



Title	Essential Material for Humanities Researchers: An Introduction to Research Data Management and Publishing and Utilizing IIIF Images with OUKA
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Note	

The University of Osaka Institutional Knowledge Archive : OUKA

<https://ir.library.osaka-u.ac.jp/>

The University of Osaka



5. Potential of IIF

Features of Images made with the IIF Framework

Viewer Applications

That follow the published specifications

- Viewers: Universal Viewer, Mirador, etc.
- Viewers are generally usable on sites that provide IIF images.
- As of 2023, OUKA offers two types of viewers that support IIF images.

Manifests

Data including information on image source access and permissions

- To view IIF images using a viewer, you need to load a [manifest file](#) into the viewer.
- Individuals can easily download the data and load it into various applications to perform more advanced operations.



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Loading a Manifest in the Viewer

The image displays two digital viewer interfaces side-by-side. The left interface is Universal Viewer, and the right is Mirador. Both show a manuscript titled '論語問書' (Rongyu Monsho). The main view shows a handwritten page with vertical Japanese text and red seals. A 'CONTENTS' sidebar on the left of Universal Viewer shows a grid of thumbnail images. The right sidebar in both viewers contains 'MORE INFORMATION' or 'この資料について' (About this material), listing metadata such as title, source, author (五井, 持軒; ゴイ, シケン; 三宅, 萬年; ミヤケ, マンネン), collection (懐徳堂文庫), and dates (1706). A red box highlights the 'manifest' logo in the bottom right corner of both viewer windows.

Universal Viewer

Mirador

Manifest reference location

Manifest Contents

Manifest link example:

<https://ir.library.osaka-u.ac.jp/mmd/manifest/1/2000/89232.json>

↑A manifest contains information about the image, such as:

