

DATA SCIENCE APPLIED TO VISUAL GLOBALIZATION. THE PROJECT VISUAL CONTAGIONS

BÉATRICE JOYEUX-PRUNEL (UNIVERSITÉ DE GENÈVE, CHAIRE DES HUMANITÉS NUMÉRIQUES),

6TH PRAIRIE Colloquium

13/01/2021



UNIVERSITÉ
DE GENÈVE

IMAGES : AN ESSENTIAL PART OF GLOBALIZATION



connections Image: Shutterstock



I. IMAGES IN GLOBALIZATION STUDIES. A QUICK STATE OF THE ART.

A R J U N A P P A D U R A I

M o d e r n i t y
at Large

*Cultural Dimensions
of Globalization*



PUBLIC WORLDS, VOLUME 1
UNIVERSITY OF MINNESOTA PRESS
MINNEAPOLIS LONDON

1

Here and Now

Modernity belongs to that small family of theories that both declares and desires universal applicability for itself. What is new about modernity (or about the idea that its newness is a new kind of newness) follows from this duality. Whatever else the project of the Enlightenment may have created, it aspired to create persons who would, after the fact, have wished to have become modern. This self-fulfilling and self-justifying idea has provoked many criticisms and much resistance, in both theory and everyday life.

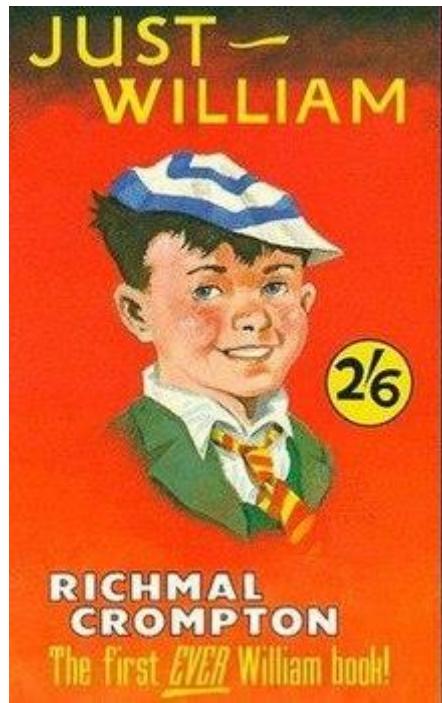
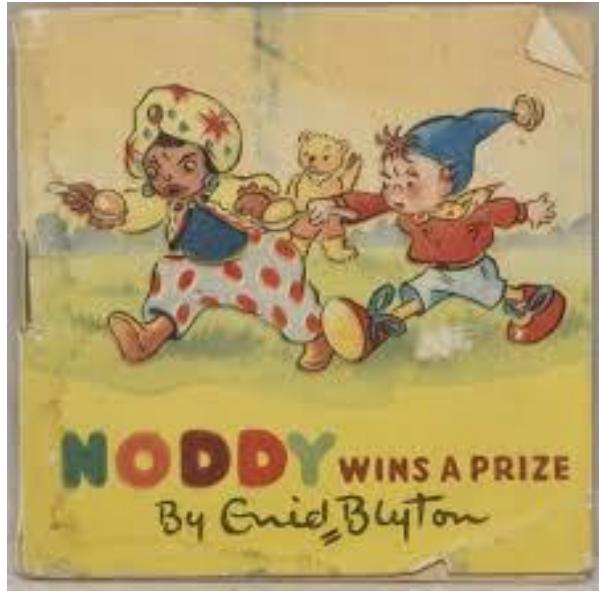
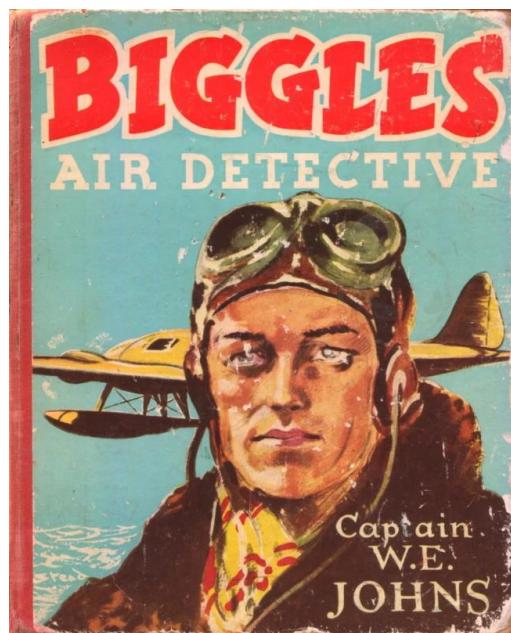
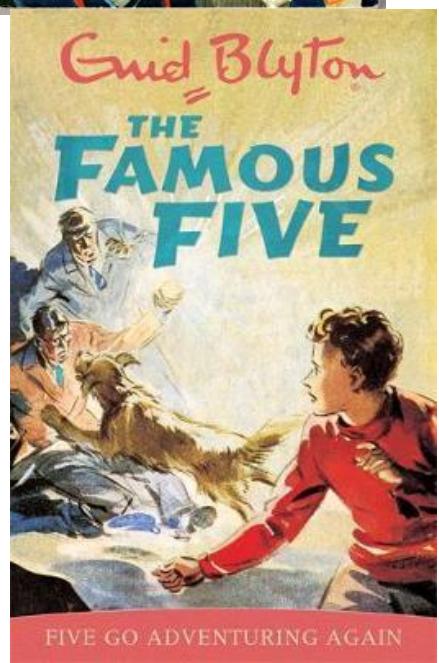
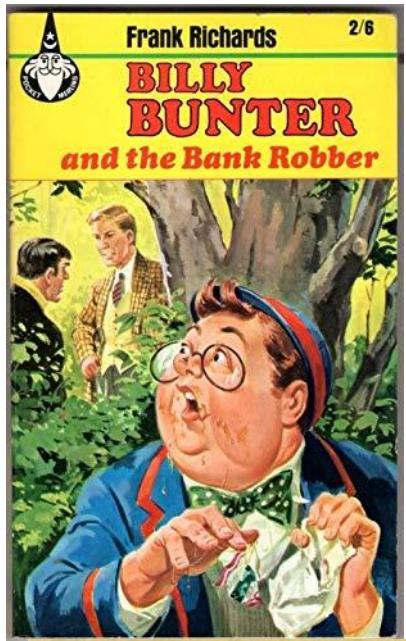
In my own early life in Bombay, the experience of modernity was notably synaesthetic and largely pretheoretical. I saw and smelled modernity reading *Life* and American college catalogs at the United States Information Service library, seeing B-grade films (and some A-grade ones) from Hollywood at the Eros Theatre, five hundred yards from my apartment building. I begged my brother at Stanford (in the early 1960s) to bring me back blue jeans and smelled America in his Right Guard when he returned. I gradually lost the England that I had earlier imbibed in my Victorian schoolbooks, in rumors of Rhodes scholars from my college, and in Billy Bunter and Biggles books devoured indiscriminately with books by Richmal Crompton and Enid Blyton. Franny and Zooey, Holden Caulfield, and Rabbit Angstrom slowly eroded that part of me that had been, until then,

In my own early life in Bombay, the experience of modernity was notably synaesthetic and largely pretheoretical. I saw and smelled modernity reading *Life* and American college catalogs at the United States Information Service library, seeing B-grade films (and some A-grade ones) from Hollywood at the Eros Theatre, five hundred yards from my apartment building. I begged my brother at Stanford (in the early 1960s) to bring me back blue jeans and smelled America in his Right Guard when he returned. I gradually lost the England that I had earlier imbibed in my Victorian schoolbooks, in rumors of Rhodes scholars from my college, and in Billy Bunter and Biggles books devoured indiscriminately with books by Richmal Crompton and Enid Blyton. Franny and Zooey, Holden Caulfield, and Rabbit Angstrom slowly eroded that part of me that had been, until then,

tion Service library, seeing B-grade films (and some A-grade ones) from Hollywood at the Eros Theatre, five hundred yards from my apartment building. I begged my brother at Stanford (in the early 1960s) to bring me back blue jeans and smelled America in his Right Guard when he returned. I gradually lost the England that I had earlier imbibed in my Victorian schoolbooks, in rumors of Rhodes scholars from my college, and in Billy Bunter and Biggles books devoured indiscriminately with books by Richmal Crompton and Enid Blyton. Franny and Zooey, Holden Caulfield, and Rabbit Angstrom slowly eroded that part of me that had been, until then,

In my own early life in Bombay, the experience of modernity was notably synaesthetic and largely pretheoretical. I saw and smelled modernity reading *Life* and American college catalogs at the United States Information Service library, seeing B-grade films (and some A-grade ones) from Hollywood at the Eros Theatre, five hundred yards from my apartment building. I begged my brother at Stanford (in the early 1960s) to bring me back blue jeans and smelled America in his Right Guard when he returned. I gradually lost the England that I had earlier imbibed in my Victorian schoolbooks, in rumors of Rhodes scholars from my college, and in Billy Bunter and Biggles books devoured indiscriminately with books by Richmal Crompton and Enid Blyton. Franny and Zooey, Holden Caulfield, and Rabbit Angstrom slowly eroded that part of me that had been, until then, forever England. Such are the little defeats that explain how England lost the Empire in postcolonial Bombay.

I did not know then that I was drifting from one sort of postcolonial subjectivity (Anglophone diction, fantasies of debates in the Oxford Union, borrowed peeks at *Encounter*, a patrician interest in the humanities) to another: the harsher, sexier, more addictive New World of Humphrey Bogart reruns, Harold Robbins, *Time*, and social science, American-style. But that's how it has always been, as far as I can tell, in the English-speaking world.



RABBIT IS RICH

John Updike Alfred A. Knopf Borzoi Books

RABBIT REDUX

John Updike Alfred A. Knopf Borzoi Books

RABBIT AT REST

Borzoi Books



THE CATCHER IN THE RYE

J.D. Salinger

1951

(first success for Holden Caulfield)

LIFE

ELIZABETH TAYLOR
AN OSCAR AT LAST



Franny and Zooey

J.D. Salinger

1961



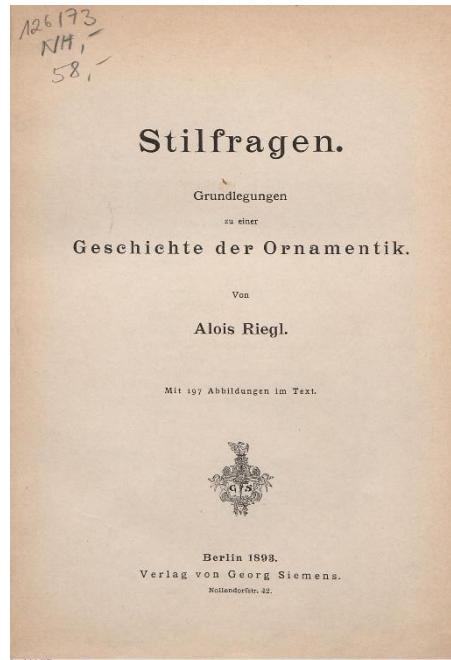
OPEN QUESTIONS

- How did this cultural change take place?
- What was the real impact of which images? Are they factors, or consequences?
- Was the change global and homogeneous?
- Which images have circulated or been imitated the most in the past?
- According to which social, cultural, geographic channels?
- What were their success factors ?
- Etc...

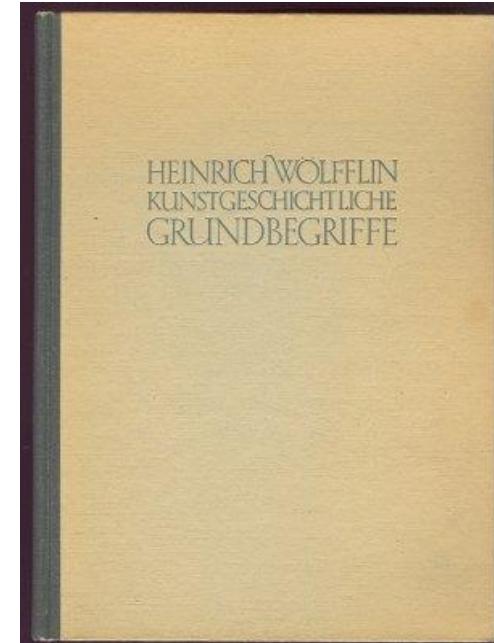
WHAT RESEARCH ABOUT THAT?

ART HISTORY.

- Several generations interested in the history of styles and the circulation of motifs
- Main approach : monography – or the study of one image's circulation, + Scholar's erudition



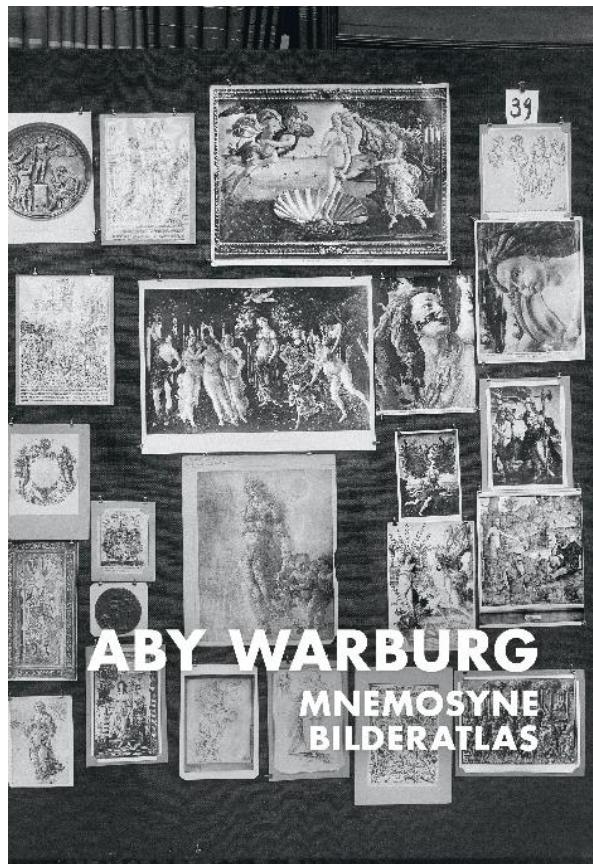
ALOIS RIEGEL (1858-1905),
Stilfragen, 1893



HEINRICH WÖLFFLIN (1864-1945),
Kunstgeschichtliche Grundbegriffe, 1899



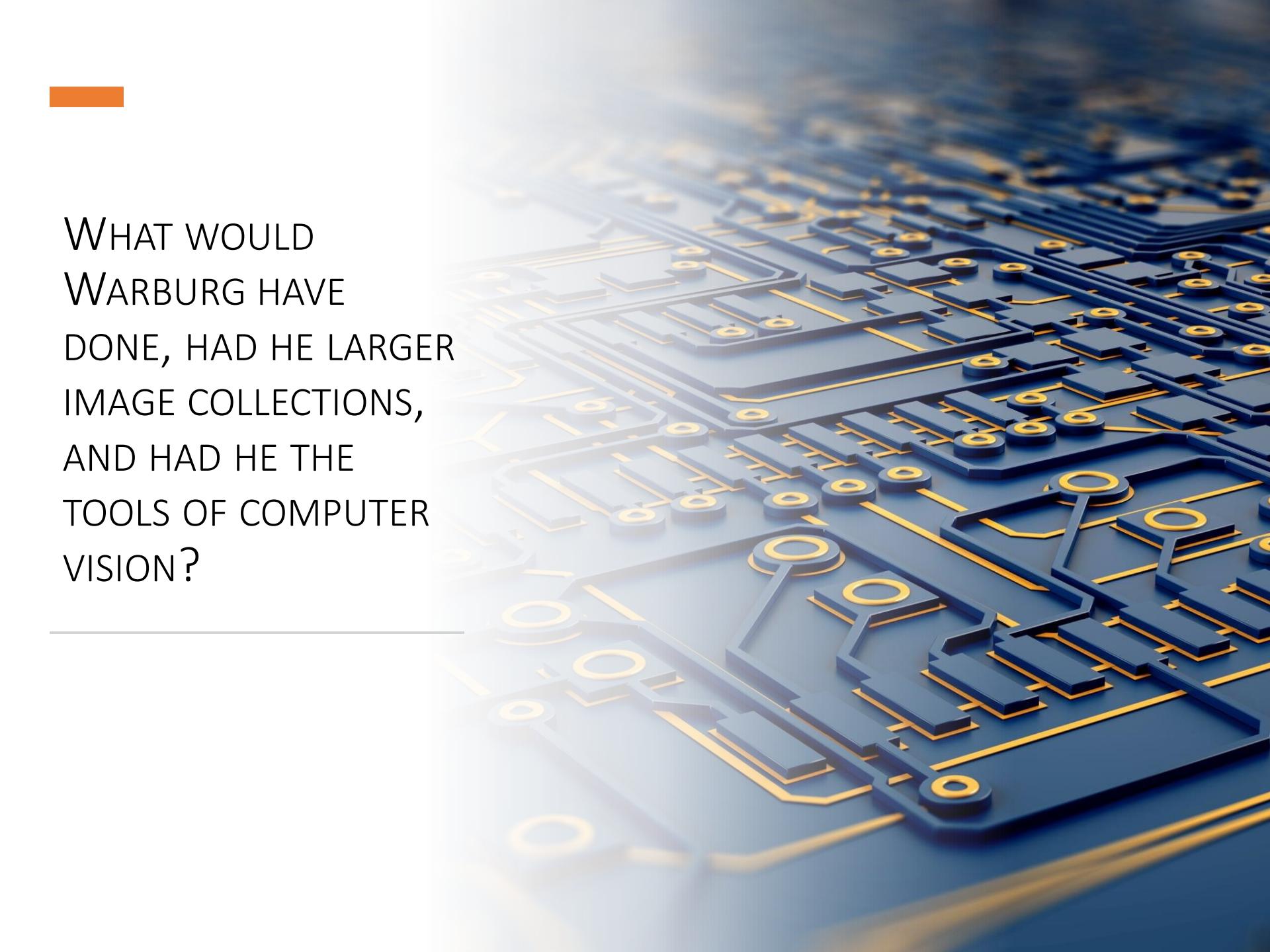
Aby Warburg (at the center) with Gertrud Bing and
Franz Alber at the Palace Hotel in Rome in 1929.
© The Warburg Institute



ABY WARBURG (1866-1929)



See Georges Didi-Huberman, *L'image survivante : histoire de l'art et temps des fantômes selon Aby Warburg* (Paris: Les Éditions de Minuit, 2002).



WHAT WOULD
WARBURG HAVE
DONE, HAD HE LARGER
IMAGE COLLECTIONS,
AND HAD HE THE
TOOLS OF COMPUTER
VISION?

A NECESSITY : WORKING ON GLOBALIZATION THROUGH IMAGES IN THE PLURAL

- We do have **sources** to work on corpora bigger and more exhaustive than case studies: Digital ones.
- Digital approaches (or **means**) help us manage quantity, space and time

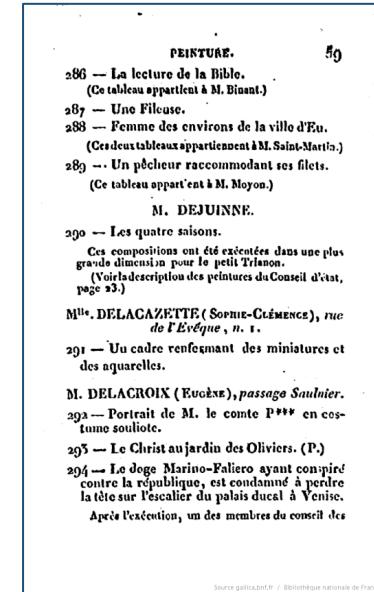


II. A QUICK (OLD) SOLUTION: EXHIBITION CATALOGUES

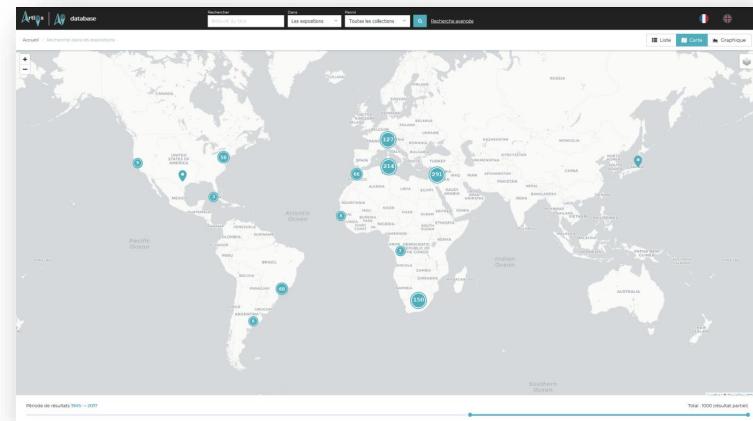
AND THE STUDY OF GLOBAL ARTISTIC
CIRCULATIONS.

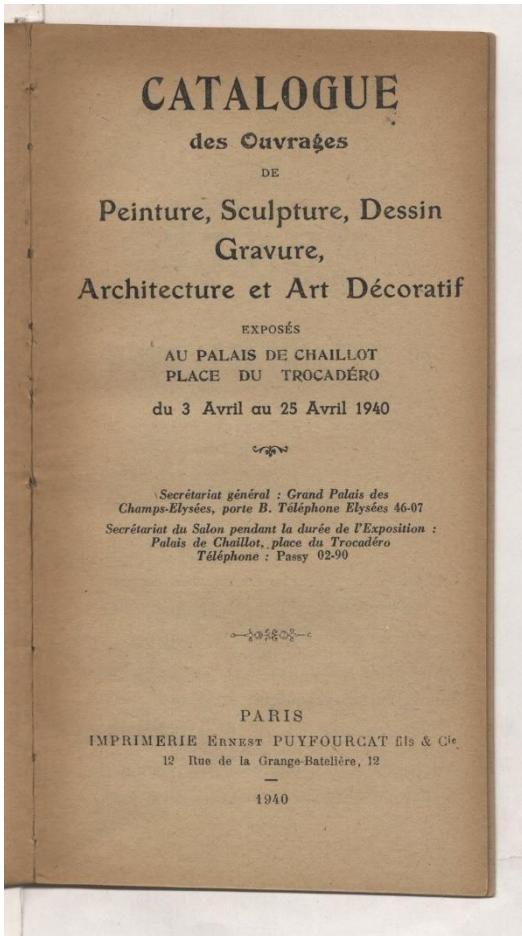
BASART AND
THE ARTL@S PROJECT

[HTTPS://ARTLAS.HUMA-NUM.FR](https://artlas.huma-num.fr)



Source gallica.bnf.fr - Bibliothèque nationale de France





Source gallica.bnf.fr / Bibliothèque nationale de France

— 20 —

BOUQUET (LOUIS), né à Lyon. Français. —
65, boulevard Arago. S.A.

61. — *Peinture.*

BOURGAIN (ODETTE), née à Cognac. Française. — 40, rue Boissonade. S.A.

62. — *Peinture.*

63. — *Peinture.*

BRANLY (ÉLISABETH), 87, boulevard Saint-Michel. S.A.D.

64. — *Peinture décorative pour une salle d'Etudes.*

BRAYER (YVES), né à Versailles. Français.
— Aux armées. S.A.

65. — *La Gare régulatrice*, p.

