



THE
NATIONAL
GALLERY

National
Portrait
Gallery



The Practical Applications of IIF - Final Webinar: Project
Demonstrators and the Future of IIF in a National Collection
Context: 29th April 2022

Simple Discovery and the IIF Collection Explorer

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@practicalIIF - #practicalIIF



Discovering IIIF

- IIIF can help provide open access to a wealth of images from institutions across the world.
- All using the same free shared tools and services.
- <https://guides.iiif.io/> brings together a great list of these institutions, showing how to find the published IIIF resources.
- Several institutions even provide access to well documented API(s) to allow more complex searches of their collection and image information.

Making use of open APIs

```
{
  "totalcount": 570,
  "results": [
    {
      "title": "Saint John the Baptist",
      "url": "/content/ngaweb/collection/art-object-page.434.html",
      "id": 434,
      "displaydate": "probably c. 1325",
      "medium": "tempera on panel",
      "isOSCI": true,
      "isZoomable": true,
      "iiifManifestURL": "https://www.nga.gov/content/ngaweb/api/v1/iiif/presentation/manifest.json?cultObj:id=434",
      "iiifCanvasID": "https://cq.nga.gov/content/ngaweb/api/v1/iiif/presentation/manifest/sequence/canvas.json?cultObj:id=434",
      "classification": "Painting",
      "download": "https://media.nga.gov/iiif/3c95ac77-d680-46b1-bdeb-2add2b0c34e0/full/full/0/default.jpg?attachment_filename=saint_john_the_baptist_1939.1.291.jpg",
      "dimensions1": "painted surface (incised line to incised line): 88.7 x 42.2 cm (34 15/16 x 16 5/8 in.)painted surface (original panel): 92.5 x 44 cm (36 7/16 x 17 5/16 in.)overall: 94.3 x 45.3 cm (37 1/8 x 17 13/16 in.)",
      "dimensions2": "framed: 99.1 x 48.3 x 6 cm (39 x 19 x 2 3/8 in.)",
      "creditline": "Samuel H. Kress Collection",
      "creditlineurl": "/content/ngaweb/collection-search-result.html?artobj_credit=Samuel%20H.%20Kress%20Collection",
      "accessionnumber": "1939.1.291",
      "onview": true,
      "onViewSettings": {
        "roomName": "M-003",
        "roomTitle": "West Building, Main Floor - Gallery 03",
        "coords": "193,48,210,72",
        "shape": "rect",
        "url": "/content/ngaweb/collection/locationview.434.html?room=M-003",
        "floorTitle": "West Building, Main Floor",
        "image": "/content/dam/ngaweb/LocationMaps/wb-main.png"
      },
      "onviewurl": "/content/ngaweb/collection/locationview.434.html?room=M-003",
      "onviewErrMsg": "",
      "ishighlight": false,
      "imagepath": "https://media.nga.gov/iiif/3c95ac77-d680-46b1-bdeb-2add2b0c34e0/full/!384,384/0/default.jpg",
      "showAttribution": false,
      "attribution": "Lippo Memmi",
      "attributionInv": "Lippo Memmi",
      "artists": [
        ]
      ]
    }
  ]
}
```

Raw Parsed

- https://www.nga.gov/collection-search-result/jcr:content/parmain/facetcomponent/parList/collectionsearchresu.pageNumber__1.pageSize__5.json?_UNIQUECODE&keyword=castle
- Open APIs can provide incredible access to collection information and resources.
- But they can be quite complicated.

