IIIF

Tools and Digital Editions

Glen Robson, IIIF Technical Coordinator

twitter: @glenrobson

About

- IIIF Technical Coordinator
  - Help with implementations
  - Work with vendors
  - Run training
  - A community resource

- National Library of Wales
  - For 12 years
  - Digitisation
    - http://bit.ly/2zPFx8a
  - Newspapers
    - http://newspapers.library.wales
  - Crowdsourcing
  - Linked Data

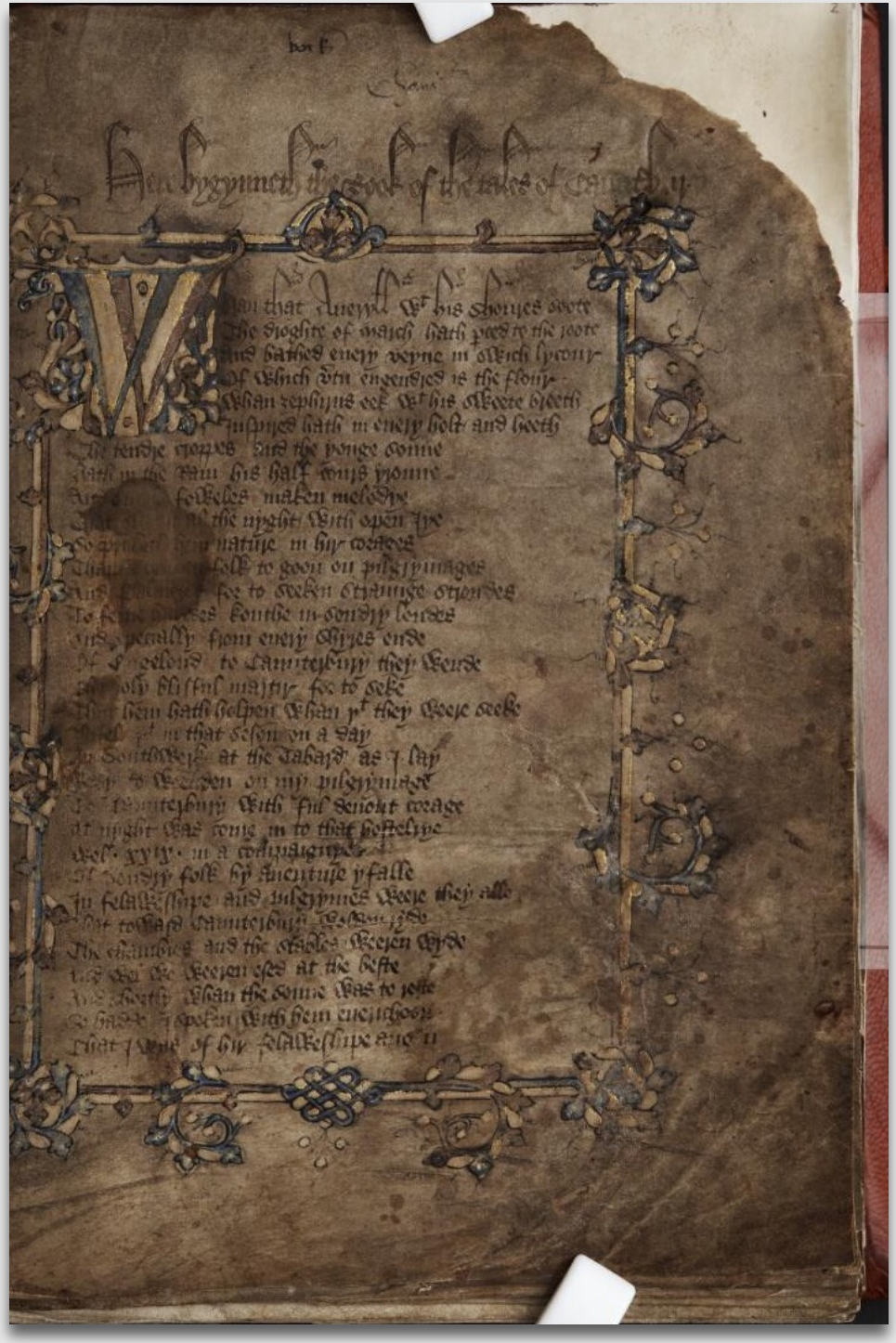
Plan

- Why IIIF?
- IIIF APIs
  - Image API
  - Presentation API
  - navPlace
- IIIF and Annotations
- IIIF Tools
- Further resources

