

Table of Contents

Introduction.....	2
Examples	2
Classes	8
Properties.....	10

Introduction

This document presents an extension of CIDOC-CRM to support propositions about visual items. With the term visual items we refers to those signs, present in 2D/3D visual object, which are identified as having their own identity.

Goal of this model is to provide a framework for specifying the identity and the relation of those signs, recording the interpretation of a specialist, as well as to maximize the clustering process through automation.

The overall model is based on a constructivist approach, which differentiates between the reality identified, and the interpretation given to its visual structure by a person. Therefore, the model, following the structure of CRM, represents propositions relating to the physical aspect and to the interpretation in two different semantic spaces: physical and conceptual.

This distinction allows us to present the gestalt of an item as a first layer of meaning in the identification of visual features. The recognition of what constitute a part and a whole is relative to the interpreter (his knowledge about the object, or its domain, the type of affordance he applies to the object etc.) and it is important to record it because it helps shapes his following analysis.

The assignment, by an actor, of one (or multiple) particular identity/ies to a representation is the second level of meaning. The model takes into account that the recognition of a representation is based on the attributes linked to it by a certain tradition.

Moreover, the model clearly separates the identity of the object and its subject, which is a human construction, and can vary between different systems. Only such type of differentiation can allow us to integrate different visual sources. While providing the means for expressing the relationships the ontology does not offer any subject-based classification, but rely on the one already present, such as *iconclass*, the *thèâsaurus iconographique* of Garnier etc.



Naming

All the classes declared were given both a name and an identifier constructed according to the conventions used in the CIDOC CRM model.

For the classes, the identifier consists of the two letters **IC** followed by a number. Resulting properties were also given a name and an identifier: the letter **K** followed by a number. Inverse properties share the same identifier, the letter **K** followed by a number, plus the character “*i*” (inverse). every time the property is mentioned “backwards”, i.e., from target to domain (inverse link).

Examples

In this section we are going to present diverse examples of the possible use for the model in identifying iconographical objects, attributes and personification, as well as linking a particular text to a visual representation or specifying its visual prototype.