- Title
- Access source
- Publisher
- Image order
- Usage permissions,

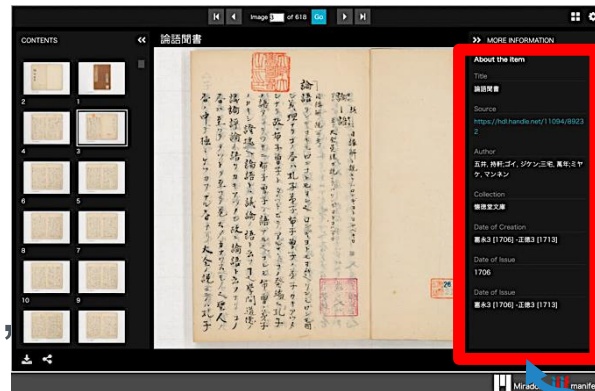


Image information is displayed in the red-outlined section

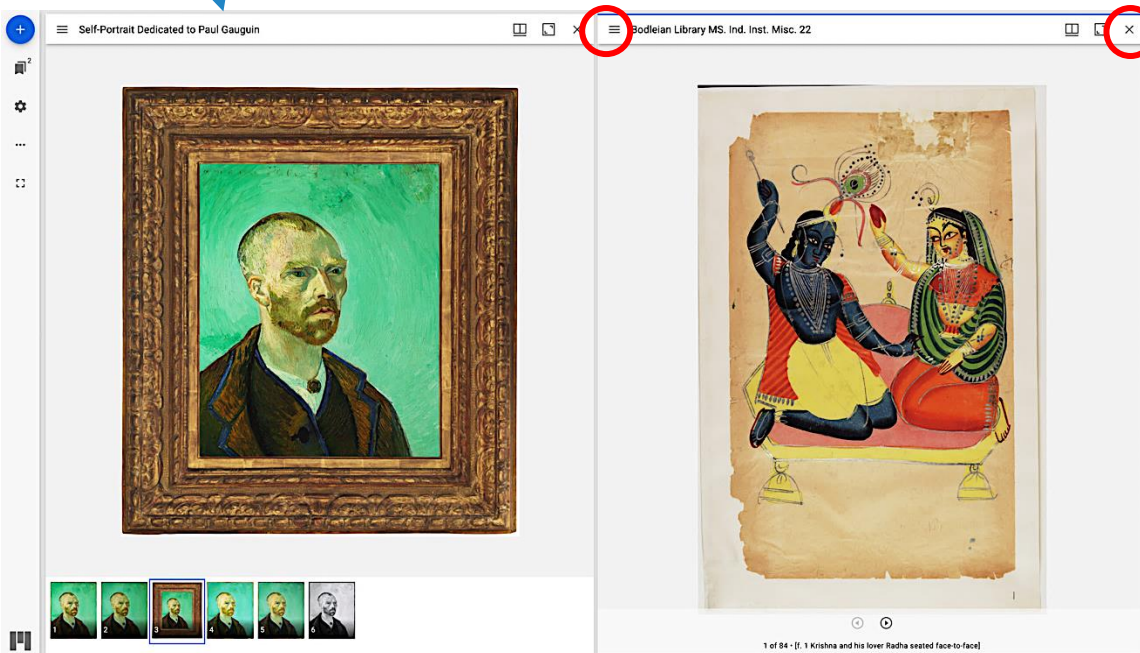
```
https://ir.library.osaka-u.ac.jp/mmd/manifest/1/2000/89232.json

{
  @context: "http://iiif.io/api/presentation/3/context.json",
  id: "https://ir.library.osaka-u.ac.jp/mmd/manifest/1/2000/89232.json",
  type: "Manifest",
  - label: {
    - none: [
      "論語問書"
    ]
  },
  - metadata: [
    - {
      - label: {
        - ja: [
          "タイトル"
        ],
        - en: [
          "Title"
        ]
      },
      - value: {
        - none: [
          "論語問書"
        ]
      }
    },
    - {
      - label: {
        - ja: [
          "ハンドルURL"
        ],
        - en: [
          "Source"
        ]
      },
      - value: {
        - none: [
          "<a href='https://hdl.handle.net/11094/89232' target='_blank'>https:///"
        ]
      }
    }
  ]
}
```

Loading a Manifest 1

Viewer on the official Mirador demo site

Demo Viewer↓ : You can find it by scrolling through the top page of the official site.



When you click all the × icons to close the images, the viewer returns to its initial state, as shown below.

