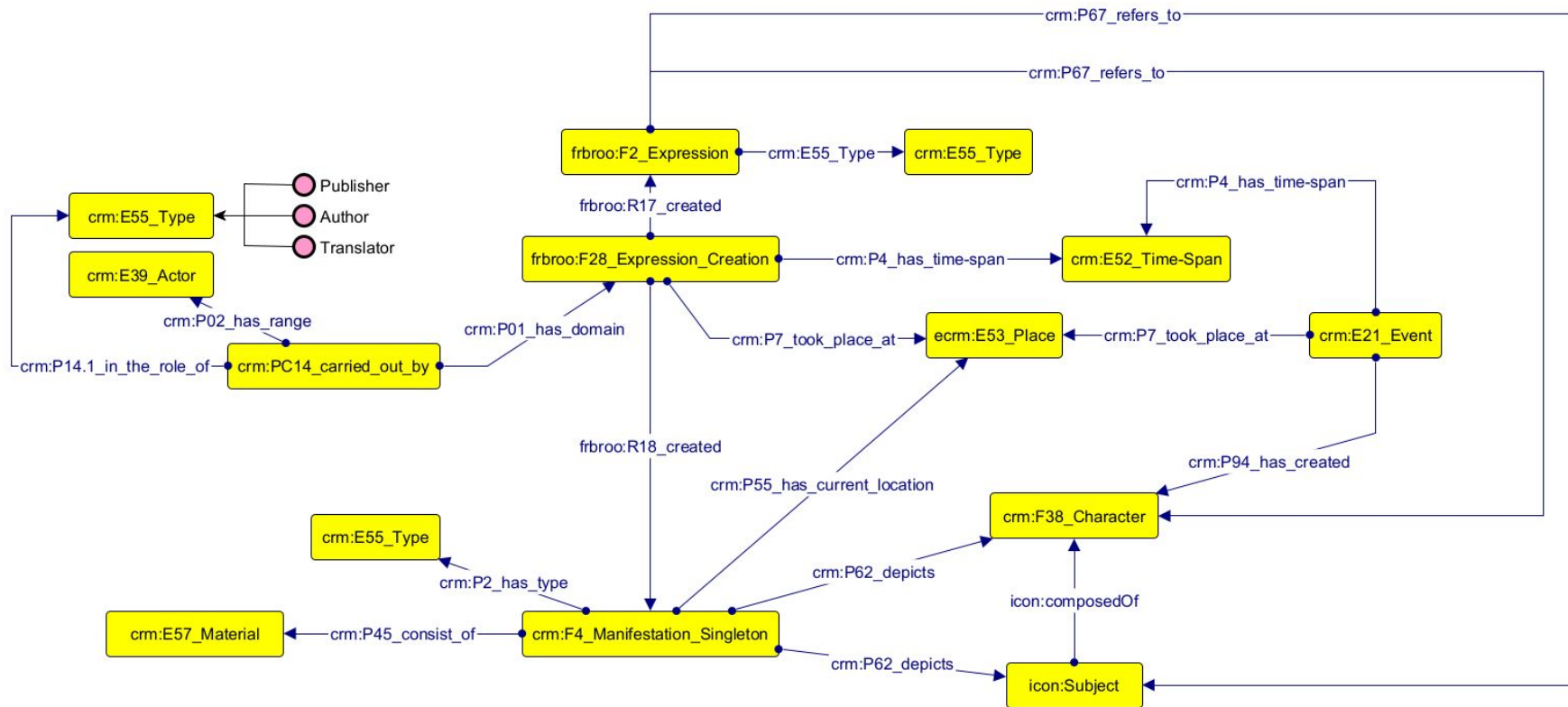
THEORETICAL MODEL: TEXTS



CONCEPTUAL MODEL: TEXTS



THE OVERALL CONCEPTUAL MODEL



ENHANCEMENT

PEOPLE

Authority files

For example:

- Date of Birth/Death
- Place of Birth/Death
- Occupation
- Artistic Movement

For example, see Wikidata records

PLACES

Location additional information

- Latitude
- Longitude
- City
- Country

TEXT-ARTWORK RELATION

For example the scene “Venus preventing Aeneas from killing Helen” is both subject of homonymous drawing and the literary reference “Aeneid, II, vv. 594-620”.

