

Ornaments?

○○

Exploring

○○○○○

VISE

○

Compare

○

Decomposition

○

Image Upload

○

The End?

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Exploring ornament collections

demonstration of the ROli website

2025-06-19

Rémi EMONET

Computer vision for the investigation of ornaments and ancient documents

Ornaments?
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Exploring
OOOOO

VISE
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Compare
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Image Upload
O

The End?
OOOOO

Overview

- What is an Ornament?
- Demonstrator Features
- Conclusion and Openings

What is an Ornament?

Block

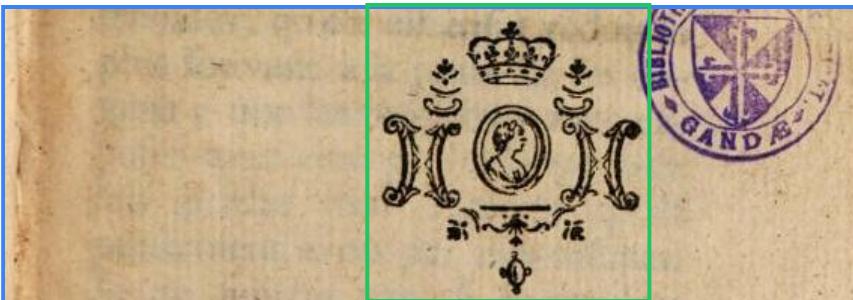
Block

Composite

Composite

Block

An Ornament, for the Demonstrator



- Image-related information
 - full page, [full-width crop](#)
 - [exact bounding box](#)
- Metadata
 - date, title, author(s), editor(s)
 - genre (fleuron, banner, ...), nature (composite?), type (Auth., Fake, etc.)
- External data
 - VISE data (neighbors, set, etc.)
 - decomposition data

Disclaimer: these are only the inputs of the demonstrator

The production of all these elements will be presented in following presentations.

Overview

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Demonstrator Features

Disclaimer!

The website is (mostly) in French.

- many books in french in the database
- low amount of text
- translation of the main pages will be available

The website can be ugly

- sometimes for UX reasons (gaining space)
- sometimes a lack of taste and skill

Exploring the Ornament Dataset

- Static webpage
 - data files loaded once, no requirement for a server
 - state saved in the URL or in the browser

[Home](#) ; [Explore](#) ; [Metadata](#) ; [Sorted](#)

The screenshot shows a light blue header bar with the title "Explore and Metadata" in the center. On either side of the title are decorative icons resembling stylized paw prints. Below the header is a white content area containing a bulleted list of features:

- Browse ornaments
- Filter + live stats
 - genre, nature, type, etc.
 - date
- Sort by...
- View metadata, full page, links
- Linking and back button

Saving Information Across Sessions

In-browser storage (*localStorage*)

- for customization, etc.
- saving and sharing (JSON export / import)
- easy extension to live collaboration

Config

In-browser storage

Favorites ☀️ ❤️ / Notes 📝 ✅ / feedback 🖌💬

- Remember main UI settings (> ...)
- Add to favorites (baskets)
- Add personal notes, make (suggestions of) corrections
- View local data

Advanced Search and Filters

Advanced search

- Full-text
 - on an aggregation of the field
- On specific fields
 - authors, editors, ...



Advanced Search



- "Recherche libre"
- Advanced search

Viewing VISE Results

VGG Image Search Engine (VISE)

- search interface
- keypoint-based similarity scores
- ⇒ neighbors, sets (clusters), ...

ROLi usage of VISE

- filter by VISE sets
- view vise neighbors
- addition: conditional representer
- addition: map of differences

VISE Tab

VISE et al.