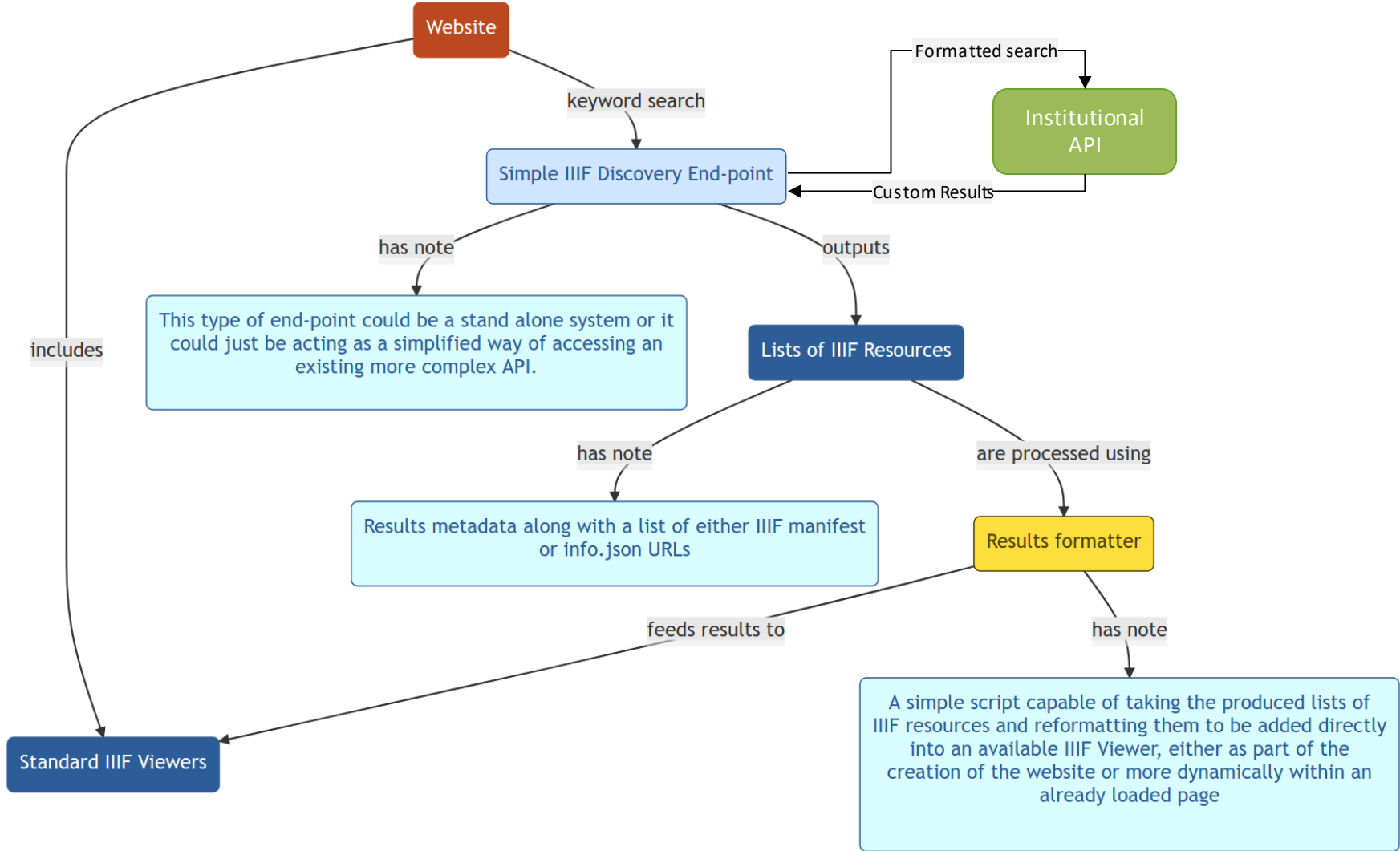
The question:

- Using the current data provided could a simpler IIIF search and presentation

Simple IIIF Discovery

- The development of a Simple IIIF Discovery system was carried out to demonstrate an easier way to discover and present IIIF content.
- From individual institutions or across multiple collections at the same time.
- This work has been supported through a collaboration of three related research projects, Practical IIIF (AHRC), SSHOC (EU H2020) and IPERION-HS (EU H2020).

<https://research.ng-london.org.uk/ss-iiif>



Search > Cross-Collection Search



Multiple Simple IIIF Discovery end-points can be connected to a single page to allow users to search across multiple collections at the same time

This particular example allow users to search across the collections of The Art Institute of Chicago, The National Gallery, The National Gallery of Art, The Smithsonian Institution, Statens Museum for Kunst, The Victoria & Albert Museum and Wellcome Collection.

