



# Form and meaning

## Classification and interpretation



# ICONCLASS

New release overview 2021

It has been more than 10 years since the last major update to the [iconclass.org](https://iconclass.org) website.

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Last significant change:  
Linked Open Data in 2015

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Focus of new release:  
improving the user experience



Complete re-write in progress

With support from the <https://henrivandewaalfoundation.org/>

# Highlights:

Up to date web standards, also support mobiles and tablets

Tree-based navigation

Easy copy-and-paste of notations

Bibliography

Save and annotate own work

API - for linking eg. Catalogue/Museum Management systems

Discussion forum

More languages (notably Portuguese, 日本語, and partials Finnish / Nederlands / 中文 / Polish)

buzzwords

Python/Javascript

Test-driven development

IIIF

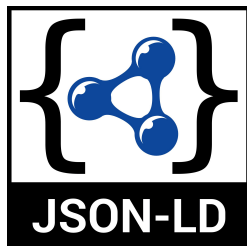
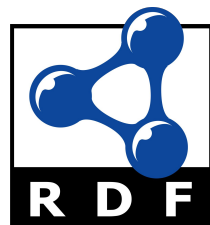
SPARQL endpoint

SKOS API

Linked.art

Wikidata

and ...



# IMAGES!

Upload (drag-and-drop) and catalog your own images, share them.

Collections imported - to an Illustrated Iconclass

Choose and annotate any public IIF resource

Can an  
*Illustrated Iconclass*  
play a role in the automation of  
image indexing?

What are the ambitions and  
goals of  
automated image indexing?



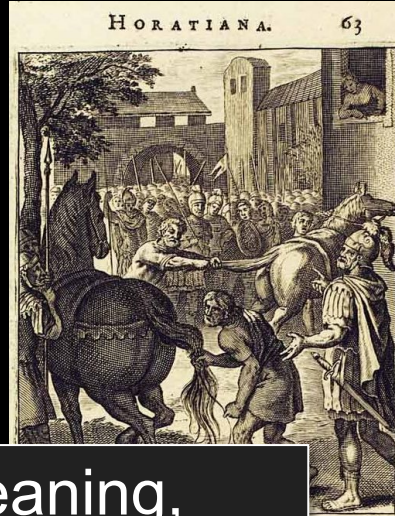
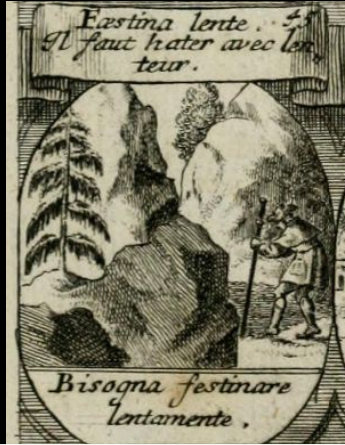
Do we want algorithms to identify a sleeping lion as the emblem of a vigilant ruler?



and distinguish it  
from a lion that ...

- is a symbol of saint Mark
- is killed by Hercules
- is an attribute of saint Jerome
- attacks a monkey to symbolize a man curing himself of a fever
- guards and protects a building
- is killed by Samson
- represents Strength that bows for Justice
- denotes a "courageous man"
- is subjugated by the god of Love
- symbolizes Fortitude and Constancy
- is a loving and wise father
- is a sign of the Zodiac



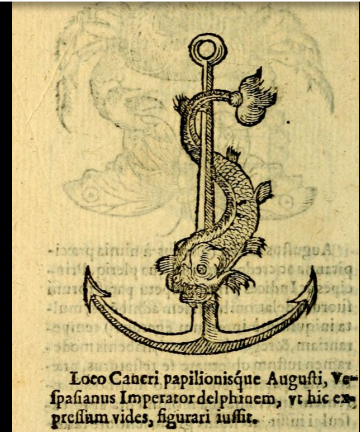


Should algorithms identify a common meaning, e.g. "Slow Haste" (*Festina lente*) in a variety of forms?

Haect en is geen poët,



Latinum diGum.  
Celeritas in famia nanfragy.



What should a testset help us  
"teach" an algorithm?

- to identify form?
- to identify meaning?

<http://labs.brill.com/icctestset>

A dataset of 87,749 images with assigned Iconclass notations to be used in training.



*Click or pinch to zoom in on the details. As it is many images you need to zoom in quite far to start seeing the actual images.*

## READ THIS PDF FIRST

### A word is worth a thousand pictures

Why the use of Iconclass will make Artificial Intelligence smarter. An analysis of Iconclass and AI by Hans Brandhorst.