- Filtering by VISE sets
- Browsing VISE sets
- Human-verified sets (opt)
- VISE tab

Pairwise Image Comparison

Image selection

- drag from any "ornament card"
- drop on 

Possibility to

- compare images in pairs in different ways
- fine tune alignment
 - offset: shift + mouse move
 - scale: control + mouse move

compare ; compare



The screenshot shows a user interface titled "Compare" with two ornamental images on either side. In the center, there is a large, semi-transparent rectangular area where the images can be compared. Above this area, the word "Compare" is written in a large, bold, underlined font. Below the title, there is a list of features:

- Modes: side by side ; slider ; opacity
- Diff mode + alignment
- Fading mode and speed control
- Other modes

Composite Ornament Decomposition

Focus on composite ornaments

- made of "vignettes"
- filter by presence of vignette
- view decomposition



Decomposition



- filtering via explore
- decomposition tab
 - only still jointly present
 - view boxes
 - toggle by clicking boxes

Image-Based Search: Uploading Your Own Image

Requires server to handle image upload, processing and interfacing with VISE.

Ways to provide an image

- select or drop a file
- paste from clipboard
- take picture (mobile)



Image-Based Search



- image upload, come back to vise as intro
- view results
- conditional template

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Conclusion and Openings

This screenshot shows a digital collection of decorative patterns from 1760. The interface includes a search bar at the top, a sidebar with filters like 'Ornement' and 'Bandeau', and a main area displaying a grid of 12 items. Each item is a thumbnail of a historical document page featuring intricate designs, with a title like 'Revolc [Heures] composition' and 'Metadata' below it.

This screenshot displays detailed metadata for a specific document page. The page itself features a large, ornate initial 'A' and the text 'BIBLIOTHEQUE S.J. Des Fontaines à CHANTELLY'. Below the image, the metadata includes fields such as Date (1760), Type (Revolc %), and Author (ARGENSON René-Louis de Voyer, marquis d' (1694-1757)). There are also sections for Title, Editor, Format, Exemplaire, and Notes, each containing specific details and links.

+ VISE,
Image,
Baskets,
etc.

This screenshot illustrates the 'Compare' feature of VISE. It shows two document pages side-by-side for direct comparison. The top part of the screen displays the comparison interface, and the bottom part shows the individual document pages with their respective titles and metadata.

This screenshot shows a collection of decorative vignettes, likely from a book. The top section lists 'Toutes les vignettes' and 'Vignettes encore présentes'. Below this is a grid of small thumbnail images of various decorative motifs. The bottom part of the screen shows a larger, detailed view of one specific decorative element.

(Some) Technical Elements

- Application
 - lightweight ( 500kB)
 - written in typescript
 - using [Vue.js](#)
 - using [Naive UI](#)
- Static data files (json)
 - main metadata  1.9MB
 - vise results  504kB
 - decomposition results 6.8MB ( 1.1MB)
- Server access (optional)
 - image-based search (VISE based)
 - conditional representer

Repurposing the Demonstrator?

-  Re-useable search functionality
 - flat objects, flexible
 - url history and bookmarking
 - few abstraction boundaries
 - declarative binding
-  Re-useable custom components
 - date histogram
 - binding to the search
 - image comparator
- 😞 Sometimes ugly and very specific
 - data loading and parsing
 - some implicit conventions
 - hard-coded db patches (renaming, ...)
 - no i18n (internationalization)

```
// decomposition
const filterBinding: Binding = ({ LISTALLINLIST }) => {
  LISTALLINLIST('decompParts', checkedLabels)
}

const checkedLabels = ref([] as string[])

const filtered = computed(
  () => applyFilter(ornaments, getFilterObject(filterBinding))
)

// explore
const filterBinding: Binding = ({ ... }) => {
  LIST('nature', checkedNatures)
  RANGE('year', dateRangeWithNulls)
  TEXT('search', searchContent, projectForSearch)
  LISTINLIST('authors', checkedAuthorIds)
  BOOLEAN('viseSet', showNonNullViseSets, '!empty')
  LIST('viseSet', checkedViseSets) // after the boolean
  LISTALLINLIST('decompParts', checkedDecompLabels)
  ...
}
```

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Thank You! Questions?