International Image Interoperability Framework

International

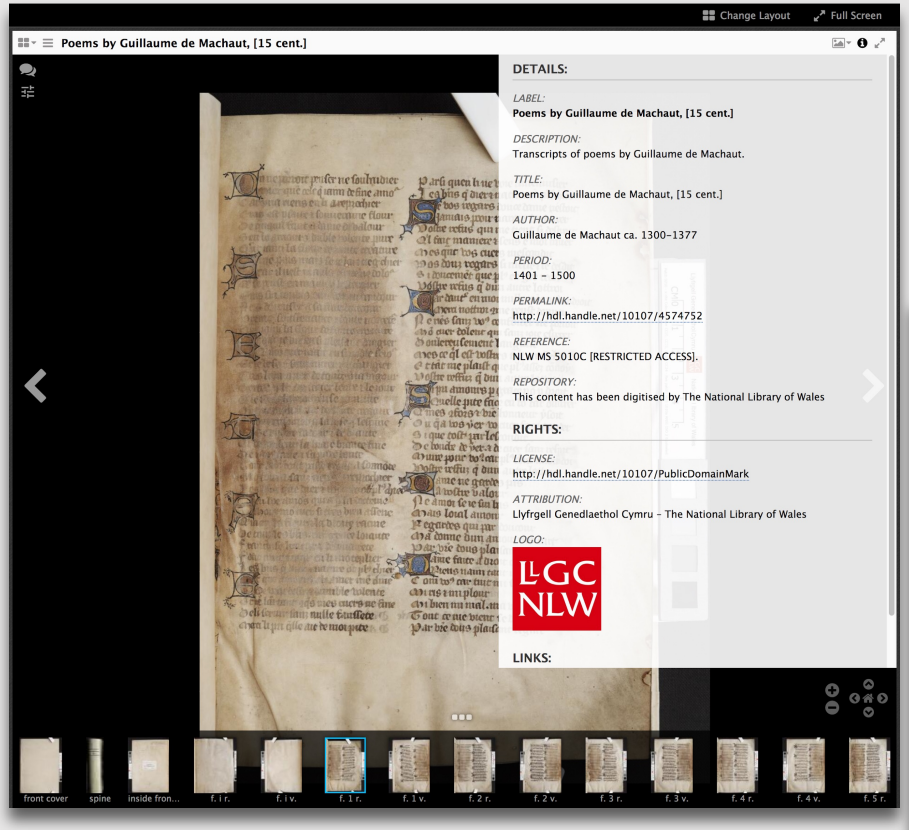
Links: https://bit.ly/2ZGgItM

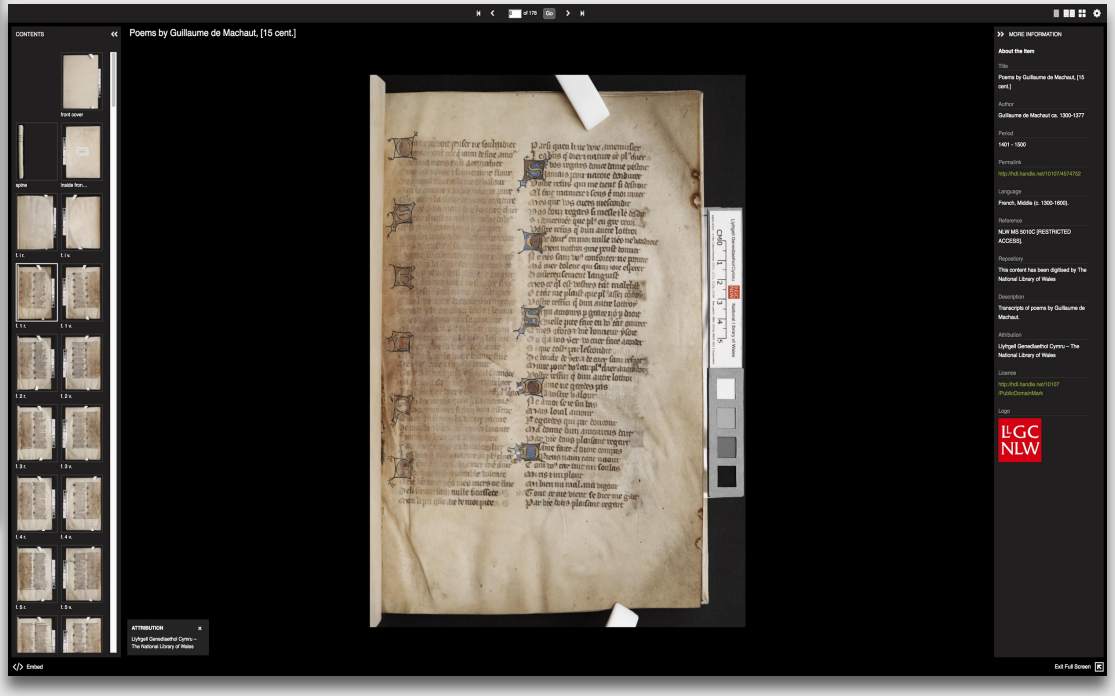


The Cambrian.