The item “Virgil’s Aeneid, Dyden Trans.” can be therefore link with additional information about the specific textual reference (as in mythLOD)

THE PROJECT

KNOWLEDGE REPRESENTATION

- CREATE DATA

TABLES - VENUS

subject	predicate	object	alignment
Venus	rdf:type	crm:F38_Character	iconclass:92C4 (story of) Venus (Aphrodite)
Venus preventing Aeneas from killing Helen	rdf:type	icon:Scene	iconclass:96B111 Venus appears to Aeneas, who is just about to kill Helen, and advises him to flee
Venus Creation	rdf:type	crm:E21_Event	
Greece	rdf:type	crm:P53_Place	geonames:390903
8th century BCE	rdf:type	crm:E52_Time-span	
Venus Creation	crm:P94_has_created	Venus	
Venus Creation	crm:P4_has_time-span	8th century BCE	
Venus Creation	crm:P7_took_place_at	Greece	

TABLES - THE SENSE OF SIGHT

subject	predicate	object	alignment
The sense of Sight Creation	rdf:type	frbroo:F28_Expression_Creation	
1619	rdf:type	crm:E52_Time-Span	
Rubens, Peter Paul	rdf:type	crm:E39_Actor	viaf:56647196
Brueghel the Elder	rdf:type	crm:E39_Actor	viaf:95761864
Museo del Prado	rdf:type	crm:E53_Place	geonames:6452756
Painting	rdf:type	crm:E53_Type	aat:300033618
The sense of Sight	rdf:type	crm:F4_Manifestation_Singleton	
Oil on Panel	rdf:type	crm:E57_Material	aat:300178684 // aat:300033656
The sense of Sight Creation	frbroo:R18_created	The sense of Sight	
The sense of Sight Creation	crm:P14_carried_out_by	Rubens, Peter Paul	
The sense of Sight Creation	crm:P14_carried_out_by	Brueghel the Elder	

TABLES - THE SENSE OF SIGHT (2)

subject	predicate	object	alignment
The sense of Sight Creation	crm:P4_has_time-span	1619	
The sense of Sight	crm:P2_has_type	Painting	
The sense of Sight	crm:E55_has_current_location	Museo del Prado	
The sense of Sight	crm:P45_consist_of	Oil on Panel	
The sense of Sight	crm:P62_depicts	Venus	

TRIPLES AND RDF DATA

Must be a URI	Must be a URI	Can be a URI or Literals
SUBJECT	PREDICATE	OBJECT
<code>https://w3id.org/mythlod/manif246</code>	<code>a</code>	<code>http://erlangen-crm.org/efrbroo/F4_Manifestation_Singleton</code>
<code>https://w3id.org/mythlod/cre246</code>	<code>http://erlangen-crm.org/efrbroo/R18_created</code>	<code>https://w3id.org/mythlod/manif246</code>
<code>https://w3id.org/mythlod/manif246</code>	<code>http://purl.org/dc/terms/title</code>	<code>"Lo sbarco di Enea in Italia"xsd:string</code>

URIS, DON'T

Spaces
Accents
Punctuation

URIS, DO

CamelCase
Underscore or hyphen-minus

LITERALS

Strings (natural language)
Integers (numbers)
Dates (year)
Dates (date-time)
....

RDF PRODUCTION

This is up to your enjoyment :)