BREUILLAUD (ANDRÉ), né à Lizy-sur-Ourcq. Français. — 189, rue Ordener. S.A.

65 bis. — *Nature morte*, p.

65 ter. — *Paysage*, p.

BRIANCHON (MAURICE), né à Fresnay-sur-Sarthe. Français. — 21, rue du Conseiller-Collignon. S.A.

65 quater. — *Bois de Boulogne*, p.

ANCOURT (Edward), rue du Cherche-Midi, 52, élève
de Gleyre.

6. — La Châtelaine.

ANDRIEUX (Auguste), 16, rue de Seine.

7. — Le général Bonaparte accompagné de son escorte
le matin du combat. (Campagne d'Italie,
1796.)

AUDRY (Ferdinand), 21, rue Laval.

8. — Dessin : paysage.

AUDIAT (madame Félicie), 23, rue de la Victoire.

9. — Scène d'intérieur.

10. — La Fête de la grand'mère.

AUFRAY (Édouard-Alphonse), élève de MM. Tabar et
Baudit, 10, rue des Dames (Batignolles-Paris).

11. — Choc de cavaliers.

12. — Lever de lune.

13. — Crénuscle.

AVON (Émile), élève de M. Gleyre, 64, rue de l'Ouest.

14. — Saint-Sébastien.

BACHERAU-REVERCHON, élève de M. Gustave De-
ville, 47, rue des Batignolles.

15. — Un combat singulier.

16. — Nature morte ; fruits.

BAILLY (Paul-Auguste), élève de M. Sieurac.

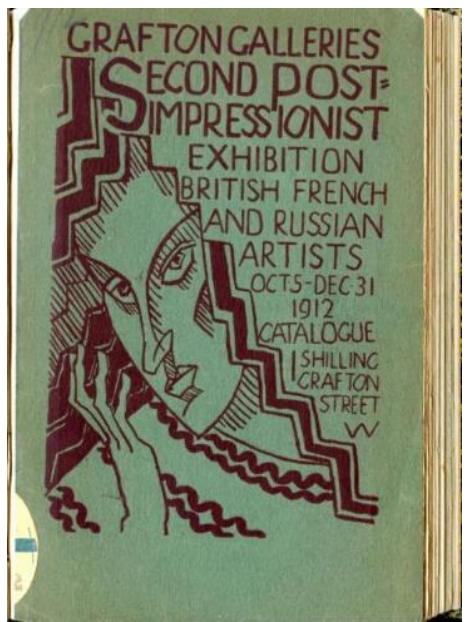
17. — Tête de femme ; étude.

*Catalogue des ouvrages de peinture, sculpture,
gravure, lithographie et architecture refusés
par le Jury de 1863 et exposés, par décision de
S.M. l'Empereur au salon annexe, palais des
Champs-Elysées, le 15 mai 1863*

Paris, Salon des Refusés, 1863

— page 4.

Source : Gallica.



Second Post-Impressionist Exhibition...
London, Grafton Galleries, Grafton Street
oct. 5-dec 31, 1912

40 *Second Post-Impressionist Exhibition*

LARGE GALLERY

no.

- 41 CHABAUD. *Chemin dans la Montagnette.*
42 DOUCET. *Vauboyen*
(Lent by M. Charles Vildrac)
43 VAN DONGEN. *Portrait de Madame Van Dongen**
44 PUY. *La Baignade*
(Lent by M. Blot)
45 BONNARD. *La Salle à Manger*
(Lent by MM. Bernheim-Jeune et Cie.)
46 PICASSO. *Composition*
(Lent by M. Vollard)
47 PETROFF-WODKIN. *Les Gosses*
48 PUY. *Portrait de Madame Puy**
(Lent by M. Léonce Rosenberg)
49 VAN DONGEN. *La femme en blanc*
(Lent by MM. Bernheim-Jeune et Cie.)

* Not for sale.

Second Post-Impressionist Exhibition

LARGE GALLERY

no.

- 50 HERBIN. *Nature Morte*
(Lent by M. C. Herbin)
51 MADAME MARVAL.
52 VAN DONGEN. *Le doigt*
(Lent by M. Van Dongen)
53 MARQUET. *Femme au chapeau*
(Lent by M. Marquet)
54 CHABAUD. *Le troupeau*
55 MARQUET. *Le nu à la fenêtre*
(Lent by M. Marquet)
56 " *St. Jean de Luz*
(Lent by M. Chabaud)
57 FLANDRIN. *Porte de l'abbaye*
(Lent by M. Flandrin)
58 BONNARD. *La Chasse*
(Lent by M. Bonnard)

Italie



BRINDISI REMO
Dimension

إيطاليا



PUGGERI PIERO
Naïve morte

بيرو دوجيري
(طبيعة مorte)

FROM THE CATALOGUE TO A STRUCTURED DATABASE

FOURCAT (Lucie-Marie),
32, rue des Salenques.

- Géraniums, peinture
- Vieillesse, peinture
- 397. Un coin d'allée en automne, peinture
- 398. Un Seuil, peinture

RAMOND (Paul).
3, place Intérieure Saint-Michel.

- 399. Châtaigniers à Preiman (Hérault), peinture

- 400. Etude. place Intérieure Saint-Michel
- 401. Etude. place Intérieure Saint-Michel

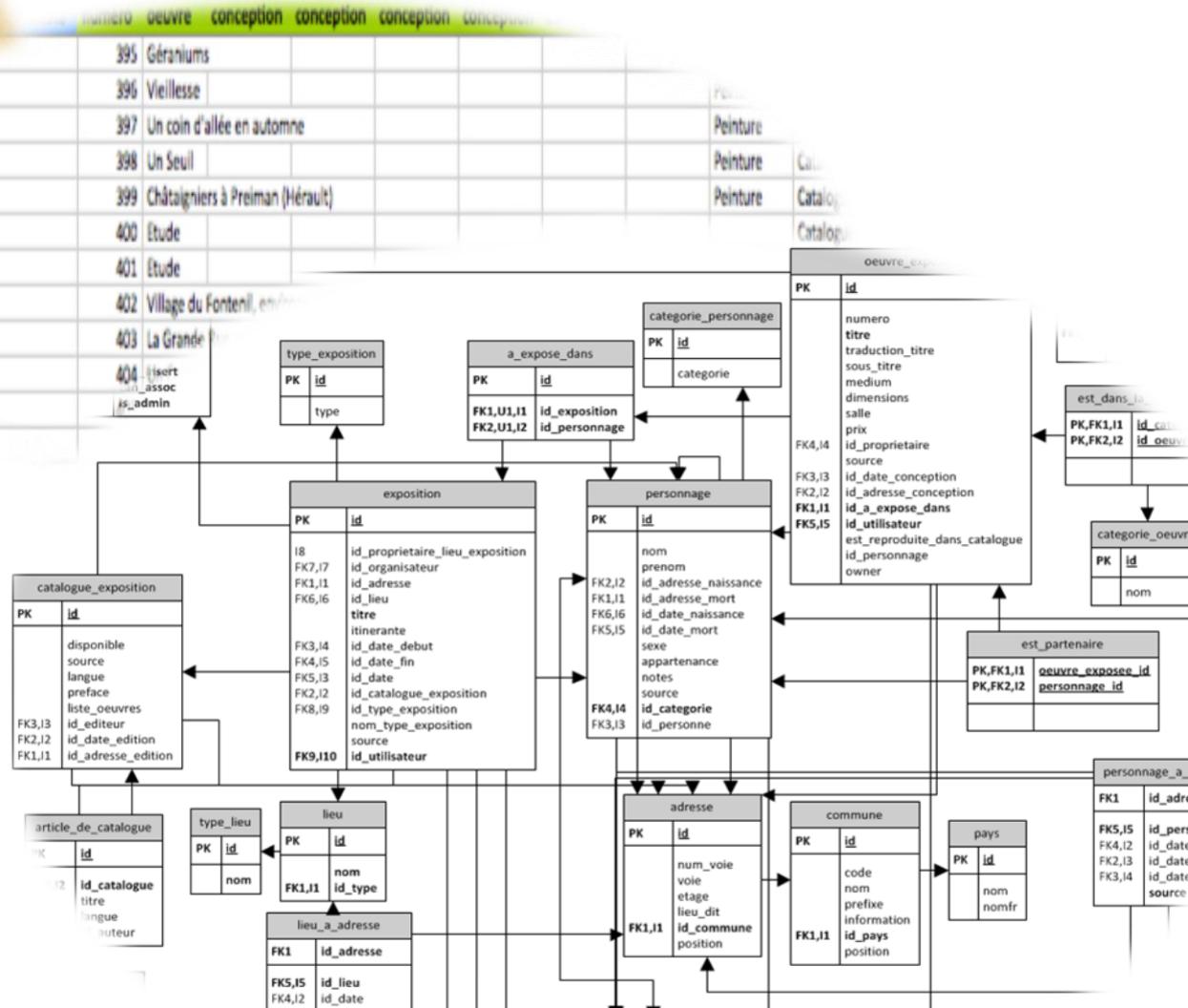
RAZOU (Paul-Bernard).
Tabéda
3, rue Labéda.

- 402. Village du Fontenil, environs de ... (Hautes-Alpes), aquarelle

- 403. La Grande Rue et la Gargouille à Briançon, aquarelle

- 404. Un Coin du vieux Briançon, aquarelle Haut Quartier à Briançon, aquarelle

- Une Ruelle du vieux Briançon, aquarelle Pont d'Asfeld sur la Durance, à Briançon, peinture



BASART

EXHIBITION CATALOGUES SINCE THE 19TH C.

A GLOBAL AND COLLABORATIVE POST-GIS DATABASE

CURRENT CONTENT OF BASART:

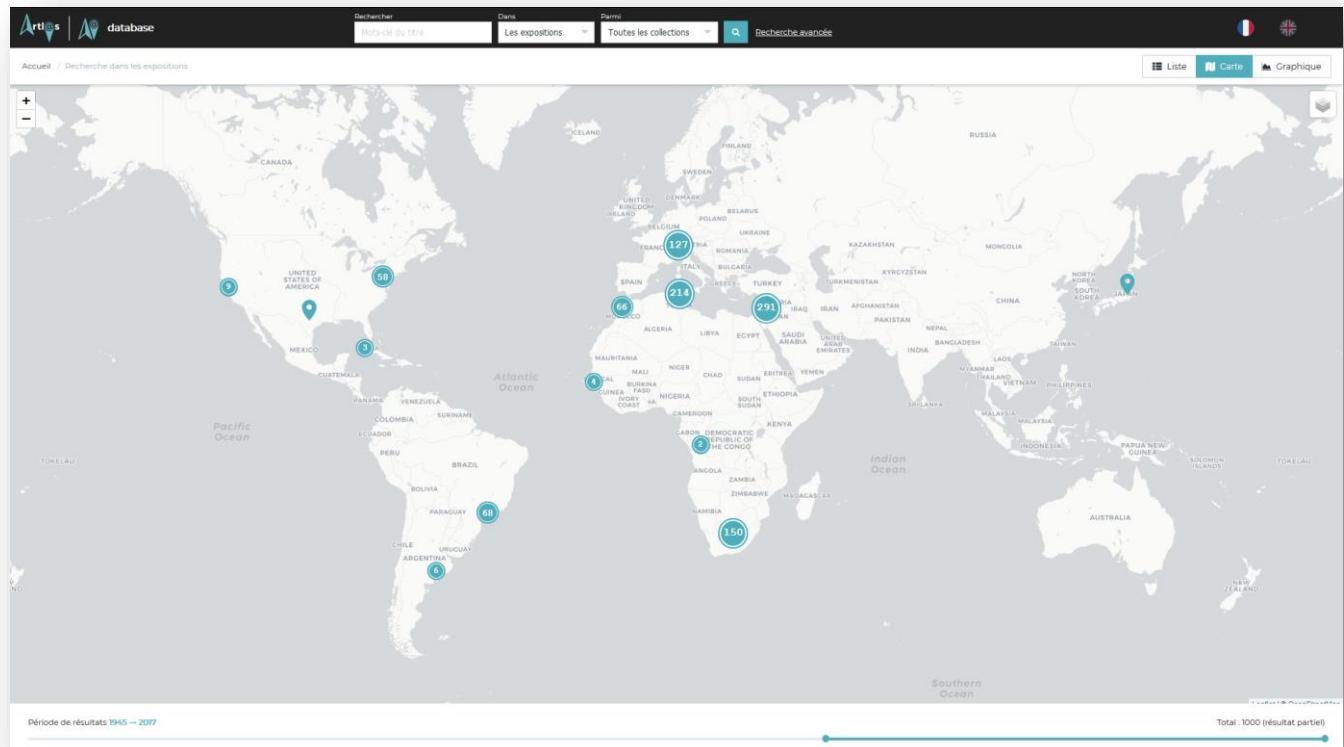
Exhibitions: 5481

Exhibition Catalogues: 3106

Exhibitors: 40980

Exhibited works: 98680

Contributors: 57



PSL



UNIVERSITÉ
DE GENÈVE

WWW.ARTLAS.ENS.FR

The screenshot shows the homepage of the Artl@s website. At the top, there is a navigation bar with links: ABOUT, BasArt, GeoMAP, ACAD de France in Rome, BULLETIN, SEMINAR & LAB, EVENTS, and Q. A pink rectangular box highlights the "BasArt" menu item. Below the navigation bar is a grid of images related to art history. In the center, there is a large text block for the "Artl@s 10th Anniversary International Conference". To the left, there is a thumbnail for the "Artl@s bulletin" and information about the "Last Issue". To the right, there is an "Agenda" section with several entries, each with a date, month, and title.

BasArt

[BasArt: Facts and Figures](#)

[BasArt: Direct Access](#)

[Basart: Access for Contributors](#)

Artl@s 10th Anniversary International Conference: Visual Semantics. Visualizing Global Networks, Circulations, And Patterns Paris, Ecole Normale Supérieure, 13-14 June 2019

Agenda

30 SEP 19 Artl@s Seminar – PROGRAMME 2019–2020

13 JUN 19 **Visual Semantics – International Conference – Visualizing Global Networks, Circulations, and Patterns (13-14/06/2019)**

23 MAY 19 the Union des Femmes Peintre et Sculpteurs (Catherine Gonnard)

09 MAY 19 CANCELED: Race, Ethnicity, Empathy. Radical Women, Latin American Art, 1960–1985 (Andrea GIUNTA)

ARTL@S Bulletin - Last Issue
Volume 8, Issue 2 (Summer 2019)
The Challenge of Caliban
Edited by Roland Béhar and
Béatrice Jouveux-Prunel



Search
Title keyword

In
Exhibitions

Among
All Collections



[Advanced search](#)



Artl@s database

Data

Usage

Navigation

Exhibitions

Exhibitors

Exhibited works

Welcome to the Artl@s database

Artl@s gives you access to a digital database of exhibition catalogs. It is intended to include all types of exhibition catalogs, from the invention of catalog (Salon de Paris, 1673) to the present day.

This database is georeferenced and time-stamped. It makes it possible to map exhibitions, to trace the circulation of artworks and the exhibitions of artists. It also allows, when the information is available, to link the exhibited works to their location, owners, the birth place of their creator, and to all other types of information provided by the catalogs.

The construction of the database was supported by the [Agence nationale pour la Recherche](#) (ANR), through a Jeunes Chercheurs-Jeunes Chercheuses (2011-2016) grant. Further developments and maintenance are supported by the [École normale supérieure](#), the [Université de recherche Paris Sciences Lettres](#), and the [labex TransferS](#) (École normale supérieure - Collège de France, Paris).

The content of the database is generously compiled by dozens of passionate young scholars from all over the world. They give their time and expertise to the project and grant us access to data that is often difficult to access. The Artl@s database aims to expand the horizons of art history towards both sociology (to make way for large numbers) and geography (to make way for the "peripheries").

Direction of the project: Béatrice Joyeux-Prunel.

In collaboration with Léa Saint-Raymond (univ. de Paris Ouest Nanterre et Collège de France), and research groups at Purdue University (dir. Catherine Dossin), and the university of São Paulo (dir. Ana Paula Cavalcanti Simioni).

Structure of the database: Yann Leboulanger. **Interface:** Makina Corpus.

Home / Advanced search

Advanced search

Search in among

Exhibitions

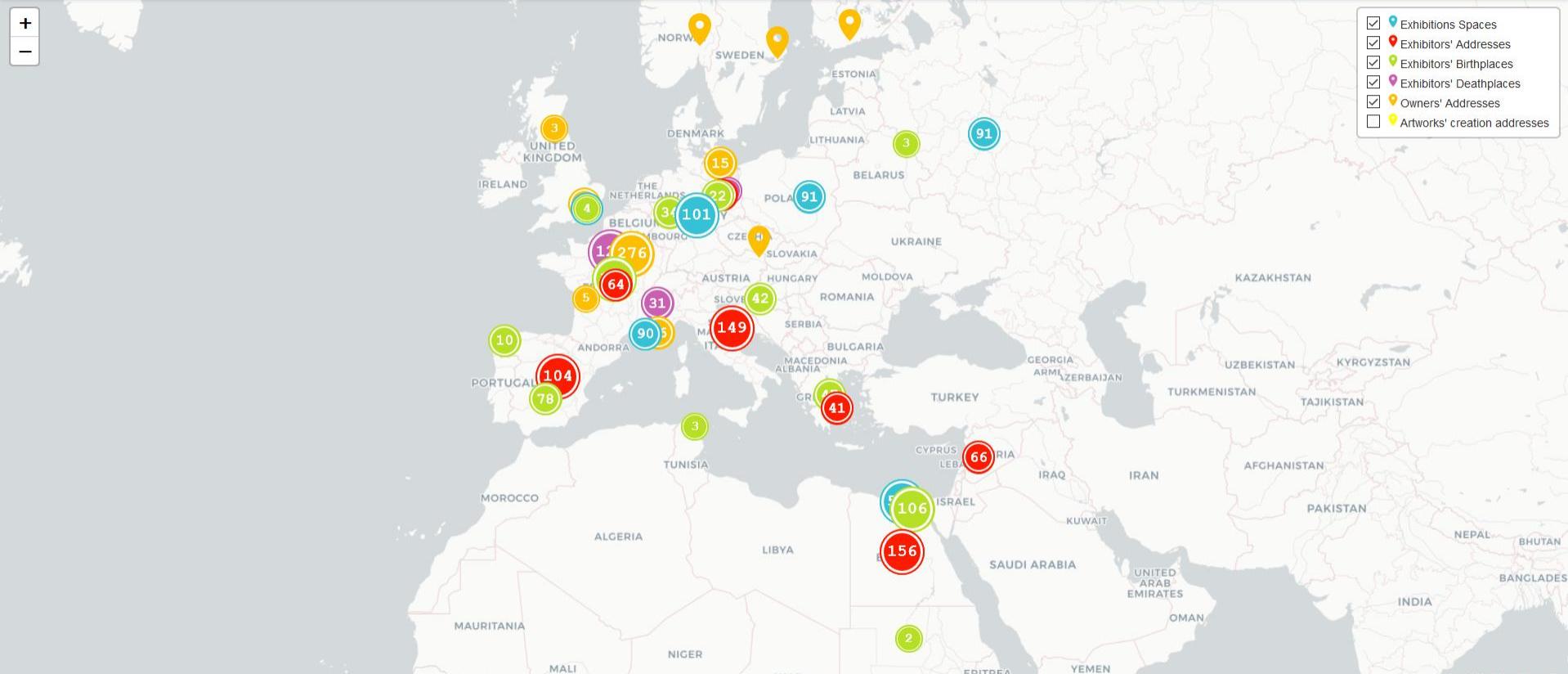
Exhibitors

Exhibited works 

+ Add a search term

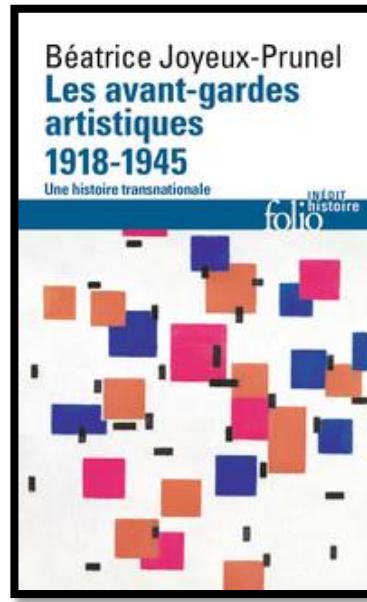
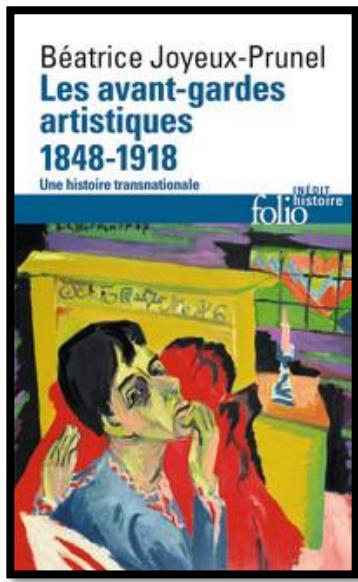
from à



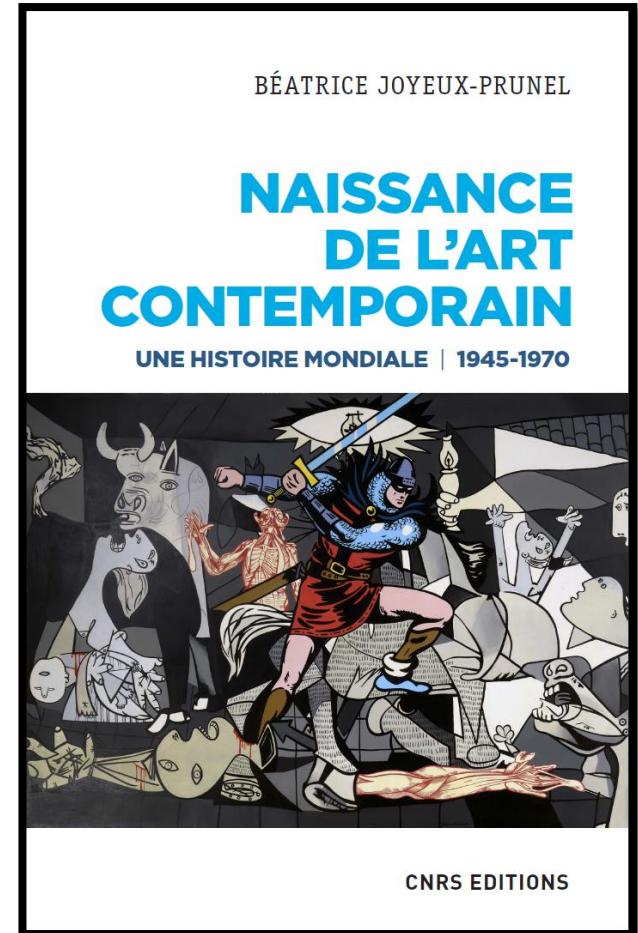
Period's results 1926 → 1956

Total : 1000 (partial result)



2 Pocket books :

*Les avant-gardes artistiques.
Une Histoire transnationale*
Paris, Gallimard, Folio Histoire,
2016-2017
Vol. 1 : 1848-1918, 2016.
Vol. 2 : 1918-1945, 2017.