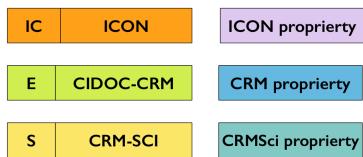


Figure 1 – Colour schemas of the different ontologies used

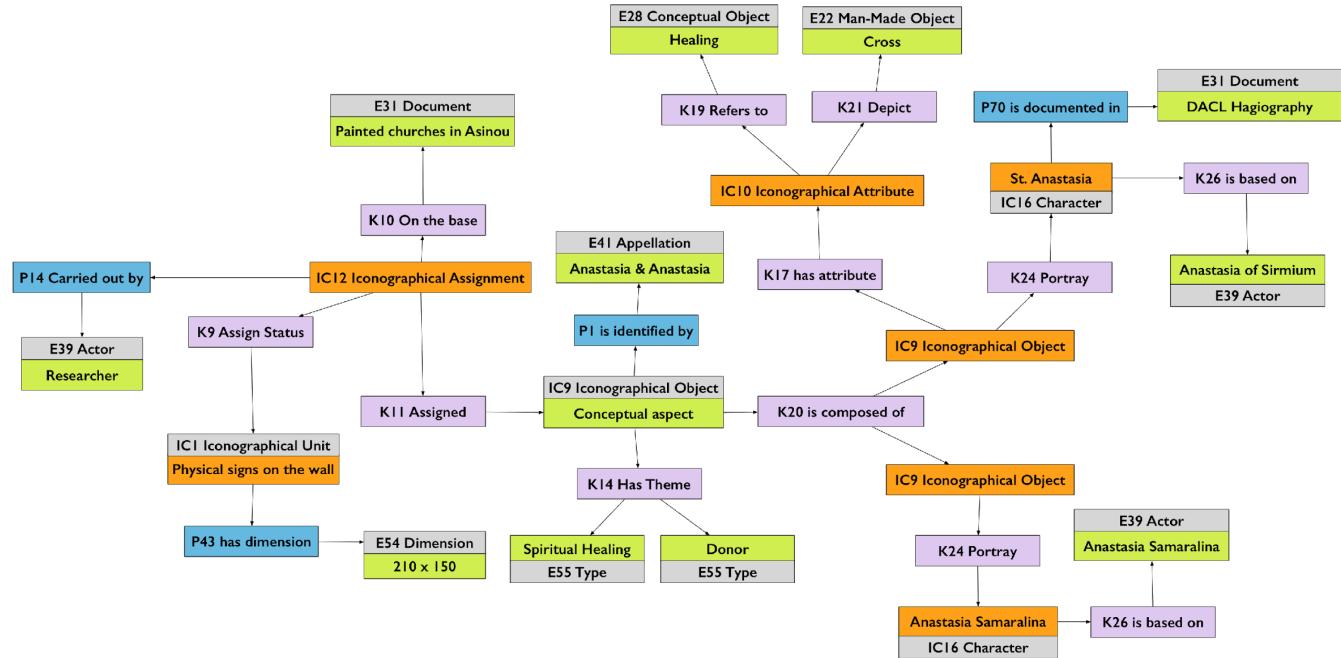


Figure 2.a - Description of iconographical objects as well as the characters represented.

The example uses a specific wall painting present in the narthex of the Asinou Church. The panel is identified and described throughout an iconographical assignment on the base of an iconographical source (the book identified as “Asinou across time”). The assignment takes into account the definition of the conceptual and the physical “iconographical atom”, which can be further described (here the description is limited to only its dimensional aspect).

The granularity of the description can change on the base of the need of the researcher, and by using mereology it is possible to identify the different iconographical objects that act as the basic component of the figure. The subject of the representation is identified by the theme, which is a term from a controlled vocabulary.

Figure 1.b – the panel of Anastasia & Anastasia

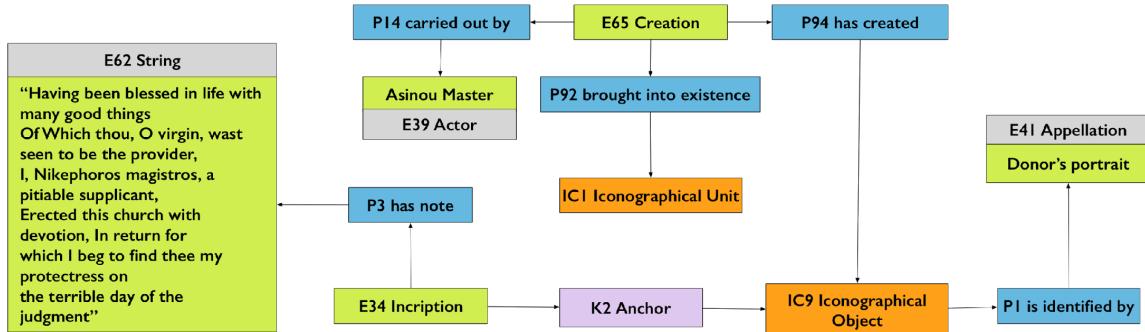


Figure 3.a – “Anchorage” between an inscription and an iconographical atom

It is possible to reduce the polysemy of the image with the recording of the textual information that fix the signification of an image. In this case, we are specifying the relationship between an inscription and an iconographical object, in order to give a proof of a unity of significance, a syntagmatic relationship that, originally elaborated by the artist, is able to create a unique meaning. The prayer in the inscription clearly defines the significance of the image, and identifies the character depicted; it is, therefore, proof and part of its own identity.