Initial state of the viewer↓

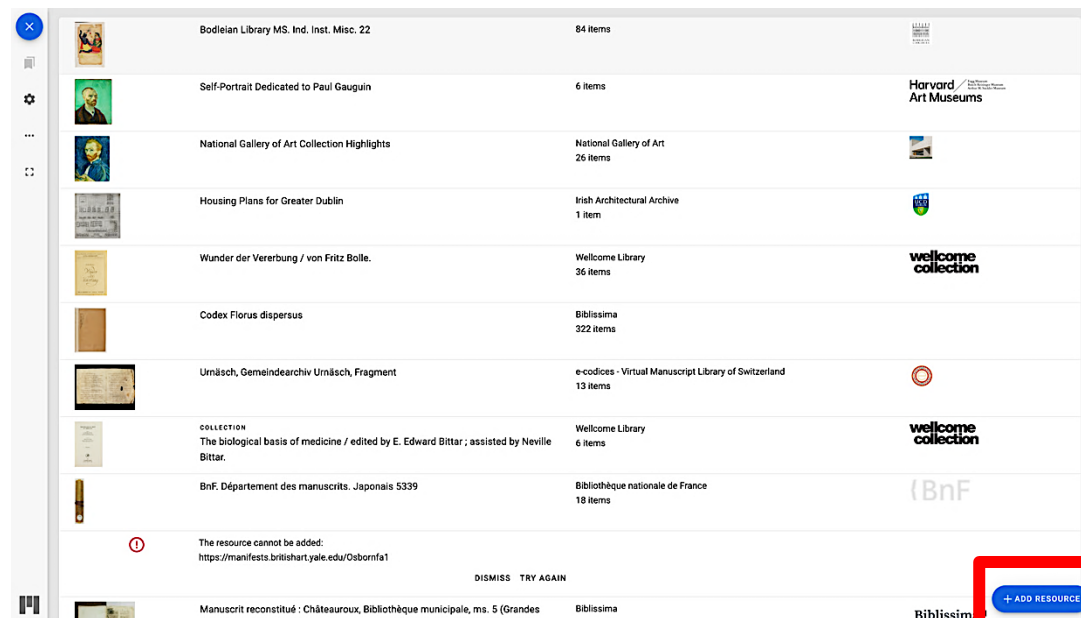
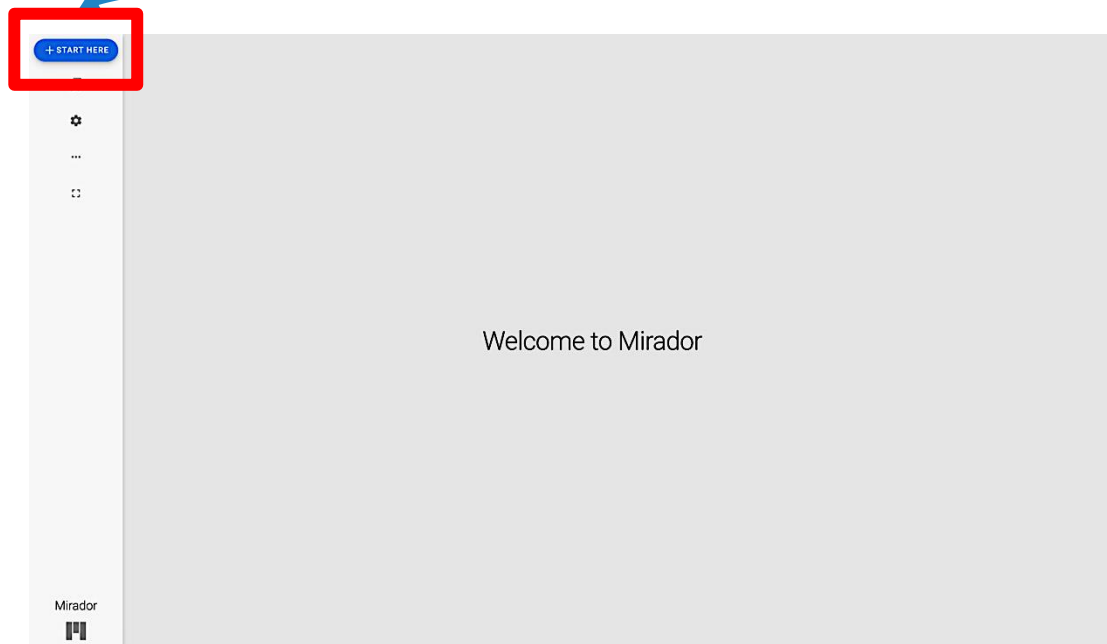


Official website: Mirador
<https://projectmirador.org/>

✂ You can find it easily by searching for “Mirador IIF”

Loading a Manifest 2

Click the "+" or the "+ START HERE" button



Click the "+ ADD RESOURCE" button

Loading a Manifest 3

Before inputting the manifest URL

The screenshot shows a list of digital resources. At the bottom, a blue 'Add resource' dialog is open, with a text input field labeled 'Resource location' and a placeholder 'The URL of a IIIF resource'. The dialog also contains 'CANCEL' and 'ADD' buttons.

After inputting the manifest URL

The screenshot shows the same list of resources, but now a new resource, '論語聞書' (The Analects), has been added to the top of the list. A red box highlights this new entry, and a blue arrow points from a text box to it. The 'Add resource' dialog is now closed. At the bottom, a message states: 'The resource cannot be added: https://manifests.briishart.yale.edu/Osbornfa1'.