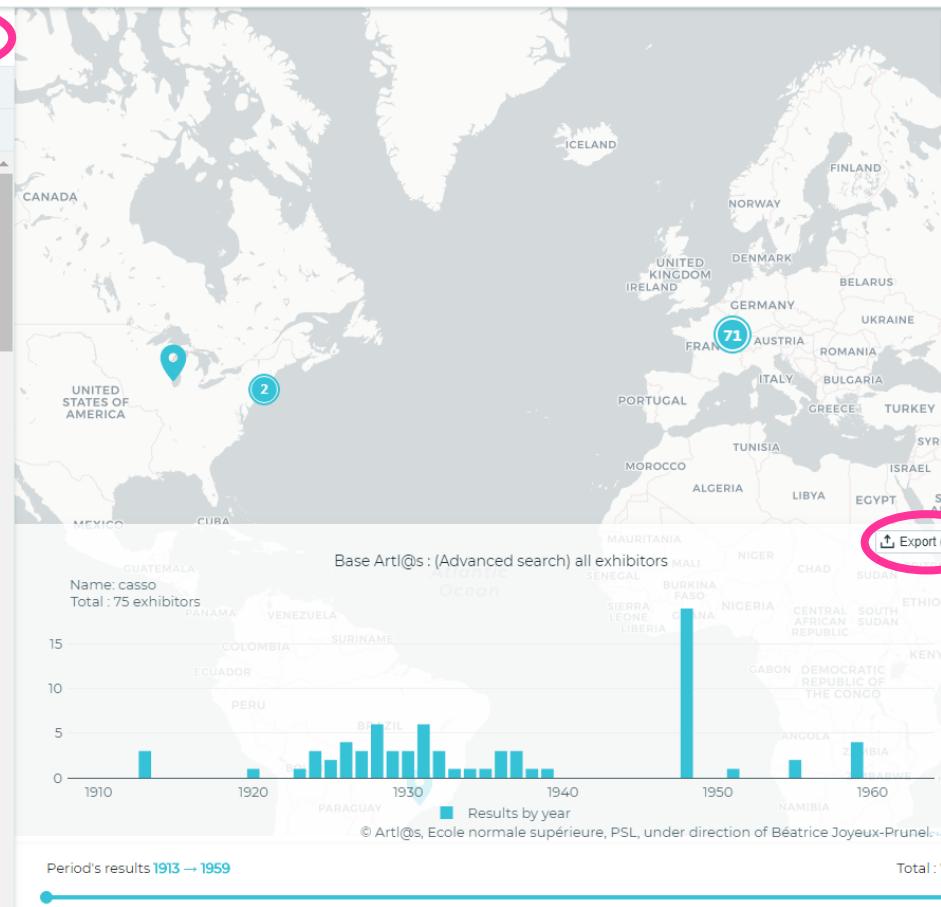


Forthcoming:
*Naissance de l'art contemporain.
Une histoire mondiale
1945-1970*
Paris: CNRS Edition, 2021

[Home](#) / [Search in exhibitors](#)

List Map Graph

	Name	Firstname	Year	Ville	Exhibition
>	Picasso	Paul (sic)	1913	New York	Armory Show
>	Picasso	Paul (sic!)	1913	Chicago	Armory Show
>	Picasso	Paul (sic!)	1913	Boston	Armory Show
>	Picasso	Pablo	1920	Paris	Exposition. Portraits
>	Picasso	Pablo	1923	Paris	Etude et portraits de femmes (deuxième série)
>	Picasso	Pablo	1924	Paris	Exposition d'Estampes modernes
>	Picasso	Pablo	1924	Paris	Réouverture de la galerie Devambez avec l'exposition des cent dessins (6e année)
>	Picasso	Pablo	1924	Paris	Quelques peintres du XXe siècle chez Paul Rosenberg
>	Picasso	Pablo	1925	Paris	Exposition d'estampes et de quelques albums
>	Picasso	Pablo	1925	Paris	L'art d'aujourd'hui
>	Picasso	Pablo	1926	Paris	"Divergences", 1ère exposition. Peintures, dessins, aquarelles, sculptures
>	Picasso	Pablo	1926	Paris	Groupe de la jeune peinture contemporaine
>	Picasso	Pablo	1926	Paris	Exposition de l'Art moderne



PREVIOUS DATA RETRIEVAL



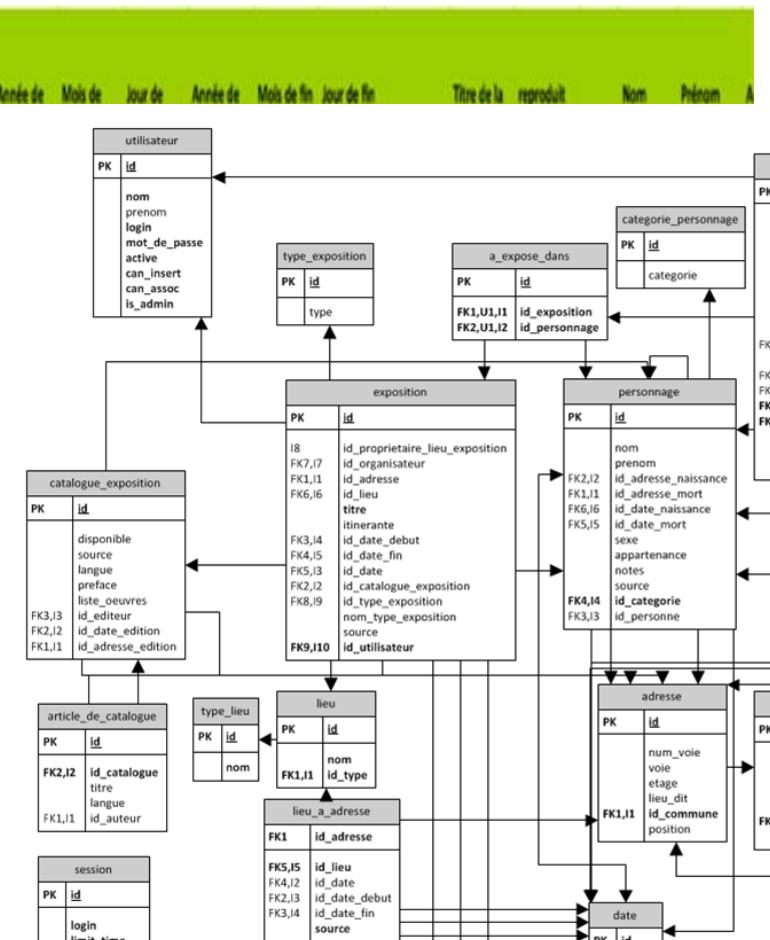
POUYFOURCAT (Lucie-Marie).

32, rue des Salenques.

395.	Géraniums, peinture	3
396.	Vieillesse, peinture	4
397.	Un	5
398.	Un	6

R. artiste	Nom artistique	Prénom de l'artiste	Appartenance à un groupe	Adresse de l'artiste	Pays de l'artiste	État de l'artiste	Ville de l'artiste	N° d'adresse de l'artiste	Voie d'adresse de l'artiste	Etage d'adresse de l'artiste
	Pouyfourcat	Lucie-M.	sociétaire		France	Toulouse	Toulouse	32	rue des Salenques	
399. Ch	Pouyfourcat	Lucie-M.	sociétaire		France	Toulouse	Toulouse	32	rue des Salenques	
	Pouyfourcat	Lucie-M.	sociétaire		France	Toulouse	Toulouse	32	rue des Salenques	
400. En	Pouyfourcat	Lucie-M.	sociétaire		France	Toulouse	Toulouse	32	rue des Salenques	
401. En	Ramond	Paul	sociétaire		France	Toulouse	Toulouse	3	place Intérieure Sainte-Cécile	
	Ramond	Paul	sociétaire		France	Toulouse	Toulouse	3	place Intérieure Sainte-Cécile	
	Ratzu	Paul-Ber	sociétaire		France	Toulouse	Toulouse	3	rue Labédia	
	Ratzu	Paul-Ber	sociétaire		France	Toulouse	Toulouse	3	rue Labédia	
	Ratzu	Paul-Ber	sociétaire		France	Toulouse	Toulouse	3	rue Labédia	
402. Vil	Ratzu	Paul-Ber	sociétaire		France	Toulouse	Toulouse	3	rue Labédia	
	Ratzu	Paul-Ber	sociétaire		France	Toulouse	Toulouse	3	rue Labédia	
403. La	Ratzu	Paul-Ber	sociétaire		France	Toulouse	Toulouse	3	rue Labédia	

404.	Un Coin du vieux Briançon, aquarelle..	150
405.	Haut Quartier à Briançon, aquarelle....	180
406.	Une Ruelle du vieux Briançon, aquarelle..	180
407.	Le Pont d'Asfeld sur la Durance, à Briançon, peinture	250





Search

Automne

In

Exhibitions

Among

All Collections



Advanced search



Home / Search of "Automne" in exhibitions

List

Map

Graph

Total 36

50 /page

< 1 >

CSV Export

Year

City

Exhibition title

Société du Salon d'Automne. Exposition de 1905, Paris , 1905

CSV Export

Dates of catalog : 18 octobre 1905 - 25 novembre 105

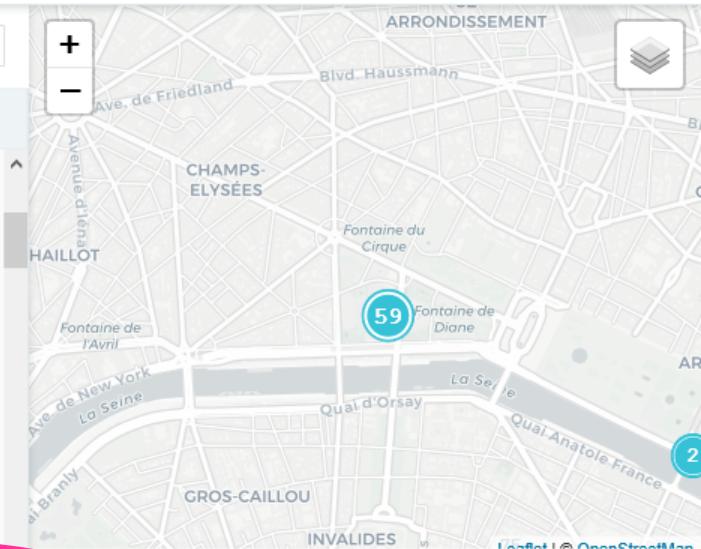
Catalog source : <https://archive.org/details/cataloguedesouvr1905salo>

Contributor Léa Saint-Raymond.

3 sections

- Catalogue des œuvres exposées - [pas d'adresse] - Exhibitors : 574 - Exhibited works : 1638
- Œuvres d'Ingres - [pas d'adresse] - Exhibitors : 1 - Exhibited works : 68
- Œuvres d'Edouard Manet, né à Paris en 1832, mort en 1883 - [pas d'adresse] - Exhibitors : 1 - Exhibited works : 31

© Artl@s, Ecole normale supérieure, PSL, under direction of Béatrice Jouveaux-Prunel. Contributor Léa Saint-Raymond.



Period's results 1903 → 1982

Total : 80

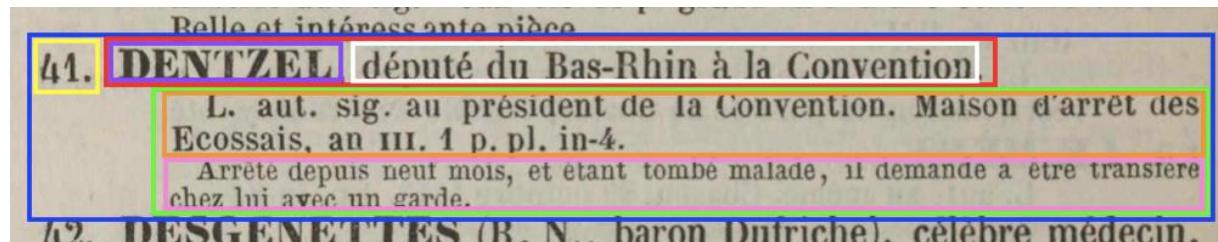
< 1906

Paris

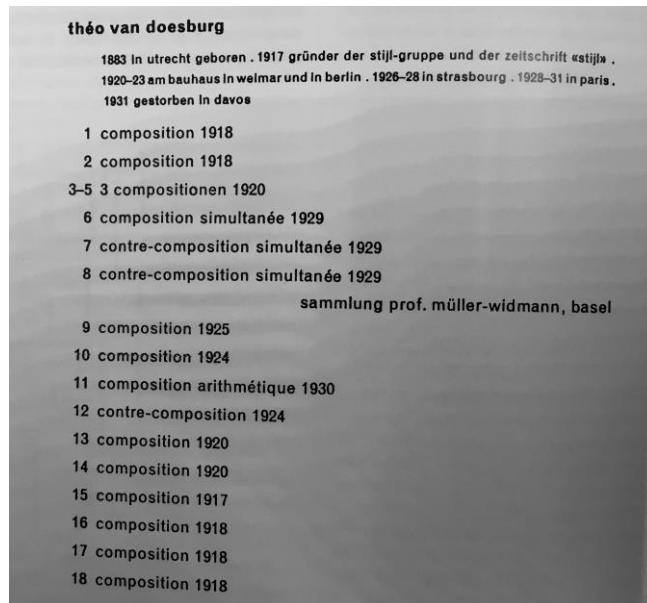
4e Salon d'Automne : rétrospectives Courbet. Gauguin. Carrière

>

A NECESSARY USE OF ARTIFICIAL VISION AND MACHINE LEARNING: DATA COLLECTION



Example of the different levels of a manuscript auction catalog entry.



Example of a catalogue entry from the exhibition catalogue *Konstruktivisten*, Kunsthalle Basel, 1937.

CURRENT DATA RETRIEVAL



POUYFOURCAT (Lucie-Marie).

32, rue des Salengres.

- | | |
|--|---|
| 395. <i>Géraniums</i> , peinture | ➤ |
| 396. <i>Vieillesse</i> , peinture | ➤ |
| 397. <i>Un coin d'allée en automne</i> , peinture... | ➤ |
| 398. <i>Un Seuil</i> , peinture | ➤ |

OCR

Semi-Automatized

Semantic Description of the **texts** in XML-TEI

FOURNIER (MARCEL) Français. — Villa des
Arts, 1), rue Hébertine-Mureau.

<listPerson>

<person>

<persName> BRÉAL ()

<birth>né à Paris </birth>

<note></note>

<residence> Rue Not

<listBibl>

<bibl>

<num>155</num>

<title>.Ovale

<note></note>

</bibl>

<bibl>

<num>156</num>

<title>Aupior

<note>[intérim]

</bibl>

<bibl>

Nom artiste	Prénom artiste	Appartenance à un groupe	Adresse de l'artiste	Pays de l'artiste	Etat de l'artiste	Ville de l'artiste	Numéro d'adresse de l'artiste	Voie d'adresse de l'artiste	Etage de l'artiste	Libellé de l'artiste
Pouyfourcat	Lucie-M.	sociétaire		France		Toulouse	32	rue des Salenques		
Pouyfourcat	Lucie-M.	sociétaire		France		Toulouse	32	rue des Salenques		
Pouyfourcat	Lucie-M.	sociétaire		France		Toulouse	32	rue des Salenques		
Pouyfourcat	Lucie-M.	sociétaire		France		Toulouse	32	rue des Salenques		
Ramond	Paul	sociétaire		France		Toulouse	3	place Intérieure Saint-Michel		
Ramond	Paul	sociétaire		France		Toulouse	3	place Intérieure Saint-Michel		
Ramond	Paul	sociétaire		France		Toulouse	3	place Intérieure Saint-Michel		
Razzu	Paul-Ber	sociétaire		France		Toulouse	3	rue Labédia		
Razzu	Paul-Ber	sociétaire		France		Toulouse	3	rue Labédia		
Razzu	Paul-Ber	sociétaire		France		Toulouse	3	rue Labédia		
Razzu	Paul-Ber	sociétaire		France		Toulouse	3	rue Labédia		

USING GROBID – GENERATION OF BIBLIOGRAPHIC DATA

(<https://grobid.readthedocs.io/en/latest/introduction/>)



[Home](#)

[About](#)

[Introduction](#)

- Status
- Purpose
- Credits

[References](#)

[Licence](#)

[User manual](#)

[Install GROBID](#)

[GROBID service](#)

[GROBID batch mode](#)

[GROBID with containers](#)

[Troubleshooting and known issues](#)

[Java library](#)

[TEI encoding of results](#)

[Coordinates of structures in the PDF](#)

[Adding a consolidation service](#)

[GitHub](#)

« Previous Next »

Docs » About » Introduction

[Edit on GitHub](#)

Introduction

Status

license apache build passing coverage 38% docs passing version 0.6.1

Purpose

GROBID (or Grobid, but not GroBid nor GroBiD) means GeneRation Of Bibliographic Data.

GROBID is a machine learning library for extracting, parsing and re-structuring raw documents such as PDF into structured XML/TEI encoded documents with a particular focus on technical and scientific publications. First developments started in 2008 as a hobby. In 2011 the tool has been made available in open source. Work on GROBID has been steady as side project since the beginning and is expected to continue as such.

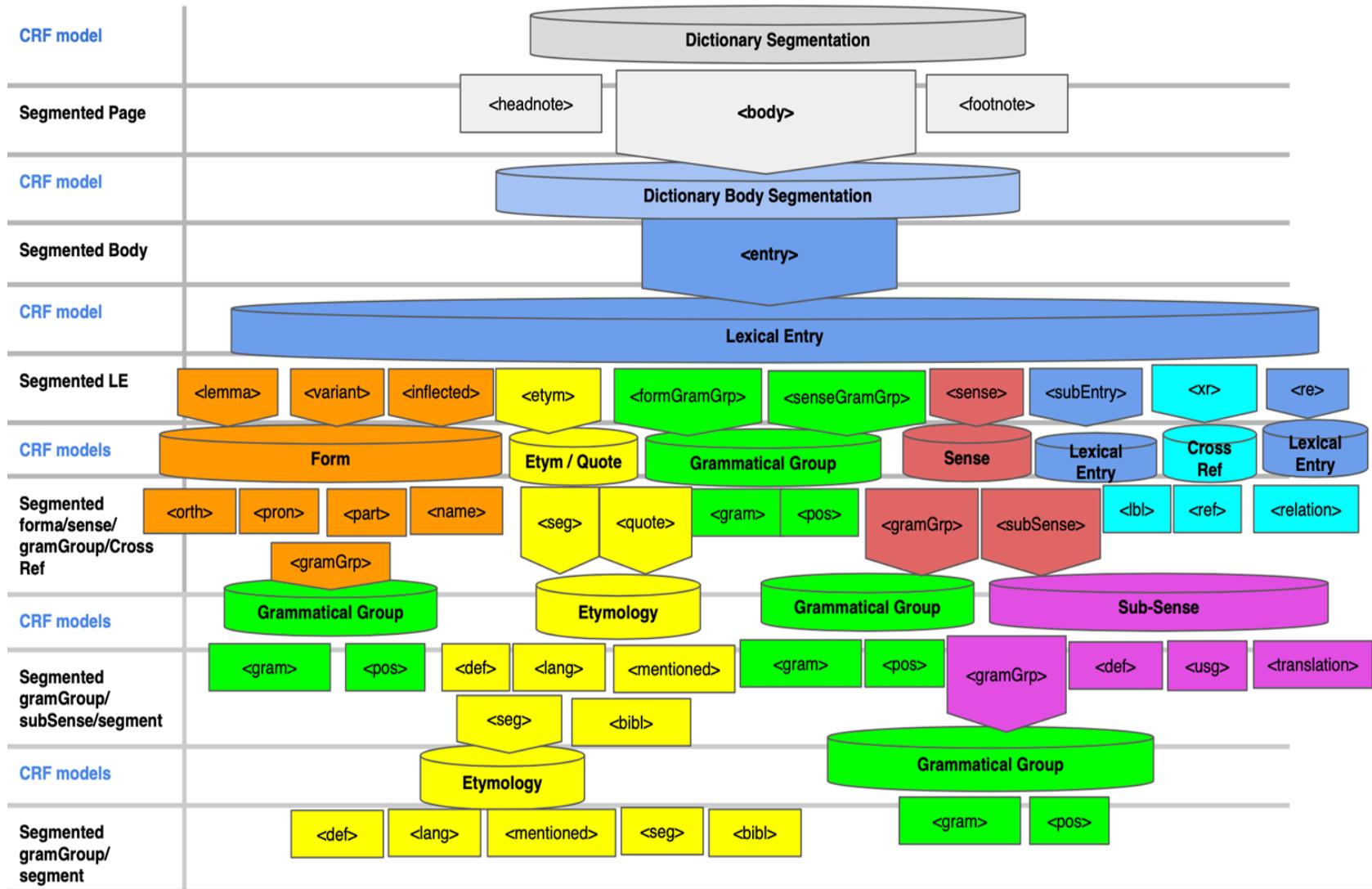
The following functionalities are available:

- **Header extraction and parsing** from article in PDF format. The extraction here covers the usual bibliographical information (e.g. title, abstract, authors, affiliations, keywords, etc.).
- **References extraction and parsing** from articles in PDF format, around .85 f-score against an independent PubMed Central set of 1943 PDF containing 90,125 references. All the usual publication metadata are covered (including DOI).
- **Citation contexts recognition and linking** to the full bibliographical references of the article. The accuracy of citation contexts resolution is around 0.75 f-score (which corresponds to both the

v: latest

USING AMONG GROBID, GROBID DICTIONARIES

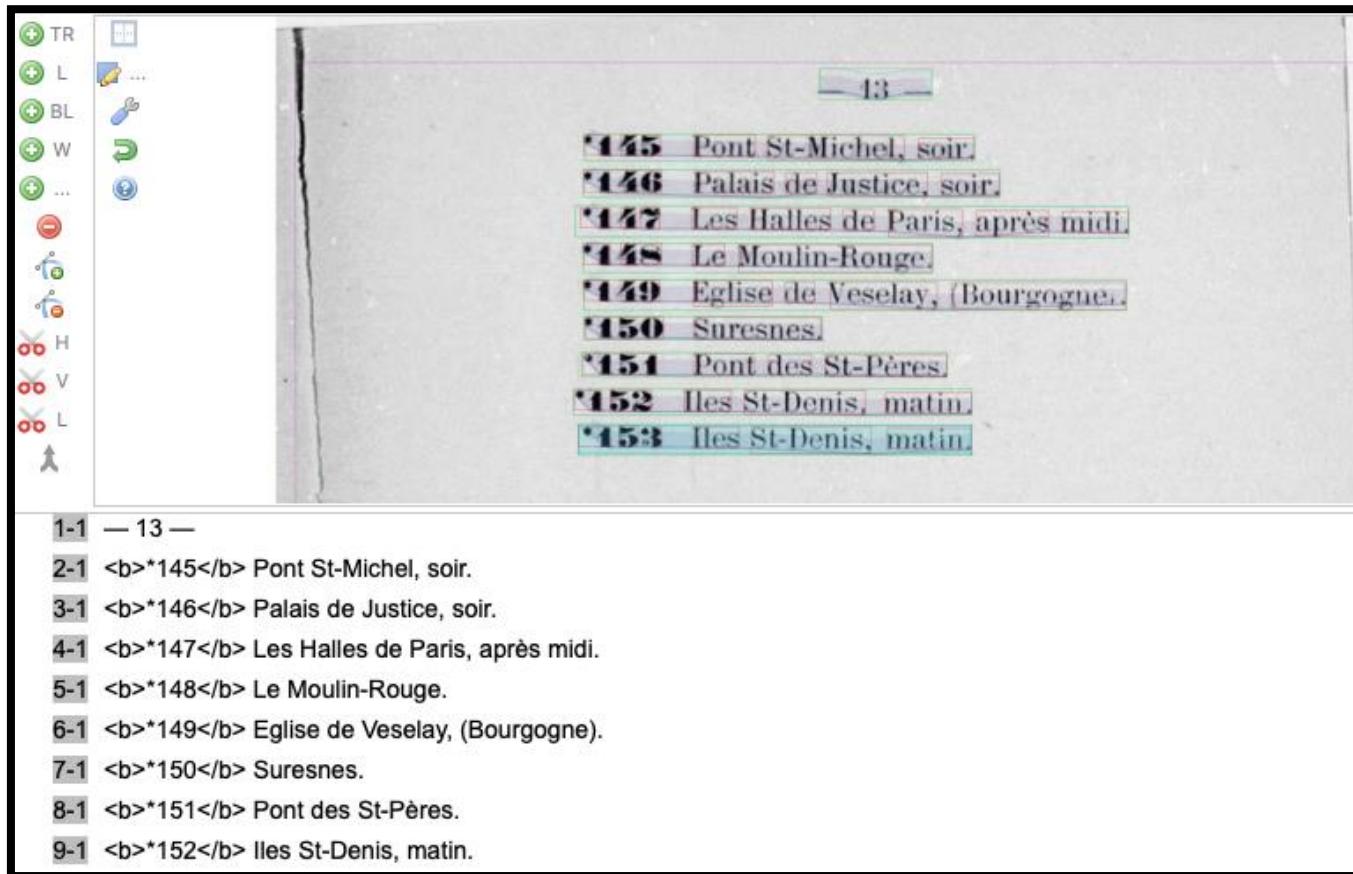
(HERE : CONDITIONAL RANDOM FIELDS CASCADE MODEL (ENCODING INFORMATION FROM THE GENERAL TO THE PARTICULAR))



GROBID-CAT

1ST STEP : OCR + TYPOGRAPHIC INFORMATION

→ ALTO-XML → ENRICHED PDF → GROBID



Screenshot of the transcription with the **** tags of a catalog exhibition in Transkribus, Caroline Corbières, Artl@s Internship, August 2020.