Figure 3.b Donor – Asinou church

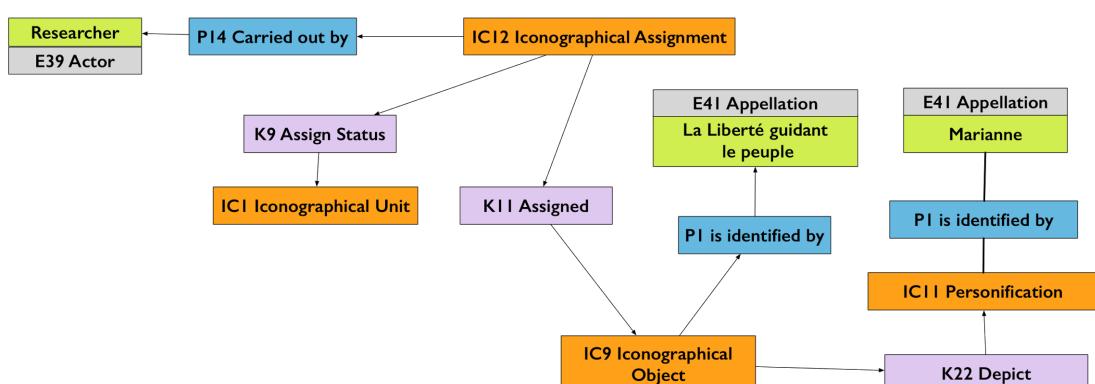


Figure 4.a – Identification of a personification in an iconographical object

Artists use visual images to represent abstract concepts, using substitutes for depicting them directly. The personification is human or anthropomorphic figure that represent a concept or abstract idea. In case it is together with other personifications, forming an allegory it should be specified with a type of the iconographical object.



Figure 4.b La liberté guidant le peuple

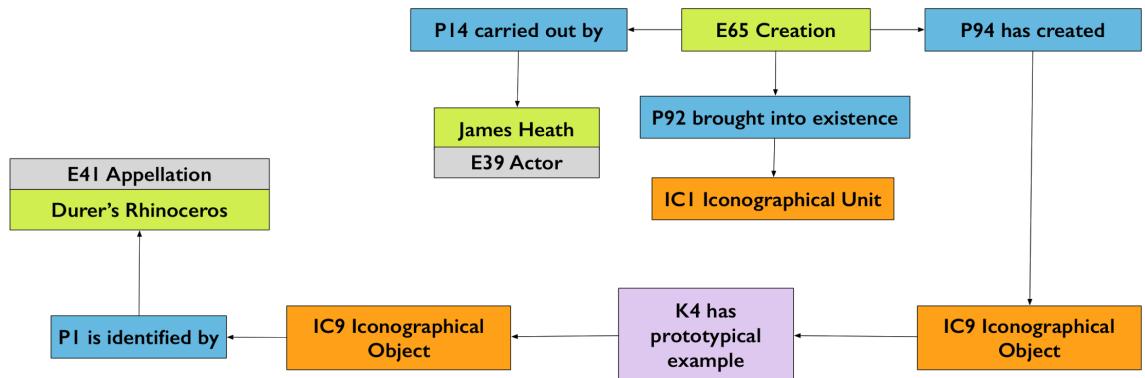
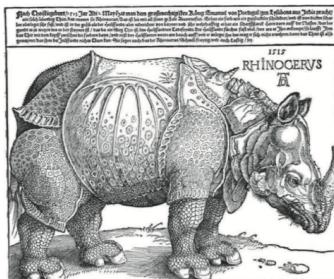


Figure 5.a – Example of relationships between an icon and its prototype

The use of prototypical images for the formation of new pictorial images is a well-known practice in art history. In here we do not want to describe the ready-made memorisable codes passed between masters and artist, but the actual use of another pictorial images as a clear base for a new one. We can list here the result of a re-use (with slightly modification) of a woodcut for printing an image with another subjects, as well as the clear inspiration of certain depiction from another (the classic example of the Rhino depiction of Durer and Heath).