Search and display the Collection(s):

Free text search term ("AND" operator used for multiple words)

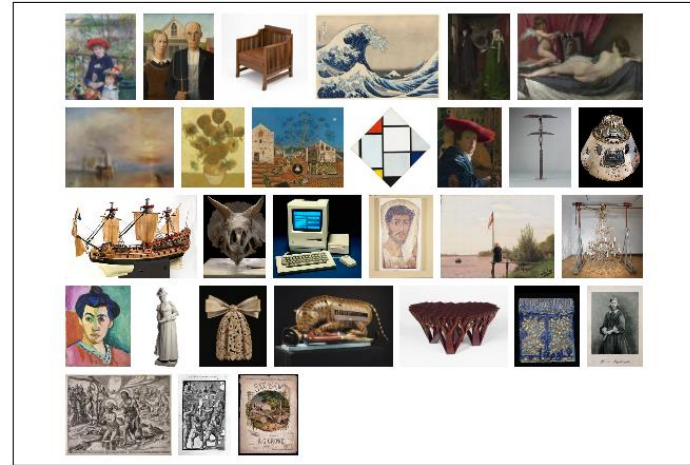
Search

Object limit and page number **per end-point**

Limit 25 Page No. 1

Select the **default** IIIF viewer

OpenSeadragon (Image Grid) Mirador (Images with Metadata)



Example images from the Cross-Collection Search Simple IIIF Discovery end-point.

Simple IIIF Discovery End-Point(s)

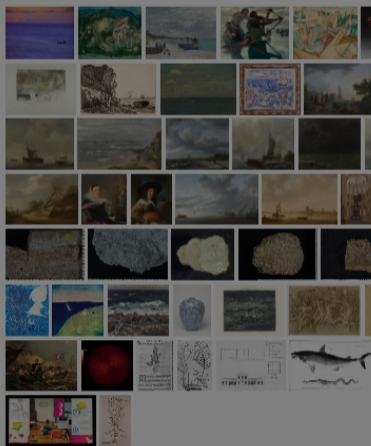
-
-
-
-
-
-

Feedback

[Search](#) > [Cross-Collection Search](#) > Cross-Collection Search IIIF ViewerSearch for: **sea**. Displaying resources from objects 0 - 175 of 187545.

< 1/7102 >



[Search](#) > [Cross-Collection Search](#) > Cross-CollectionSearch for: **sea**. Displaying resources from objects

Identified Details for Displayed Images



| FILENAME OR ID | VIEW | INFO |
|----------------|------|------|
|----------------|------|------|

a52c0c03-9668-ae2b-d780-dc928a9d16c1 (2003.86)



7b3b8278-694a-f990-76e8-984573b36997 (1947.114)



95be2572-b53d-8e7b-abc9-10eb48d4fa5d (1933.439)



fa81bfb9-5a07-5e3c-33b4-4efde68981c8 (1990.443)



3f860f0a-9996-4731-b43f-35468fc0e3fc (1931.513)



21c98476-4704-604e-dac4-c650b5e62f9f (1957.490a)



8641479e-c93e-f1a8-9925-19be061706da (1922.4472)



70cc5210-4692-0a89-9998-e6a3a8030018 (2007.225)



99956788-7a7d-2133-f2c0-7648593395cc (1997.138)



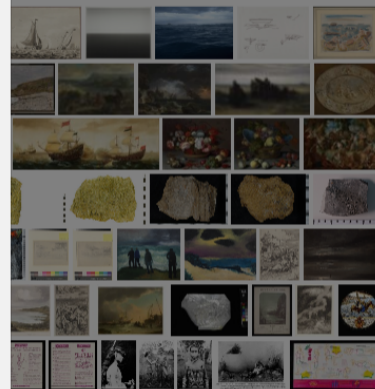
9887f97d-06d5-c3b0-b075-43e9ea6c1996 (1931.518)



Close



< 1/7102 >



Feedback

Selecting a IIIF Viewer

- OpenSeadragon provides a great way of exploring large sets of zooming images.
- Mirador provides a more complex feature rich experience, with images directly linked to the rich metadata and description provided by each institution.
- Depending on their needs users can simply toggle back and forward between these two options.