GENERAL WEEKLY ADVERTISER FOR THE PRINCIPALITY OF WALES

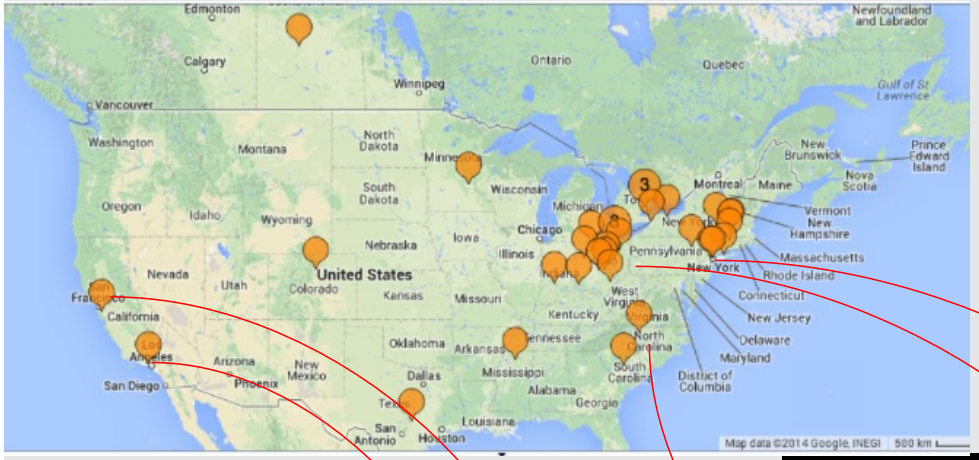
Interoperable - Viewers

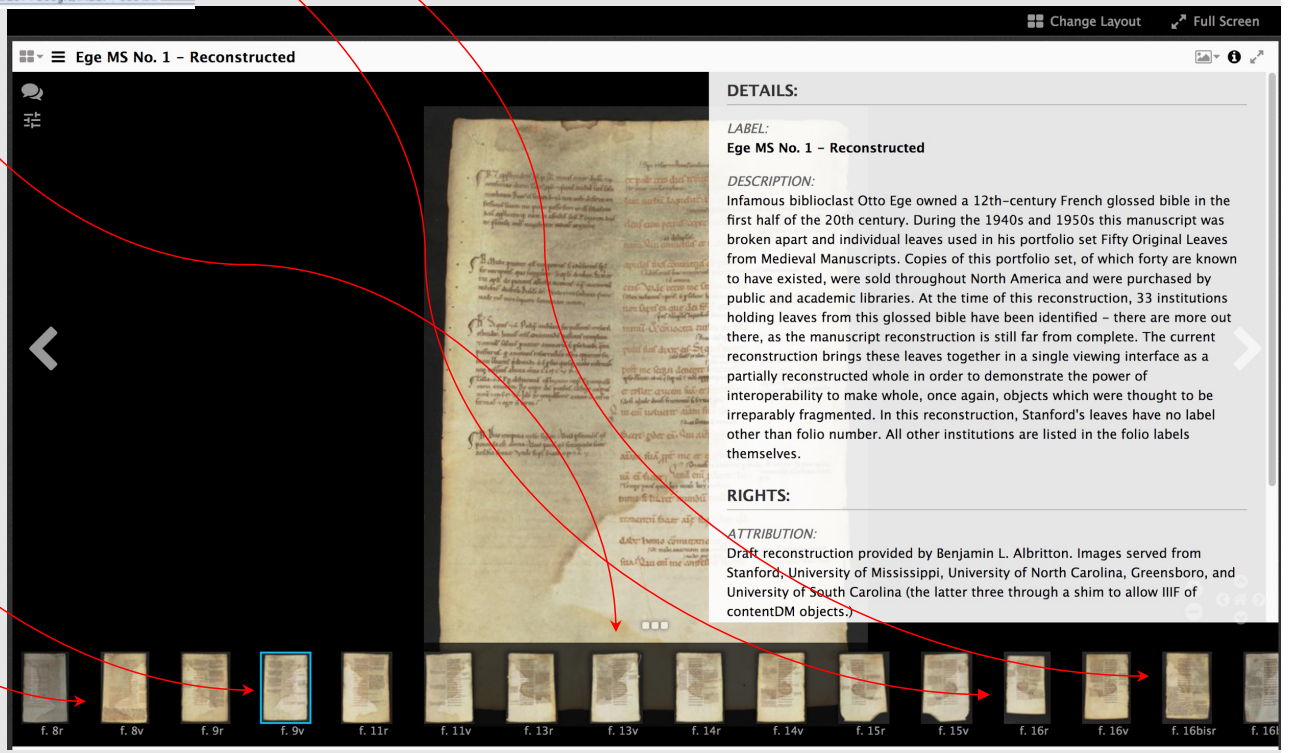




Links: https://bit.ly/2ZGgItM

Interoperable - Images

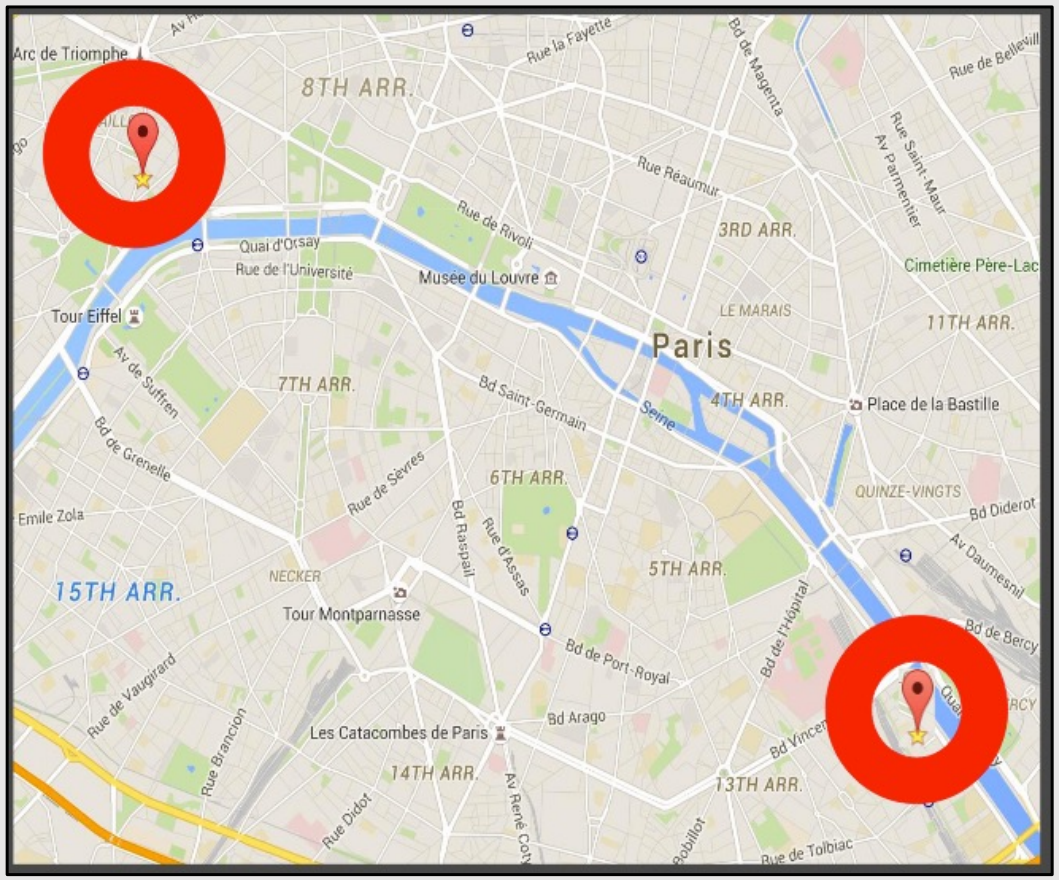




Interoperable - Images