Dürer - 1515



Heath - 1789

Figure 5.b Durer & Heath Rhinos

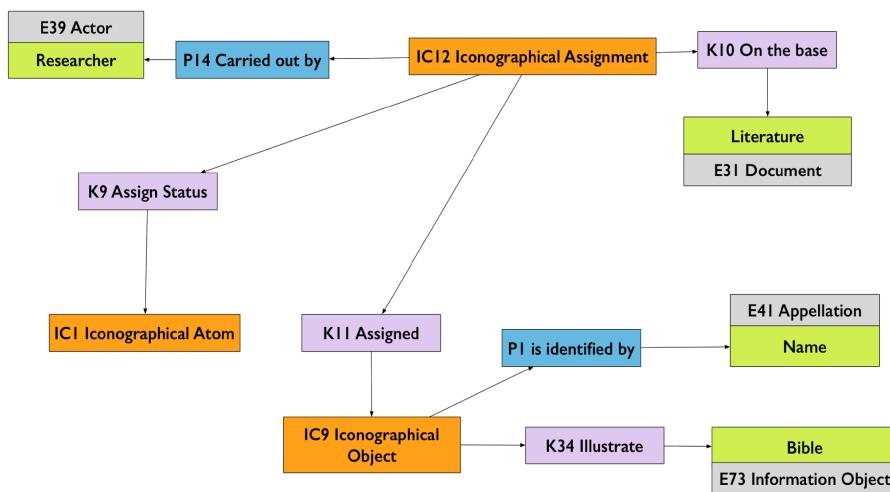


Figure 6.a – Linking between an image and the text it illustrate

There are several cases when the image is used for illustrating a particular scene of a tale. Such is the case of the *biblia pauperum*, as well as the stained glass present in several catholic churches. The connection between an image and the text, or passage it illustrates, should be always made explicit, in order to formalise the strong relationship between image and linguistic unit.

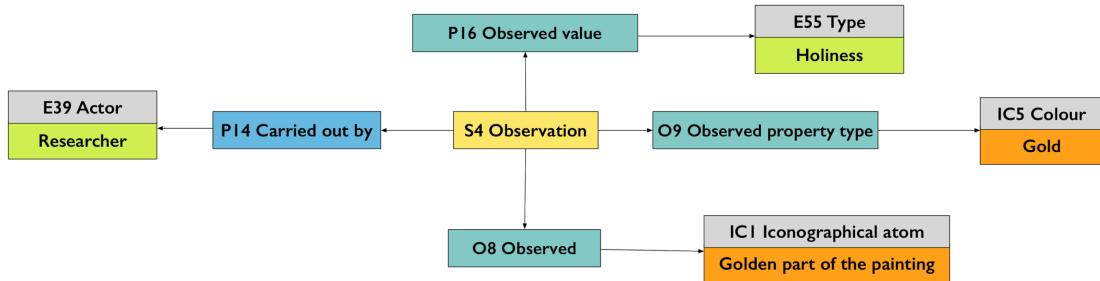


Figure 7 – Colour and symbolism assignment

The colours were, in a variety of case, used in their symbolic role. The gold is a typical sign of holiness; a certain type of blue was used, for a period at least, in connection with Mary, the mother of Jesus, etc. The recording of such relationships can help us clarify and visualise the role of the colours in the art, and how its evolution over time is affected by the historical and technological exchanges.

