

Museumdat as an OWL-DL Domain Ontology

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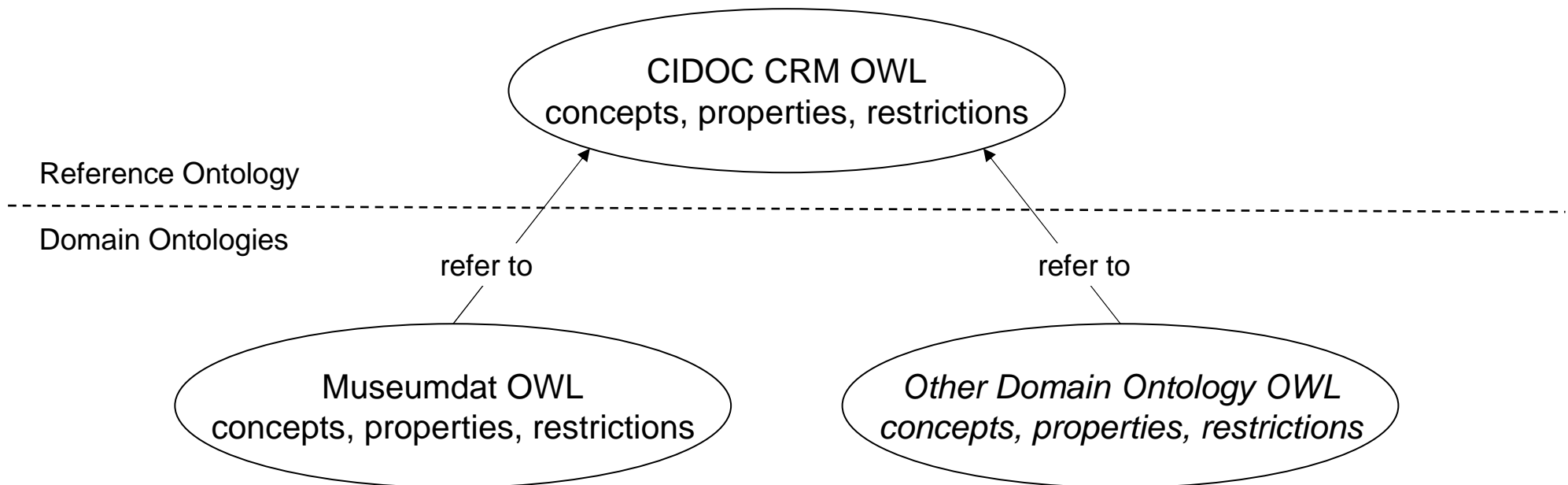
- "museumdat is a harvesting format ... meant to deliver automatically core data to museum portals"
- Developed by the Working Group for Museum Documentation of the German Museums Association
- Published in November 2007
- Represents an important building block in the view of the forthcoming European Digital Library (europeana.eu)
- Available as Version 1.0
 - Textual defined as PDF (german and english)
 - Formally defined as XML-Schema
 - Website with further informations (museumdat.org)
- "museumdat is a generalization of the format CDWA Lite"

- Categories for the Description of Work of Art (CDWA)
 - established in 1996 by the Getty Research Institute for the documentation needs of the Getty Museum
 - defines nearly 500 Categories
- CDWA Lite
 - A "lite" and slightly modified version of CDWA
 - XML-Schema published 2005
 - defines about 22 Dataelements for "indexing" and the same 22 Elements again for "displaying"

- Both distinguish between elements for "indexing" and elements for "displaying", the later a less restrictive version of the former
- "museumdat is a generalization of the format CDWA Lite"
- "Generalization" means, that
 - whereas CDWA (Lite) is suitable for museums of fine art
 - Museumdat is suitable for all kinds of museums
- Modification aim to make Museumdat "CRM-compatible"
 - introduction of an *event* element to connect actor and object

Idea

- Formalize Museumdat in the same syntax (OWL) that was used to formalize CIDOC CRM to make the connections between museumdat and crm explicit and machine-readable.
- Using CRM OWL as a Reference-Ontology
 - connection should be easy to obtain because of the "crm-compatibility" of Museumdat