「論語聞書」 (The Analects) appears in the list

Type the URL of the manifest

▼ Add resource

Resource location

The URL of a IIIF resource

CANCEL

ADD

Example: <https://ir.library.osaka-u.ac.jp/mmd/manifest/1/2000/89232.json> (「論語聞書」 (A hearing note of the Analects, *Rongokikigaki*))

Loading a Manifest 3

Before inputting the manifest URL

The screenshot shows a list of digital resources. At the bottom, a red box highlights the 'Add resource' dialog. The dialog has a 'Resource location' input field and 'CANCEL' and 'ADD' buttons. Below the input field, it says 'The URL of a IIIF resource'.

After inputting the manifest URL

The screenshot shows the same list of resources, but now the top item is '論語聞書' (The Analects) with 618 items. A red box highlights this new entry. A blue arrow points from a text box to this entry. At the bottom, a message says 'The resource cannot be added: https://manifests.briishart.yale.edu/Osbornfa1' and there is an '+ ADD RESOURCE' button.

「論語聞書」 (The Analects) appears in the list

Type the URL of the manifest

▼ Add resource

Resource location

CANCEL

ADD

The URL of a IIIF resource

Example: <https://ir.library.osaka-u.ac.jp/mmd/manifest/1/2000/89232.json> (「論語聞書」 (A hearing note of the Analects, *Rongokikigaki*))

Loading a Manifest 4

Click on the list of books



A screenshot of a book list interface. The first item, '論語問書', is highlighted with a red box. An arrow points from the text 'Click on the list of books' to this box. The list contains the following items:

Image	Title	Items	Source
	論語問書	618 Items	
	Bodleian Library Ms. Ind. Inst. Misc. 22	24 Items	
	Self-Portrait Dedicated to Paul Gauguin	6 Items	Harvard Art Museums
	National Gallery of Art Collection Highlights	National Gallery of Art 26 Items	
	Housing Plans for Greater Dublin	Irish Architectural Archive 1 Item	
	Wunder der Vererbung / von Fritz Bolle.	Wellcome Library 36 Items	wellcome collection
	Codex Florus dispersus	Biblisima 322 Items	
	Urnäsch, Gemeindearchiv Urnäsch, Fragment	e-codices - Virtual Manuscript Library of Switzerland 13 Items	
	COLLECTION The biological basis of medicine / edited by E. Edward Bittar ; assisted by Neville Bittar.	Wellcome Library 6 Items	wellcome collection
	BnF. Département des manuscrits. Japonais 5339	Bibliothèque nationale de France 18 Items	(BnF)

At the bottom, there is a message: 'The resource cannot be added: https://manifests.britishart.yale.edu/Osbornfa1' and a '+ ADD RESOURCE' button.

Loading a Manifest 5

The image displays a digital viewer interface for a book manifest. It features two side-by-side windows, both titled "論語聞書" (Lunyu Wenshu). The left window shows a book cover with a label that reads "論語聞書 共 六冊" (Lunyu Wenshu, total 6 volumes) and a small red box containing the numbers "6" and "45". The right window shows the same book cover but with a navigation bar at the bottom containing left and right arrows and the text "1 of 618 · 1". A vertical toolbar on the left contains icons for adding, bookmarking, settings, and zooming.

Loading a Manifest 7

三 論語問書

三 寺尾寿自筆ノ一ト[061]

三 すすたけ印問答

The image displays three panels from a digital viewer. The left panel shows a handwritten Japanese manuscript with vertical text and a red seal. The middle panel shows a handwritten French manuscript with several geometric diagrams and text. The right panel shows a woodblock print illustration of a group of people in traditional Japanese attire, possibly a classroom or a study group.

Handwritten Japanese text (left panel):

曾子ノ語ヲ立ラヒワニツルトアルニ冉有関子密ナドヲ
モ冉子ノ関子ノトカキタル所アレヒ一ツカニツクナリ有子
曾子ハ論語中ノコトヲズ子トカキテアルニイヒマシ
▲學問第一
論語ハ十卷廿篇ノソノ第一篇ノ論語ヲ上下卷ニワカ
テリ學問ト一篇首ノニ字シトリテ篇ノ名トモリ上代ハ紙
ナキ故ニカサダカナリ故ニ廿篇ニワケタリ
●此為一學問ノ論語ノ第一篇ナル故ニ本ヲツトムル心
スキ學問ハ本ヲツトムルガ第一ノ層ニアムニハ登壇トモ
オトカ大事ナリ乃入道一學問本ヲツトムルト道ニ入門ヲ
シルアリ本ヲツトムル又ナヤウモトク又ナリ ■入道一知テトク

Handwritten French text and diagrams (middle panel):

9. Quel est le lien géométrique des pôles d'un plan quel qu'il soit avec la ligne des hauteurs à deux droites de ce plan tant à une valeur donnée?

