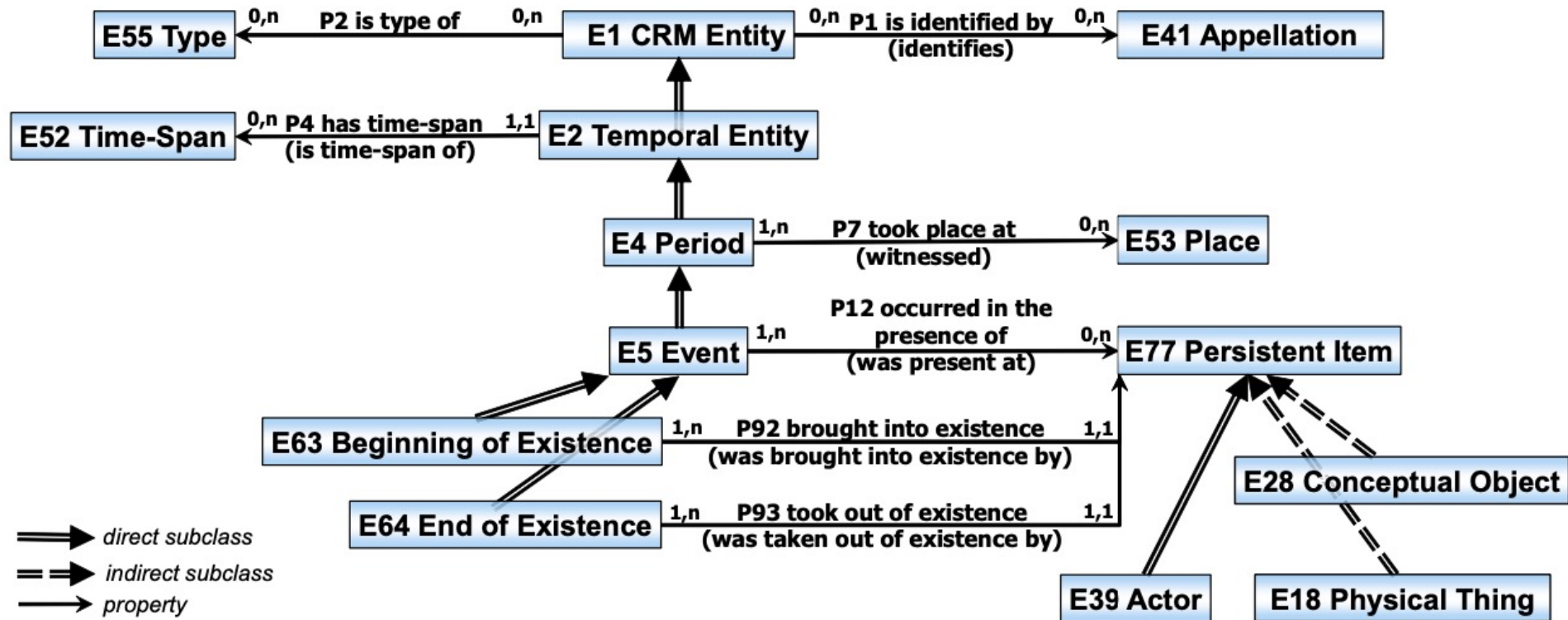


# Historisch- Kulturwissenschaftliche Informationsverarbeitung Woche 7

## CIDOC-CRM in der Praxis



# Properties of basic concepts



# Example: E53 Place

Subclass of: E1 CRM Entity

Scope note: This class comprises extents in the natural space we live in, 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. Geometrically, instances of E53 Place constitute single contiguous areas or a finite aggregation of disjoint areas in space which are each individually contiguous. They may have fuzzy boundaries.

The instances of E53 Place are usually determined by reference to the position of “immobile” objects such as buildings, cities, mountains, rivers, or dedicated geodetic marks, but may also be determined by reference to mobile objects. A Place can be determined by combining a frame of reference and a location with respect to this frame. [...]



# Example: E53 Place

Scope note: [...] It is sometimes argued that instances of E53 Place are best identified by global coordinates or absolute reference systems. However, relative references are often more relevant in the context of cultural documentation and tend to be more precise. In particular, we are often interested in position in relation to large, mobile objects, such as ships. For example, the Place at which Nelson died is known with reference to a large mobile object – H.M.S Victory. A resolution of this Place in terms of absolute coordinates would require knowledge of the movements of the vessel and the precise time of death, either of which may be revised, and the result would lack historical and cultural relevance.

Any instance of E18 Physical Thing can serve as a frame of reference for an instance of E53 Place. This may be documented using the property P157 is at rest relative to (provides reference space for).