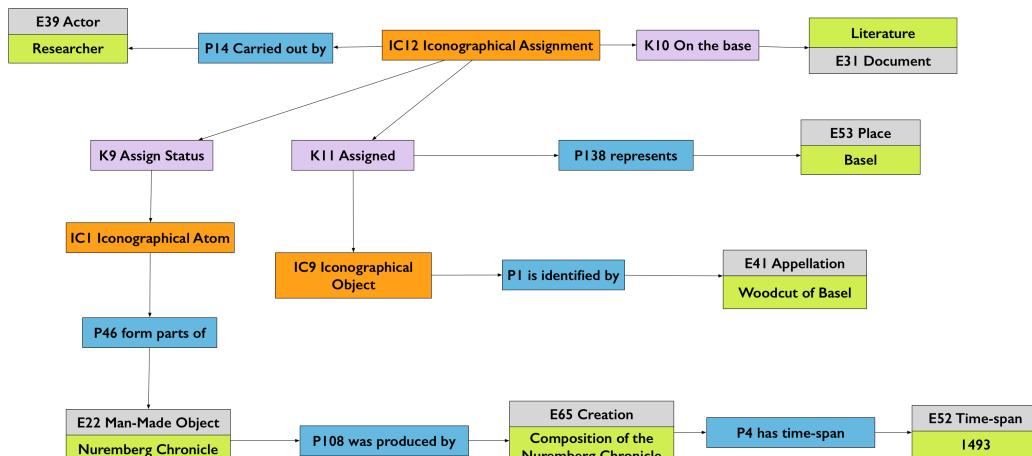


Figure 8 – Description of an iconographical depiction of Basel

An iconographical object can refers to a place in a specific time. The above graph represents the description of a woodcut from the Nuremberg chronicles, which depicts the city of Basel. It is very interesting, in this context, being able to link the iconographical object to the city it portray, as well as to the time in which the incunabula appeared. This type of relationship allows us to connect the different views/representations of the city of Basel in order to analyses its evolution over time.



Figure 8.b Basel representation in the Nuremberg Chronicle

Entities

<u>E1</u>	CRM Entity
<u>E7</u>	- - - - Activity
<u>E13</u>	- - - - - Attribute Assignment
<u>E14</u>	- - - - - - Condition Assessment
<u>E15</u>	- - - - - - Identifier Assignment
<u>E16</u>	- - - - - - Measurement
IC12	- - - - - Visual Recognition
<u>E17</u>	- - - - - - Type Assignment
<u>E18</u>	- - - - Physical Thing
<u>E26</u>	- - - - - Physical Feature
IC19	- - - - - Recto
IC20	- - - - - Verso
<u>E24</u>	- - - - - Physical Man-Made Thing
<u>E22</u>	- - - - - - Man-Made Object
<u>E25</u>	- - - - - - Man-Made Feature
IC1	- - - - - - Iconographical Atom
<u>E28</u>	- - - - Conceptual Object
IC16	- - - - - Character
IC11	- - - - - Personification
<u>E90</u>	- - - - - Symbolic Object
<u>E73</u>	- - - - - - Information Object
<u>E27</u>	- - - - - - Design or Procedure
IC10	- - - - - - - Attribute
<u>E31</u>	- - - - - - - Document
<u>E33</u>	- - - - - - - Linguistic Object
<u>E36</u>	- - - - - - - Visual item
IC9	- - - - - - - Representation
IC10	- - - - - - - Attribute
<u>E38</u>	- - - - - - - Image
<u>E41</u>	- - - - - - - Appellation
<u>E89</u>	- - - - - Propositional Object
<u>E55</u>	- - - - - Type

Classes

IC1 Iconographical Atom

Subclass of: **E25 Man-Made Feature**

An iconographical atom is a physical arrangement of forms/colours created by human activity

Properties:

K1 denotes (is denoted by): E36 Visual Item

IC9 Representation

Subclass of: **E36 Visual Item**

The nuclear characteristics which are recognized to belong to the same type

Example:

The painting “La primavera” in Botticelli

The last judgment wall painting in Asinou

The impresa of Bernardo Cles in the Buonconsiglio castle in Trento

The Maria Maddalena statue by Donatello.

The Bayeux Tapestry.