Training models



```
===== Field-level results =====

label          accuracy      precision      recall       f1       support
<lemma>        97.07        88.89        88.89        88.89        63
<pc>           95.4         94.36        94.36        94.36       195
<sense>        97.07        96.41        96.41        96.41       195
all (micro avg.) 96.51         94.48        94.48        94.48       453
all (macro avg.) 96.51         93.22        93.22        93.22       453

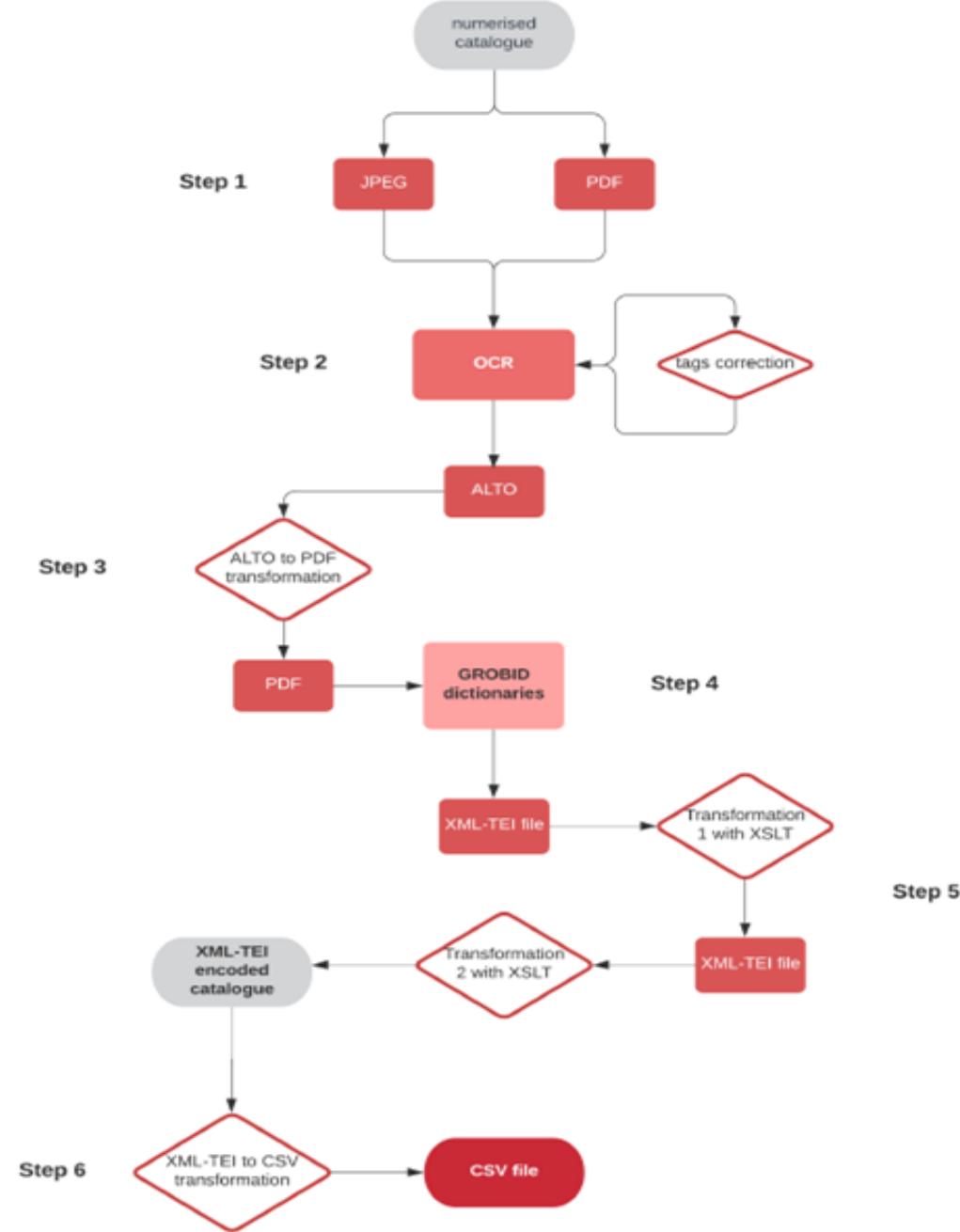
===== Instance-level results =====

Total expected instances:  64
Correct instances:        52
Instance-level recall:    81.25
```

Screen capture : result of a lexical entry-level training in GROBID-dictionaries,
september 2020 (Caroline Corbières, ENC/Artl@s, Master Thesis, October 2020)

Results : impact of adding typographic information into the model

FINAL WORKFLOW



LAST CHALLENGES

- User-friendly workflow...
- Digits' definition (same workflow with smartphone pictures, or screenshots?)
- A more detailed description (csv files still need to be parsed and addresses, georeferenced)
- Multilingual documents
- Non-European languages
- Illustrations !

III. VISUAL CONTAGIONS.

USING IMAGES AS IMAGES + COMPUTER VISION (« DISTANT VIEWING »)



USING IMAGES FROM ILLUSTRATED MATERIAL.

INTERESTING, REPRESENTATIVE SOURCES

- Exhibition Catalogues
- Auction Catalogues
- Illustrated Periodicals
- Posters
- Images from social networks

PEINTURE.

59

286 — La lecture de la Bible.
(Ce tableau appartient à M. Bisant.)

287 — Une Fileuse.

288 — Femme des environs de la ville.
(Ces deux tableaux appartiennent à M. S.)

289 — Un pêcheur raccommodant ses filets.
(Ce tableau appartient à M. Moyon.)

M. DEJUINNE.

290 — Les quatre saisons.

Ces compositions ont été exécutées de grande dimension pour le petit Trianon.
(Voir la description des peintures du Catalogue page 23.)

Mlle. DELACAZETTE (Sophie-Clemence de l'Évêque, n. 1).

291 — Un cadre renfermant des miniatures aquarellées.

M. DELACROIX (Eugène), passage.

292 — Portrait d'un jeune soulier.

293 — Le Chien.

294 — Le dogue de Bordeaux contre la révolte des chiens, la tête sur l'épaule.
Après l'exécution.

BELLES-LETTRES 159

1480 Bellles-Lettres, de tous les Ouvrages qui ont été faits sur cette matière, par le même. Paris, 1683, 2 vol. in-8, v. b.

1481 La Science & l'Art des Dévises, dressés sur de nouvelles règles, par le même. Paris, 1686, in-8, v. b.

1482 Dévises historiques de Ch. Brodin. C. S. meon, in-16.

1483 De rereau. A. Atta.

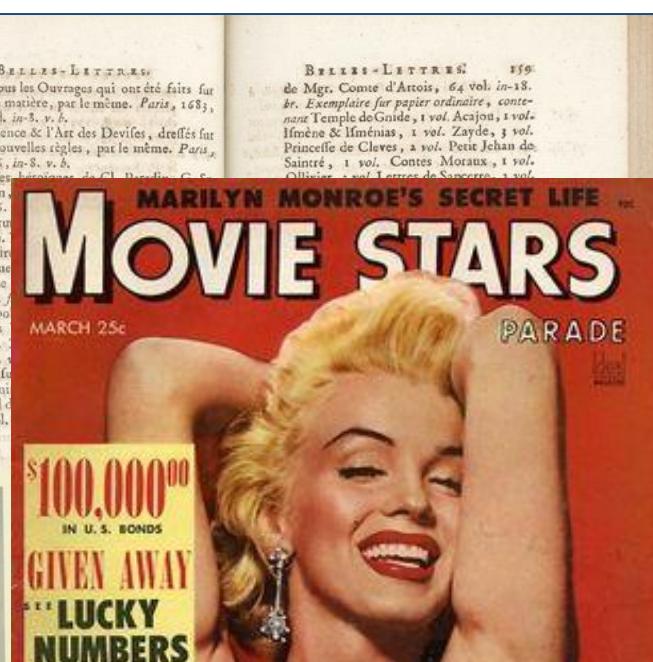
1484 Le Minotaure langue par le même, in-8, 1 vol.

1485 Hornpo notis Pav. mag. Etat traduit nard d' 2 vol.

1486 \$100,000⁰⁰
IN U. S. BONDS
GIVEN AWAY
LUCKY NUMBERS

MOVIE STARS PARADE

MARCH 25c






VISUAL CONTAGIONS

THE GLOBALIZATION OF IMAGES THROUGH DIGITAL
LENSES

ADDING ARTIFICIAL VISION TO THE ARTLAS PROJECT

VISUAL CONTAGIONS

FNS Project (CHF 1,1 M)



UNIVERSITÉ
DE GENÈVE



2021-2025

FONDS NATIONAL SUISSE
SCHWEIZERISCHER NATIONALFONDS
FONDO NAZIONALE SVIZZERO
SWISS NATIONAL SCIENCE FOUNDATION

Imago

Jean-Monnet Center of Excellence



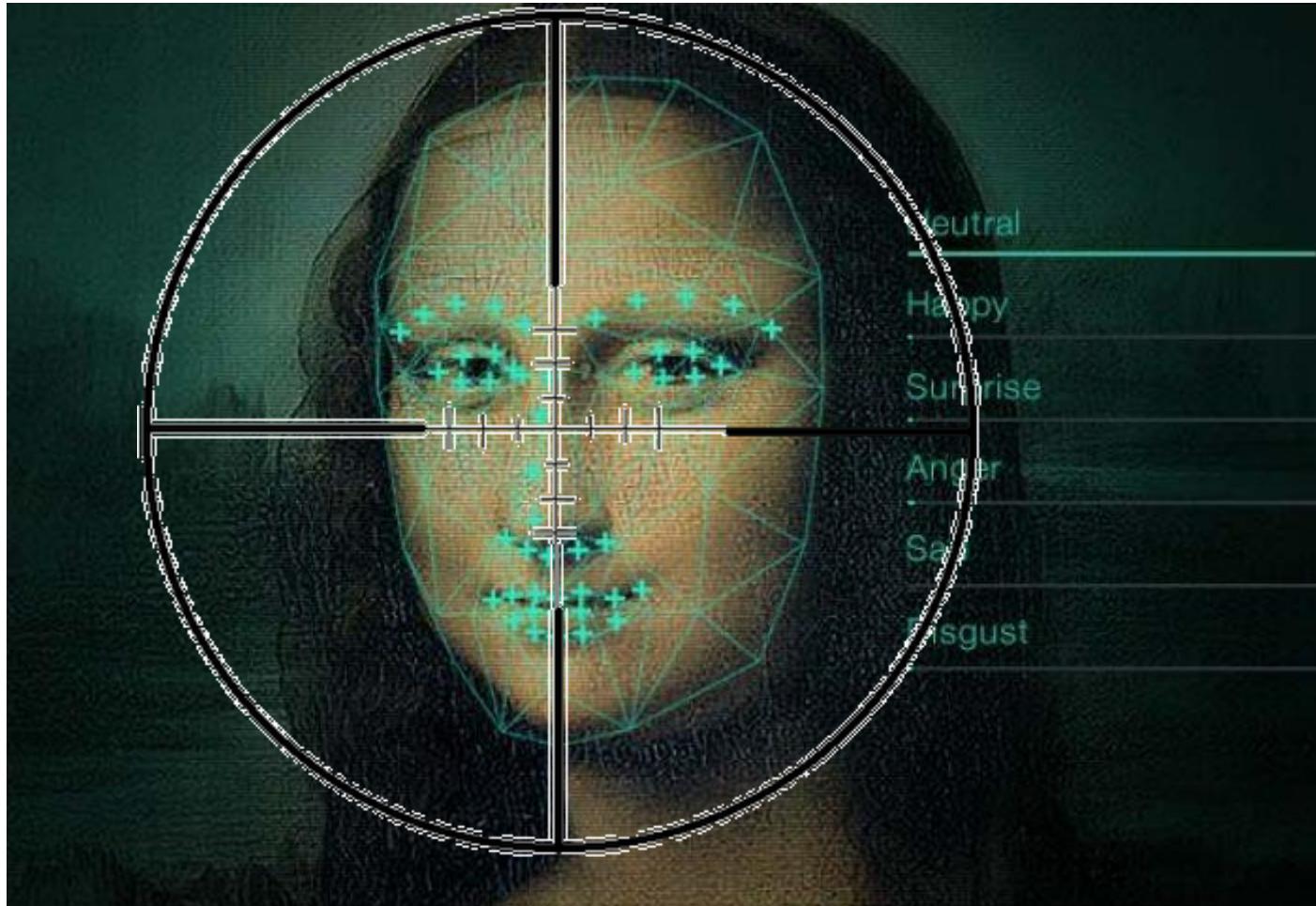
| PSL A black star icon inside a square frame.

2019-2023



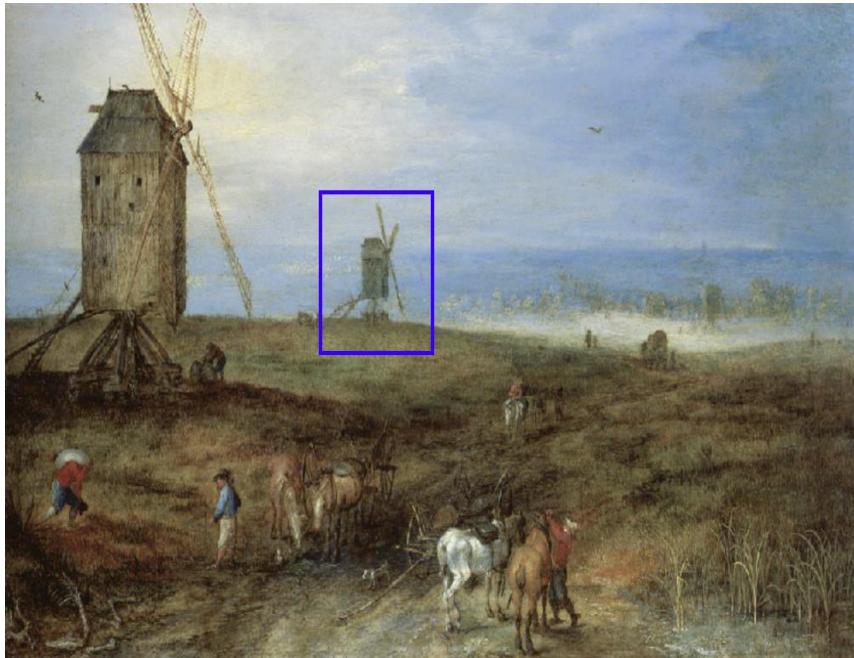
Co-funded by the
Erasmus+ Programme
of the European Union

FACIAL RECOGNITION



AN ALGORITHM TO FIND COMMON POINTS BETWEEN IMAGES FASTER

ENHERIT (Ecole des Ponts ParisTech)



PATTERNS REPEATED FROM ONE WORK TO ANOTHER

A human annotator would miss the details found by EnHerit

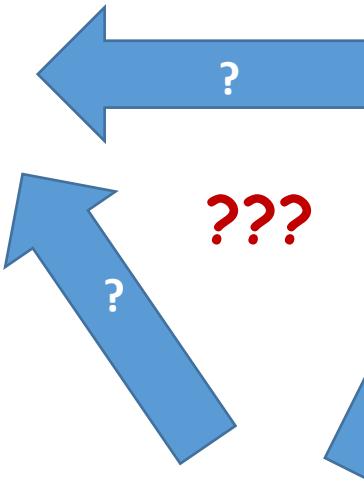
Mathieu Aubry (ENPC, Imagine, & Artl@s Team), & Elizabeth Honig (Univ. of Berkeley)

<http://www.janbrueghel.net>

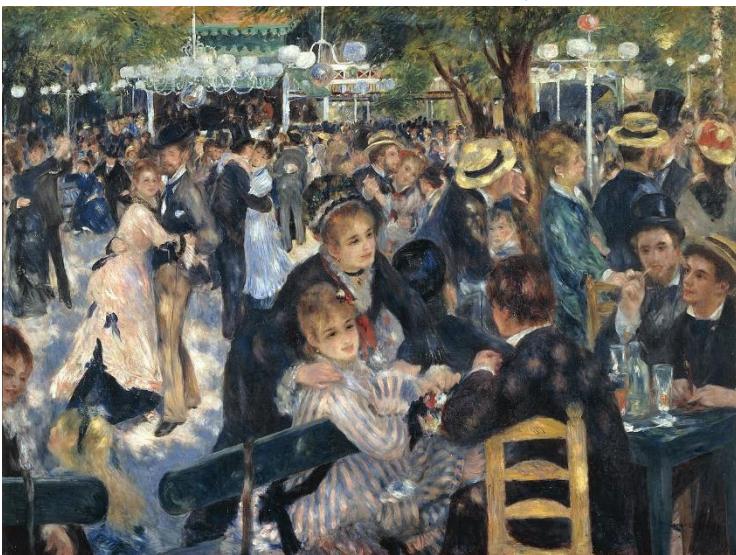
THREE AXES FOR THE PROJECT: STYLES, THE WOMAN, AND POLITICS



Max Liebermann,
Restaurant Terrace in Nienstedten, 1902
Kunsthalle Hamburg



Peder Severin Krøyer,
Hip, Hip, Hurrah!, 1888
Gothenburg Museum of Art



Pierre-Auguste Renoir, *Bal du moulin de la Galette*, 1876,
Paris, Musée d'Orsay



political posters



Political Posters and Political Posters ...
azon.fr



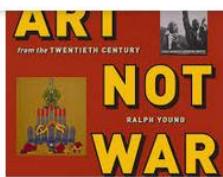
Check Out 5 Powerful Political Posters Out Of 80 On ...
dailydetroit.com



Personalized Faux Polit...
feather-brainedideas.com...



Political Posters on Beh...
behance.net



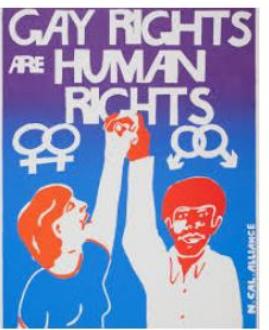
Make Art Not War: Politic...
amazon.com



Political Campaign Posters | Custom ...
cards.com



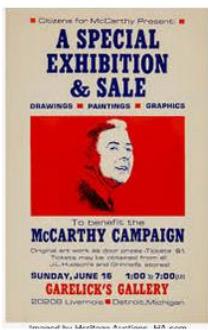
33 POSTERS: Presidenti...
pinterest.com



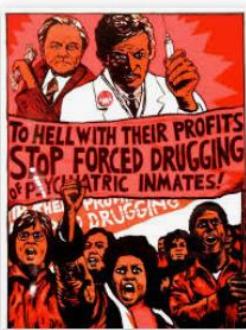
Political posters | Now Labs I...
nowlabsinc.com



Join the Communist Party" 19...
ebay.com



Political campaign post...
callhub.io



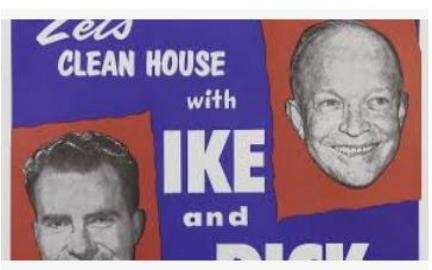
1D: Political posters - image...
cargocollective.com



Visions of Angela Davis: An a...
48hills.org



Political campaign posters a...
hub.io



Signs of the Times: Reading Museum's political pos...
mcall.com



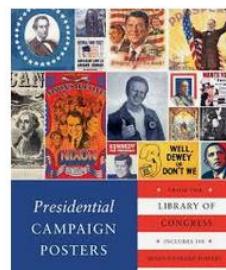
Campaign Posters - Political Posters f...
signazon.com · En stock



Seeing the Power of Political Posters - The N...
nytimes.com



Photo libre de droit de ...
istockphoto.com

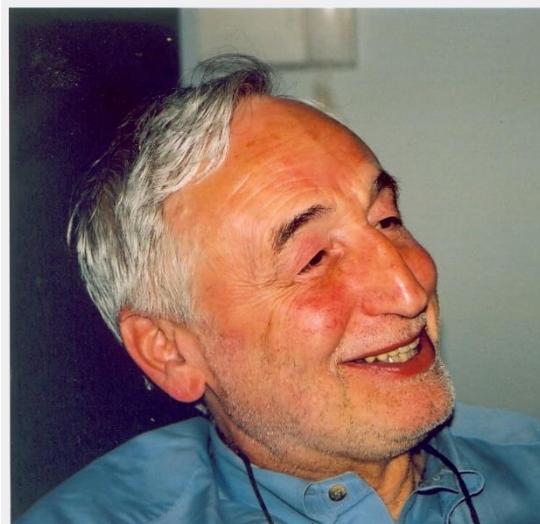


Amazon.fr - Presidential ...
amazon.fr



A FIRST CASE-STUDY : LONG-TERM ICONOLOGICAL CIRCULATIONS

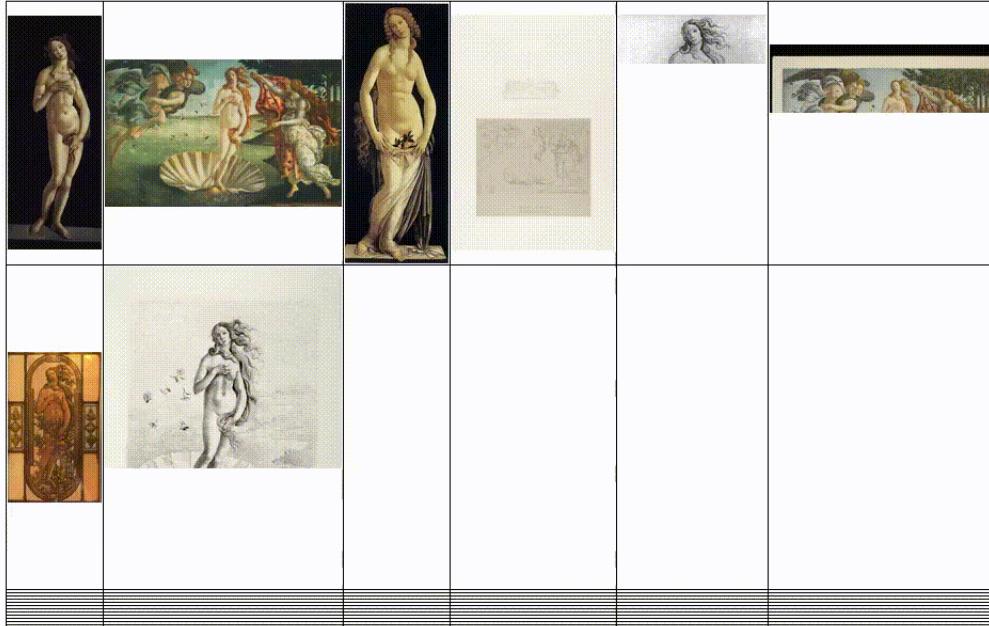
A STUDY APPLIED ON A DATABASE OF C. 40 000 IMAGES REPRESENTING VENUS



AUTHOR OF THE DATABASE :
K(NAVE) BENDER / ANDRÉ VAN DER BEKEN

Visual Results

Cluster 1



DATA GATHERED BY K. BENDER

ALGORITHM BY MATHIEU AUBRY
AND XI SHEN, ÉCOLE DES PONTS
PARIS TECH.