# Example: E53 Place

## Examples:

- the extent of the UK in the year 2003
- the position of the hallmark on the inside of my wedding ring (fictitious)
- the place referred to in the phrase: “Fish collected at three miles north of the confluence of the Arve and the Rhone”
- here -> <- [the place between these two arrows in one of the reader's paper copy of this document. Each copy constitutes a different place of this spot.]

**In First Order Logic:  $E53(x) \Rightarrow E1(x)$**



# Example: E53 Place

## Properties:

P89 falls within (contains): E53 Place

P121 overlaps with: E53 Place

P122 borders with: E53 Place

P157 is at rest relative to (provides reference space for): E18

Physical Thing P168 place is defined by (defines place): E94  
Space Primitive

P171 at some place within: E94 Space Primitive P172 contains:  
E94 Space Primitive

P189 approximates (is approximated by): E53 Place





# Methodological tips for mappings to CIDOC CRM

**Maria Theodoridou, George Bruseker, Maria Daskalaki, Martin Doerr**

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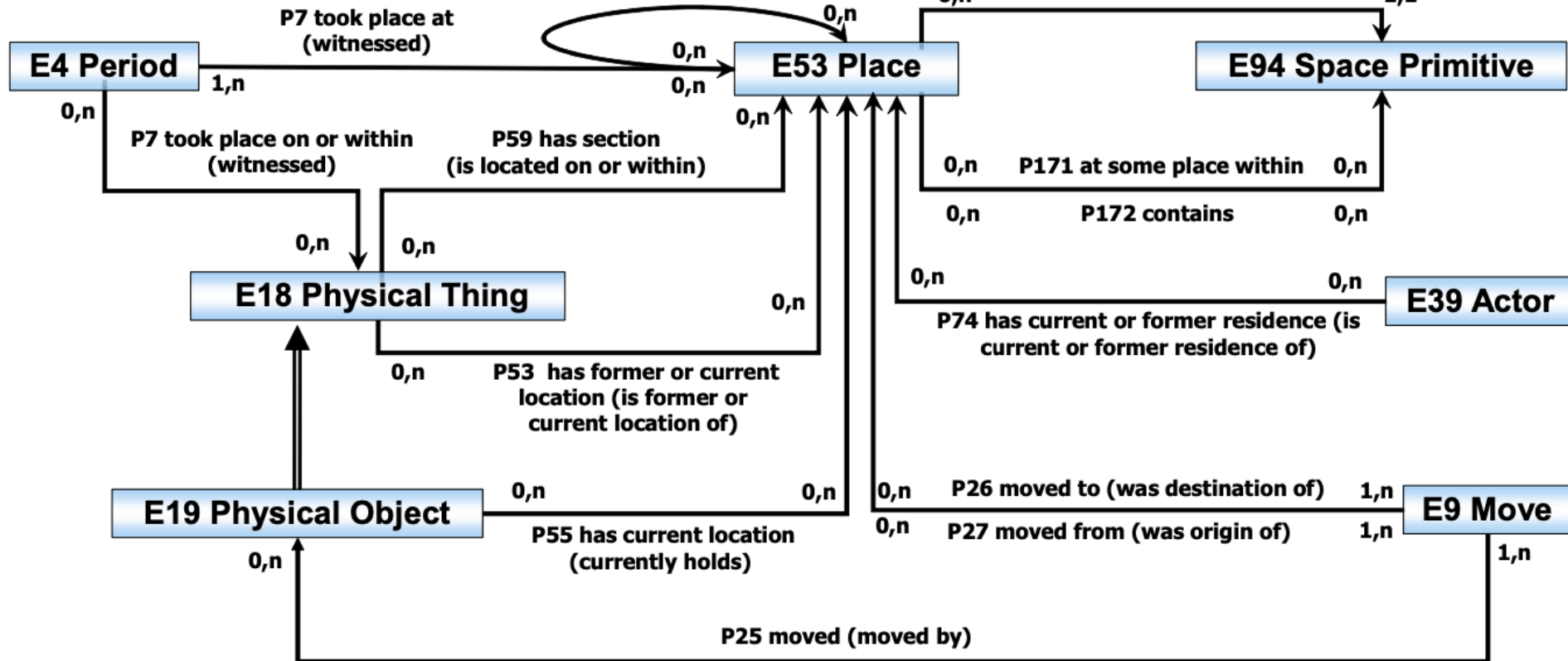
Folie 31–35

<https://www.cidoc-crm.org/Irmoo/Resources/methodological-tips-for-mappings-to-cidoc-crm>

# Reasoning about spatial information

P189 approximates  
 P89 falls within (contains)  
 P122 borders with  
 P121 overlaps with