C'est le lieu des pôles $AP+AQ=5$, $AP+AQ=10$ ou le prolongement de AL , alors $AP=5$, soit AL parallèle à AB , alors AL est la bissectrice de l'angle QAP et par suite perpendiculaire à la bissectrice de l'angle A ; le point AL est ainsi déterminé. Il y a 4 pôles CC, CB répondant à la question; par conséquent 2 droites qui coupent le lieu.

10. Lorsqu'un pôle est intérieur à un Δ équilatéral ABC , la somme de ses distances aux trois côtés a une valeur constante. Montrer l'inverse quand il est extérieur au Δ .

D'après 8, $AP+AQ=10$. Soit $AP+AQ+AR=10+10=20=CB$ CB est intérieur; il faut un angle Q , $20+10=30=CB$ et sans un angle opposé par le sommet à A , $30+10=40=CB$.

11. Pour le sommet A d'un Δ ABC on trace une droite indéfinie

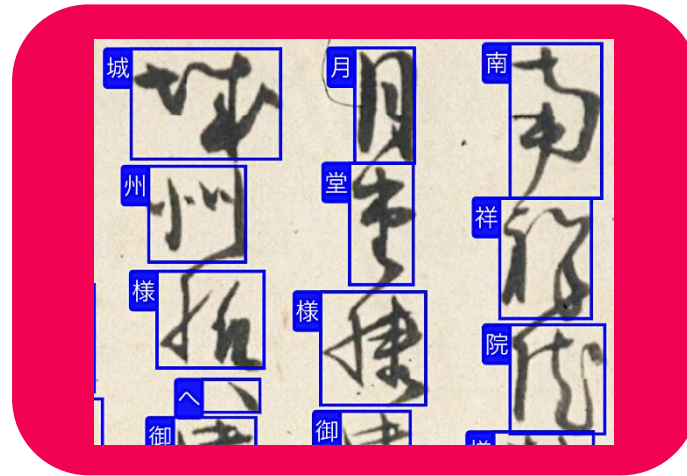
Woodblock print illustration (right panel):

Illustration of a group of people in traditional Japanese attire, possibly a classroom or a study group. The scene is filled with figures, some holding books or scrolls, and the setting appears to be an interior room with sliding doors (shoji).

Examples of web applications with various features



Cutting out part of an image to collect data (Curation)



Overlaying marks or text on images to display additional information (Annotation)



Search systems using image annotations, etc.

An Example of Reconstructing Materials Scattered Across Different Collections

Digital Tale of Genji
Ver. YUMENOUKIHASHI
(The University of Tokyo)

Variant Text of The Tale of Genji:
Kiritsubo
https://tei-eaj.github.io/parallel_text_viewer/v2?u=https%3A%2F%2Fgenji.dl.itc.u-tokyo.ac.jp%2Fdata%2Fvol%2F01%2Fconfig.json

Parallel Text Viewer with TEI & IIIF



デジタル源氏物語

Eng

The screenshot shows the Parallel Text Viewer interface. At the top, there are navigation options: 'Fit Bounds', 'レイアウト変更' (Layout Change), and '全画面表示' (Full Screen). Below this is a grid of book covers. The top row shows three covers: '校...' (Kō...), '東...' (Tō...), and '九...' (Kū...). The bottom row shows '九...' (Kū...), '湖...' (Kō...), and a '閉じる' (Close) button. A large '+' button is visible in the bottom right corner of the grid, with the text 'アイテム追加' (Add Item) below it. The central panel displays a detailed view of a manuscript page with Japanese text and a color calibration strip on the left.