[Search](#) > [Cross-Collection Search](#) > Cross-Collection Search IIIF ViewerSearch for: **sea**. Displaying resources from objects 0 - 175 of 187545.

< 1/7102 >



Caribs' Leap/Western Deep

(Added from URL)
1 items

Landscape at Cagnes

(Added from URL)
1 items

The Beach at Sainte-Adresse

(Added from URL)
1 items

In the Sea

(Added from URL)
1 items

Landscape

(Added from URL)
1 items

Ewer

(Added from URL)
1 items

Fishing Boats with Mastheads Designed for Fish

(Added from URL)



+ ADD RESOURCE

Feedback

[Search](#) > [Cross-Collection Search](#) > Cross-Collection Search IIIF ViewerSearch for: **sea**. Displaying resources from objects 0 - 175 of 187545.

< 1/7102 >



☰ The Beach at Sainte-Adresse



About this item

CURRENT ITEM

The Beach at Sainte-Adresse, 1867.
Claude Monet, French, 1840-1926

RESOURCE

The Beach at Sainte-Adresse

Artist / Maker

Claude Monet French, 1840-1926

Medium

Oil on canvas

Dimensions

75.8 × 102.5 cm (29 13/16 × 40 5/16 in.)

Object Number

1933.439

Collection

[Art Institute of Chicago](#)

1 of 1 • The Beach at Sainte-Adresse, 1867. Claude Monet, French, 1840-1926

Feedback



Simple IIIF Discovery

Created using the Simple Site system:

<https://jpadfield.github.io/simple-site/>

Code can be found on GitHub:

<https://github.com/jpadfield/iiif-discovery>

Archived on Zenodo:

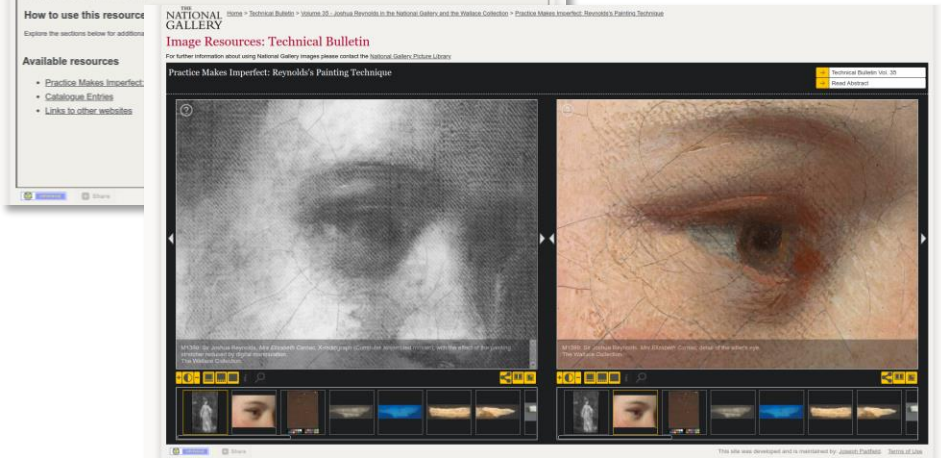
<https://doi.org/10.5281/zenodo.5512980>

<https://research.ng-london.org.uk/ss-iiif>

Supporting Exhibitions & Publications with IIIF

<https://research.ng-london.org.uk/projects>

- For over 10 years the National Gallery has publicly presented high resolution images.
- These sets of images have been put together to provide additional content for Exhibitions, Publications and Research projects.



The current system, based on a bespoke [IIIF Image](#) viewer has been showing its age for a while.