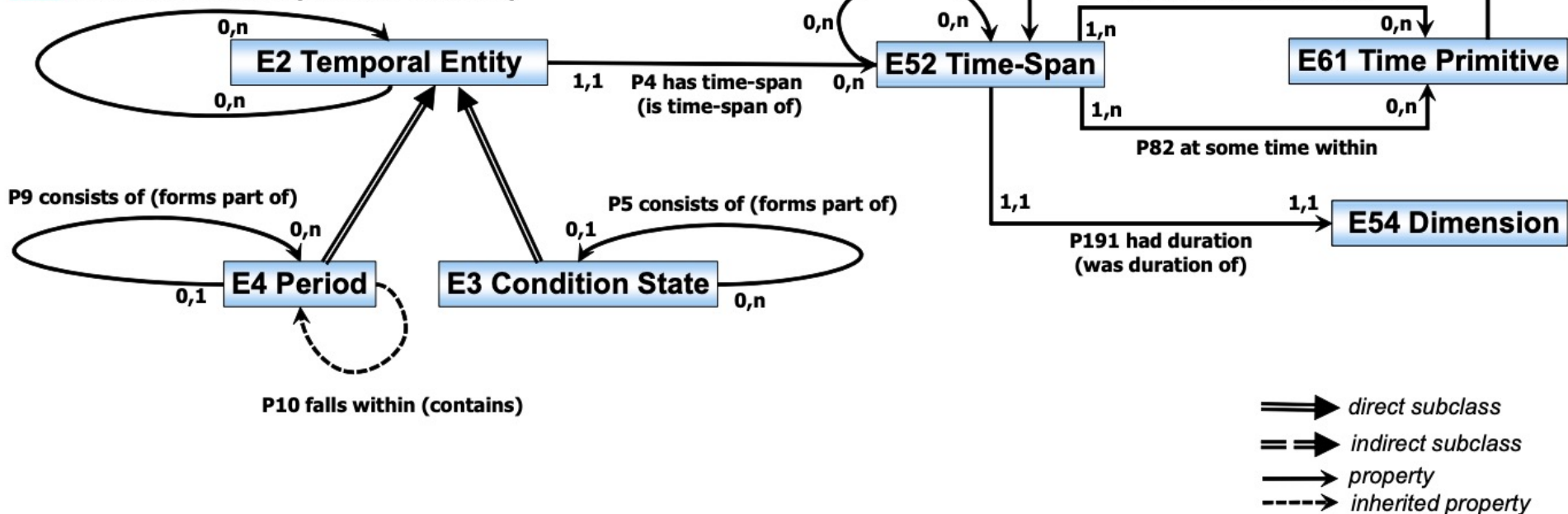
P168 place is defined by  
 (defines place)





# Reasoning about temporal information

- P173** starts before or at the end of (ends with or after the start of)
- P174** starts before (starts after the start of)
- P175** starts before or with the start of (starts with or after the start of)
- P176** starts before the start of (starts after the start of)
- P182** ends before or at the start of (starts with or after the end of)
- P183** ends before the start of (starts after the end of)
- P184** ends before or with the end of (ends with or after the end of)
- P185** ends before the end of (ends after the end of)



Relation	Symbol	Symbol for Inverse	Pictorial Example
<i>X before Y</i>	<	>	XXX YYY
<i>X equal Y</i>	=	=	XXX YYY
<i>X meets Y</i>	m	mi	XXXYYY
<i>X overlaps Y</i>	o	oi	XXX YYY
<i>X during Y</i>	d	di	XXX YYYYYY
<i>X starts Y</i>	s	si	XXX YYYYYY
<i>X finishes Y</i>	f	fi	XXX YYYYYY