APPLICATION: OUMAYMA
BOUNOU, ÉCOLE NATIONALE DES
CHARTES, FOR ARTL@S

Cluster

Cluster
3

10

Cluster 4

Cluster

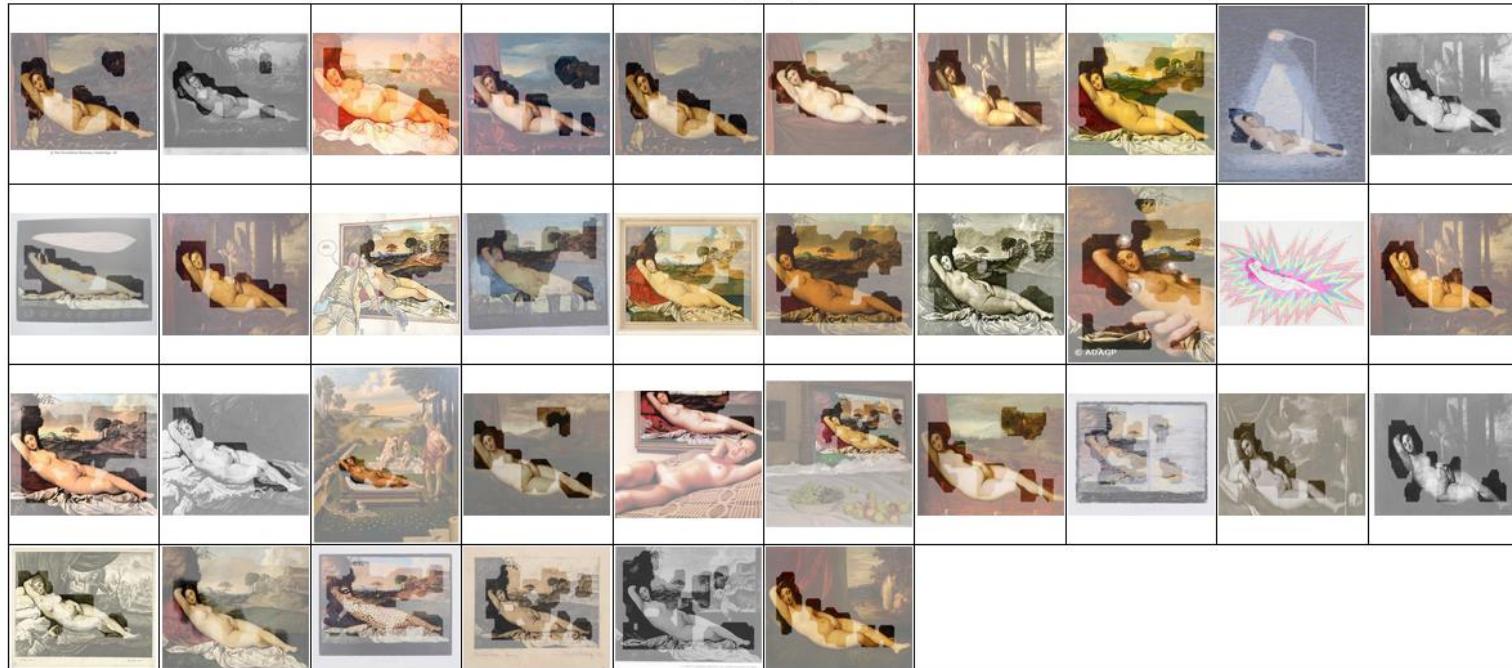


THE VENUS PROJECT ; FIRST RESULTS

Cluster 0



Cluster 1



Automatic groupings of images from K. Bender's Venus image database (May 5, 2019). By Xi Shen, ENPC Paris Tech. The algorithm recognized, for example, images inspired by the Birth of Venus by Alexander Cabanel (1863) and the Venus of Urbino by Titian (1538). Direction: B. Joyeux-Prunel

http://imagine.enpc.fr/~bounou/html/ordered_clusters.html



	1485		1840		1859		1868
	1881		1897		1898		1900
	1945		1950		1950		1950
	1963		1963		1973		1975
	1975, 1975		1975		1975		1975
	2000		2000		2000		1999
	2000		2000		2001		1999
							2003

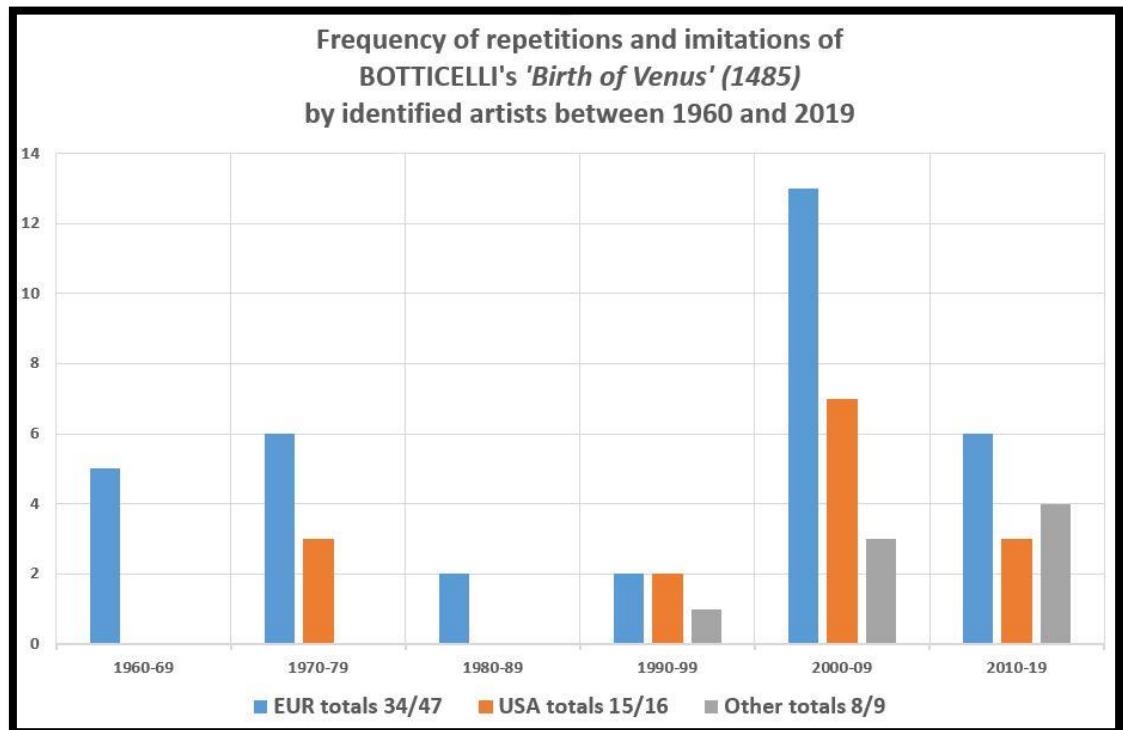
Chronological grouping by EnHerit of the first images related to Boticelli's Birth of Venus in K. Bender's Venus image database (May 25, 2019).

By Xi Shen, ENPC Paris Tech and Oumayma Bounou, ENC Paris / Artl@s project.
Data : K. Bender.
Direction: B. joyeux-Prunel

VENUS THROUGH AGES AND PLACES



Sandro Botticelli, *The Birth of Venus* (c. 1484–86).
Tempera on canvas. 172.5 cm × 278.9 cm
(67.9 in × 109.6 in).
Uffizi, Florence





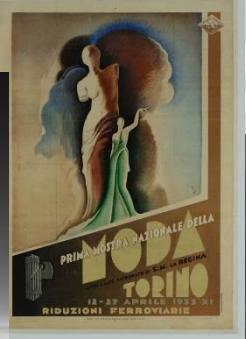
91



91



42



106

156

66



1900

1925

1950

1975

2000

IV. WHAT WORKFLOW FOR SUCH AMBITIONS?

The challenge of an intelligent infrastructure.

1. WE WANT TO RETRIEVE IMAGES FROM OTHER PROJECTS
2. WE WANT TO INFER APPARIMENTS FROM OTHER ONES
3. WE WANT TO SAVE THE TIME WE SPEND GATHERING IMAGE PAIRS ALGORITHMICALLY

1. USING IIIF TO RETRIEVE OTHER PROJECTS' IMAGES



III : International Image Interoperability Framework.

A community of research libraries and digital image repositories working towards the same goal: to facilitate access to and use of digital heritage images.

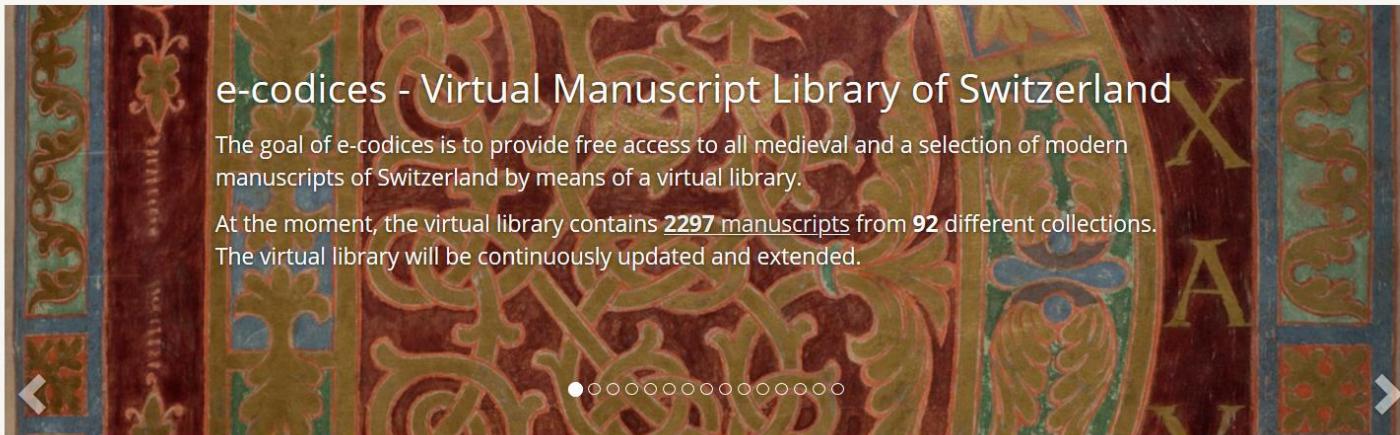
A standard, which digital image libraries should all share to make their images freely accessible and compatible.

A recent solution (2012); born among specialists of medieval manuscripts (B. Albritton, Digital Medieval Manuscripts. A Use-Case for an Interoperable Digital Library Infrastructure , DLF Forum (2012), <https://www.slideshare.net/blalbritton/dlf2012>)

The goal : R. Sanderson, ***Transcending Silos: Shared Canvas Data Model for Digital Facsimiles***, DLF Forum (2012) : <https://www.slideshare.net/azaroth42/transcending-silos-shared-canvas-data-model-for-digital-facsimiles>

MANY IMAGES IN IIIF FORMAT

- [E-codices](#) : Virtual library for Swiss manuscripts and ancient books.
- Bodmer Lab: <https://bodmerlab.unige.ch/fr>
- [Biblissima](#) : Virtual Library of manuscripts Antiquity-18th c.
- Bibliothèque nationale de France : [Gallica](#)
- Cambridge Digital Library : [Newton's Early Papers](#)
- [The Wellcome Library](#) : [Rosalind Franklin Papers](#)
- [Yale Centre for British Art](#): [Turner 1818](#)
- [The Bodleian Library](#) : [Hertford Atlas](#)
- [Universität Heidelberg](#) : [Codices Trübner](#)
- Etc.



e-codices - Virtual Manuscript Library of Switzerland

The goal of e-codices is to provide free access to all medieval and a selection of modern manuscripts of Switzerland by means of a virtual library.

At the moment, the virtual library contains **2297 manuscripts** from **92** different collections.
The virtual library will be continuously updated and extended.

Collections

Swiss Collections

Location, Library / Collection	Documents
All Libraries and Collections	2297
Aarau, Aargauer Kantonsbibliothek	33
Aarau, Staatsarchiv Aargau	16
Appenzell, Landesarchiv Appenzell Innerrhoden	5
Basel, Pharmazie-Historisches Museum der Universität Basel	9
Basel, Staatsarchiv Basel-Stadt	2
Basel, Universitätsbibliothek	243
Bern, Burgerbibliothek	86
Beromünster, Stiftskirche St. Michael	4
Bever, Dorfarchiv Bever	2
Bremgarten, Stadtarchiv Bremgarten	1
Rolle, Musée primitif	5

News

Latest Manuscripts:

10/10/2019

Past Newsletters:

- Issue 40, 07/29/2019
- Issue 39, 07/11/2019
- Issue 38, 06/25/2019
- Issue 37, 06/03/2019
- Issue 36, 05/13/2019
- Issue 35, 04/09/2019
- Issue 34, 10/29/2018
- Issue 33, 06/19/2018
- Issue 32, 03/28/2018
- Issue 31, 12/19/2017
- Issue 30, 10/02/2017

[View all newsletters](#)



Rechercher:

Rechercher dans: Texte complet ▾Trier par: Pertinence ▾Résultats par page: 100 ▾**Affiner la recherche**

Bibliothèque / Collection

Pays de conservation

Langue

Siècle

Daté

Type de document

Liturgica christiana

Liturgica hebraica

Avec des fragments in situ

Type de reliure

Matériau

Enluminé

Manuscrit musical



Notation musicale

Décoration

Restauré

Descriptions

Avec des annotations

2297 documents trouvés | affichés: 1 - 100

1 2 3 → »

Sélection rapide: -- veuillez sélectionner --**Aarau, Aargauer Kantonsbibliothek, MsMurF 3**

Parchemin · 100 ff. · 31 x 24 cm · Muri (?) · 1508

Pontificale Murensis

Pontificale pour Johannes Feierabend, abbé du cloître de Muri de 1500 à 1508. Le 12 juillet 1507, le Pape Jules II a accordé à l'abbé Johannes Feierabend et à ses successeurs les pontificaux. (pel)

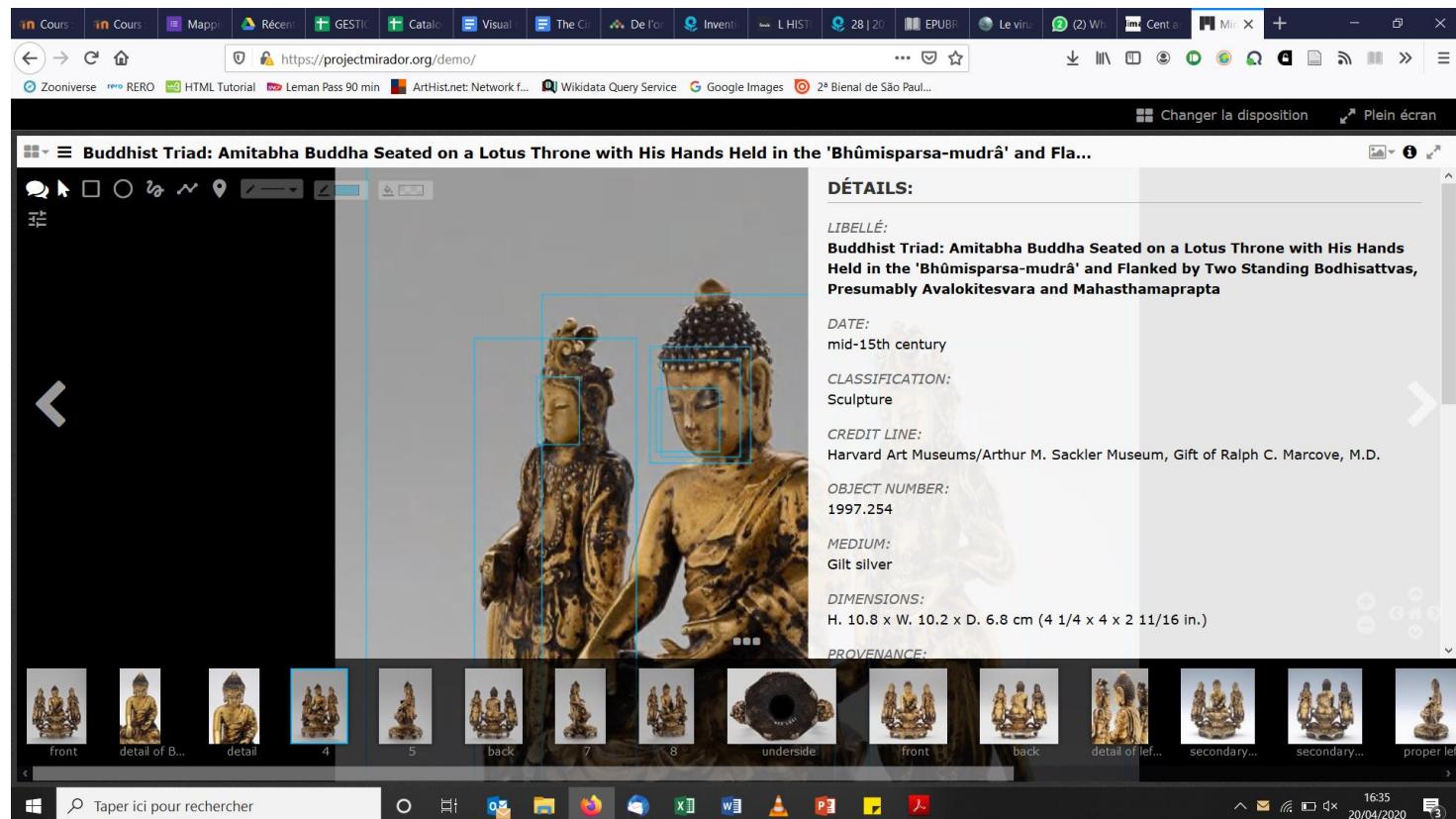
En ligne depuis: 03.11.2009

[Aperçu](#)[Fac-similé](#)[Description](#)**Aarau, Aargauer Kantonsbibliothek, MsWettF 16: 1**

Papier · VIII + 1168 pp. · 37.5 x 24 cm · Wettingen · 1576

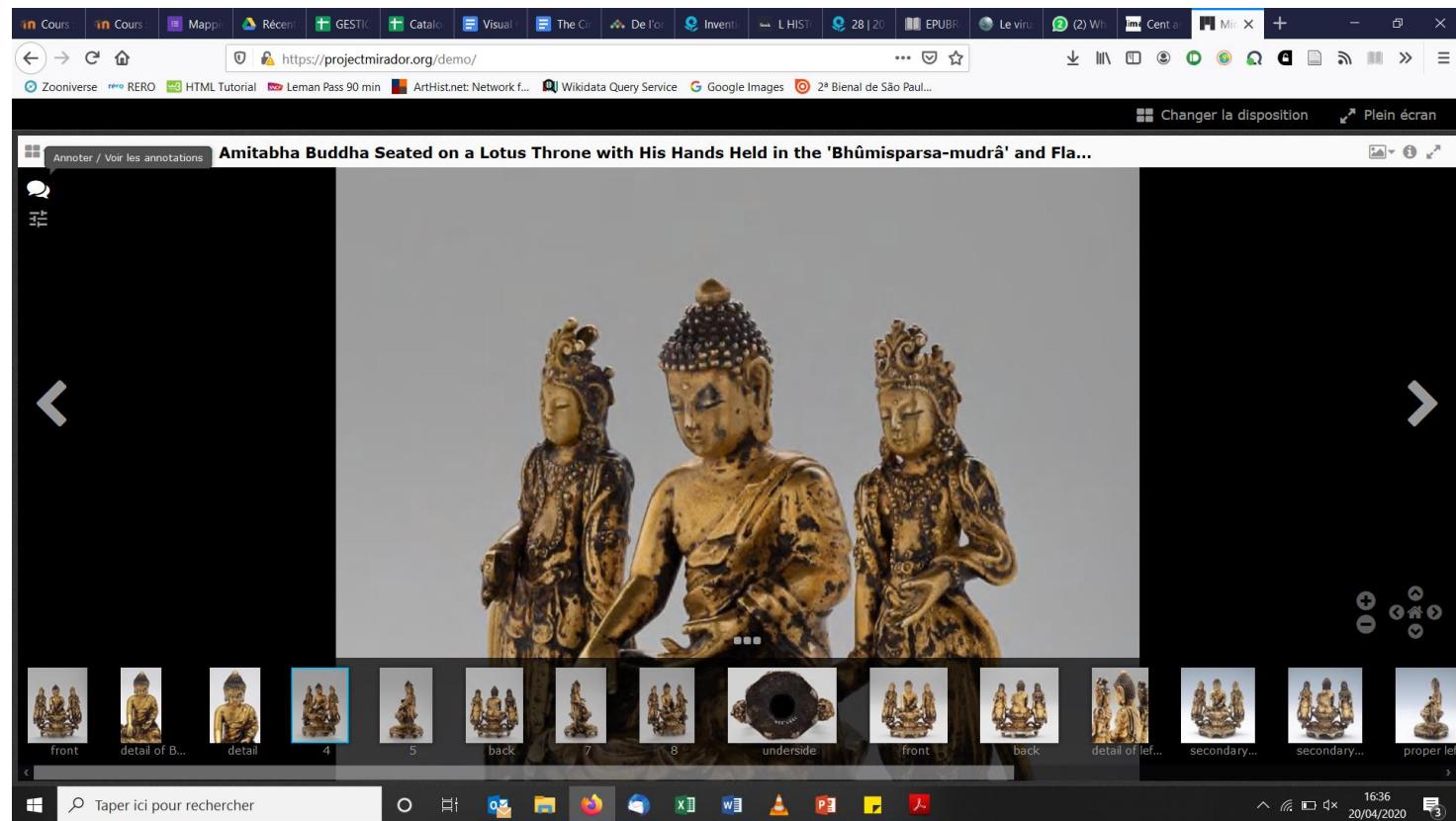
Silbereisen: Chronicon Helvetiae, partie I