Le manuscrit 5 de la Bibliothèque municipale de Châteauroux, c. 1460.
Folio in BVMM, miniature in the BNF.

Interoperable - Images



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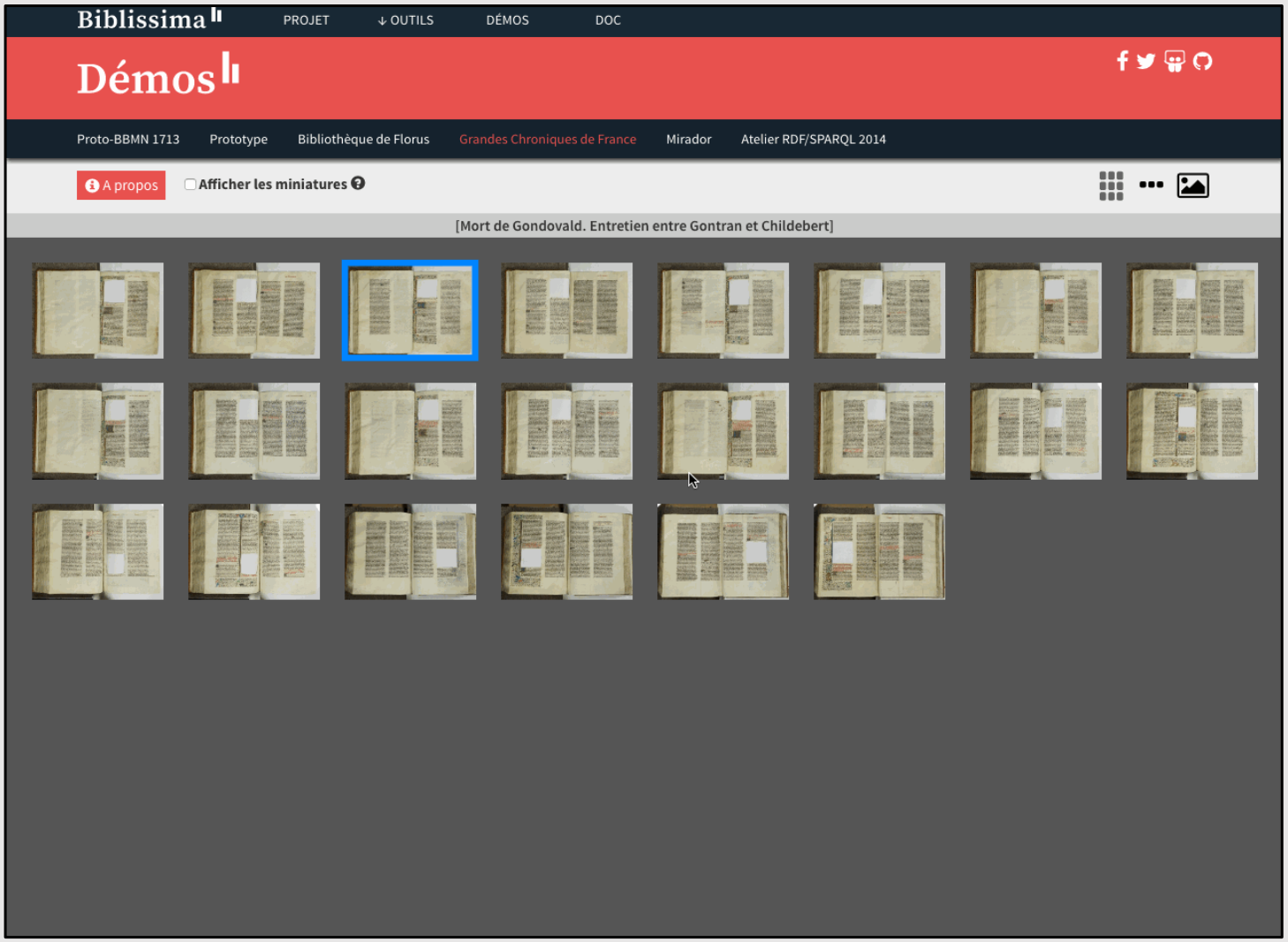
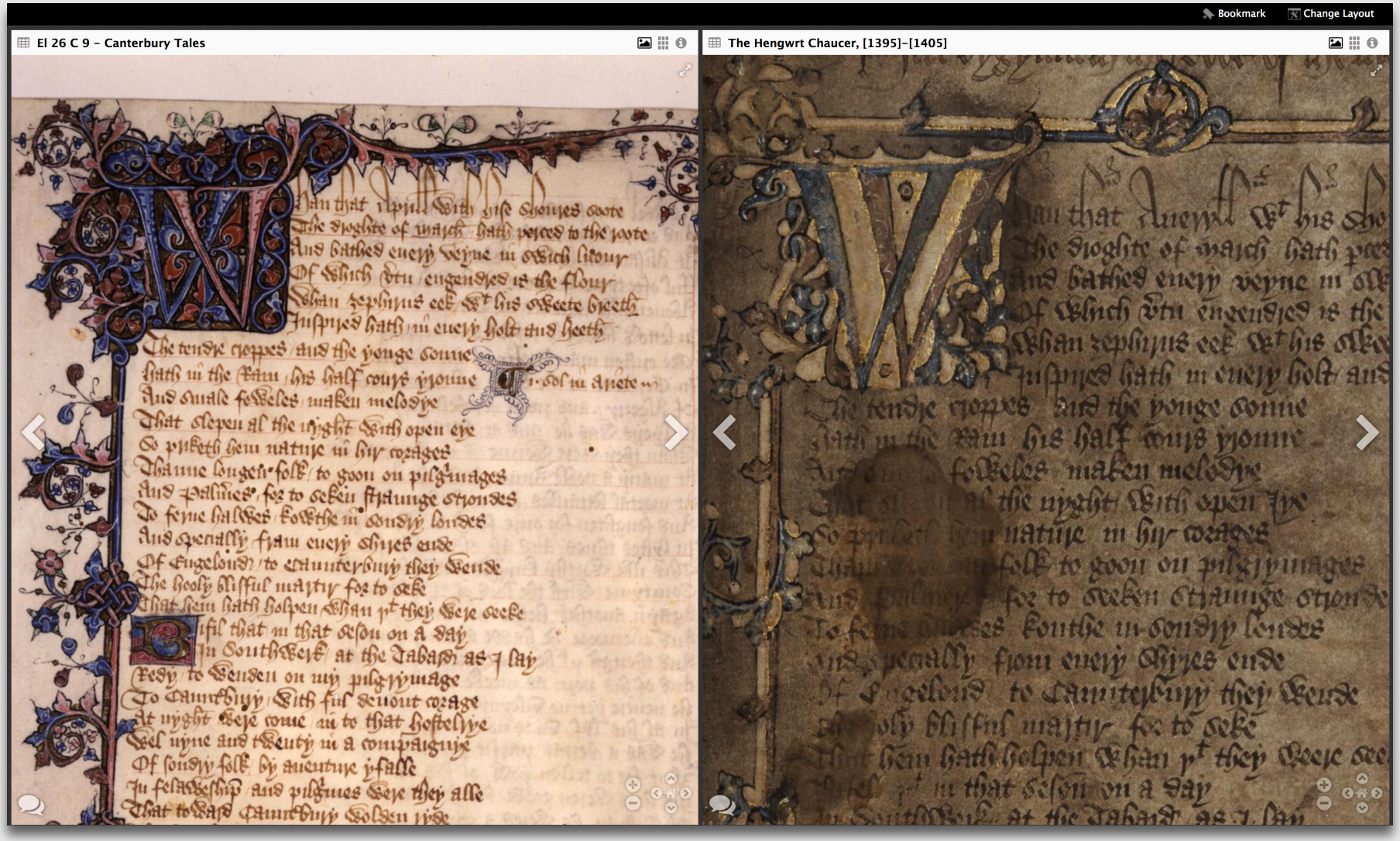