いつれの御時にか女御更衣あまたさぶらひ給けるなかにいとやむことなきは
にはあらぬかすくれて時めき給ありけりはしめより我はと思あかり給へる御方
くめさましきものにおとしめそねみ給おなしほとそれより下らうの更衣たち
はましてやすからず あさゆふの宮つかへにつけても人の心をのみうこかしうじ
みをおふつもりにやありけむいとあつしくなりゆきもりばそナニキイカトヤ

紫式部
青空文庫作成
底本：「全訳源氏物語 上巻」角川文庫、角川書店
1971 (昭和46) 年8月10日改版初版発行
1994 (平成6) 年12月20日56版発行
※このファイルは、古典総合研究所 (<http://www.genji.co.jp/>) で入力されたものを、青空文庫形式にあらためて作成しました。
※校正には、2002 (平成14) 年4月5日71版を使用しました。
入力：上田英代
校正：kompass
2003年4月15日作成
青空文庫作成ファイル：
このファイルは、インターネットの図書館、青空文庫 (<http://www.aozora.gr.jp/>) で作られました。入力、校正、制作にあたっては、ボランティアの皆さんです。
Aozora Transcription 上田英代
Aozora Proofreading kompass
TEI Encoding Satoru Nakamura

Example of Annotating a IIF Image

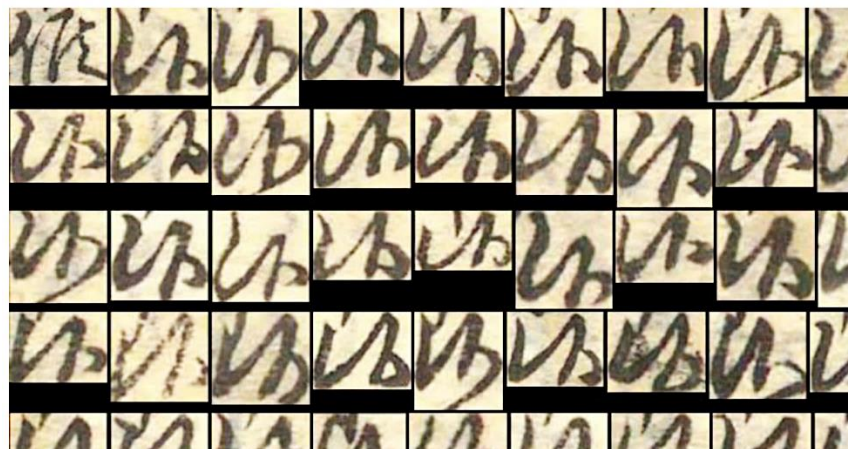
CODH Kuzushiji Character Database Search (Hiragana [variant forms], Katakana, Kanji)

「候」(U+5019) 画像数: 1640 件

虚南留別志 (3)



御前菓子秘伝抄 (326)

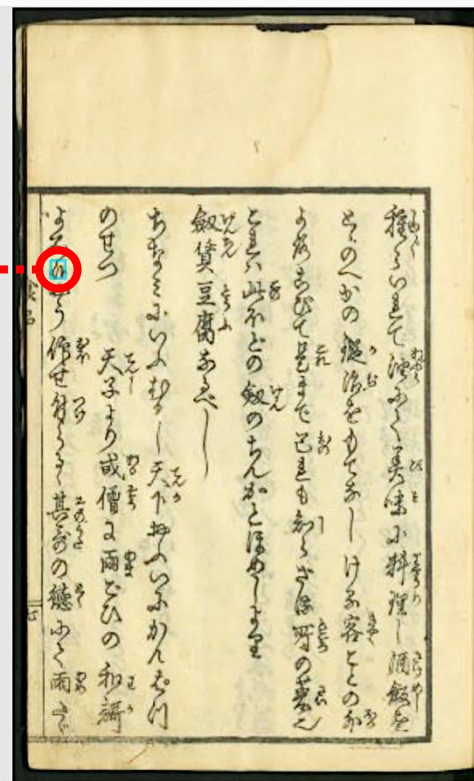


KogumaNetくずし字認識ビューア



虚南留別志

«前 25 / 78 次» サムネイル一覧



Example: SAT Taishō Image Database

The SAT Daizōkyō Text Database Research Group has published all 12 volumes of the illustrated section of the *Taishō Shinshū Daizōkyō* (published by Daizō Shuppan Co., Ltd.), an essential resource for Buddhist studies, as IIF images.