Chronique de Suisse richement illustrée, en trois parties, respectivement en trois livres. Le livre le plus récent et le plus important (Partie I) contient l'origine et l'histoire des Confédérés jusqu'au XIV^e s. Le plus ancien livre (Partie II) contient une description de la guerre de Bourgogne au X^e s. Le livre suivant (Partie III) décrit des événements ponctuels de l'histoire de la Confédération suisse du X^e et XVI^e s., comme l'affaire Waldmann (1489) et la défaite de Marignan (1515) et contient une liste illustrée du butin de la Guerre de Souabe, en 1499. (pel)

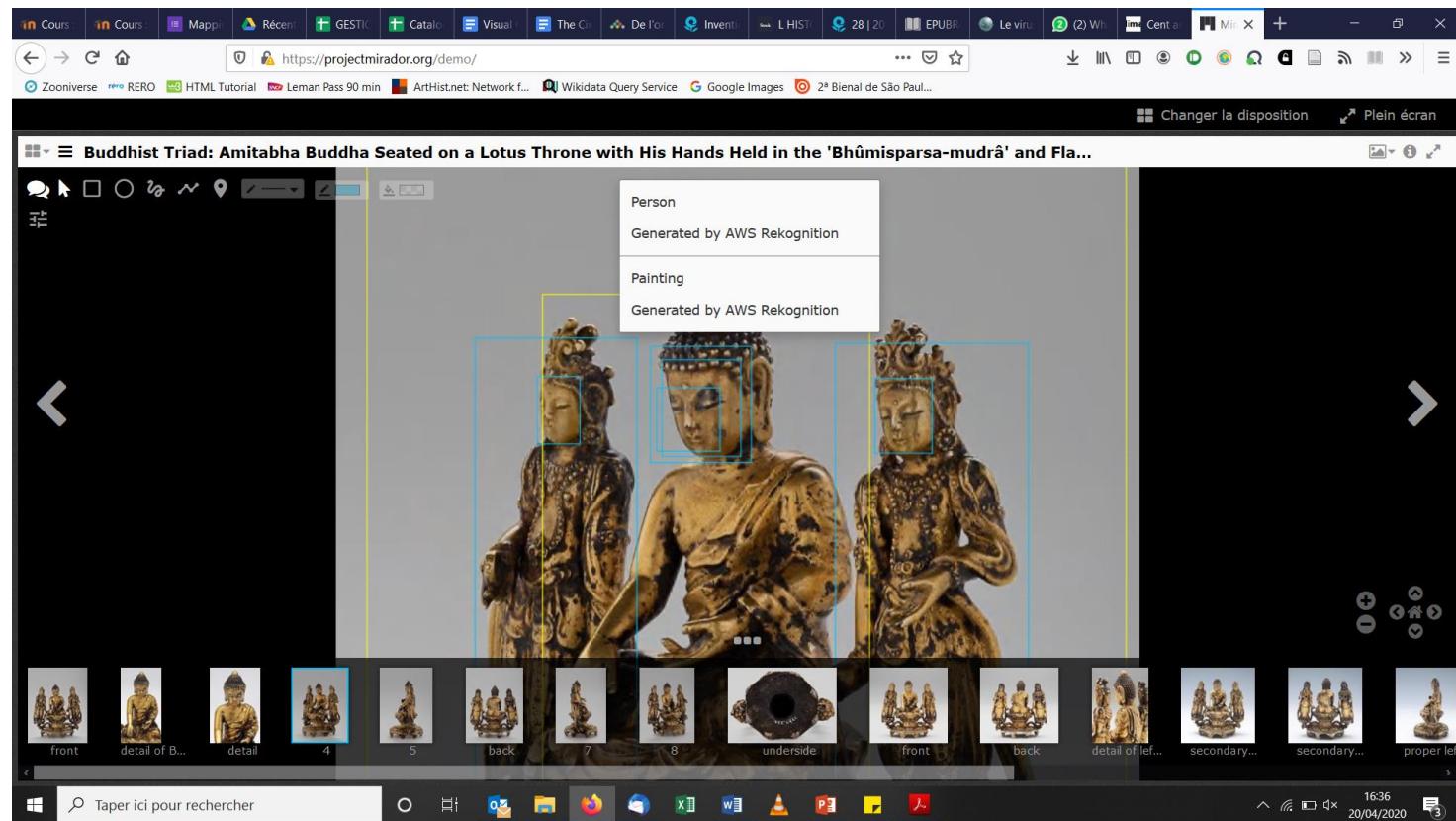


ANNOTATING IMAGES

WITH MIRADOR + HARVARD ART MUSEUM IMAGES

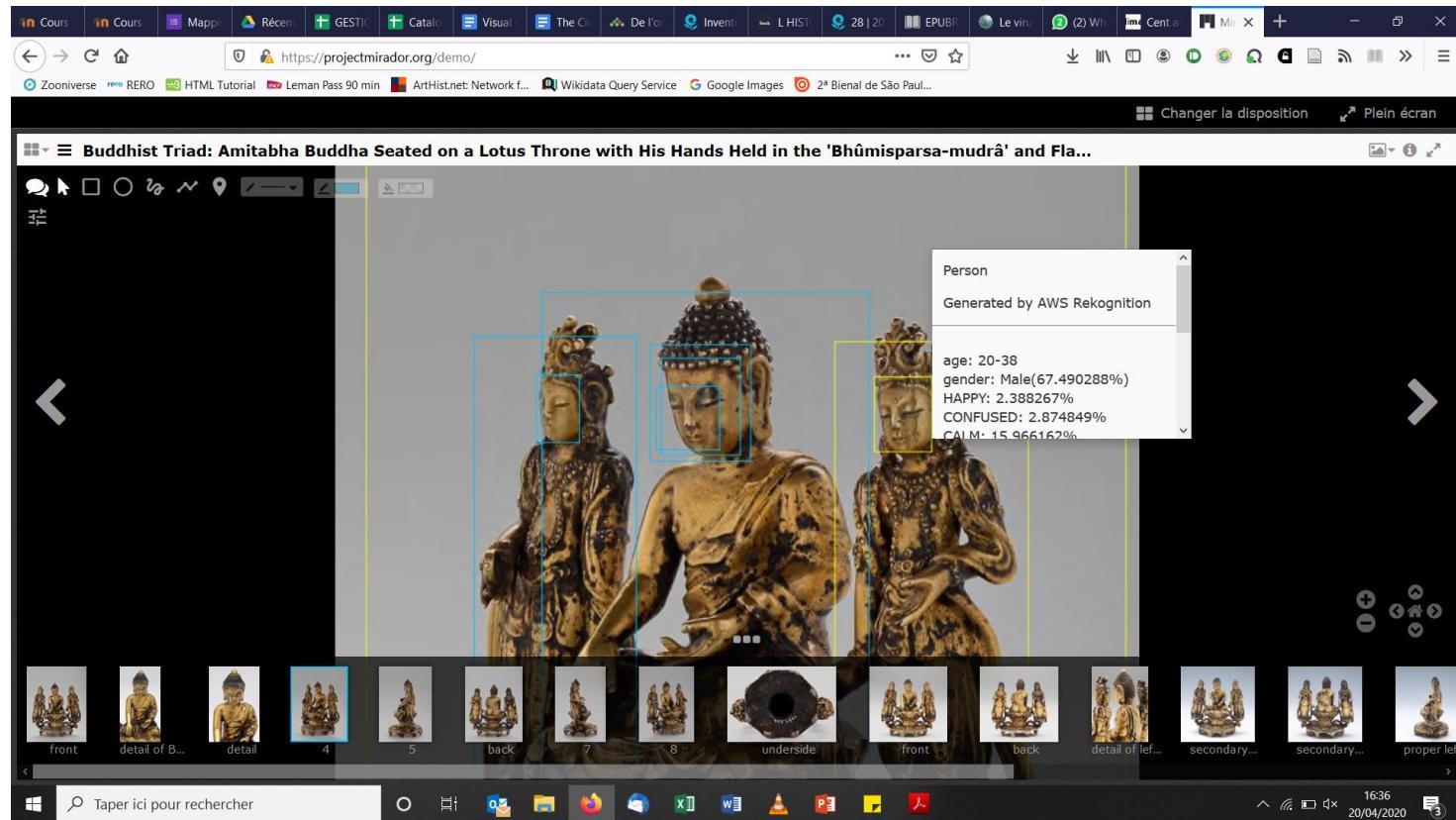


ANNOTATING IMAGES
WITH MIRADOR + HARVARD ART MUSEUM IMAGES



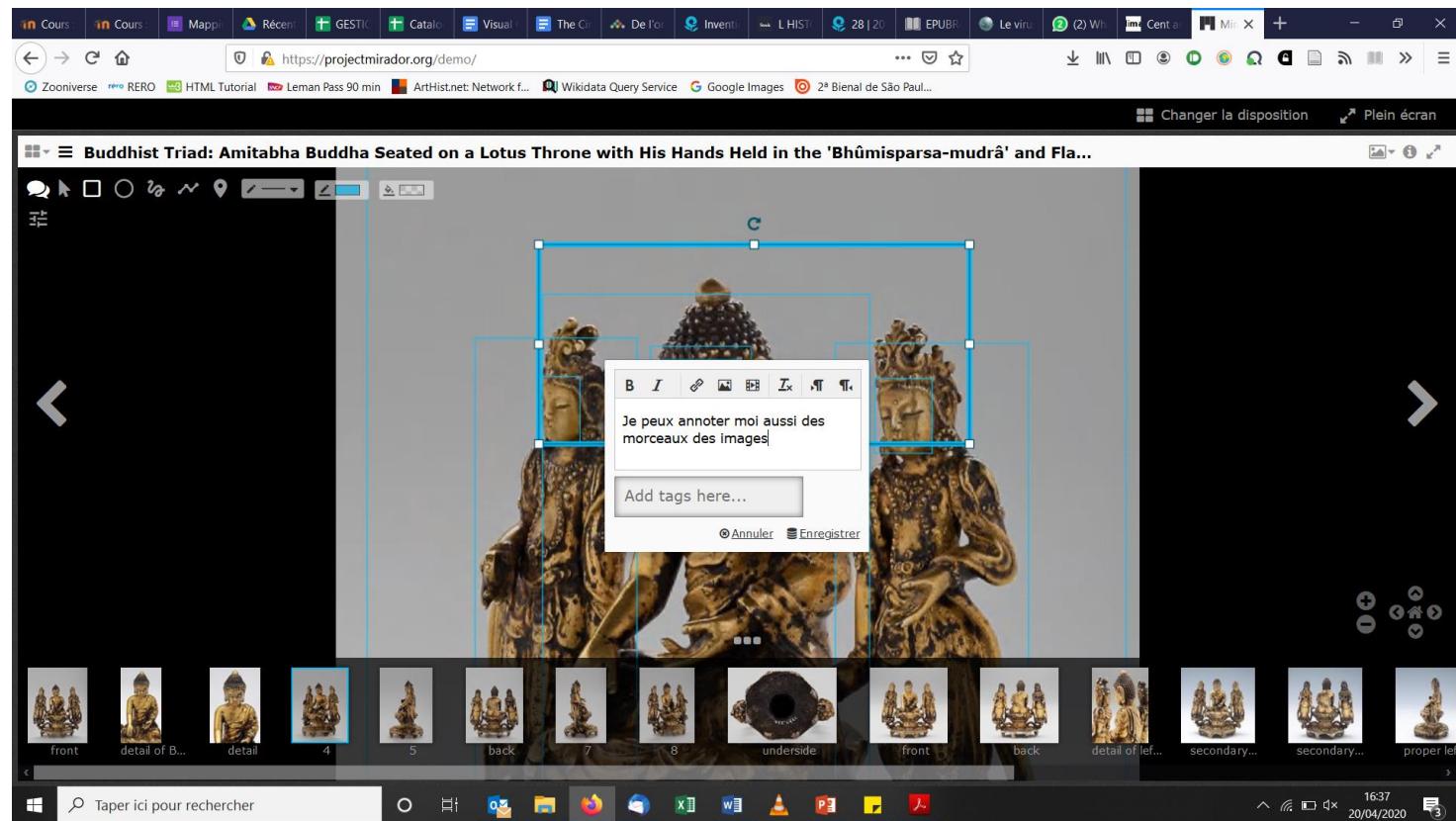
ANNOTATING IMAGES

WITH MIRADOR + HARVARD ART MUSEUM IMAGES



ANNOTATING IMAGES

WITH MIRADOR + HARVARD ART MUSEUM IMAGES



ANNOTATING IMAGES

WITH MIRADOR + HARVARD ART MUSEUM IMAGES

WHAT IIIF MAKES POSSIBLE, CONTINUED

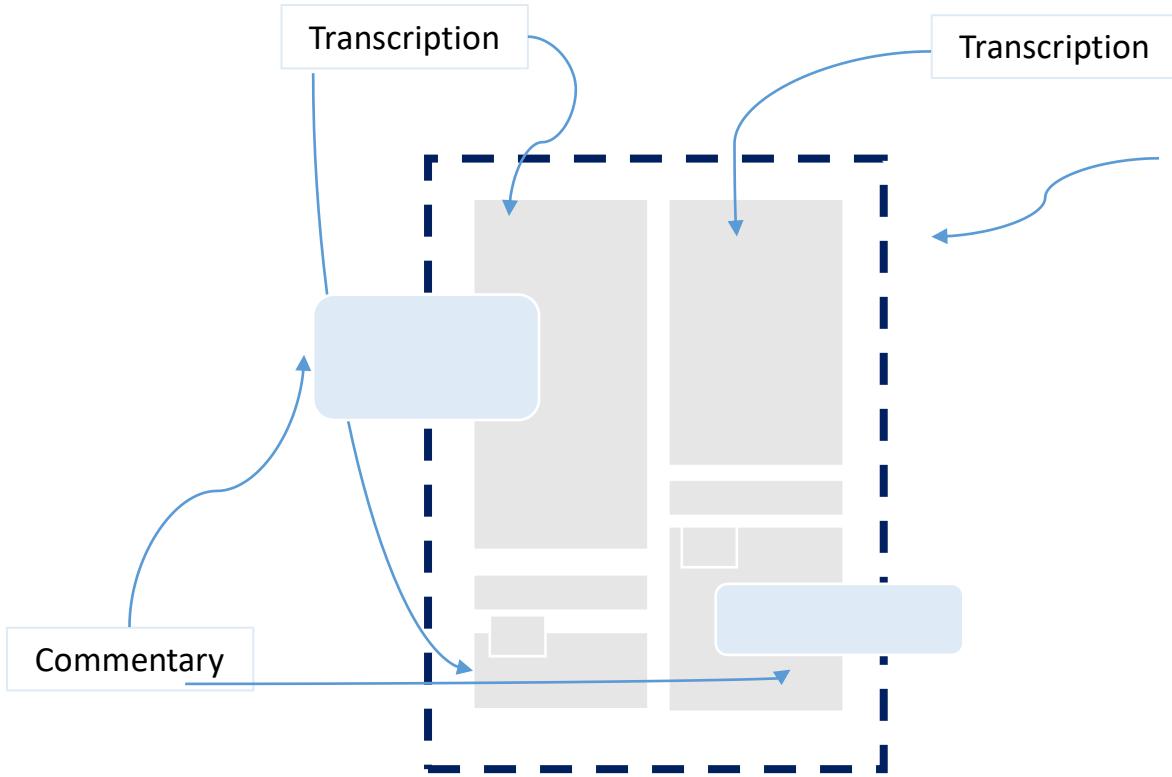
- Authentication, authorization
 - Wellcome Library:
<https://wellcomelibrary.org/item/b18188953>
- Machine Learning
 - *Stanford Global Currents*:
<https://globalcurrents.stanford.edu>
 - Filigranes : <https://filigranes.inria.fr/#/filigrane-search>
 - Visual Contagions : in progress.

IIIF : How DOES IT WORK?

- a. A visualization tool
- b. 2 API : image API & presentation
- c. Manifests

a. IIIF VISUALIZERS

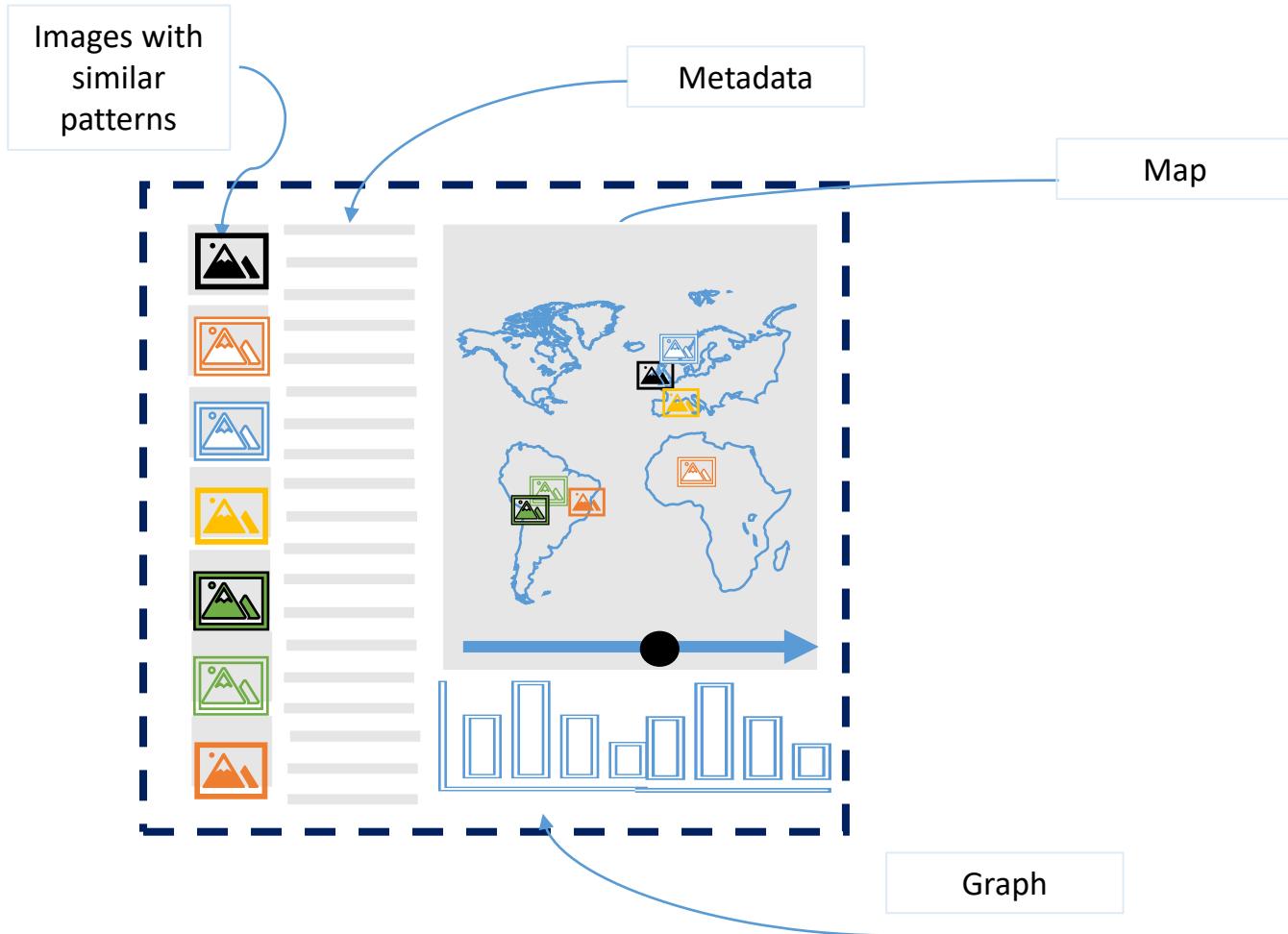
- Mostly used : **Mirador** and **Universal Viewer**
- (many others : e. g. DFG Viewer).
- This software can be used online, by going to the site of a digital library that offers one..
 - Mirador on Biblissima (<https://doc.biblissima.fr/visualiseur-mirador> for a French documentation)
 - Mirador on the Cambridge Digital Library
<https://cudl.lib.cam.ac.uk/view/MS-ADD-00269/1>



Source: <https://www.youtube.com/watch?v=fdWzwDc85EU>

VISUAL CONTAGIONS

LET'S BE IMAGINATIVE



b. 2 APIs

IMAGE API

- Image API: describes how a computer program must communicate with an image server to obtain an image. It is a precisely constructed web address (URI) that a computer must use to obtain an image.
Genre: A mandatory greeting. "Give me that particular image, please". This, in a language that both computers understand.
- 5 image criteria are encoded in these URIs (uniform resource identifiers)
 - Identifier/region/size/rotation /quality.format

PRESENTATION API

- Presentation API: a standard that describes how a computer program should present images and associated metadata.
- Globally: a grid on which various information (image, description, comments, etc.) is pinned. Several possible images

Example of iiif image uris :

<https://iiif.bodleian.ox.ac.uk/iiif/image/e58b8c60-005c-4c41-a22f-07d49cb25ede/full/full/0/default.jpg>

Part of URI	Detail	Example
Server	Distant computer that serves the images	https://iiif.bodleian.ox.ac.uk/iiif/
Prefix	File in the server where the image is to be found	image
Identifier	Unique name of the image	e58b8c60-005c-4c41-a22f-07d49cb25ede
Region	The part of the image that I request. “Full” : I want the whole image	full
Size	Size of the image requested. “Full” : I want the maximum size.	full
rotation	Nb of rotation degrees for the image; ‘0’ : no rotation.	0
Quality	Image Color. ‘Default’ = original color. We can ask for black and white.	default
Format	File format. .jpg, .png, .gif or .pdf	jpg



Source for this slide:
<https://projects.history.qmul.ac.uk/handson/module-2/m2l2-iiif/>

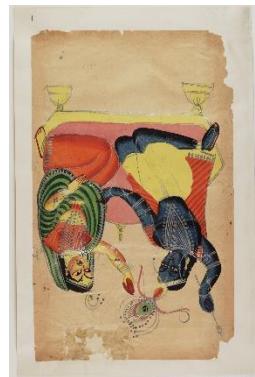
1. <https://iiif.bodleian.ox.ac.uk/iiif/image/e58b8c60-005c-4c41-a22f-07d49cb25ede/square/full/0/default.jpg>



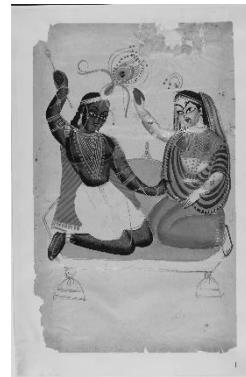
1. <https://iiif.bodleian.ox.ac.uk/iiif/image/e58b8c60-005c-4c41-a22f-07d49cb25ede/100,100,800,800/full/0/default.jpg>



1. <https://iiif.bodleian.ox.ac.uk/iiif/image/e58b8c60-005c-4c41-a22f-07d49cb25ede/full/full/180/default.jpg>



1. <https://iiif.bodleian.ox.ac.uk/iiif/image/e58b8c60-005c-4c41-a22f-07d49cb25ede/full/full/0/gray.jpg>



c. MANIFESTS

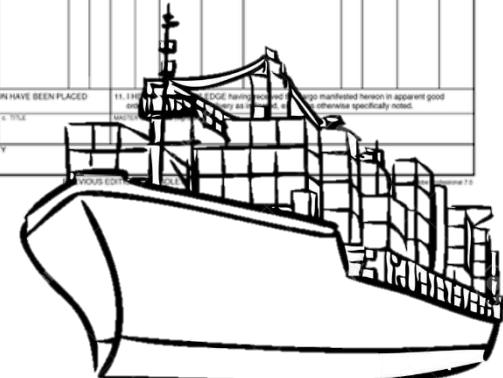
A IIIF MANIFEST EXPLAINS WHERE AN IMAGE IS SITUATED WITHIN A SPECIFIC COLLECTION, + THE METADA ASSOCIATED TO THE IMAGE

Text file containing metadata about the object (book, manuscript etc...) and a list of the images needed to reproduce this object in digital format.