**FIGURE 2. The Thirteen Possible Relationships.**

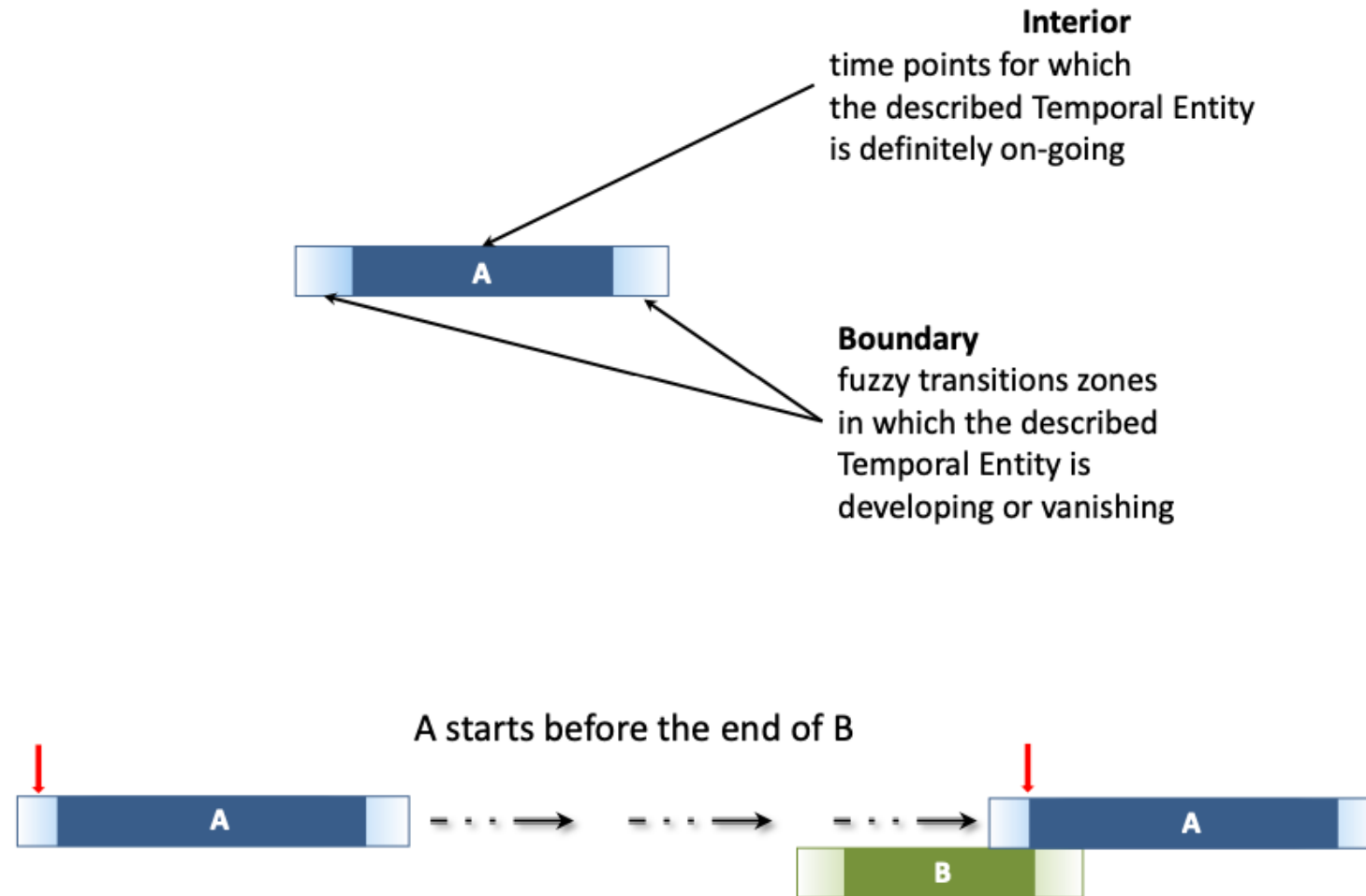


Allen, J. F. (1983).  
 "Maintaining knowledge about  
 temporal intervals." Commun.  
ACM **26**(11): 832-843.