## Iconclass AI Test Set

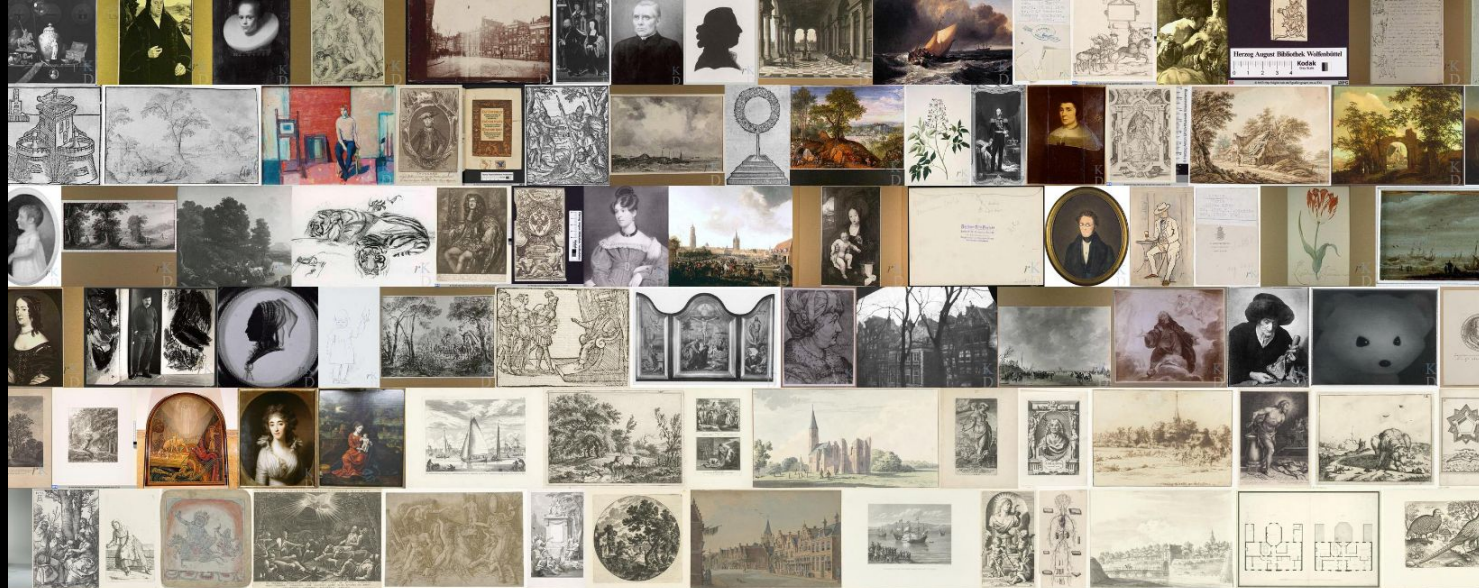
A test dataset and challenge to apply machine learning to collections described with the [Iconclass](#) classification system.

"The quality of your achieved results always depends on the *quality (and quantity)* of your *training data*" - Prof. Dr. Harald Sack, Karlsruher Institut für Technologie, Do Neural Networks Dream of Semantics? (see presentation)

random selection from an  
aggregated corpus of circa  
1 million images classified  
with Iconclass ...

stored in a single  
"metabotnik" bitmap ...

500 pixels to the longest  
side of each picture ...



## Data Description


A dataset of 87749 images with assigned Iconclass notations to be used in training. [The dataset is available as a 3.1GB zip file.](#) (MD5: 779ba2ca9e977c58d818e3823a676973) All image files are in a single directory, so beware of just unzipping the file.

The *data.json* file is a map of filenames to Iconclass notations, here is what the first few entries look like:

```
{  
  "IIHIM_1956438510.jpg": [  
    "31A235",  
    "31A24(+1)",  
    "61B(+54)",  
    "31A2212(+1)",  
    "31D14"  
  ],  
  "IIHIM_-859728949.jpg": [  
    "41D92",  
    "25G41"  
  ]  
}
```

But ...

All notations are linked to complete images, not to the relevant coordinates in the bitmaps

Search  31A3191

This is what you searched for:

✕

Must have ▾

31A3191 blindfold

←

In Search results

→

Collections

Byvanck Genootschap  
Museum Meermannno  
Medieval Manuscripts

ICONCLASS

☒ 31A3191 blindfold

☐ 72A typological juxtapositions

☐ 73D3531 in Caiaphas' palace Christ is mocked by Jews (Matthew 26:67-68; Mark 14:65)


Add ICONCLASS

←

Manuscript Illumination

→

Add Comment



Delete

Edit

Image URL


Save


Parent


The Hague Museum Meermannno-Westreenianum, MS 10 C 23  
Speculum humanae salvationis  
Speculum Humanae Salvationis  
**Folio:** 22v column miniature  
*The tortures of Christ: Christ is mocked by soldiers*


+

-







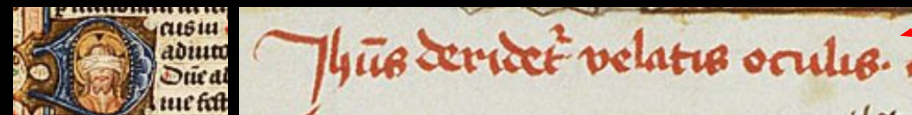


Prev Image

2 of 2

Next Image

Where is the blindfold?