As part of the Practical IIIF project work was carried out to update the system to [IIIF Presentation V3](#)

IIIF Collection Explorer

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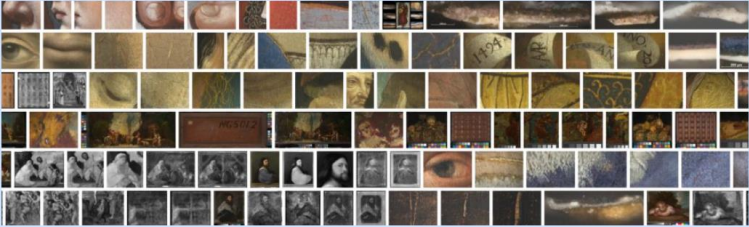
IIIF Collection Explorer

Home

Exploring IIIF Collections

Following the IIIF standard, image can be displayed individually or they can be organised into curated groups of images, and formatted as IIIF Manifests. In turn Manifests can then also be grouped together to form groups of groups of images known as IIIF Collections. IIIF Manifests are relatively easy to explore, in IIIF compliant viewers, but as IIIF Collections grow in complexity they can often be harder for users to explore. This system was developed as a demonstration of an alternative way of presenting and exploring IIIF Collections. It works by automatically converting the information stored in the IIIF Collections into more user friendly webpages and the images listed within the IIIF Manifests are presented directly with the IIIF compliant viewer Mirador.



In addition, when the presented images directly relate to are described in an available PDF, the PDF will also be displayed next to the images.




A selection of the images included in the full "National Gallery high-resolution image resource" IIIF Collection - the presentation was taken from an experimental Collection preview tool which can be seen [here](#) (Please note it can be slow to load large image sets).

This system works well with the example National Gallery IIIF collection listed below, however it is being further developed to make it easy to test with any standard IIIF V3 Collection.

Available IIIF Resources

| | | | |
|---|--|---------------|---|
|  | National Gallery high-resolution image resources | 4 collections |  |
|---|--|---------------|---|

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- The structure of the old system was based on hierarchical groups of images with titles and descriptions.
- This was easily replicated using groups of IIIF Manifests organised into IIIF Collections.
- So simple system was created to allow users to explore a complex IIIF Collection and display the actual images within [Mirador \(V3\)](#).

<https://research.ng-london.org.uk/iiif-projects/>

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IIIF Collection Explorer

Home / [National Gallery high-resolution image resources](#) / Technical Bulletin













Technical Bulletin

The National Gallery Technical Bulletin, first published in 1977, has achieved a leading position in the study of the materials and techniques of painting, and the scientific examination of paintings; it is essential reading for conservators, conservation scientists, art historians, collectors and curators. Drawing on the combined expertise of curators, scientists and conservators, it brings together a wealth of information about artists' materials, practices and techniques.

National Gallery Website Links

[NG Technical Bulletin](#)

Available IIIF Resources

| | | | |
|---|--|-------------------------------|---|
|  | Volume 31 - Various Articles 2010 | 2 manifests |  |
|  | Volume 32 - Leonardo da Vinci: Pupil, Painter and Master | 4 collections |  |
|  | Volume 33 - Various Articles 2012 | 5 collections |  |
|  | Volume 34 - Titian's Painting Technique Before 1540 | 2 collections and 2 manifests |  |
|  | Volume 35 - Joshua Reynolds in the National Gallery and the Wallace Collection | 2 collections and 1 manifest |  |
|  | Volume 36 - Titian's Painting Technique From 1540 | 2 collections and 1 manifest |  |

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- Each IIIF Collection or Manifest can be used to generate a simple page which displays titles, comments, additional metadata and included IIIF resources.
- Either as an interactive list as shown here (when at least one IIIF Collection is included), or ...

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IIIF Collection Explorer

Home / [National Gallery high-resolution image resources](#) / Exhibitions / [Barocci: A lesson in drawing](#)
/ Barocci Drawings: Types of drawings

Barocci Drawings: Types of drawings

Essential clues to Barocci's artistic process were recorded in the earliest biographies of the artist by Giovan Pietro Bellori and Filippo Baldinucci. However, earlier manuals on the Italian painting tradition by Cennino Cennini, Leon Battista Alberti, Giorgio Vasari and Giovanni Battista Armenini, were fundamental for the training of Italian Renaissance artists and still enrich our understanding of their drawings to this day.