Biblissima | http://demos.biblissima-condorcet.fr/chateauroux/demo/

Interoperable - Collections



Links: https://bit.ly/2ZGgItM

Framework

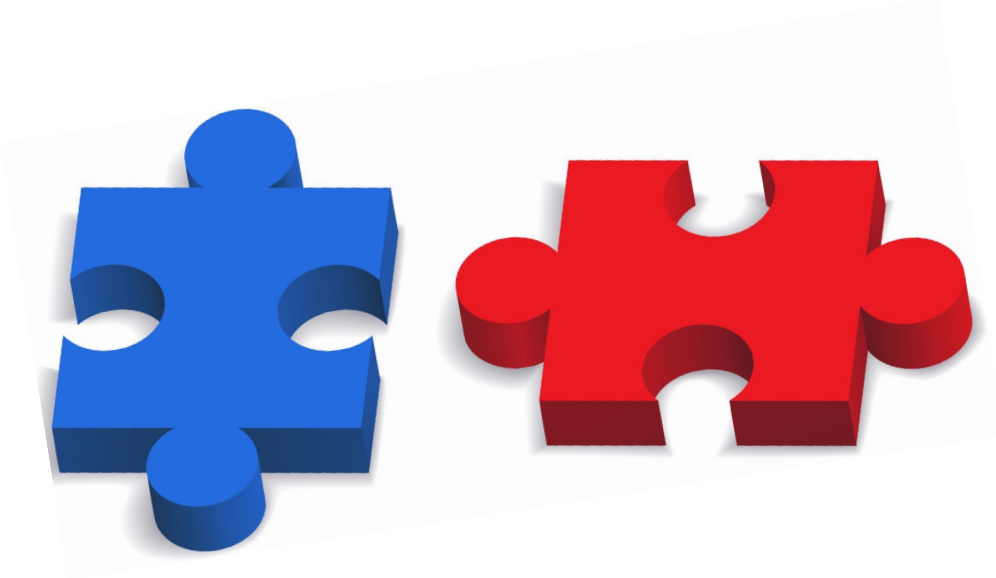


Image API
"get pixels" via a simple, RESTful, web service

Presentation API
Just enough metadata to drive a remote viewing experience

Links: https://bit.ly/2ZGgItM

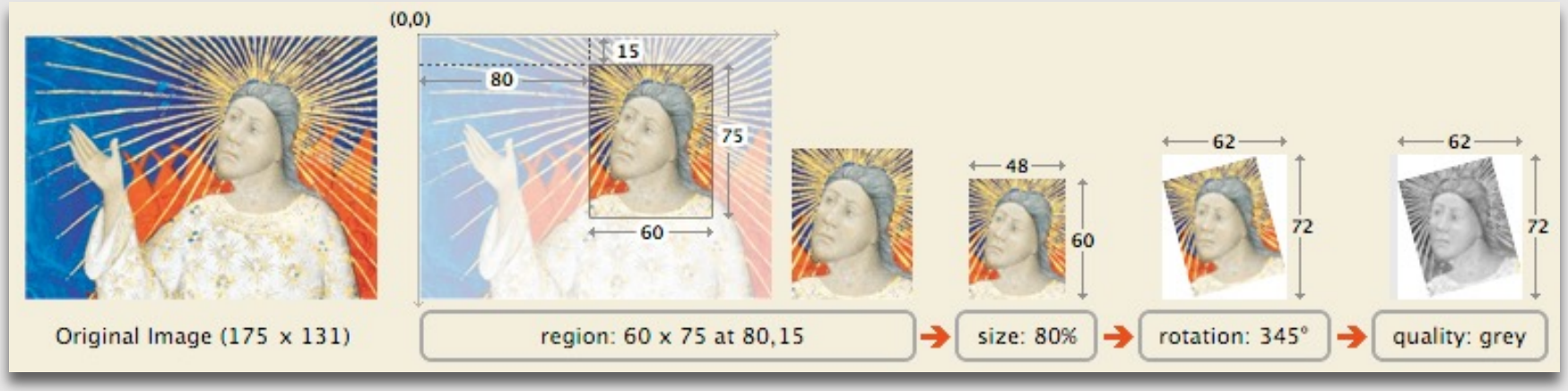
IIIF Image Api

http://iiif.io/api/image/2.1/

Order of Implementation

http://www.example.org/image-service/abcd1234/80,15,60,75/pct:80/345/grey.jpg

region size rotation quality format



Links: https://bit.ly/2ZGgItM

Image API

https://training.iiif.io/iiif-online-workshop/day-two/

Identifier	Region	Size	Rotation	Quality	Format
https://ids.lib.harvard.edu/ids/iiif/25286607	full	500,	0	default	.jpg

https://ids.lib.harvard.edu/ids/iiif/25286607/full/500,/0/default.jpg

Image API - Identifier

https://training.iiif.io/iiif-online-workshop/day-two/

Identifier

The identifier is highlighted below. Everything to the right of the identifier is controlled by the Image API and is predictable. In the viewer below a full IIIF image URL is shown. One thing to watch out for with a image URL is that it uses *https* rather than *http*. With *http* URLs you will not be able to open the image in a *https* hosted viewer.

You can see some different image examples by changing the identifier.