Jesus is mocked with **eyes covered**



This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="UTF-8" ?>
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:skos="http://www.w3.org/2000/01/01-skos#" >
  <rdf:Description rdf:about="http://iconclass.org/31A3191" >
    <rdf:type rdf:resource="http://www.w3.org/2004/02/skos/core#Concept" />
    <skos:prefLabel xml:lang="fr">bandeau sur les yeux</skos:prefLabel>
    <skos:prefLabel xml:lang="en">blindfold</skos:prefLabel>
    <skos:prefLabel xml:lang="de">Augenbinde, mit verbundenen Augen</skos:prefLabel>
    <skos:prefLabel xml:lang="it">occhi bendati</skos:prefLabel>
    <skos:prefLabel xml:lang="fi">blindfold</skos:prefLabel>
    <skos:inScheme rdf:resource="http://iconclass.org/rdf/2011/09/" />
    <skos:notation>31A3191</skos:notation>
    <skos:narrower rdf:resource="http://iconclass.org/31A3191%282B0%29" />
    <skos:narrower rdf:resource="http://iconclass.org/31A3191%282B1%29" />
    <skos:narrower rdf:resource="http://iconclass.org/31A3191%282B2%29" />
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    <skos:narrower rdf:resource="http://iconclass.org/31A3191%282B4%29" />
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    <skos:narrower rdf:resource="http://iconclass.org/31A3191%282B8%29" />
    <skos:narrower rdf:resource="http://iconclass.org/31A3191%282B9%29" />
    <skos:narrower rdf:resource="http://iconclass.org/31AA3191" />
    <skos:broader rdf:resource="http://iconclass.org/31A319" />
    <dc:subject xml:lang="fr">Corpo humano</dc:subject>
    <dc:subject xml:lang="fr">Ripa</dc:subject>
    <dc:subject xml:lang="fr">bandeau sur les yeux</dc:subject>
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    <dc:subject xml:lang="en">human being</dc:subject>
    <dc:subject xml:lang="en">human figure</dc:subject>
    <dc:subject xml:lang="en">looking</dc:subject>
    <dc:subject xml:lang="en">man</dc:subject>
    <dc:subject xml:lang="en">nude</dc:subject>
```



Can we automate indexing the "raised hand?"

Not very intelligent perhaps, but very useful...

# THE INDEX OF MEDIEVAL ART

hand raised



Home Browse Search Help

Results: (10000 records)

1 2 3 4 5 6 7 8 9 10 > <

Work of Art Image Thumbnails

Work of Art Details



System Number: 85082

Work of Art Type: Manuscript

Description

[Six ages of man represented by swaddled infant; naked child; youth, left **hand raised**; young man, staff, in right **hand**; (left **hand raised**, man) right **hand** extended; and old man, head draped, staff in left **hand**, right **hand raised**.]



System Number: 90588

Work of Art Type: Manuscript

Description

[1] Samson: Riddle (Judges 14:16-17) -- Veiled wife, hands **raised**, beside Samson, right **hand raised**, to, right, 2) (Judges 14:17) -- Veiled wife, left **hand raised**, beside group of Philistines, two with right, hands **raised**.]



System Number: 105082

Work of Art Type: Manuscript

Description

1) Joseph: given Asenath -- Man, shield in left **hand**, sword **raised** in right **hand**, beside Pharaoh crowned, seated on bench, rod or scepter in left **hand**, right **hand raised** toward Asenath veiled, hands **raised**, kneeling, and Joseph, right **hand raised**, chariot, architectural setting; 2) Pharaoh: Egyptians crying, for Bread -- Seven Egyptians, three with hands **raised**, all before Pharaoh crowned, sword in left **hand**, staff in right **hand**, seated on cushioned bench behind which are two men, one with sword and staff.].



System Number: 163451

Work of Art Type: Statue

Description

Virgin Mary: Annunciation -- Virgin Mary nimbed, veiled, right **hand** to chest, left **hand raised**, Gabriel, nimbed, right **hand raised**, left **hand** holding scroll.

↑ Scroll to top to filter results.

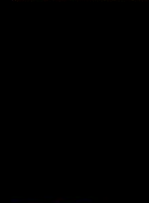
System Number: 104950

Work of Art Type: Manuscript

# Can/should we create a pattern library as a testset for AI and ML?

Dataset of visual patterns tagged with Iconclass - testbed for Artificial Intelligence applications

11F4 Madonna  
Virgin and child  
11837 hits



11K31 devil, demon  
124 hits



31A2331 kneeling on  
both knees  
782 hits