National Gallery Website Links

[View the painting, Barocci: a lesson in drawing](#)

| | | | |
|--|---|----------------------------------|----------------------|
| | Barocci Drawings: Sketches | The National Gallery 7 items | THE NATIONAL GALLERY |
| | Barocci Drawings: Studies from models | The National Gallery 13 items | THE NATIONAL GALLERY |
| | Barocci Drawings: Compositional studies | The National Gallery 6 items | THE NATIONAL GALLERY |
| | Barocci Drawings: Anatomical studies | The National Gallery 8 items | THE NATIONAL GALLERY |
| | Barocci Drawings: Head studies | The National Gallery 8 items | THE NATIONAL GALLERY |
| | Barocci Drawings: Drapery studies | The National Gallery 4 items | THE NATIONAL GALLERY |
| | Barocci Drawings: Finished | The National Gallery | THE NATIONAL GALLERY |

+ ADD RESOURCE

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EDUCATIONAL USE PERMITTED

- IIIF Manifests or their own are loaded directly into Mirador, as shown.

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IIF Collection Explorer

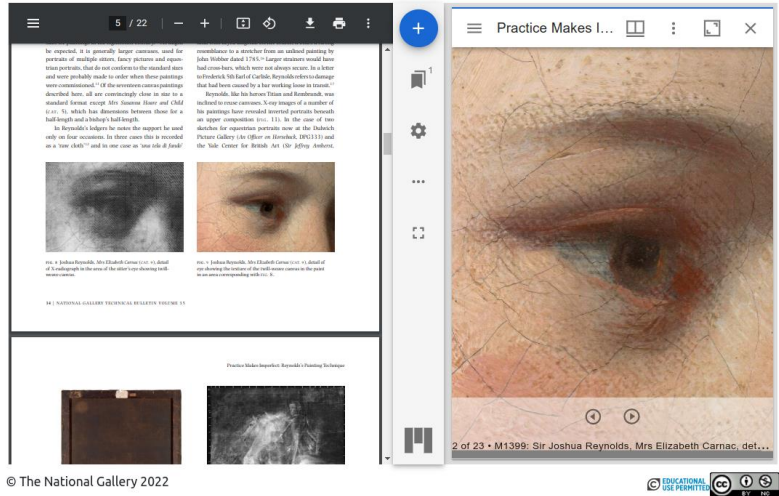
Home / [National Gallery high-resolution image resources](#) / [Technical Bulletin](#)
/ [Volume 35 - Joshua Reynolds in the National Gallery and the Wallace Collection](#)
/ [Practice Makes Imperfect: Reynolds's Painting Technique](#)

Practice Makes Imperfect: Reynolds's Painting Technique

Volume 35 of the Technical Bulletin is a special edition devoted to the techniques and materials used by Sir Joshua Reynolds, one of the most successful of British portraitists and from 1768, first President of the Royal Academy in London. It was well known in his day that paintings by Reynolds were fragile and vulnerable to change, and that his flesh paints had a notorious tendency to fade. It was only later in his career that he attempted, with mixed success, to modify his technique to reduce the rapid deterioration of his works.

National Gallery Website Links

[Technical Bulletin Vol. 35, Read Abstract](#)



The screenshot shows the National Gallery website interface. On the left, the article 'Practice Makes Imperfect: Reynolds's Painting Technique' is visible, featuring text and two small images of portraits. On the right, a PDF viewer is open, displaying a large, detailed image of a portrait's eye. The PDF viewer has a toolbar with various icons for navigation and zooming. At the bottom of the page, there is a copyright notice for The National Gallery 2022 and several Creative Commons and educational use licenses.

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- In addition to exploiting the benefits of the IIF Viewer Mirador the system has also been designed to display relevant PDFs inline next to the images rather than just providing a link.
- This is achieved by adding the PDF details directly to the IIF Manifests as additional metadata.
- If this extra metadata field is picked up by the page builder the PDF viewer is automatically added.