Identifier	Region	Size	Rotation	Quality	Format
✓ https://ids.lib.harvard.edu/ids/iiif/25286607		500,	0	default	.jpg
https://dlcs.io/iiif-img/wellcome/5/b14658197.jp2					
https://ids.si.edu/ids/iiif/CHSDM-317E001E9E352-000001					

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Image API - Region

https://training.iiif.io/iiif-online-workshop/day-two/

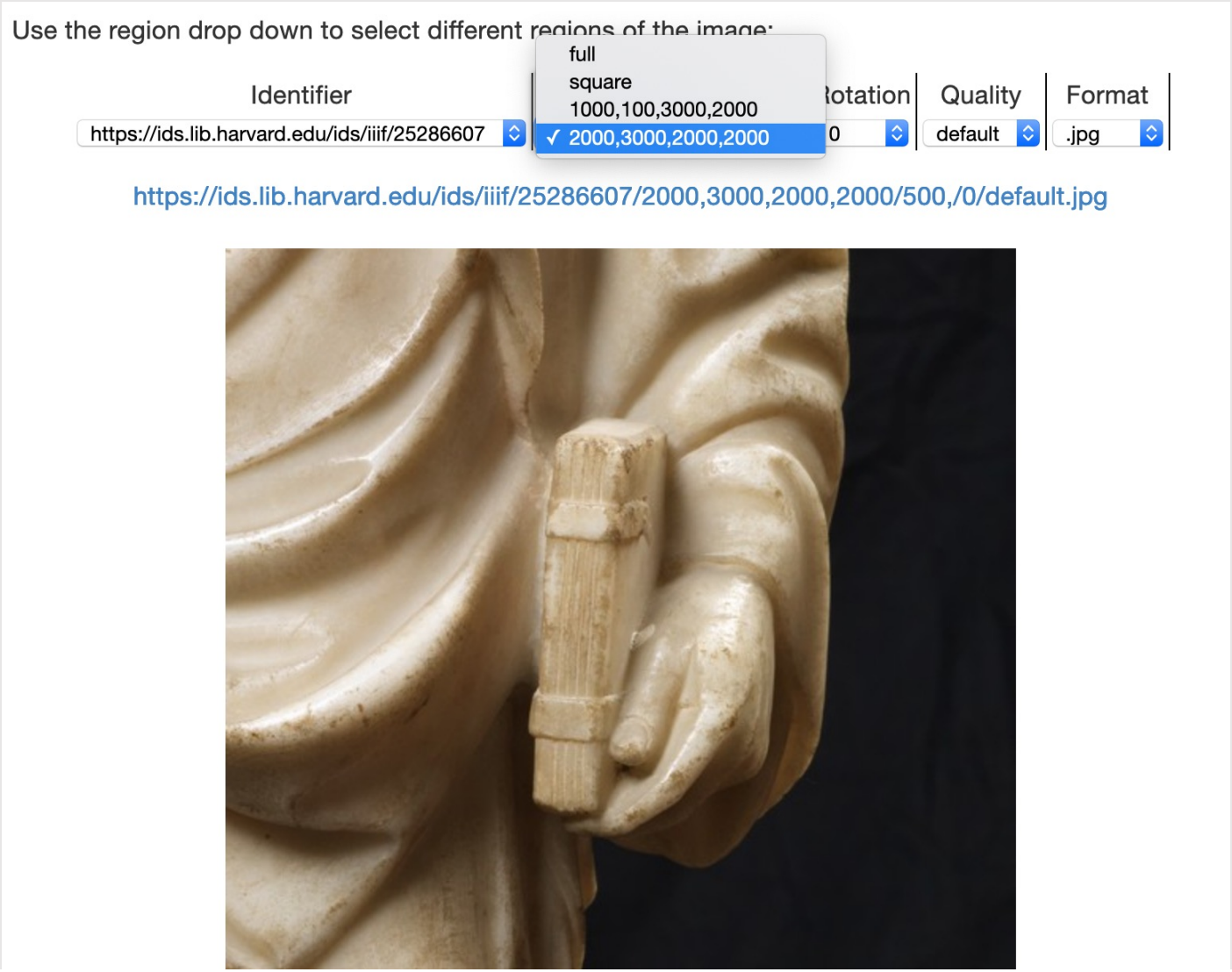

Image API - Rotation

https://training.iiif.io/iiif-online-workshop/day-two/

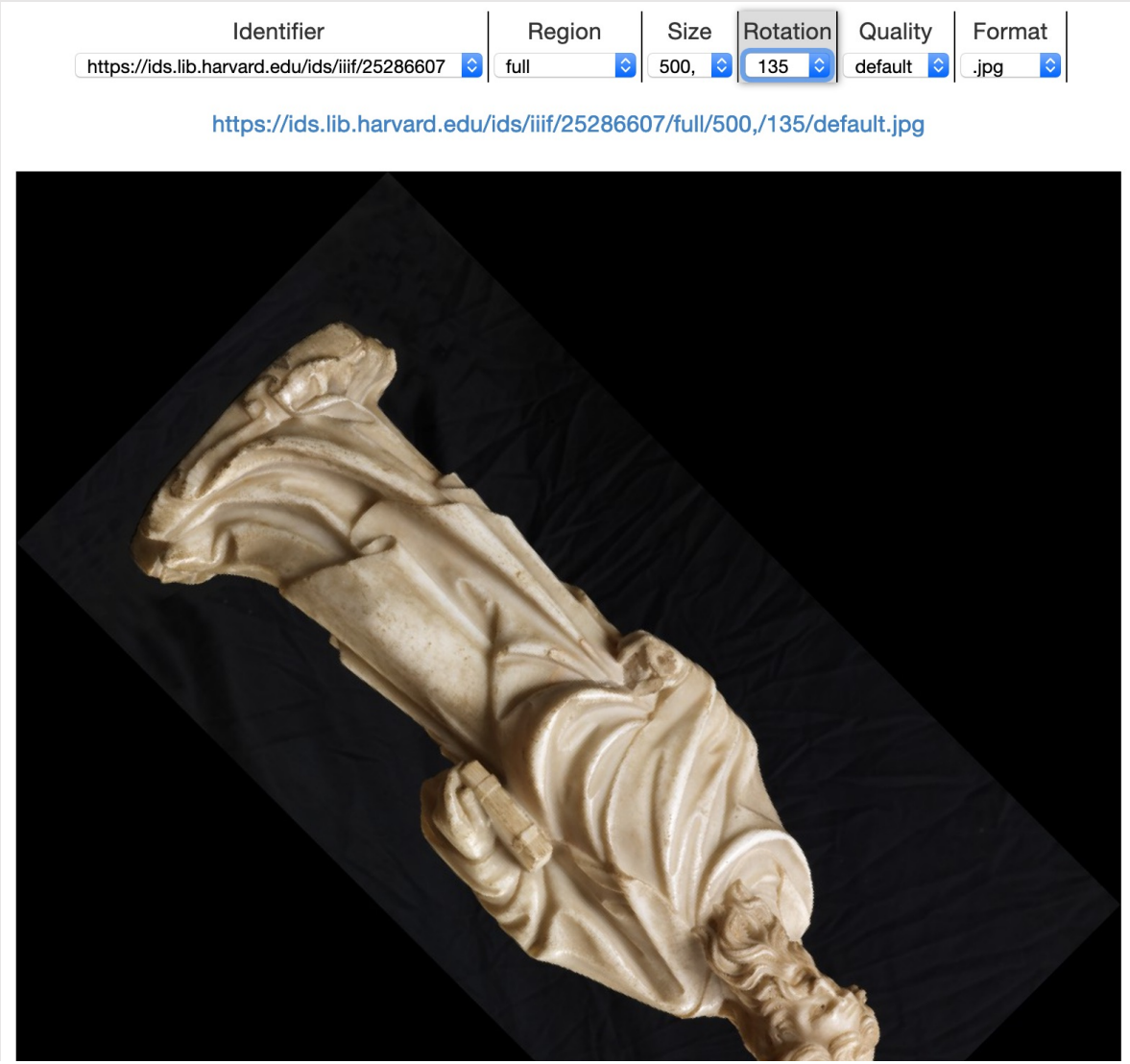

Image API - Quality

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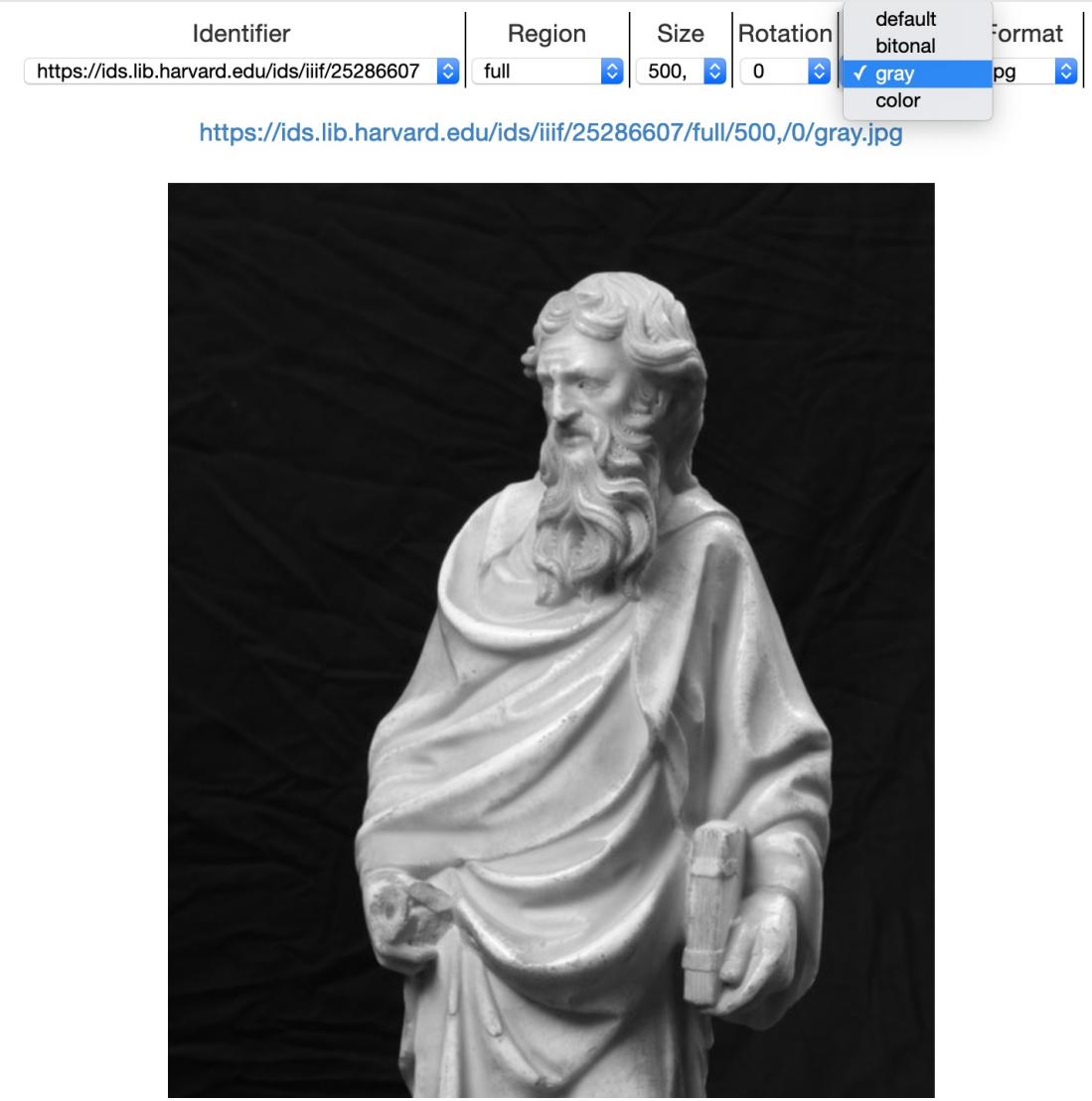