Properties:

K20 is composed of (forms part of): IC9 Representation

K22 has personification (is present in): IC11 Personification

K23 connote (is connotation of): IC9 Representation

K17 has attribute (is attribute of): IC10 Attribute

K24 portray (is portrayed in): IC16 Character

K34 illustrate (is illustrated by): E73 Information Object

K4 is visual prototype of (has visual prototype): IC9 Representation

IC10 Attribute

Subclass of: **E36 Visual Item**

E29 Design or Procedure

A set of features considered by a viewer more salient than others and used as a key for the identification of a Representation. The attribute could correspond to iconographical elements or simple signs which the viewer uses to provide a stable identity to a visual object.

Example:

The cross in the Anastasia Samarialina painting in Asinou that symbolize the Martyrdom.

The dragon in “Saint George and the Dragon” by Tintoretto.

Properties:

K17 is attribute of (has attribute): IC9 Representation

K21 depict things of type (is depiction of attribute): E55 Type

K14 symbolize (has symbolic value): E90 Symbolic Object

K15 has been used by (use feature): E12 Production

IC11 Personification

Subclass of: **IC16 Character**

A human, or anthropomorphic figure, that represents an abstract idea or a concept.

Example:

Marianne in “La Liberté guidant le people” of Delacroix.

Properties:

K25 express (is abstraction of): E90 Symbolic Object

IC12 Visual Recognition

Subclass of: **S4 Observation**

The activity of assigning the iconographical status to a man-made object, or to one of its parts. It takes into account the possibility to link it to a speech act or a document where the authoritative proposition is clearly made.

Example:

An expert saying that object A is a IC9 Representation

The recognition that a simple drawing represents a type of animal

Properties:

K9 assigned status to (has status assigned by): E18 Physical Thing

K11 assigned (was assigned by): IC9 Representation

K10 on the base of (is basis for): E89 Propositional Object

IC16 Character

Subclass of: **F38 Character**

This class comprises fictional individuals, or groups, appearing in a representation. Each character portrayed can have a type, for example “Saint” or “layman”. Every saint portrayed is considered here as a character and not as an actor.

Example:

St. Anastasia in the Panel “Anastasia & Anastasia” in Asinou.

Properties:

K26 has source (is source of): E39 Actor

K24 is portrayed in (portray): IC9 Representation

IC19 Recto

Subclass of: **E19 Physical Feature**

The front or face of a single sheet or the right-hand page of an open book. The feature is presents in object such as codex, books, pamphlets, documents, photographs and painting.

Example:

The recto of the drawing 57 E r “Busto di giovane donna di profile” by Raphael, preserved in the Department of Prints and Drawings, Uffizi.

The recto of the photograph of St. John the Baptist by Vicino da Ferrara

Properties:

K6 has back (has front): IC20 Verso

K7 is recto of (has recto): E22 Man-Made Object

IC20 Verso

Subclass of: **E19 Physical Feature**

The back or underside of a single sheet of paper, or the left-hand page of an open book. The feature is present in objects such as codex, books, pamphlets, documents, photographs and paintings.

Example:

The verso of the drawing 57 E v “Testa di donna di profile” by Anonymous XVI century, preserved in the Department of Prints and Drawings, Uffizi

The photographer's stamp in the verso of the photograph of St. John the Baptist by Vicino da Ferrara

Properties:

K6 has front (has back) IC19 Recto

K8 is verso of (has verso) E22 Man-Made Object

Properties

K1 Denotes (is denoted by)

Domain: E18 Physical Thing

Range: E36 Visual Item

Subproperty: P65 show visual items

The property documents the assignment of an iconographical object to a specific physical man-made object. It is a shortcut for the more fully developed path IC12 Visual Recognition assign (K9) to a E18 Physical Thing the status of (K11) IC9 Representation.

K4 is visual prototype of (has visual prototype)

Domain: IC9 Representation

Range: IC9 Representation

Subproperty: P67 refers to

The property documents the use of a specific prototypical example for an image. The nature of the relationships helps define a map of relationships between prototypical items used in the arts.