The screenshot shows the 'IIF Collection Explorer' interface. At the top, it says 'THE NATIONAL GALLERY' and 'IIF Collection Explorer'. Below that is a breadcrumb trail: 'Home / National Gallery high-resolution image resources / Exhibitions / Barrocci: A lesson in drawing / Barrocci Drawings: Types of drawings'. The main content area is titled 'Barrocci Drawings: Types of drawings' and contains a paragraph of text about the artist's biographies. Below the text are 'National Gallery Website Links' and a link to 'View the painting, Barrocci: a lesson in drawing'. A sidebar on the left contains a search icon, a list of categories, and a '+ ADD RESOURCE' button. The main content area displays a list of categories with small thumbnail images, category names, item counts, and the National Gallery logo.

| Category | Item Count | Source |
|--|------------|----------------------|
| Barrocci Drawings: Sketches | 7 items | The National Gallery |
| Barrocci Drawings: Studies from models | 13 items | The National Gallery |
| Barrocci Drawings: Compositional studies | 6 items | The National Gallery |
| Barrocci Drawings: Anatomical studies | 8 items | The National Gallery |
| Barrocci Drawings: Head studies | 8 items | The National Gallery |
| Barrocci Drawings: Drapery studies | 4 items | The National Gallery |
| Barrocci Drawings: Finished | | The National Gallery |

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- The system is currently optimised to exploit additional metadata in the IIF documents to define a breadcrumb trail for navigation.
- The system can be made to work from most IIF Collections – passed to the page as a Get variable.
- But some further development is required here to disconnect it completely from the default NG data.

IIIF Collection Explorer

THE NATIONAL GALLERY

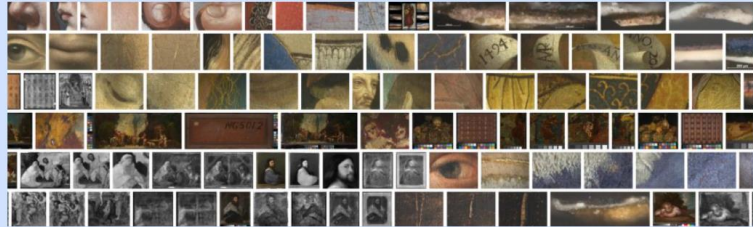
IIIF Collection Explorer

Home

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This system works well with the example National Gallery IIIF collection listed below, however it is being further developed to make it easy to test with any standard IIIF V3 Collection.

Available IIIF Resources

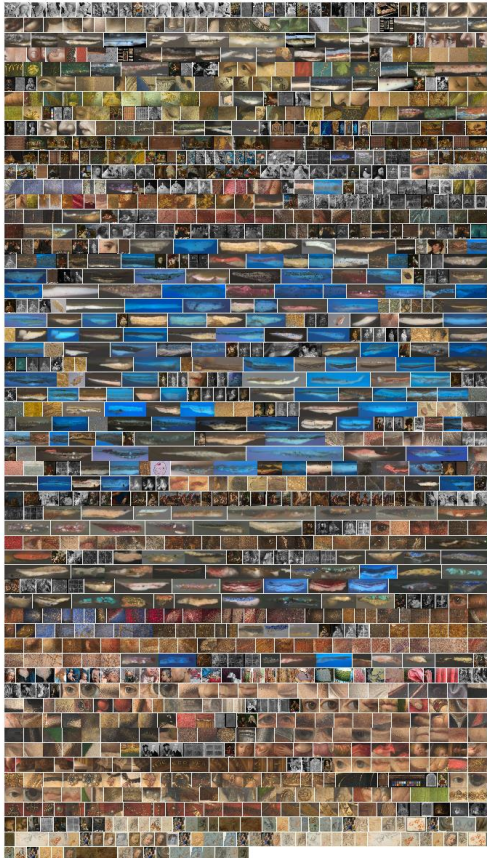
| | | | |
|---|--|---------------|---|
|  | National Gallery high-resolution image resources | 4 collections |  |
|---|--|---------------|---|