Image API - Format

https://training.iiif.io/iiif-online-workshop/day-two/

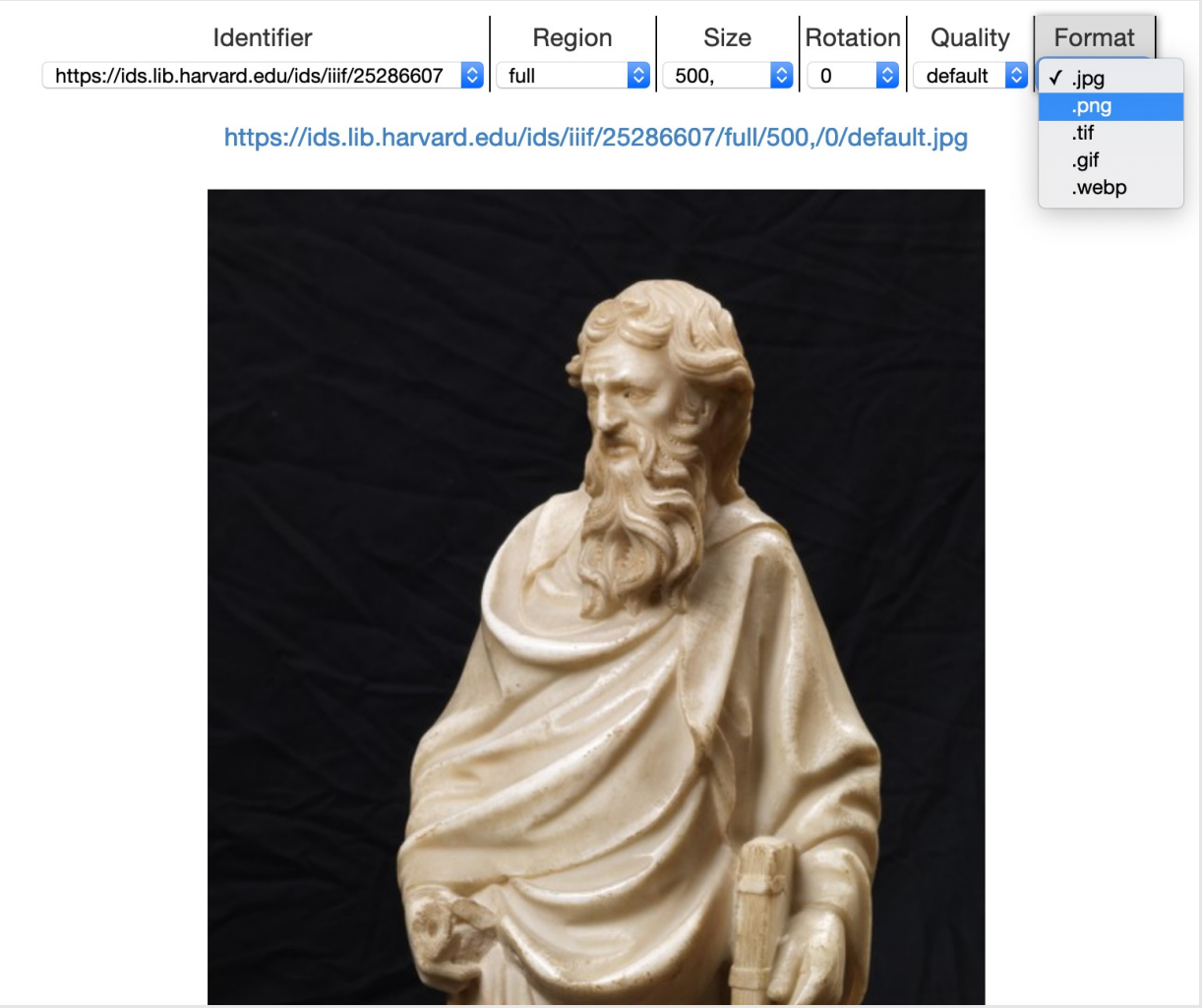


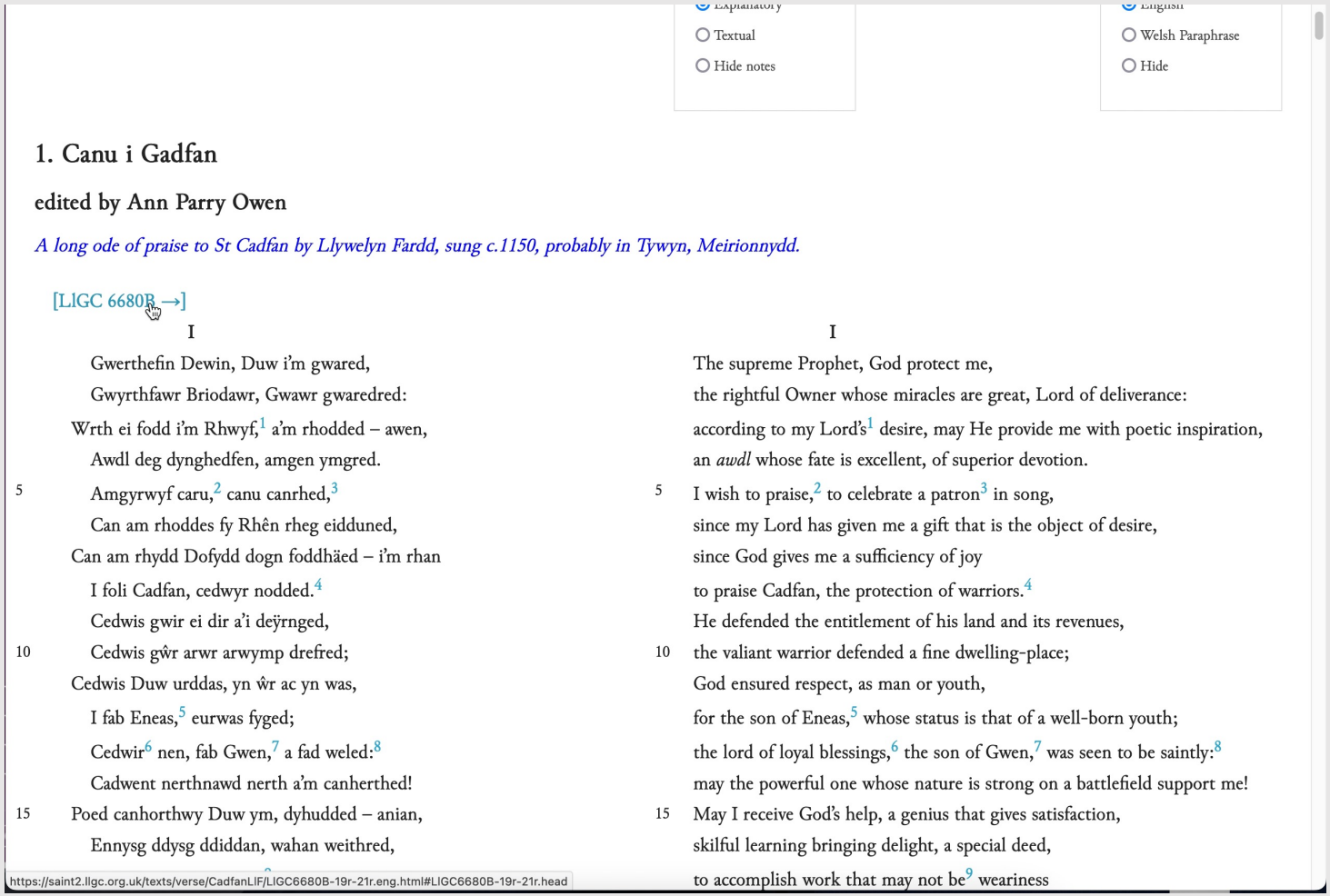
Image API

https://training.iiif.io/iiif-online-workshop/day-two/

Identifier	Region	Size	Rotation	Quality	Format
https://ids.lib.harvard.edu/ids/iiif/25286607	full	500,	0	default	.jpg

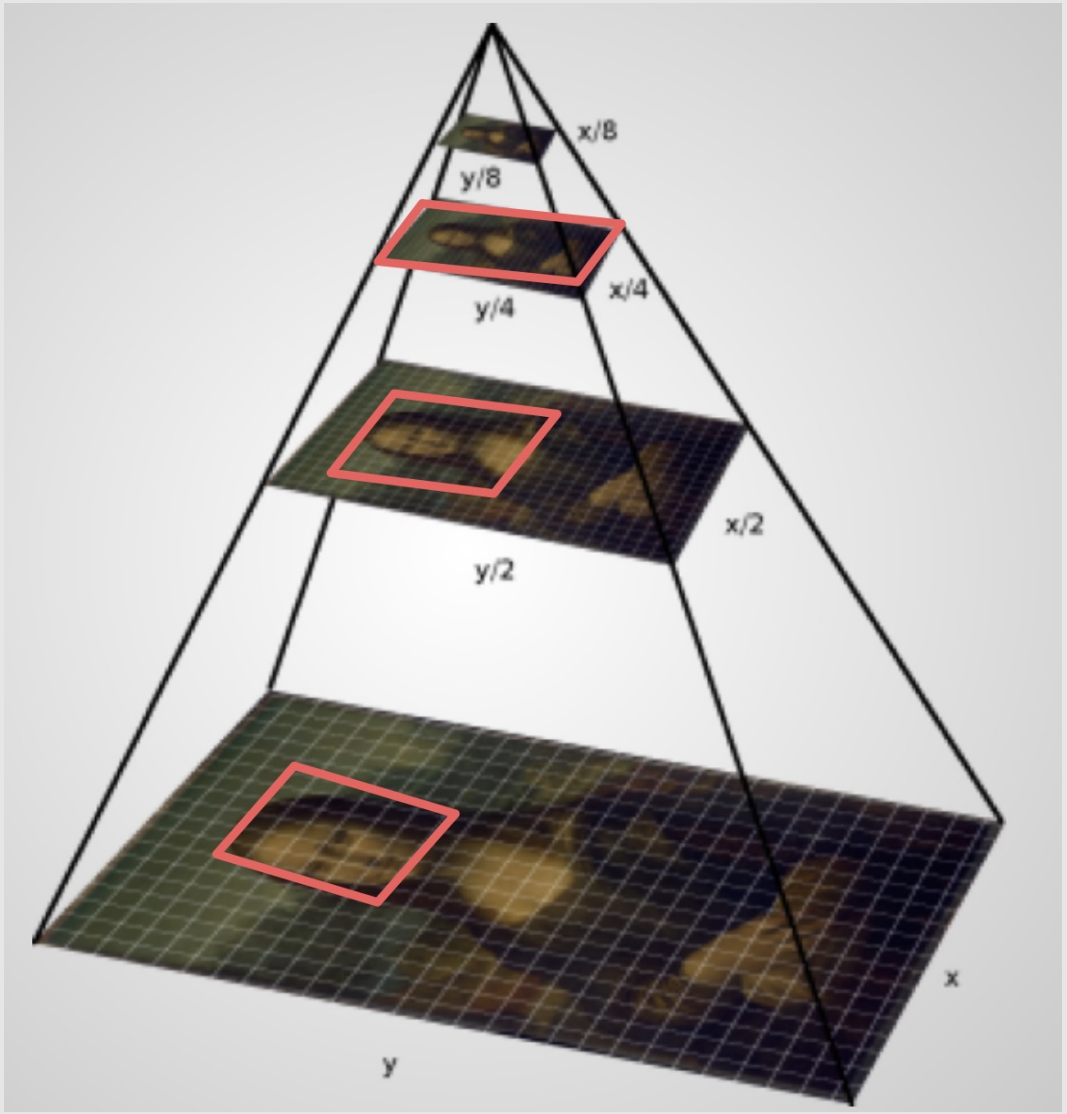
https://ids.lib.harvard.edu/ids/iiif/25286607/full/500,/0/default.jpg