<https://dzkimgs.l.u-tokyo.ac.jp/SATi/images.php>

- To enable image-based search, each Buddhist figure has been tagged with keywords
- The usage license is Creative Commons CC BY-SA (requires appropriate attribution and sharing any modified or adapted data under the same license).



大正新脩大藏經圖像部第12b02卷

Annotations

Showing 391 annotations

ITEM: [1]

八葉院 (曼荼羅) 目の数: 二目 額: 白毫無 臂数: 二臂 タグ付け担当: 永崎研宣

如来慈 胎藏曼荼羅(子島寺藏本) (曼荼羅) 髪部: 頭上面: 無, 目の数: 二目 面相: 慈悲相: 閉口, 髻: 無, 髭: 無, 脇面: 無, 額: 白毫無 持物: 未開敷蓮華, 杯, 臂数: 二臂 坐法: 安坐: 右脚上, 装身具: 耳飾: 無, 胸飾: 瓔珞, 臂釧: 環, 腕釧: 環, 足釧: 無, 冠繪: 光背: 頭光: 円光, 身光: 有, 月輪: 無, 炎光, 眷属: 無, 顔の向き: 左 タグ付け担当: 黒崎夏央

八葉院 (曼荼羅) 目の数: 二目 額: 白毫無 臂数: 二臂 タグ付け担当: 永崎研宣

大日如來 胎藏曼荼羅 (子島寺藏本) (曼荼羅) 髪部: 筒型宝冠 (標幟: 五仏) 目の数: 二目 面相: 慈悲相: 閉口, 脇面: 無, 額: 白毫無 持物: 無, 輪宝, 臂数: 二臂 坐法: 結跏趺坐: 右脚上, 装身具: 耳飾: 璫, 胸飾: 瓔珞, 臂釧: 環, 腕釧: 環, 足釧: 無, 冠繪: 台座: 蓮華, 光背: 頭光: 円光, 身光: 有, 炎光, 眷属: 無, 顔の向き: 正面 タグ付け担当: 津田徹英

大安樂不空金剛三昧真実菩薩 胎藏曼荼羅(子島寺藏本) (曼荼羅) 髪部: 宝冠: 無: 標

Supporting User-driven Activities

Effectively Using the IIF Framework

- Users can create image collections from materials dispersed across different institutions.
- Specific portions of images can be selected, allowing users to tag them with keywords or retrieve positional data.

Not image publishers, but users take lead in creating image collections

- Can also be used in activities such as inquiry-based learning, curation, and ideathons.



Applications in Education and Creative Idea Generation

IIF Curation Platform <http://codh.rois.ac.jp/icp/>

- Features a “curation” function
- Users can collect specific image parts from IIF images around the world.
- In the demo on the official site, users can try collecting image parts from *The Illustrated Ise Monogatari Scrolls* (held by the National Institute of Japanese Literature).



(It is also possible to clip and collect IIF images from other websites.)



10



11



12



13



14



15

Summary

1. IIF offers many advantages and opportunities for researchers in the humanities.
2. Effective use of IIF begins with mastering how to work with **manifests**.
3. It can help streamline workflows by eliminating complex administrative procedures and the need for large-scale downloads.
4. Publishing content on the web using IIF increases the likelihood that it will be utilized in web applications like those shown earlier.
5. In humanities research, image materials are essential sources of information.
 - Consider publishing IIF-compatible images through **repositories** such as **OUKA**.