K4.1 prototypical mode

Domain: K4 Is visual prototype of

Range: E55 Type

K6 has back (has front)

Domain: IC19 Recto

Range: IC20 Verso

Subproperty: P46 is composed of

The property documents the presence of a Verso or a Recto, respectively in the back or in the front of an object.

K7 is recto of (has recto)

Domain: IC19 Recto

Range: E22 Man-Made Object

Subproperty: P46 is composed of

The property indicates the presence of a recto in the described object.

K8 is verso of (has verso)

Domain: IC20 Verso

Range: E22 Man-Made Object

Subproperty: P56 bears feature

The property indicates the presence of a verso in the described object.

K9 Assigned status to (has status assigned by)

Domain: IC12 Visual Recognition

Range: E18 Physical Thing

Subproperty: P140 assigned attribute to (was attributed by)

The property documents the assignment of status to a specific physical thing.

K10 On the base of (is basis for)

Domain: E7 Activity

Range: E89 Propositional Object

Subproperty: P16 used specific object (was used for)

The property describes the source used for the status assignment.

K11 Assigned (was assigned by)

Domain: IC12 Visual Recognition

Range: IC9 Representation

Subproperty: P141 assigned attribute to

The property indicates the status assigned during the status assignment event.

K14 symbolize (has symbolic value)

Domain: IC10 Attribute

Range: E90 Symbolic Object

Subproperty: P138 Represents

The property indicates the symbolic value of the attribute presents in a representation.

K15 use features (has been used by)

Domain: E12 Production

Range: IC10 Attribute

Subproperty: P33 used specific technique

The property indicates the specific attribute used during the production of a visual object

K17 Has attribute (is attribute of)

Domain: IC9 Representation

Range: IC10 Attribute

Subproperty: P106 is composed of (forms part of)

This property associates an attribute with the representation where it is depicted.

K20 is composed of (forms part of)

Domain: IC9 Representation

Range: IC9 Representation

Subproperty: P148 has component (is component of)

This property put in relation an iconographical object with a part of itself.

K21 depict things of type (is depiction of attribute):

Domain: IC10 Attribute

Range: E55 Type

Subproperty: P137 exemplifies (is exemplified by)

This property indicates the type of object depicted by an iconographical attribute.

K22 has personification (is present in)

Domain: IC9 Representation

Range: IC11 Personification

Subproperty: P138 Represents

This property indicates the membership of a personification in an iconographical object.

K23 Connote (is connotation of)

Domain: IC9 Representation

Range: IC9 Representation

Subproperty: P138 Represents

This property indicates the connotation relationships, formalized by Barthes, between a conceptual entity and an iconographical object. It is a shortcut for the more fully developed path IC12 Visual Recognition assign (K9) to a IC9 Representation a new (K11) IC9 Representation. It doesn't offer any information about when and whom established the connotation relationship.

K24 Portray (is portrayed in)

Domain: IC9 Representation

Range: IC16 Character

Subproperty: P138 Represents

This property put in relation an iconographical object with the portrayed character.

K25 express (is abstraction of):

Domain: IC11 Personification

Range: E90 Symbolic Object

Subproperty: P138 Represents

This property put in relation a symbolic object with a personification in a work of art.

K26 Has source (is source of)

Domain: IC16 Character

Range: E39 Actor

Shortcut: E57 is based on

This property associates an instance of IC16 Character with an instance of E39 Actor that the character is motivated by or is intended to represent.

K34 Illustrate (is illustrated by)

Domain: IC9 Representation

Range: E73 Information Object

Subproperty: P67 Refers to

This property associates an information object to a iconographical representation

K36 Anchors (was anchored by)

Domain: IC17 Anchorage

Range: E90 Symbolic Object

Subproperty: P141 assigned (was assigned by)

The property documents the symbolic object which has been used in the anchoring activity.

K37 anchors to (is anchored by)

Domain: IC17 Anchorage

Range: E36 Visual Item

Subproperty: P140 assigned attribute to (was attributed by)

The property documents the image used within the anchoring activity