From navigation vocabulary

RECAPITULATION		SUBDIVISION CURE & EQUIPMENT		OCEAN CARGO MANIFEST RECAPITULATION OR SUMMARY										ORIGINAL		REVISED							
1. VESSEL NAME		2. STATUS		3. VOY. NO./NO. OF		4. DATE (YY/MM/DD)		5. LADING PORT		6. HEAVY LIFTS		7. OUTSIZE DIMENSION		PAGE NO.		NO. OF PAGES							
B. DESCRIPTION AND LOCATION OF HEAVY LIFTS AND OTHER SPECIAL DATA																							
8. (1) DESTINATION PORT		(2) DESCRIPTION		(3) LENGTH/HEIGHT IN FEET AND INCHES		(4) TON NET GROSS U.S.		(5) YES		(6) CARGO		(7) STORE LOCATION		(8) LONG TONS		9. TOTAL CARGO LOADED							
10. I HEREBY CERTIFY THAT THE ARTICLES LISTED HEREON HAVE BEEN PLACED ABOARD IN APPARENT GOOD ORDER AND CONDITION.		11. I HEREBY CERTIFY THAT THE CARGO MANIFESTED HEREON IS CORRECT AS SET FORTH THEREIN. ANY DIFFERENCE THEREIN IS DUE TO THE NEGLIGENCE OR CARELESSNESS OF THE PREPARING ACTIVITY.		EDGE having regard to the cargo manifested herein in apparent good order and condition, except as set forth in the manifest otherwise specifically noted.																			
10. SIGNATURE		X SPACER PRINT		11. SIGNATURE X SPACER PRINT																			
12. NAME AND MAILING ADDRESS OF PREPARING ACTIVITY																							

DD FORM 1385, APR 2006



- Images are not alone. In which order do they go?

e-codices Christoph Hufer, fondateur et directeur Université de Fribourg Index des personnes Annotations Informations Browse & Rechercher Rechercher dans les manuscrits... de en fr it

Sélectionner un manuscrit de ces résultats de recherche [K] [C] Genève, Bibliothèque de Genève, Comtes Latentes 15 [X] [Y] 1/100

Fac-simile: Une page Deux pages Miniature

Détails Annotations Bibliographie additionnelle (1)



Pays de conservation: Suisse
Lieu: Genève
Bibliothèque / Collection: Bibliothèque de Genève
Cote: Comtes Latentes 15
Titre du manuscrit: Psautier liturgique
Caractéristiques: Parchemin · III + 108 + II ff. · 17.7 x 13.5 cm · Naples · milieu du XIVe siècle
Langue: Latin
Résumé du manuscrit:

Ce psautier liturgique incomplet fut réalisé à Naples dans les années 1335-1350; son fabuleux décor est l'œuvre du peintre Cristoforo Orimina. La présence de deux feuillets de tailles différentes n'a rien d'anormal pour ce premier manuscrit, qui devait être un membre de la cour angevine de Naples. Mis en vente de nombreuses fois au XIXe et XXe s., il fut acheté en 1968 par le propriétaire de la collection des « Comtes Latentes » déposée à la Bibliothèque de Genève. (jpg)

Notice de Isabelle Jeger, Bibliothèque de Genève, pour e-codices 2008.
Voir la description standard.

DOI (Digital Object Identifier): 10.5070/e-codices-bge-c10015 (<http://dx.doi.org/10.5070/e-codices-bge-c10015>)
Lien permanent: <https://www.e-codices.unifr.ch/list/one/bge/c10015>
IIIF Manifest URL: <https://www.e-codices.unifr.ch/metadata/iiif/bge-c10015/manifest.json>
Comment citer: Genève, Bibliothèque de Genève, Comtes Latentes 15: Psautier liturgique (<https://www.e-codices.unifr.ch/fr/list/one/bge/c10015>).
En ligne depuis: 09.12.2008

e-codices Christoph Hufer, fondateur et directeur Université de Fribourg Index des personnes Annotations Informations Browse & Rechercher Rechercher dans les manuscrits... de en fr it Ouvrir dans Mirador

Genève, Bibliothèque de Genève / Comtes Latentes 15 – Psautier liturgique / Thumbnails

Plat supérieur Contreplat supérieur f. V1 f. V2 f. V3 f. V4 f. V5 f. Tr f. 1v

f. 2r f. 2v f. 3r f. 3v f. 4r f. 4v f. 5r f. 5v f. 6r f. 6v

f. 7r f. 7v f. 8r f. 8v f. 9r f. 9v f. 10r f. 10v f. 11r f. 11v

Miradore

mandated by swissuniversities Conditions d'utilisation Protection des données Contact - e-codices

Psautier liturgique, Parchemin · III + 108 + II ff. · 17.7 x 13.5 cm · Naples · milieu du XIVe siècle. Bibliothèque de Genève. <https://www.e-codices.unifr.ch/fr/thumbs/bge/c10015/>

[HTTPS://IIIF.BODLEIAN.OX.AC.UK/IIIF/MANIFEST/E32A277E-91E2-4A6D-8BA6-CC4BAD230410.JSON](https://iiif.bodleian.ox.ac.uk/iiif/manifest/E32A277E-91E2-4A6D-8BA6-CC4BAD230410.json)

JSON Données brutes En-têtes

Enregistrer Copier Tout réduire Tout développer Filtrer le JSON

service: {..}

▼ 4:

 @id: "https://iiif.bodleian.ox.ac.uk/iiif/canvas/fd4a9b51-c242-4094-9986-cae0e4e1c872.json"
 @type: "sc:Canvas"
 label: "[f. 5 A Peri, a fairy of Persian tradition]"
 width: 5248
 height: 8134

 ▼ images:

 ▼ 0:

 @id: "https://iiif.bodleian.ox.ac.uk/iiif/annotation/fd4a9b51-c242-4094-9986-cae0e4e1c872.json"
 @type: "oa:Annotation"
 motivation: "sc:painting"
 on: "https://iiif.bodleian.ox.ac.uk/iiif/canvas/fd4a9b51-c242-4094-9986-cae0e4e1c872.json"
 resource:

 @id: "https://iiif.bodleian.ox.ac.uk/iiif/canvas/fd4a9b51-c242-4094-9986-cae0e4e1c872.json"
 @type: "dctypes:Image"
 format: "image/jpeg"
 width: 5248
 height: 8134

 service: {..}

 ▼ 5:

 @id: "https://iiif.bodleian.ox.ac.uk/iiif/canvas/3ed32643-a78d-43d8-be31-7241317c31f4.json"
 @type: "sc:Canvas"
 label: "[f. 6 Courtesans or other entertainers]"
 width: 5308
 height: 8182

 ▼ images:

 ▼ 0:

 @id: "https://iiif.bodleian.ox.ac.uk/iiif/annotation/3ed32643-a78d-43d8-be31-7241317c31f4.json"
 @type: "oa:Annotation"
 motivation: "sc:painting"
 on: "https://iiif.bodleian.ox.ac.uk/iiif/canvas/3ed32643-a78d-43d8-be31-7241317c31f4.json"

jpg ▲ ▼ Tout surligner Respecter la casse Respecter les accents et diacritiques Mots entiers Occurrence 1 sur 2 X

OUR EXAMPLE :

- Our image:

<https://iiif.bodleian.ox.ac.uk/iiif/image/e58b8c60-005c-4c41-a22f-07d49cb25ede/full/full/0/default.jpg>

- Its manifest:

<https://iiif.bodleian.ox.ac.uk/iiif/manifest/e32a277e-91e2-4a6d-8ba6-cc4bad230410.json>

1. WE WANT TO RETRIEVE IMAGES FROM OTHER PROJECTS

→ INTEROPERABLE IMAGES : IIIF

→ INTEROPERABLE METADATA : CIDOC-CRM

2. WE WANT TO INFER APPARIMENTS FROM OTHER ONES

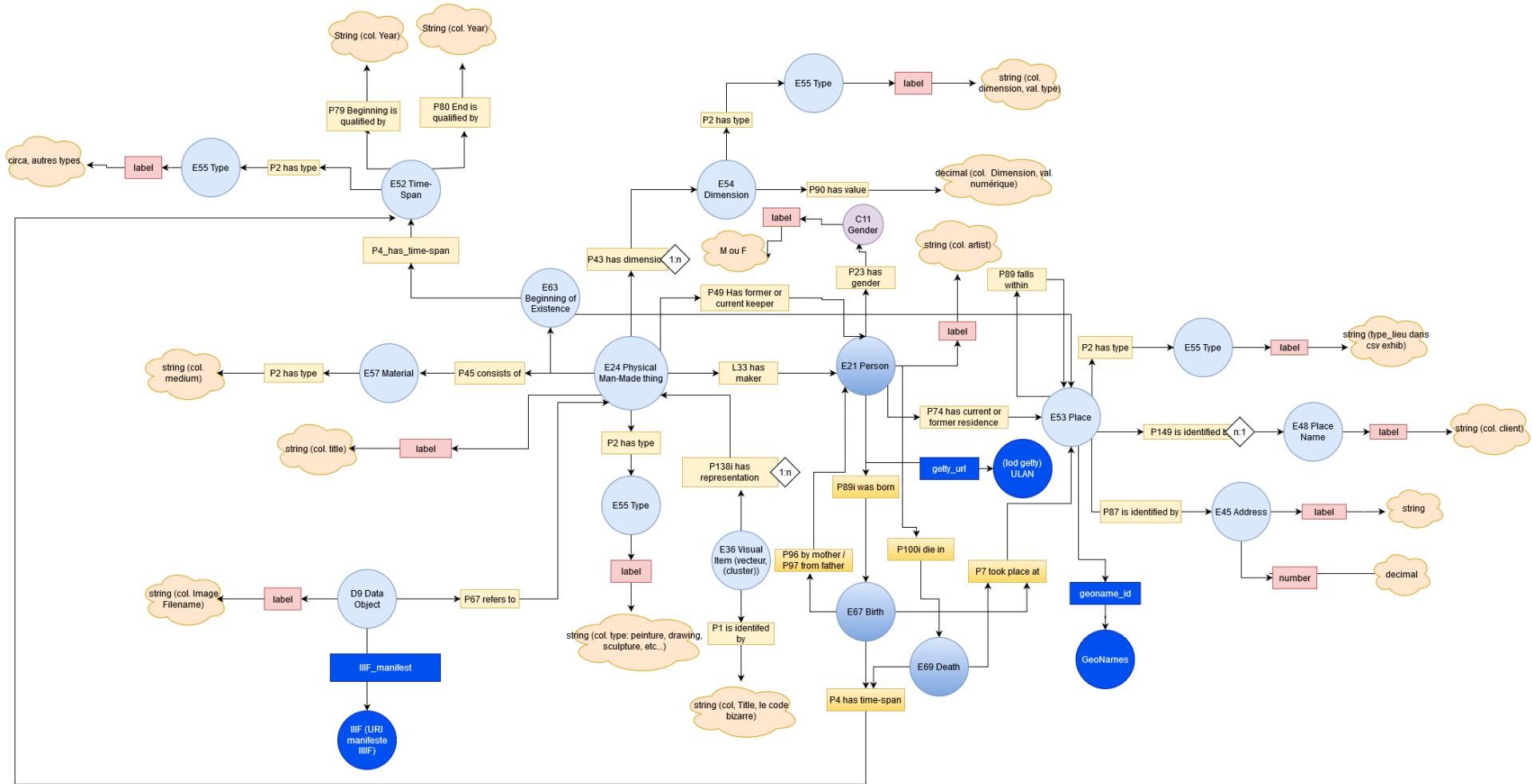
→ RDF : REPRESENTING OBJECTS AS TRIPLETS

(EX. A IS A COPY OF B).

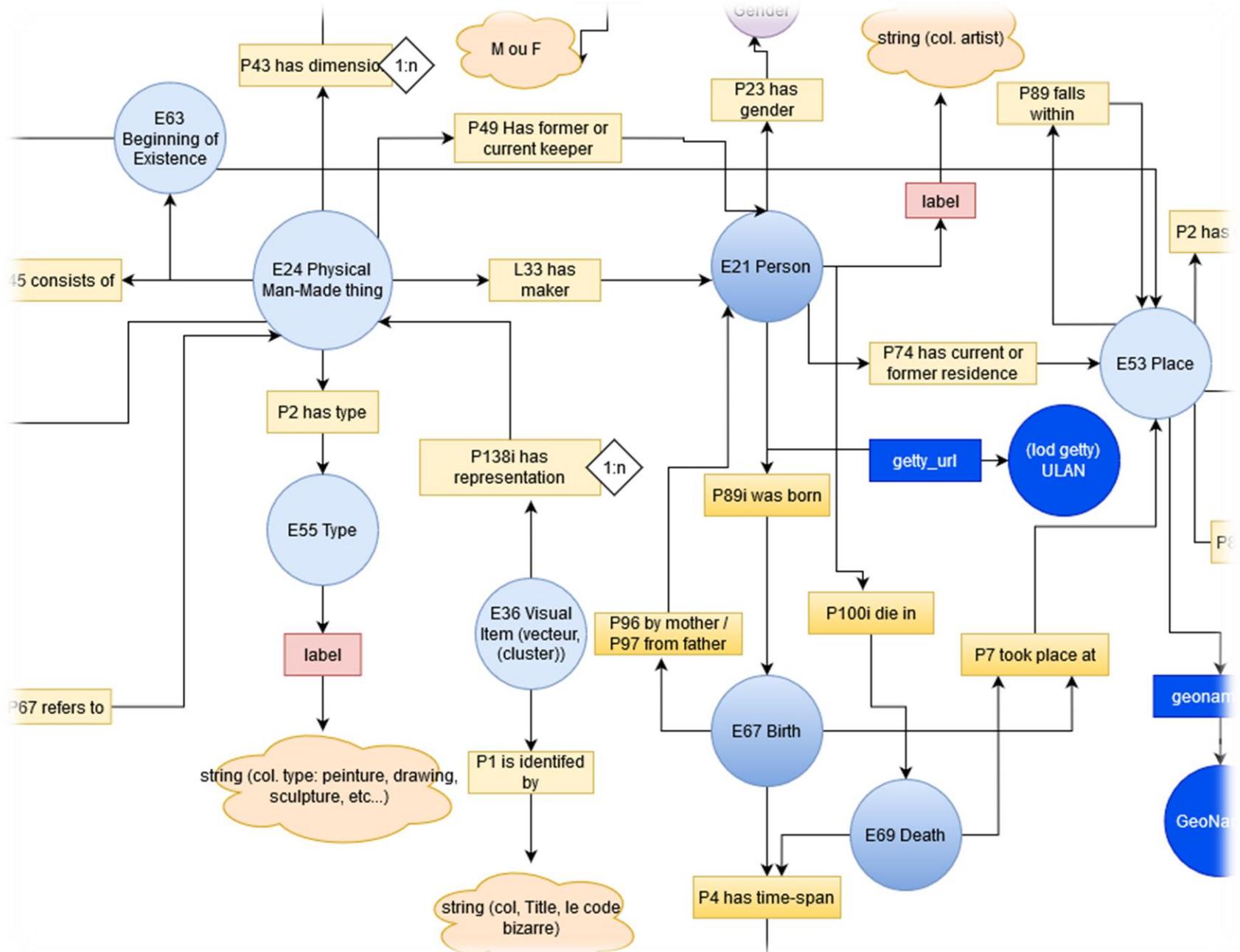
3. WE WANT TO SAVE THE TIME WE SPEND GATHERING IMAGE PAIRS ALGORITHMICALLY

→ COMMON DESCRIPTIONS OF SAME IMAGES??

HOW TO BE SURE THAT WE TAG SIMILAR IMAGES SIMILARLY ?



VISUAL CONTAGIONS – DATA RDF MODEL



VISUAL CONTAGIONS – DATA RDF MODEL - DETAIL

SPARQL ENDPOINT : EASY QUERY (FOR THOSE WHO KNOW HOW TO WRITE THEM)

query upload files edit info

SPARQL query

To try out some SPARQL queries against the selected dataset, enter your query here.

EXAMPLE QUERIES
Selection of triples Selection of classes

PREFIXES
rdf rdfs owl xsd +

SPARQL ENDPOINT /turretini/sparql CONTENT TYPE (SELECT) JSON CONTENT TYPE (GRAPH) Turtle

```
1 prefix turretini: <http://lod.unige.ch/ontologies/turretini#>
2 prefix turretini_person: <https://lod.unige.ch/rest/prod/turretini/person>
3 prefix turretini_letter: <https://lod.unige.ch/rest/prod/turretini/letter>
4
5 SELECT ?personQuoted ?inLetter
6 WHERE {
7   ?person_id turretini:name ?personQuoted .
8   ?letter_id turretini:quotePerson ?person_id .
9   ?letter_id turretini:description ?inLetter|
10 }
11 LIMIT 5
```

◀ ▶ ▶

QUERY RESULTS
Table Raw Response

Showing 1 to 5 of 5 entries

personQuoted	inLetter
1 "David"	"Longuerue (Du Four de)-Louis -> Turretini-Jean-Alphonse 717 n.1242"
2 "David"	"Turretini-Samuel -> Turretini-Jean-Alphonse 4022 n.2208"
3 "David"	"Turretini-Samuel -> Turretini-Jean-Alphonse 4022 n.2208"
4 "David"	"Turretini-Jean-Alphonse -> Bouhéreau-Elie 4540 n.2703"
5 "Vaucher"	"Ostervald-Jean-Frédéric I -> Turretini-Jean-Alphonse 2406 n.1628"

Search: Show 50 entries

FROM RAW DATA TO A RDF DATABASE

1	Ref No	Inventory No	Artist	Title	Year	Description	Medium	Last Value	H	W	D	Type	Series	Status	Due Back	Notes	Image Filename	
2	16352w	2185-36	BAIZERMAN, Eugenie	L10 Figure of Venus #11 c1925	Sale 2185	oil on canvas		0 24.1	18.4			Painting	NY, CHR 30.6.2009	At Auction	30/06/2009		16352Baizerman.jpg	
3	013w	40	TWOMBLY, Cy	B2 Aphrodite Venus Ana	1975	Oil stick, pencil	Oil stick, pencil	0 150	137			Collage	London's Serpentine G Stock				013 Twombly.jpg	
4	262w		WARHOL, Andy	A2.2a Birth of Venus II.?	1984	Birth of Venus	screenprint	0 63.6	94			Print	Wien: R. Budja Galerie Stock				262 Warhol.jpg	
5	267w		WARHOL, Andy	A2.2b Birth of Venus II.3	1984	Edition: 70,	screenprint	0 63.6	94			Print	London: Coskun Fine Art	At Auction	5/08/2004		120638.jpg	
6	268w	AP 12/18	WARHOL, Andy	A2.2c Birth of Venus II.3	1984	Each print	screenprint	0 63.5	94			Print	Paris: F.Tajan 2005	At Auction	5/08/2004		120634.jpg	
7	269w		WARHOL, Andy	A2.2d Birth of Venus II.3	1984	Each print	screenprint	0 63.6	94			Print	London: Coskun Fine Art	At Auction	5/08/2004		120631.jpg	
8	287w		BASQUIAT, Jean-Michel	L10 Venus I	1983	Venus HERST	Acrylic & charcoal	0 135	102			Painting	NY	On WEB			38313.jpg	
9	401w		DINE, Jim	J34 Black Venus	1991	Zie AW#197	bois peint	0 200	68.5	66		Sculpture	Vez	Artist Collection			401 Dine.jpg	
10	412w		KUSAMA, Yayoi	J34 Venus obliterated by	1998	b.1929	HON	technique	0 227	145	60		Sculpture	New York	Artist Collection			Yayoi Kusama, Vez Stock
11	450w		WARHOL, Andy	A2.2e Birth of Venus II.?	1984	(Sandro Botz)	screenprint	0 122	183			Print					#450 Warhol.jpg	
12	499w	2800/661	DINE, Jim	L12 Double Venus in the	c1978	Dine Jim Do	Screenprint	14400	94	56		Print	Sotheby		At Auction	28/12/2004		499 Dine.jpg
13	500w	N08237/429	DINE, Jim	L12 Albertina Venus (CA	1989	Albertina Ve	etching and	3500	45.7	31		Print	NY, Sotheby's 3/11/06	At Auction	3/11/2006		Albertina Venus.jpg	
14	501w		DINE, Jim	L12 Double Red Venus	2002	Double Red	Handcolor	0 99.6	70.6			Print			At Auction	21/08/2004		Double red Venus
15	502w	N07787/430	DINE, Jim	L12 Night Venus and Sappho	1985	Night Venus and Sappho		1912	85.9	65.5		Print	New York: Sotheby's 4,	At Auction	4/05/2002		Night Venus.jpg	
16	503w	1555/73	DINE, Jim	J34 Red, White and Blue	1984	Red, White &	Silkscreen	2500	76.2	45.7		Print	christie's		At Auction	28/09/2004		Venus for Mondal
17	504w		DINE, Jim	L12 Venus and Powdere	1993	Venus and t	Etching wi	0 124	83	78		Print		Artist Collection			Venus and the Po	
18	516w		DINE, Jim	J34 The field of the cloth	c1987		bois peint	0 195	71	73.6		Sculpture	vez		Consignment	23/08/2004		2521 Kindergarten
19	710w	21.5.1	PUTNAM, Arthur	L01 Twilight Venus hold	1909	Arthur Putn:	bronze	0 88.9	35.6	30.5		Sculpture	FAMSF		Sold			Putnam.jpg
20	711w	136.2	PUTNAM, Arthur	L04 Venus Seated (plast	c1900	Arthur Putn:	plaster	0 18.4	9.5	10.8		Sculpture	FAMSF		Sold			putnam2.jpg
21	712w	136.1	PUTNAM, Arthur	L01 Venus Seated (bron	c1900	Arthur Putn:	bronze	0 18.4	9.5	10.8		Sculpture	FAMSF		Sold			putnam3.jpg
22	21330w		LAZARUS, Jacob Hart	L10 Venus young woman	c1875	"VENUS YOUNG WOMAN"		0				Painting	Artprice 14.2.2011		Stock			21330 Lazarus.jpg
23	801w		TWOMBLY, Cy	B2 Anadyomene	1981	Cy Twombly	wood, nail	0 47	57.1	73.6		Assemblage			Stock			801 Twombly.jpg
24	801w		TWOMBLY, Cy	B2 Anadyomene	1981	Cy Twombly	wood, nail	0 47	57.1	73.6		Assemblage			Stock			801 Twombly.jpg

VISUAL CONTAGIONS – WHAT WE DO

Digitized periodicals,
images, illustrated
catalogues, posters, etc.