DOI: 10.1145/182.358434

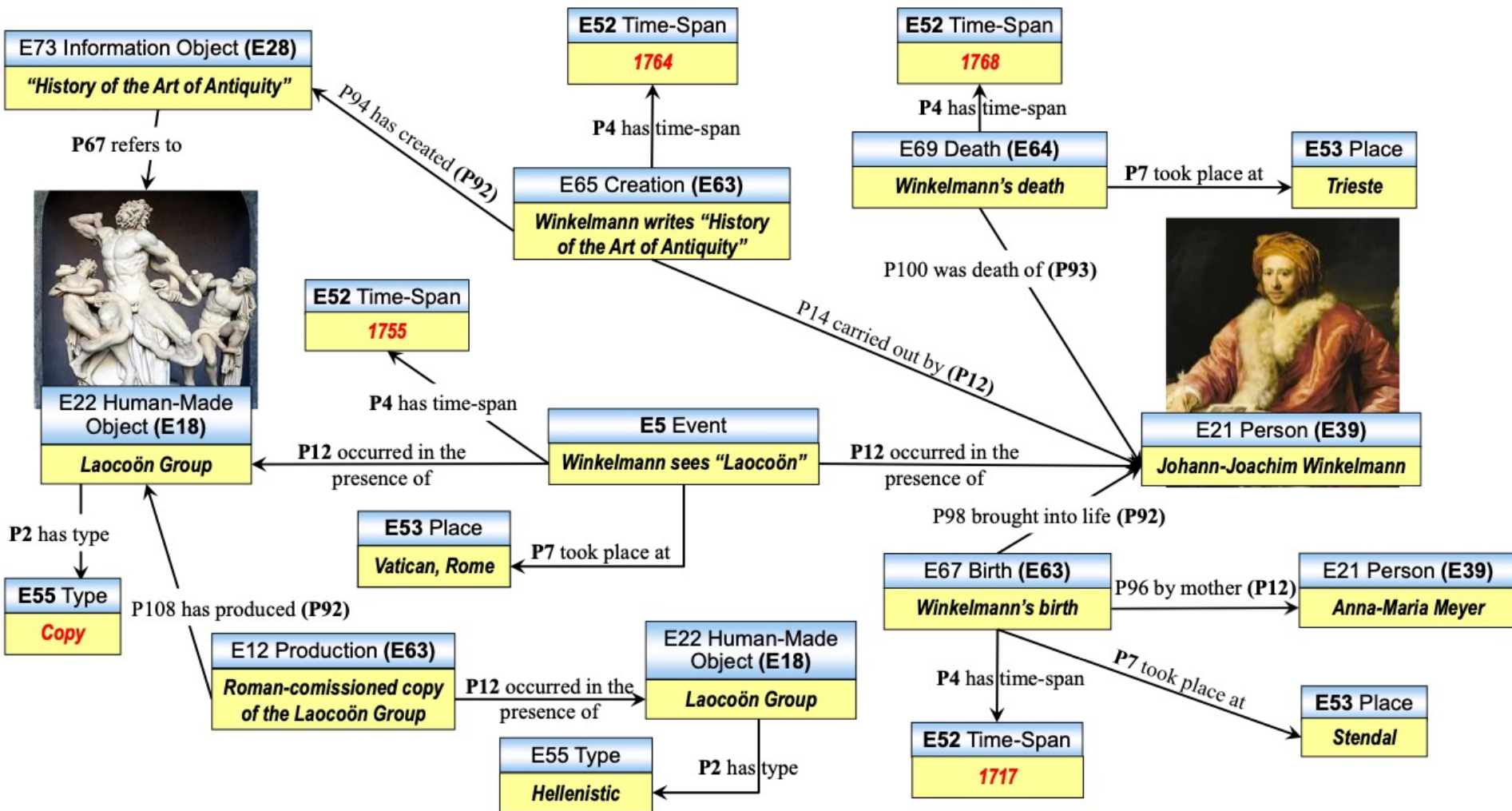


# CIDOC-CRM: Temporal Relation Primitives based on fuzzy boundaries



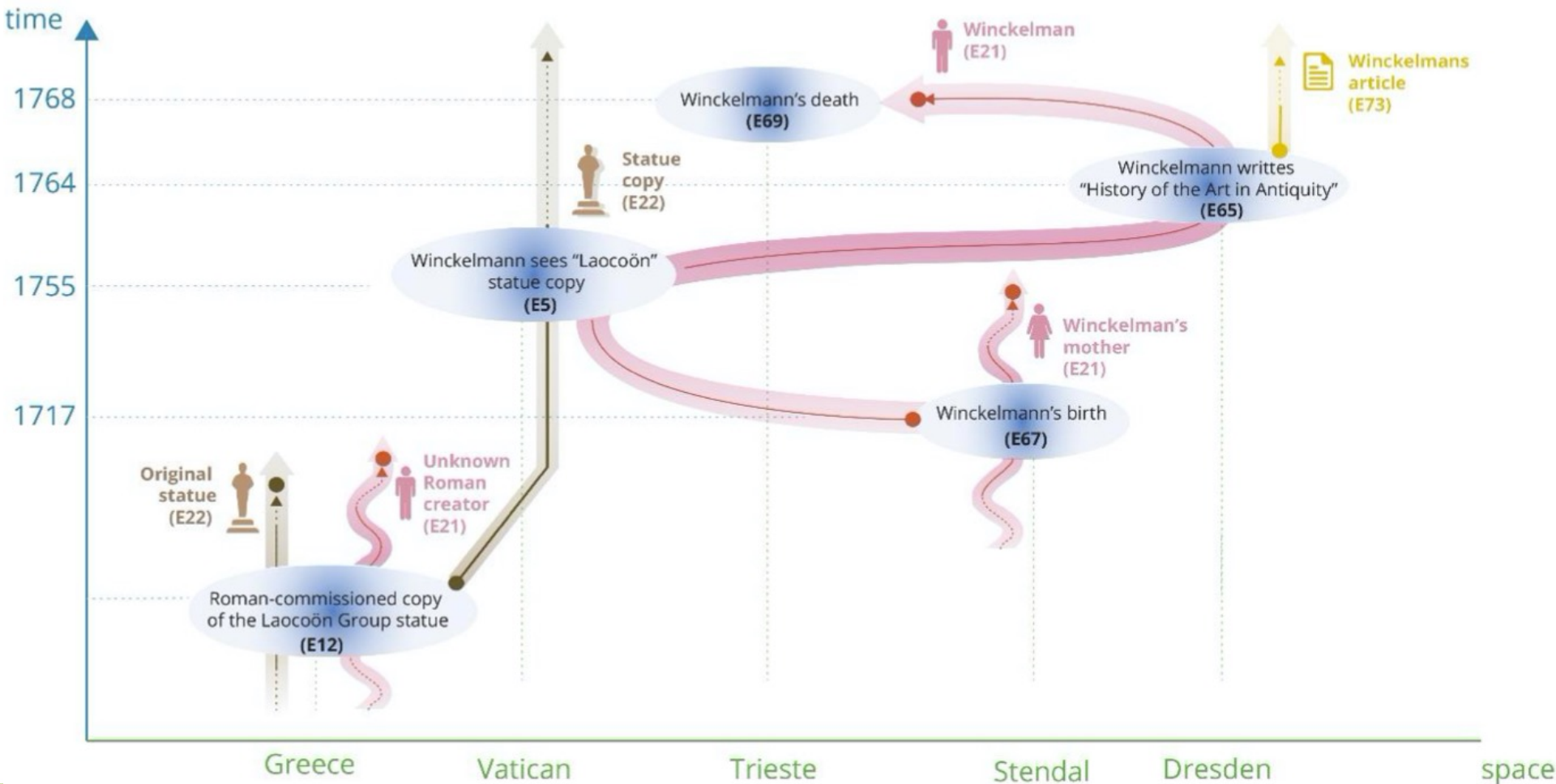
*Figure 7: Explanation of Interior and Boundary and an Example of Use from P174 starts before the end of (ends after the start of).*