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- As part of this work – as a results of a interesting discussion on the IIIF Slack system – we also experimented with the question:
- *If one has a big complex IIIF Collection, is there a way to quickly preview all of the images it includes, without needing go up and down opening up all of the nested Manifests?*

IIIF Collection Preview

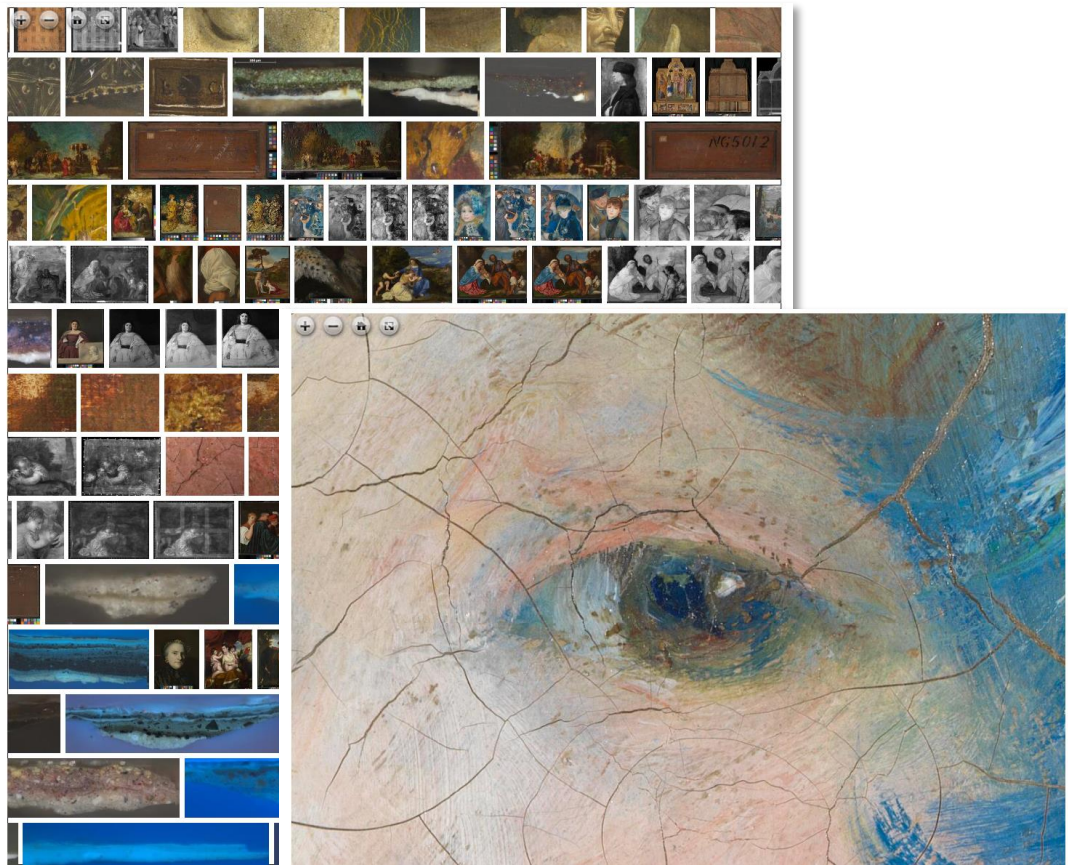


Yes 😊

<https://research.ng-london.org.uk/cv/?uri=https://research.ng-london.org.uk/iiif-projects/json/ng-projects.json&limit=1500>

- This system works from a live IIIF document – parsing out all of the image.info documents referenced in it or any nested documents and drops them all into [OpenSeadragon](#)

IIIF Collection Preview



- But it can be a little slow to load in large collections so it is currently limited to 2000 images.
- Future work could combine this with the IIIF Discovery GUI to all users to page through the images as required.



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The Practical Applications of IIF - Final Webinar: Project Demonstrators and the Future of IIF in a National Collection Context: 29th April 2022

Thank You

Joseph Padfield (NG) – @JoePadfield

@practicalIIF - #practicalIIF