THE SENSE OF SIGHT, RDF NOTATION

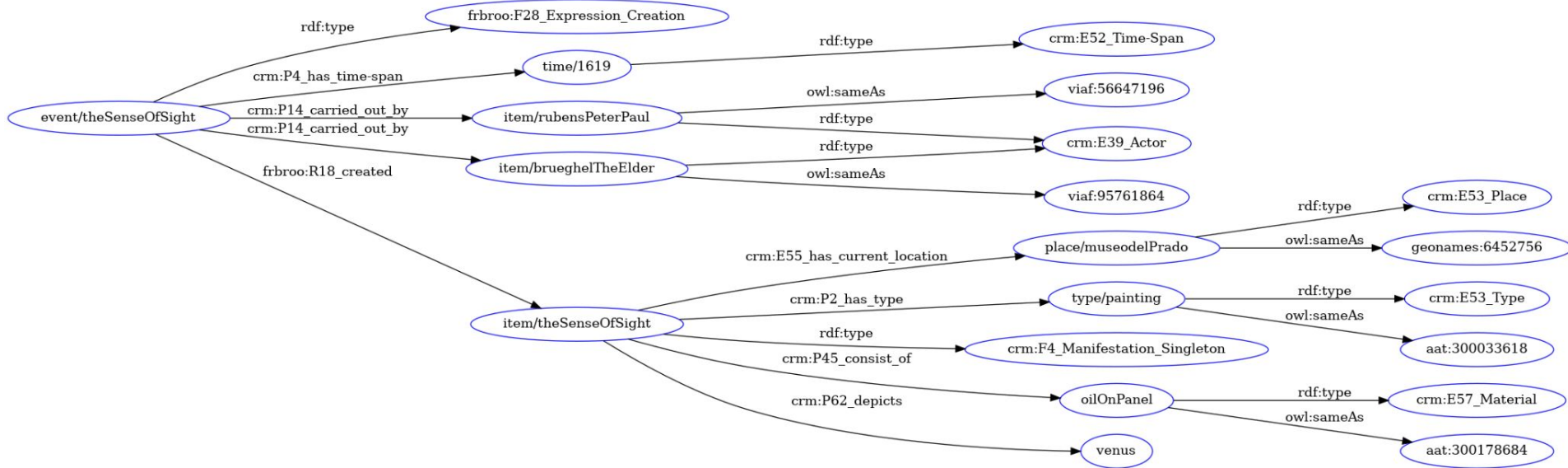
@prefix : <https://www.w3id.org/venusProject/> .
@prefix event: <https://www.w3id.org/venusProject/event/> .
@prefix time: <https://www.w3id.org/venusProject/time/> .
@prefix item: <https://www.w3id.org/venusProject/item/> .
@prefix type: <https://www.w3id.org/venusProject/type/> .
@prefix person: <https://www.w3id.org/venusProject/person/> .
@prefix place: <https://www.w3id.org/venusProject/place/> .
@prefix person: <https://www.w3id.org/venusProject/item/> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix frbroo: <http://erlangen-crm.org/efrbroo/> .
@prefix crm: <http://www.cidoc-crm.org/cidoc-crm/> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix viaf: <https://viaf.org/viaf/43315786/> .
@prefix geonames: <https://sws.geonames.org/> .
@prefix aat: <http://vocab.getty.edu/page/aat/> .

event:theSenseOfSight rdf:type frbroo:F28_Expression_Creation.
time:1619 rdf:type crm:E52_Time-Span.
person:rubensPeterPaul rdf:type crm:E39_Actor;
owl:sameAs viaf:56647196.
person:brueghelTheElder rdf:type crm:E39_Actor;
owl:sameAs viaf:95761864.
place:museodelPrado rdf:type crm:E53_Place;
owl:sameAs geonames:6452756.
type:painting rdf:type crm:E53_Type;
owl:sameAs aat:300033618 .
item:theSenseOfSight rdf:type crm:F4_Manifestation_Singleton.
:oilOnPanel rdf:type crm:E57_Material;
owl:sameAs aat:300178684.

event:theSenseOfSight frbroo:R18_created item:theSenseOfSight;
crm:P14_carried_out_by person:rubensPeterPaul;
crm:P14_carried_out_by person:brueghelTheElder ;
crm:P4_has_time-span time:1619.

item:theSenseOfSight crm:P2_has_type type:painting;
crm:E55_has_current_location place:museodelPrado;
crm:P45_consist_of :oilOnPanel ;
crm:P62_depicts :venus.

THE SENSE OF SIGHT, RDF VISUALISATION



Namespaces:

<https://www.w3id.org/venusProject/>
 event: <https://www.w3id.org/venusProject/event/>
 time: <https://www.w3id.org/venusProject/time/>
 item: <https://www.w3id.org/venusProject/item/>
 type: <https://www.w3id.org/venusProject/type/>
 person: <https://www.w3id.org/venusProject/person/>
 place: <https://www.w3id.org/venusProject/place/>
 rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
 frbroo: <http://erlangen-crm.org/efrbroo/>
 crm: <http://www.cidoc-crm.org/cidoc-crm/>
 owl: <http://www.w3.org/2002/07/owl#>
 viaf: <https://viaf.org/viaf/43315786/>
 geonames: <https://sws.geonames.org/>
 aat: <http://vocab.getty.edu/page/aat/>

THANK YOU FOR YOUR ATTENTION

Any questions?

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University of Bologna