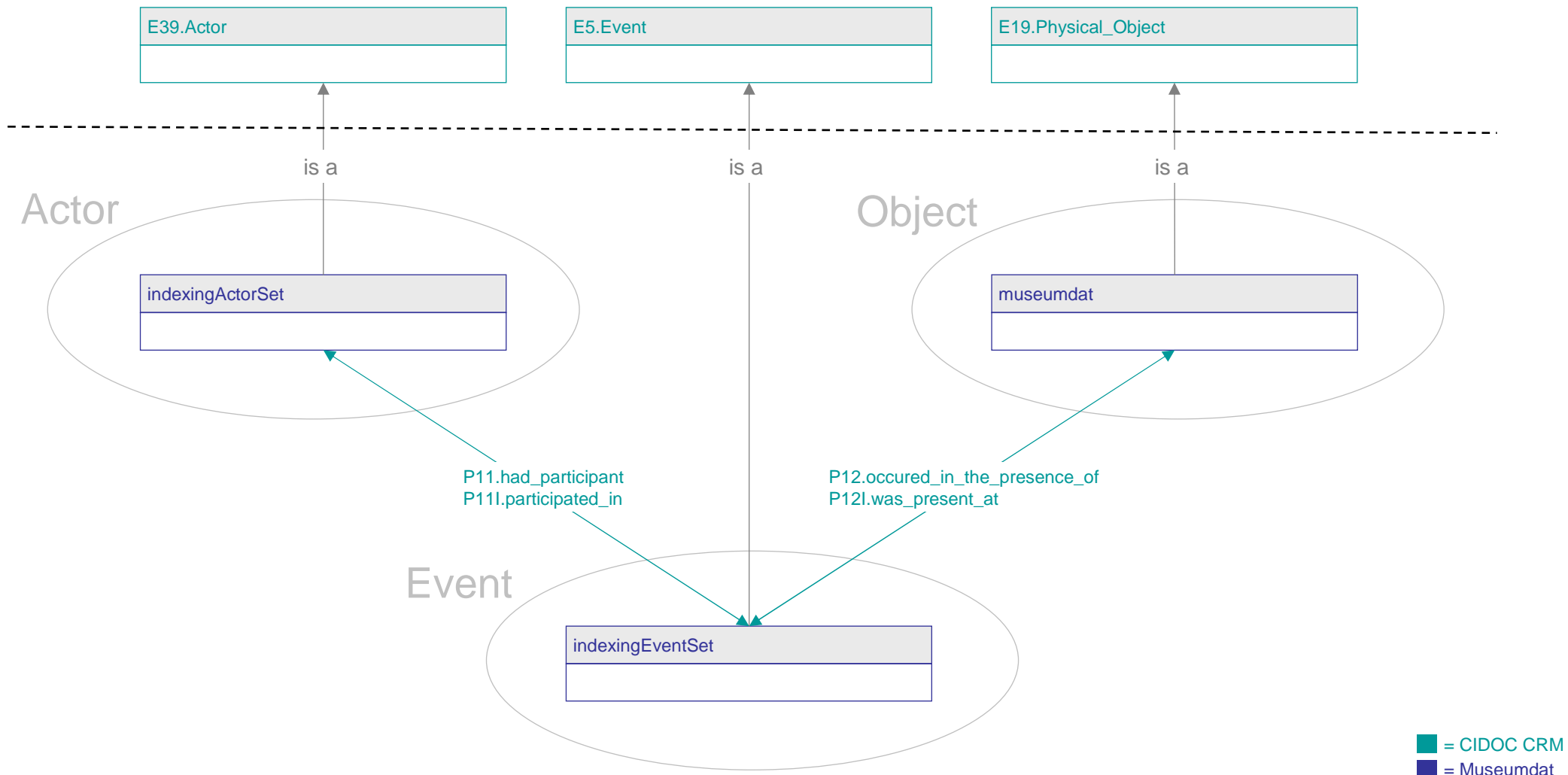


Method of Modelling

- Derive concepts, properties and restrictions of Museumdat from
 - the textual definition
 - the XML-Schema
 - the given examples
- Define Museumdat concepts and properties as subclasses and subproperties of CRM concepts and properties wherever possible
- Use CRM concepts and properties where necessary and suitable
- Interpret semantics as they are explicitly defined
- Avoid to add additional semantics
- Treat each Museumdat-document as a museumobject
- Use Protégé as modelling tool (protege.stanford.edu)

Main Structure

- Museumdat introduces the *indexingEventSet* (Event) to connect the *indexingActorSet* (Actor) with the *museumdat* (Object)



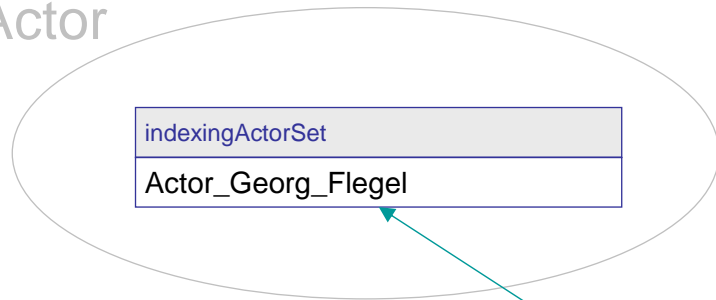
Example: Museumobject with Inv.Nr. Gm1564