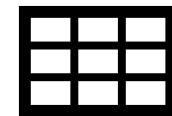
Description of all
documents in a .csv
tablesheet



VISUAL CONTAGIONS – WHAT WE DO

Digitized periodicals,
images, illustrated
catalogues, posters, etc.

Description of all
documents in a .csv
tablesheet

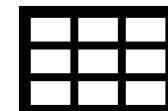


VISUAL CONTAGIONS – WHAT WE DO

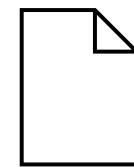
Digitized periodicals,
images, illustrated
catalogues, posters, etc.



Description of all
documents in a .csv
tablesheet



From .csv to .json
manifests

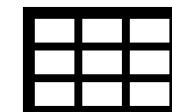


VISUAL CONTAGIONS – WHAT WE DO

Digitized periodicals,
images, illustrated
catalogues, posters, etc.

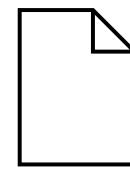


Description of all
documents in a .csv
tablesheet



Each image is
associated to its
manifest, and served by
the unige.ch iiif server

From .csv to .json
manifests

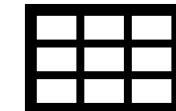


VISUAL CONTAGIONS – WHAT WE DO

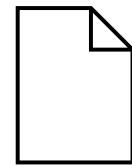
Digitized periodicals,
images, posters, etc.



Description of all
documents in a .csv
tablesheet



From .csv to .json
manifests



Each image is
associated to its
manifest, and served by
the unige.ch iiif server

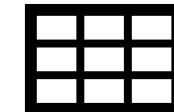
Query

VISUAL CONTAGIONS – WHAT WE DO

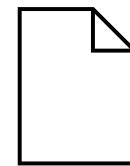
Digitized periodicals,
images, posters, etc.



Description of all
documents in a .csv
tablesheet



From .csv to .json
manifests



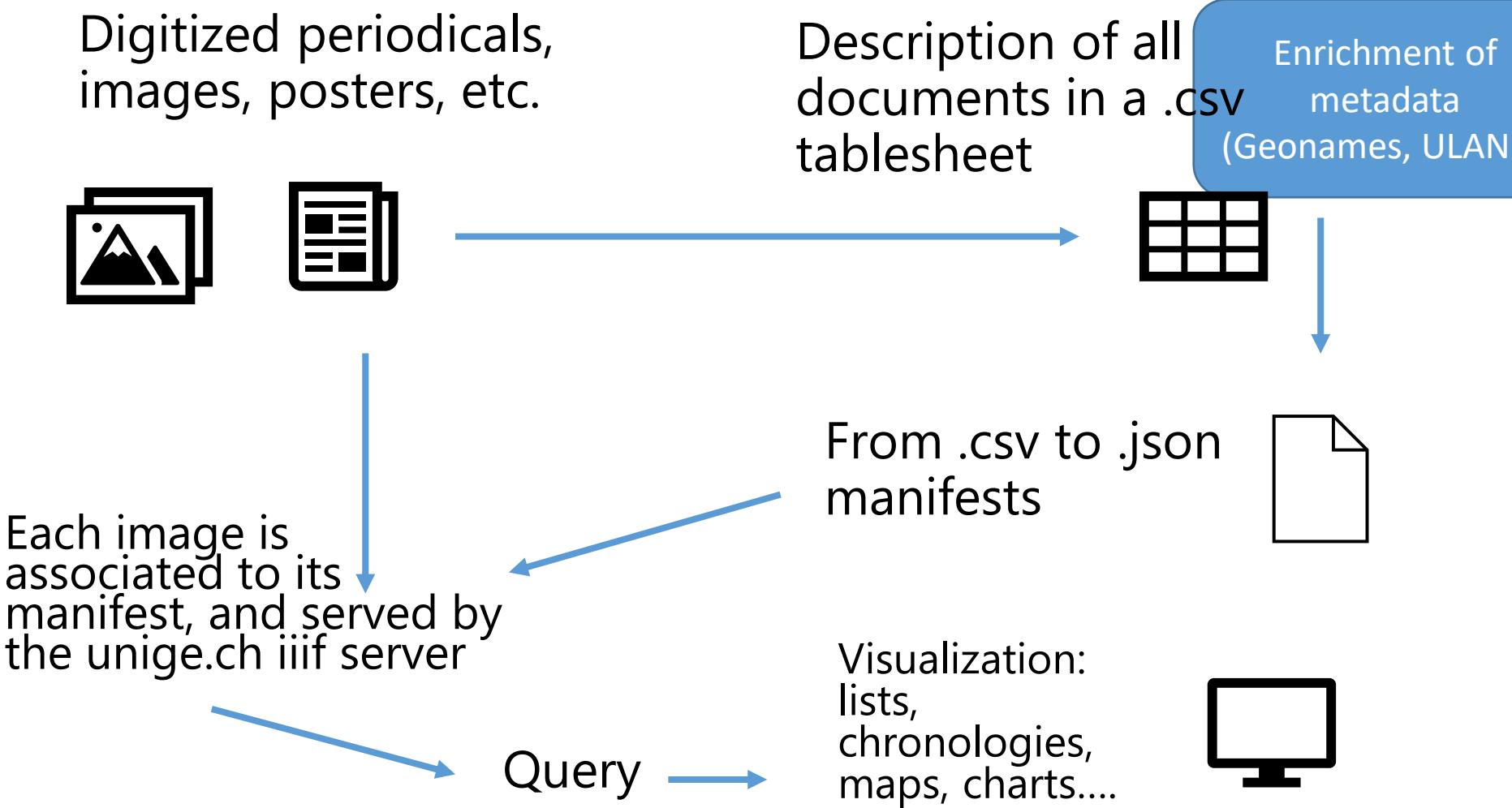
Each image is
associated to its
manifest, and served by
the unige.ch iiif server

Query

Visualization:
lists,
chronologies,
maps, charts....



VISUAL CONTAGIONS – WHAT WE DO

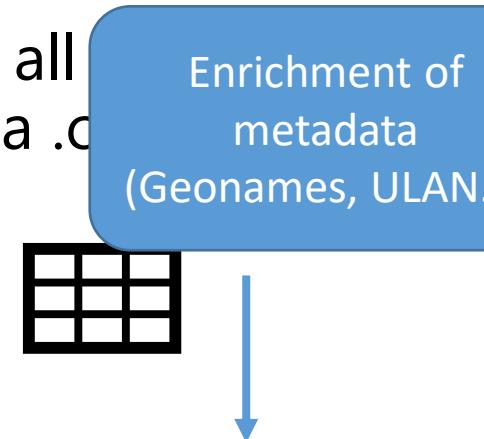


VISUAL CONTAGIONS – WHAT WE DO

Digitized periodicals,
images, posters, etc.



Description of all
documents in a .c
tablesheet



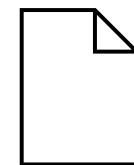
Each image is
associated to its
manifest, and served by
the unige.ch iiif server

Appariments



Query

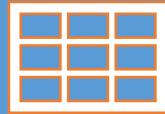
From .csv to .json
manifests



Visualization:
lists,
chronologies,
maps, charts....



Image manifests



Segmentation, if needed
(detection of images in illustrated periodicals or catalogues)



Algorithmic comparison
of images



Detection
of Replica

Detection of
Similar Images
(with similar
patterns)

Etiquetage :
Classification
of images

THE STEP OF IMAGES SEGMENTATION (RETRIEVING IMAGES FROM DIGITIZED PAGES)



INTRODUCTION.

"The appeal of all art is simply to the artistic temperament. Art does not address herself to the specialist. Her claim is that she is universal, and that in all her manifestations she is one."
"The aim of all art is to create a mood."
—Oscar Wilde.

Pictures should stimulate, not satiate, the imagination.

We have endeavoured in our work to avoid mere anecdote; to impart qualities which make a picture sufficient in itself, to strike the essential note of truth without hesitancy and to render it without modification.

Our aim is to produce modern work.

Moderity implies an absence of subserviency to "school" traditions, a spirit of independence qualified by self-control in the gleasing of new, and the use of old, knowledge.

To be modern is to be nearer to the realities of humanity.

To be modern in the fullest sense of the term, we must possess an unfeigned sympathy with all phases of life, a desire for freedom in the choice and management of subject and equipment.

We claim to present the modern spirit in our work.

MONTAGU MARKS.



Works by Montagu Marks.

	Guineas
1. Lowland Pastures (Hants)	8
2. The Barge—River Thames	10
3. "His Majesty"	3
4. Fog—Tralair Square	6
5. The Guards' Party	25
6. The Old Mill	15
7. Twilight, Chelsea Embankment (in Summer)	50
8. The Winding Path	3
9. Rising Moon—Surrey	12
10. Sketch Portrait in Charcoal	—
11. After the Gale	6
12. Arc-de-Triomphe	20
13. Mr. Justice Rooth	—
14. Lady in Black	40
15. The Blue Overall	150
16. The Purple Veil	20
17. Mill Point	5
18. Petite Parisienne	3
19. The Gathering Fog	10
20. Twilight, Cadogan Pier, Chelsea (in Winter)	50
21. Gypsies	8
22. Potterham	6
23. Misty Veil—River Thames	5

THE BLUE OVERALL... After the painting by Montagu Marks.

	Guineas
24. The Tattler	20
25. Charcoal Study	—
26. Twilight—Chelsea Bridge	5
27. "The Miracle"—Ballet Scene	25
28. "The Sphynx is seen piping the "Dance of Death" to which the spirits rhythmically respond with a wild, frantic dance. The scene is eerily shadowed from the haunted atmosphere of the Hill-side, which is soon to be the Deathbed of the Knight, who, in his last moments, recalls the resources the Chesters for the world," returning to the Castle.	—
29. Study of a Youth	—
30. Sketch Portrait	—
31. South Downs—Sussex	6
32. Regatta Day	10
33. The Hay Rick	3
34. Sketch Portrait in Charcoal	—

Works by Stella Lewis Marks.

	Guineas
35. The Age of Innocence	25
36. Roses	10
37. The Leisure Hour	6
38. Meditations	15
39. Girl in Blue	4
40. Mr. Justice Rooth	—
41. A Vase of Roses	8
42. Portrait	25
43. Flirtation	20
44. La Petite Danseuse	20
45. The Smiling Maid	—
46. "Eaid"	—
47. A London Slum Girl	4
48. Pencil Study	—

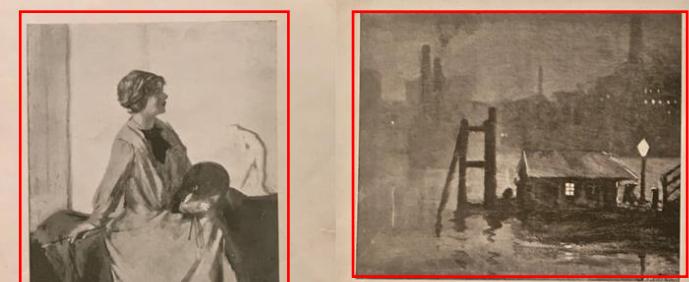
MINIATURES.

	Guineas
49. "1830"	12
50. The Ballet Girl	6
51. A Profile	8
52. "Lucia"	—
53. Interior of a Cottage	6
54. "Marjorie"	8
55. "I Wonder"	6
56. Study of a Young Man	—
57. The Judge	—
58. Blue and Silver	8
59. The White Bonnet	5
60. A Boy's Head	8
61. In a Field of Daisies	10
62. Study of a Girl	6
63. Smiling Maid	—
64. "Liza"	6
65. Portrait of a Lady	—
66. A Small Child	5
67. Girl in Purple	—
68. Portrait	—
69. A Little Girl	5
70. Nymphs	15
71. Girl in Grey	—
72. Portrait	—

Most of the above Miniatures were exhibited at the Arts and Crafts Society, London.

All information respecting commissions or Purchase of Pictures can be obtained from the attendant at Desk.

"FINIS CORONAT OPUS."



THE STEP OF IMAGES SEGMENTATION (RETRIEVING IMAGES FROM DIGITIZED PAGES)

Visual Contagions

Dashboard

Manage datasets and preprocessing tasks

Corpora [Add new](#)

- Test 1
- Test 2

Tasks

Segmentation tasks [Start new](#)

- Segmentation [2021-01-11 13:39:52.952813+00:00]
- Segmentation [2020-12-11 22:01:11.698210+00:00]
- Segmentation [2020-12-11 21:55:52.630524+00:00]
- Segmentation [2020-12-11 21:53:01.633573+00:00]
- Segmentation [2020-12-11 21:52:22.971294+00:00]
- Segmentation [2020-12-11 21:52:13.812431+00:00]
- Segmentation [2020-12-11 21:51:39.675086+00:00]
- Segmentation [2020-12-11 21:02:54.045475+00:00]
- Segmentation [2020-12-11 20:58:31.874627+00:00]
- Segmentation [2020-12-11 20:53:45.239495+00:00]
- Segmentation [2020-12-11 20:52:22.728991+00:00]

Feature extraction tasks [Start new](#)

(No task)

© 2020 Visual Contagions

Robin Champenois for Visual
Contagions,
January 2021

Visual Contagions

Test 2 [Edit](#)

A Visual Contagions corpus

Status: Awaiting for preprocessing

List of tasks associated to this corpus

Segmentation tasks

- Segmentation [2021-01-11 13:39:52.952813+00:00]
- Segmentation [2020-12-11 22:01:11.698210+00:00]

Feature extraction tasks

(No task)

List of Manifests included in this corpus

Manifests to use only segmented images

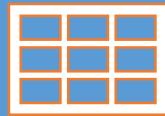
- https://digi.ub.uni-heidelberg.de/diglit/iiif/adk_gka_1940_124/manifest.json
- https://digi.ub.uni-heidelberg.de/diglit/iiif/adk_gka_1941_125/manifest.json
- https://digi.ub.uni-heidelberg.de/diglit/iiif/adk_gka_1942_126/manifest.json

Manifests to use as is

- No manifest

© 2020 Visual Contagions

Image manifests



Segmentation, if needed
(detection of images in illustrated periodicals or catalogues)



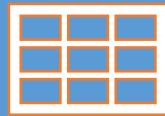
Algorithmic comparison
of images

Detection
of Replica

Detection of
Similar Images
(with similar
patterns)

Etiquetage :
Classification
of images

Image manifests



Segmentation, if needed
(detection of images in illustrated periodicals or catalogues)



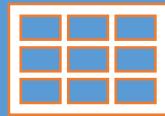
Algorithmic comparison
of images

Detection
of Replica

Detection of
Similar Images
(with similar
patterns)

Etiquetage :
Classification
of images

Image manifests



Segmentation, if needed
(detection of images in illustrated periodicals or catalogues)



Algorithmic comparison
of images

Detection
of Replica



Detection of
Similar Images
(with similar
patterns)

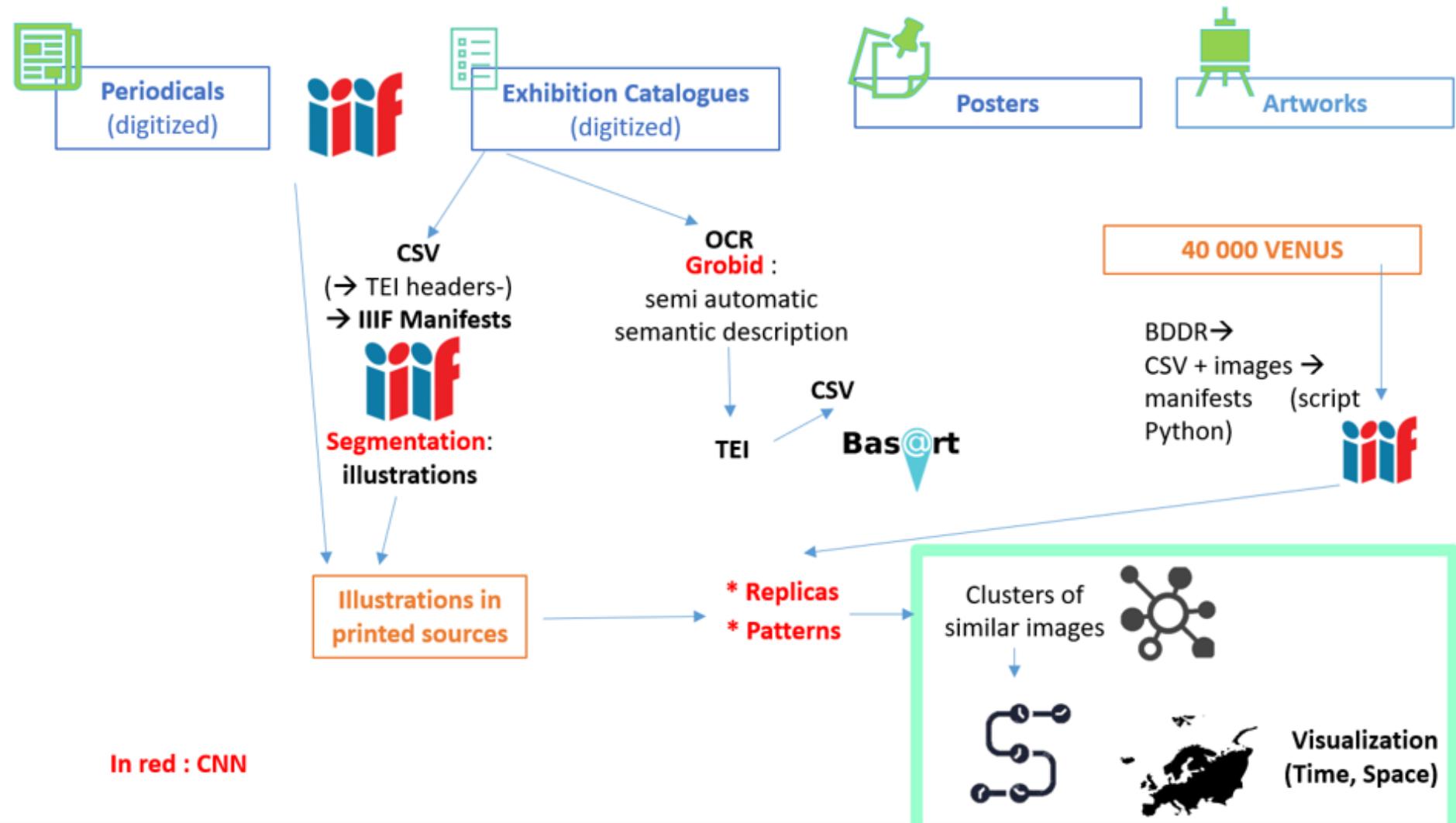
Etiquetage :
Classification
of images

UNIGE PORTAL DH 2.0 – POC VISUAL CONTAGIONS

 TBD
  In process
  Done

Axis	Development		
RDF Data Construction	 Data modelization process (with Ontome)  Data cleaning and correction	 Data Augmentation (ULAN → birth and death dates, Places, GEONAMES)	 Generation and upload of data in RDF
Association data / iiif images server IIIF	 Upload of images	 Generation of iii manifest for each image in the DB	 Upload of images manifest
	 Association of the manifest and RDF image metadata	 Triplestore server	 Synchronization between central store of DH portal (Fedora) and triplestore
Mise à disposition des données en ligne	 Provision of each DB entry via web interface and REST queries	 Tools for the automation and auscultation of this synchronization	 Setting up a Mirador viewer
Data Matching	 Illustrated pages segmentation interface		 Detection of Replicas. Detection of common patterns
Data Visualization	 Graphical/statistical/mapping data visualization interface		

VISUAL CONTAGIONS – WORKFLOW (JAN. 2021)



ALL MY THANKS...

FOR **VISUAL CONTAGIONS** DATA COLLECTION
INFRASTRUCTURE
DATA PROCESSING

Mathieu Aubry, Oumayma Bounou, Xi Shen

K. Bender / André van der Beken

Cédric Viaccoz;

Hugues Cazeaux, Thierry Mengelle, Mathieu Vonlanthem,
Grégoire Schaer and the DISTIC@unige

Robin Champenois

Marina Giardinetti & Auriane Quoix

Thomas Gauffroy-Naudin, Céline Bélina, Barbara Topalov,
Adrien Jeanrenaud

Simon Gabay

FOR



Catherine Dossin &
Léa Saint-Raymond

Yann Le Boulanger;
Julien Cavero;
Makina Corpus

Caroline Corbières

All the Arl@s
contributors

THANK YOU FOR YOUR ATTENTION!



UNIVERSITÉ
DE GENÈVE

[beatrice.joyeux-prunel @ unige.ch](mailto:beatrice.joyeux-prunel@unige.ch)

SOME REFERENCES

- APPADURAI, Arjun, *Modernity at large. Cultural Dimensions of Globalization*, Minneapolis, University of Minnesota Press, 1996.
- AUBRY, Mathieu, et al. "A Web Application for Watermark Recognition". <https://hal.archives-ouvertes.fr/hal-02513038/>
- BENDER, Kay, 'Distant Viewing in Art History. A Case Study of Artistic Productivity', *International Journal for Digital Art History (DAH-Journal)*, n° 1, juin 2015, p. 100-110.
- BENDER, K., Iconography in Art History. A Blog to discuss: 1° Quantitative approaches in art history, distant viewing...
<https://kbender.blogspot.com/>.
- DA COSTA KAUFMANN, Thomas, DOSSIN Catherine, & B. JOYEUX-PRUNEL (éd.), *Circulations. Writing the Global History of a Globalized Art*, New York, Routledge, 2015.
- JOYEUX-PRUNEL Béatrice (éd.), *L'Art et la Mesure - Histoire de l'art et méthodes quantitatives*, Paris, Editions Rue d'Ulm, 2010.
- MARCEL, OLIVIER, & JOYEUX-PRUNEL, BÉATRICE, « Exhibition Catalogues in the Globalization of Art. A Source for Social and Spatial Art History », *Artlas Bulletin IV*, vol. 2 (automne 2015) – <http://docs.lib.psu.edu/artlas/vol4/iss2/8/>.
- SUBRAHMANYAM, Sanjay (2007), "Par-delà l'incommensurabilité: pour une histoire connectée des empires aux temps modernes", *Revue d'histoire moderne et contemporaine*, 54-4 bis (2007), p. 34-53.
- WARNKE, Martin, ed. *Aby Warburg. Der Bilderatlas Mnemosyne*. 2. Auflage. Berlin, 2003.

See also :

<https://www.unige.ch/lettres/humanites-numeriques/fr/la-chaire/equipe/prof-beatrice-joyeux-prunel/publications/>