# Example: Winkelmann seeing Laokoön



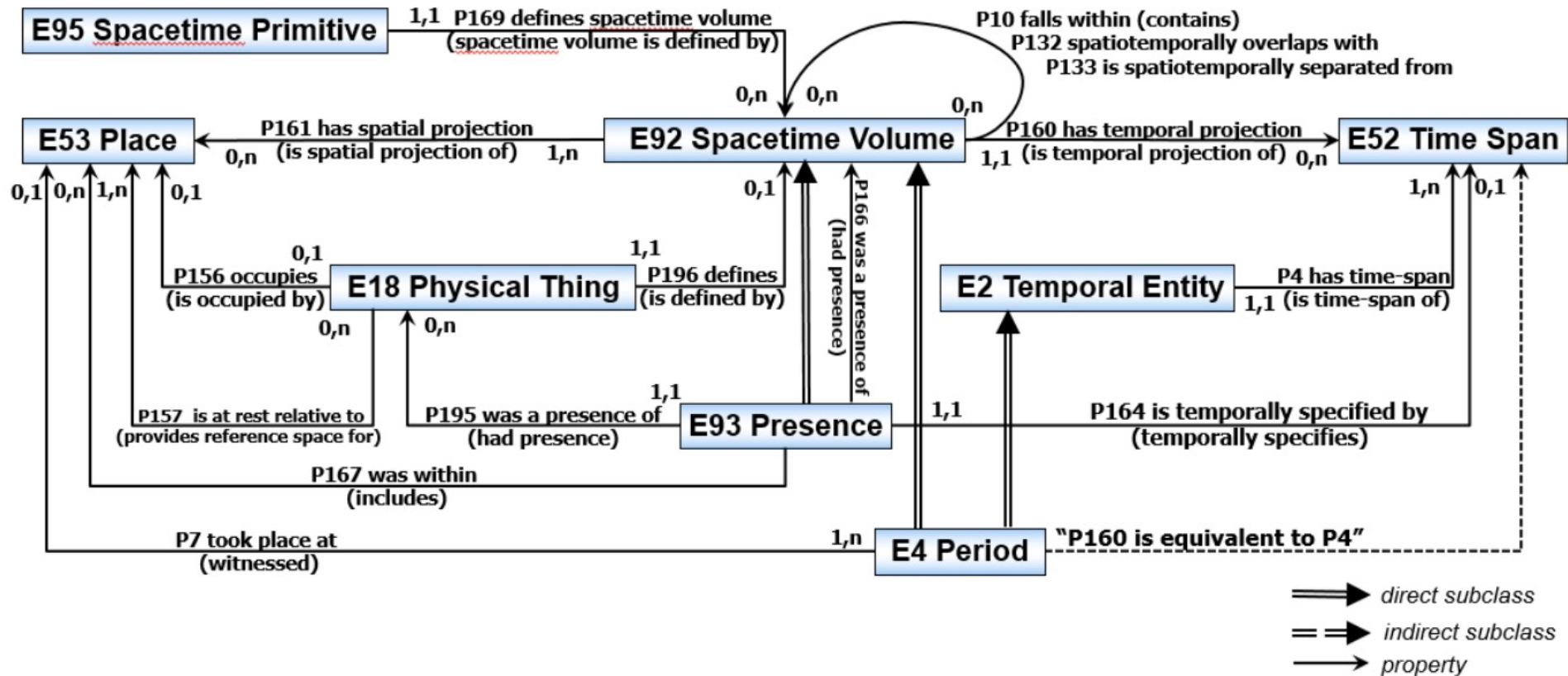


# Example: Winkelmann seeing Laokoön

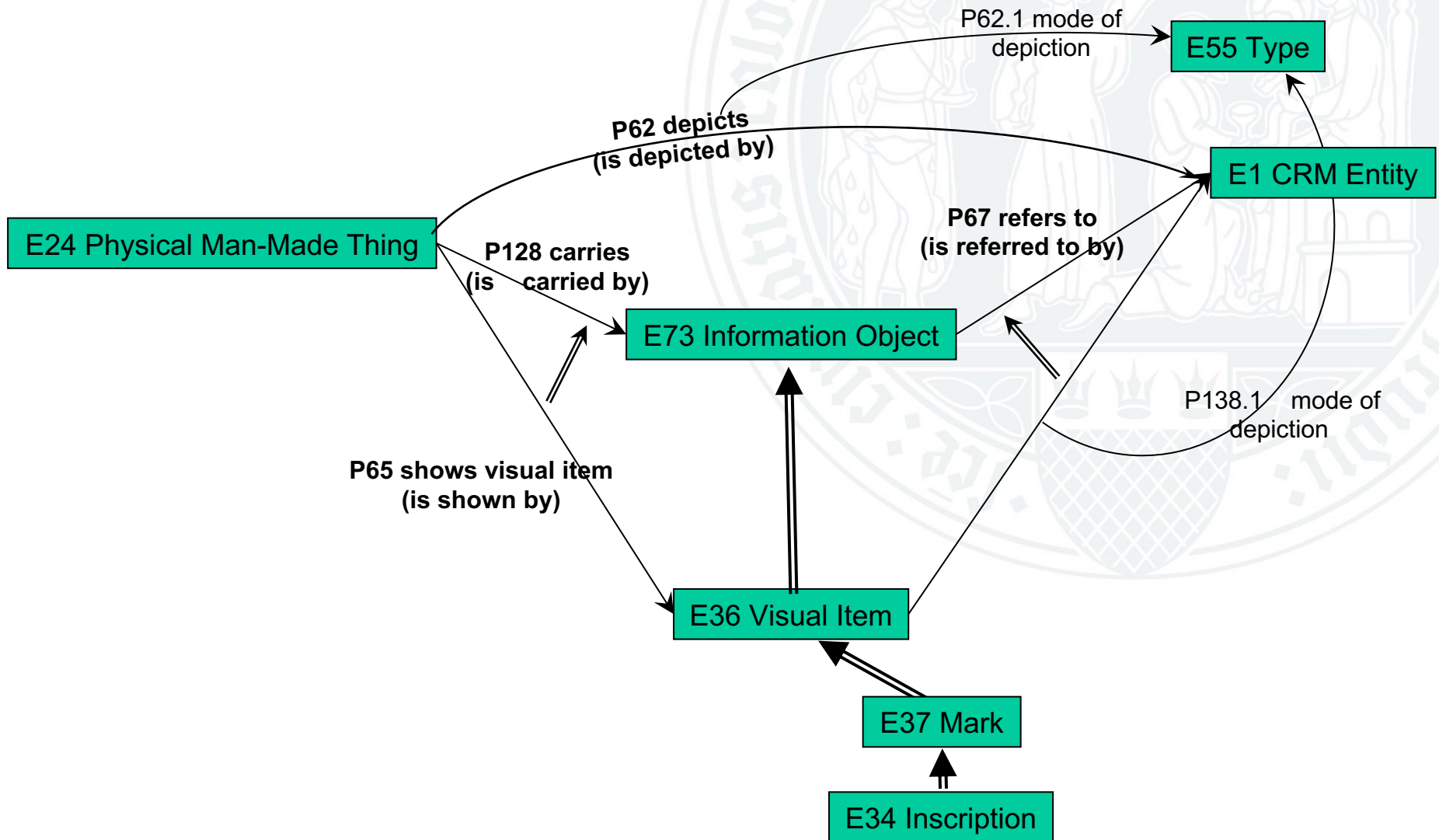


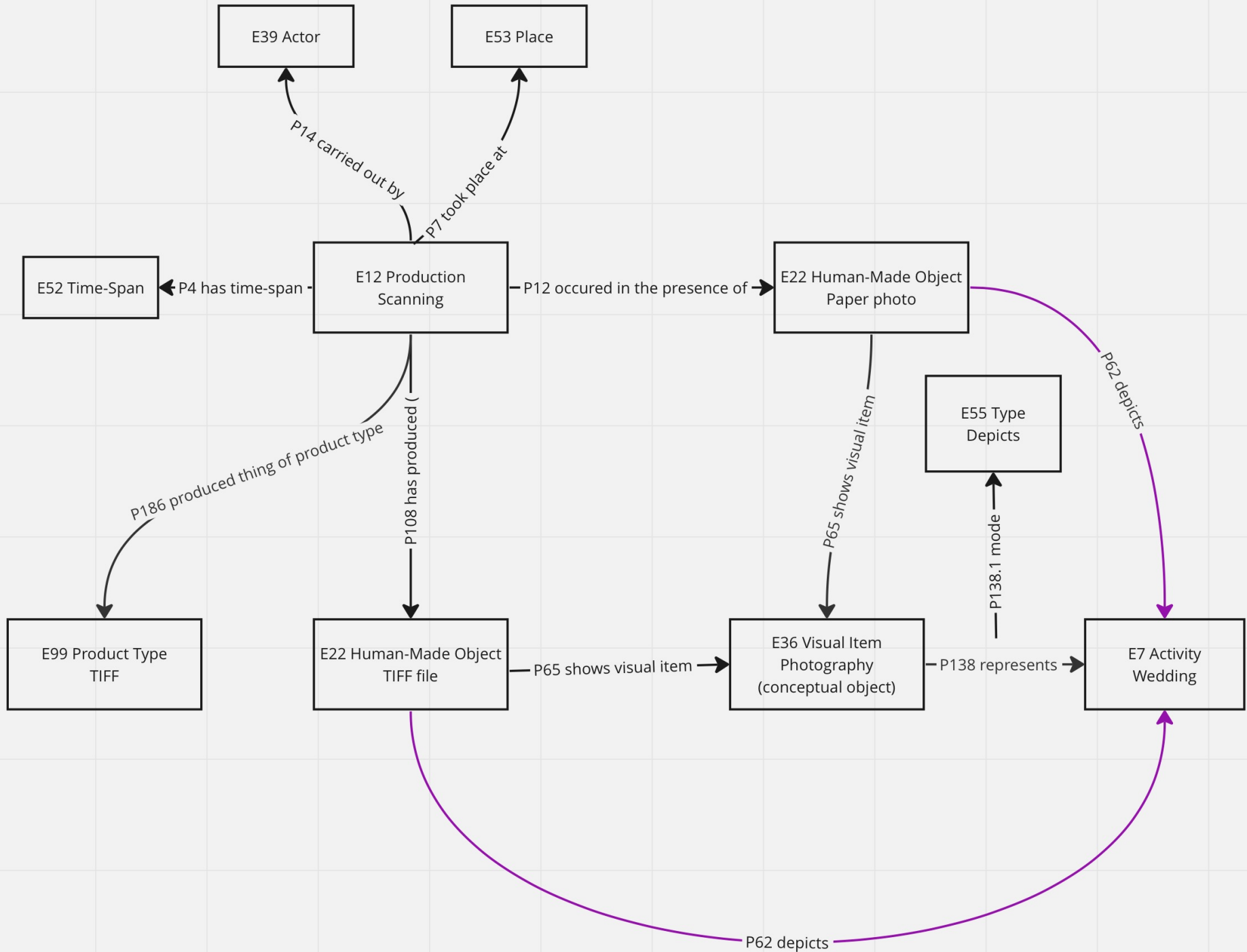


# Reasoning about spacetime volumes



# Visual Content and Subject





# Modellierung – Aufgaben

## Hintergrund

Ein Kunstmuseum plant die Entwicklung eines Bildverwaltungssystems für Architektur, Monumente und andere Kunstgegenstände.



# CIDOC-CRM – Aufgaben

Modellieren Sie bitte in CIDOC-CRM die Übergabe einer Bildersammlung an das Museum, die Kunstwerke im Freiraum in Köln dokumentiert.

Modellieren Sie auch ein paar Beispiele der Bilder und Motive, sowie die Prozesse des Scannens der Bilder.

*Einreichung: 5. Juni 12:00*

*Kommentare in der Vorlesung: 6. Juni*