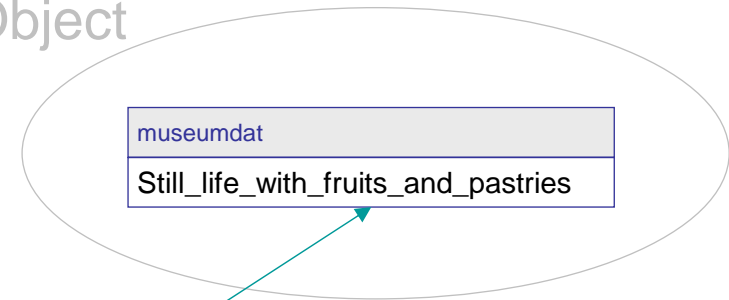
Georg Flegel (1566-1638): Still life with fruits and pastries, ca. 1615 (Germanisches Nationalmuseum, Inv.Nr. Gm 1564)

Instances of Example

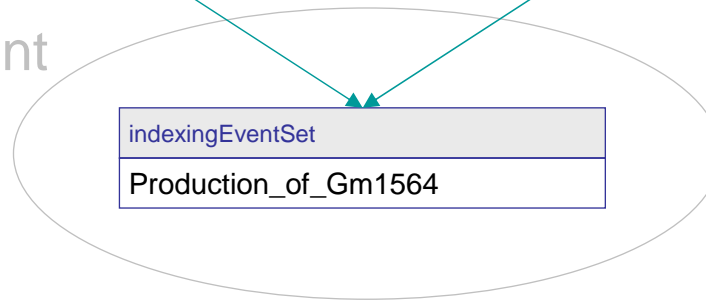
Actor



Object



Event

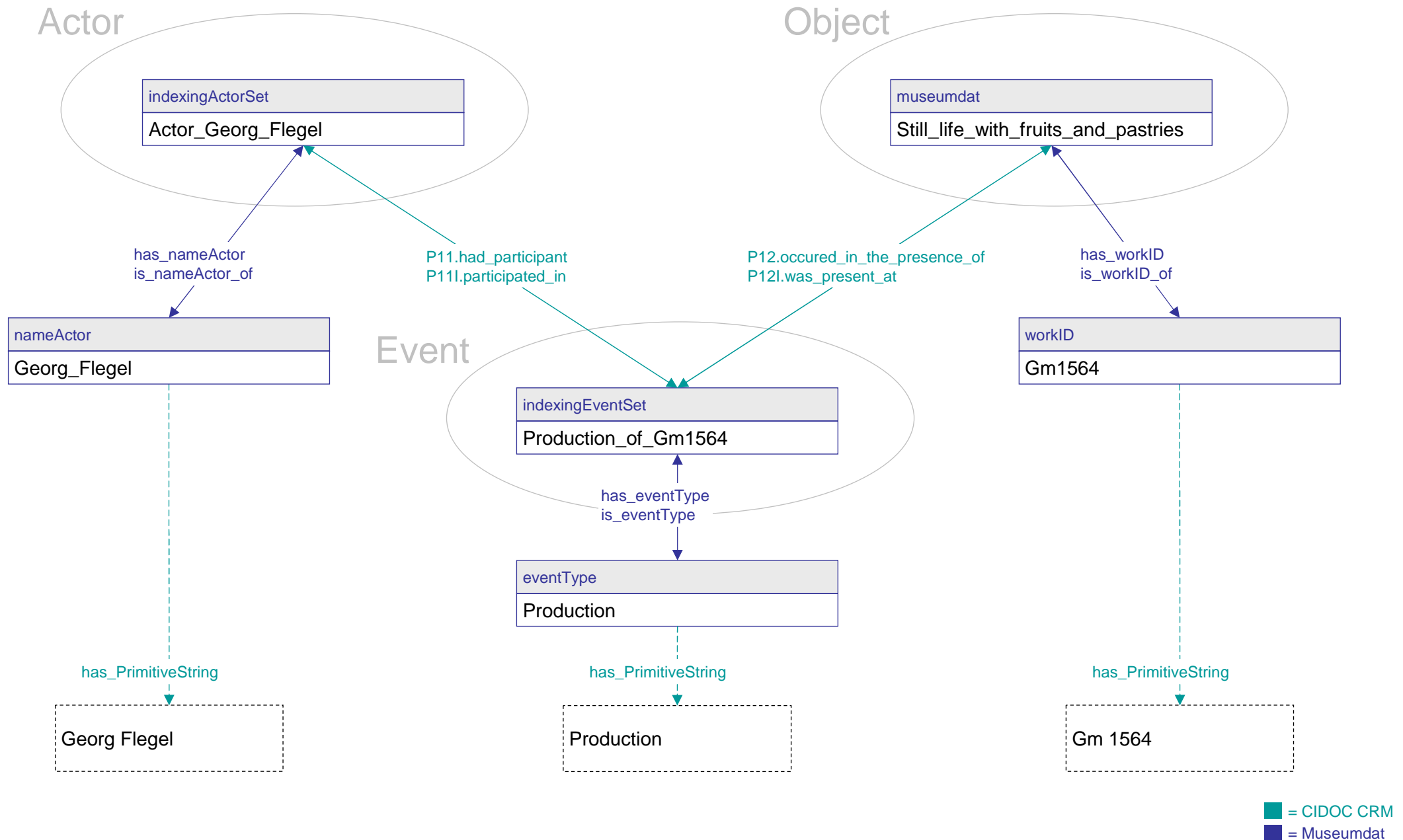


P11.had_participant
P11.participated_in

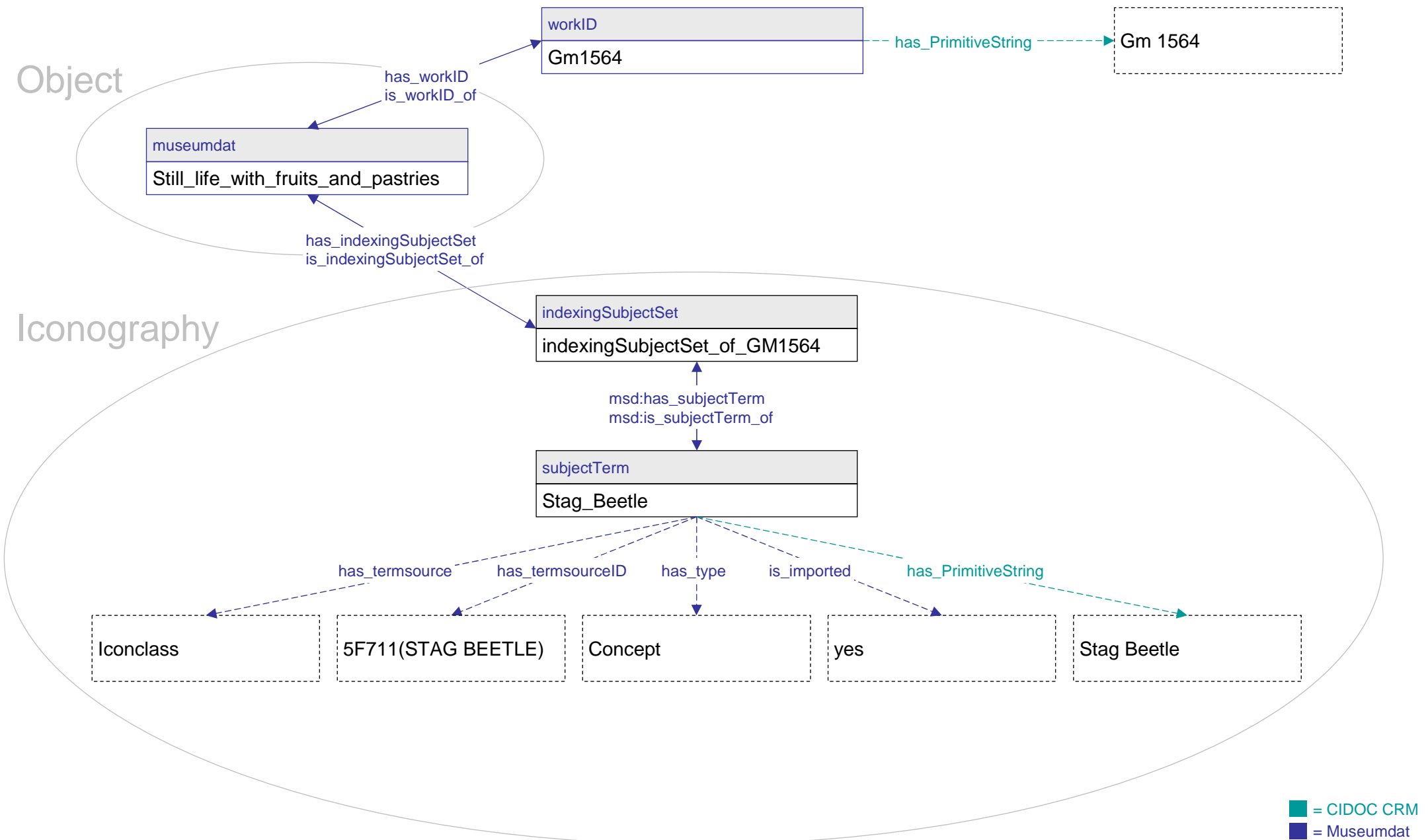
P12.occured_in_the_presence_of
P12I.was_present_at

■ = CIDOC CRM
■ = Museumdat

Adding more instances from example



Adding iconographic keywords as instances



Thank you!

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