Embedding Images



https://saint2.llgc.org.uk/texts/verse/CadfanLlF/LlGC6680B-19r-21r.eng.html#LlGC6680B-19r-21r.head

Zoom



Zoom

- https://tomcrane.github.io/the-long-iiif/dee-osd.html
- John Dee performing an experiment before Queen Elizabeth I.
- Oil painting by Henry Gillard Glindoni.

- Welcome Library:
- http://wellcomelibrary.org/item/b14658197

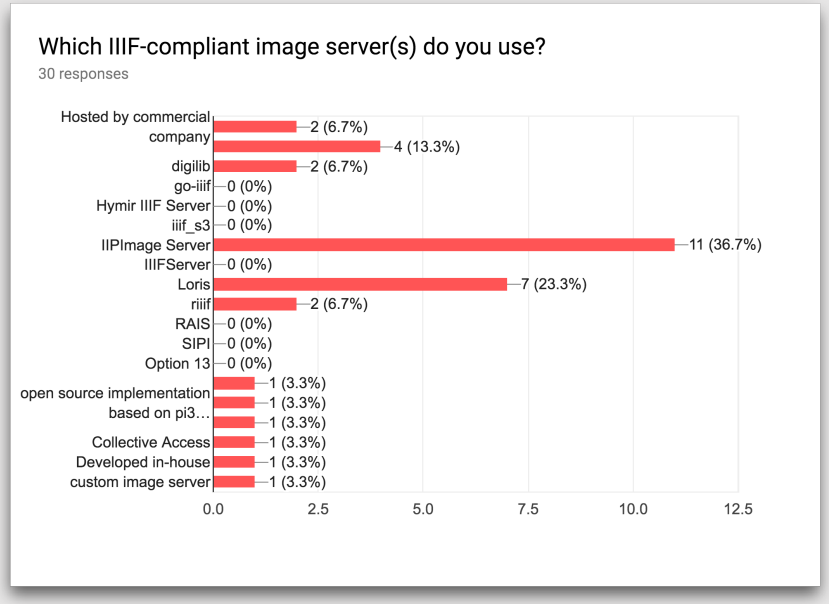
From: http://resources.digirati.com/iiif/an-introduction-to-iiif/

Tiles

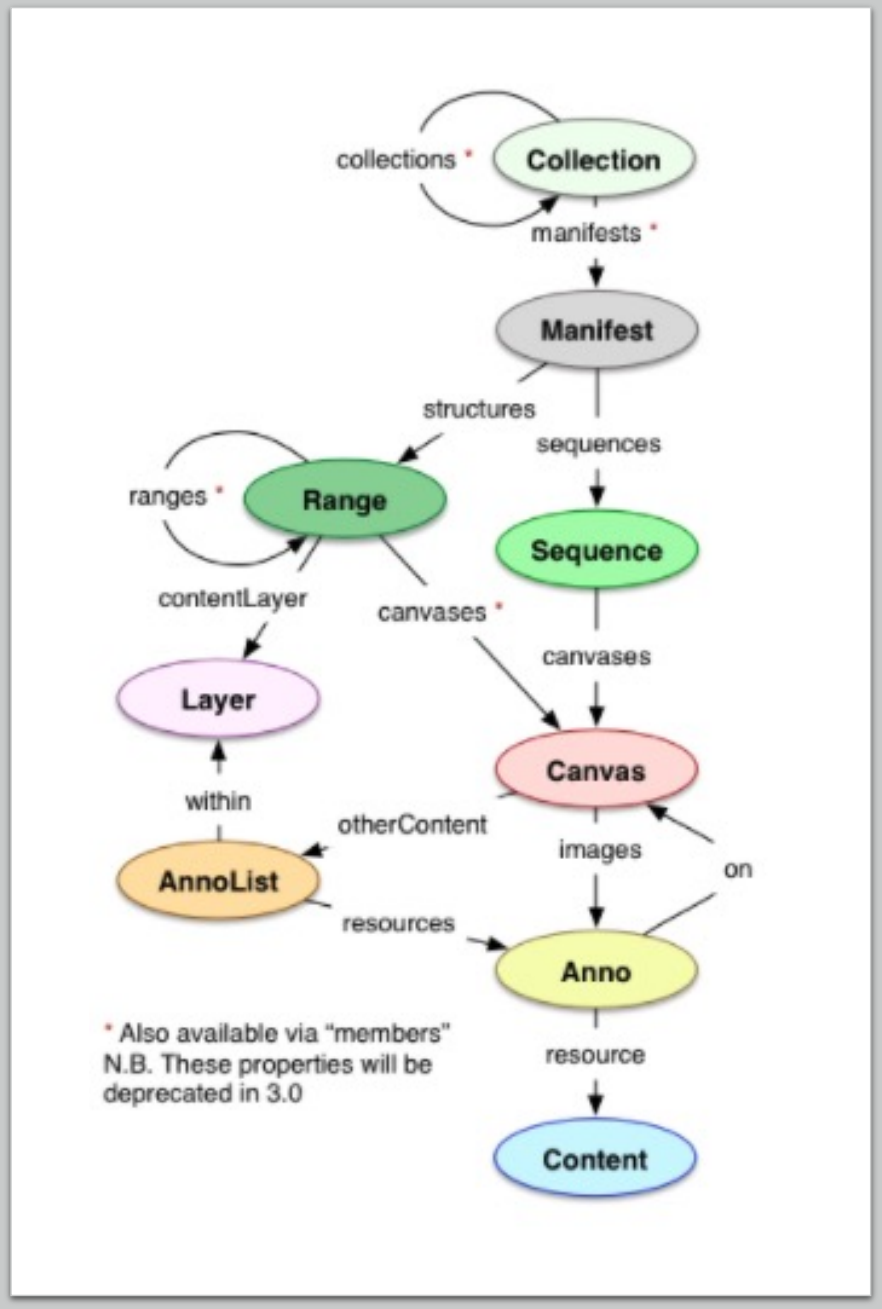
http://puzzle.mikeapps.me/

Viewers & Image Servers

- IIIF Image Servers
  - Cantaloupe - Java
  - IIP - C++
  - Loris - Python
  - RIIIIF - Ruby
- IIIF Image API Viewers
  - OpenSeaDragon
  - Leaflet
  - IIPViewer
- IIIF Presentation API Viewers
  - Universal Viewer
  - Mirador
  - Diva.js



Full list: https://github.com/IIIF/awesome-iiif



Presentation API

- http://iiif.io/api/presentation/
  - Basic Descriptive Metadata
  - Rights information
  - Links
  - Sequences - viewing order, etc.
  - Ranges - Table of Contents etc.
  - Based on Shared Canvas Model

Manifest

Presentation API

- Title Label
- Structure (TOC)
- Sequence

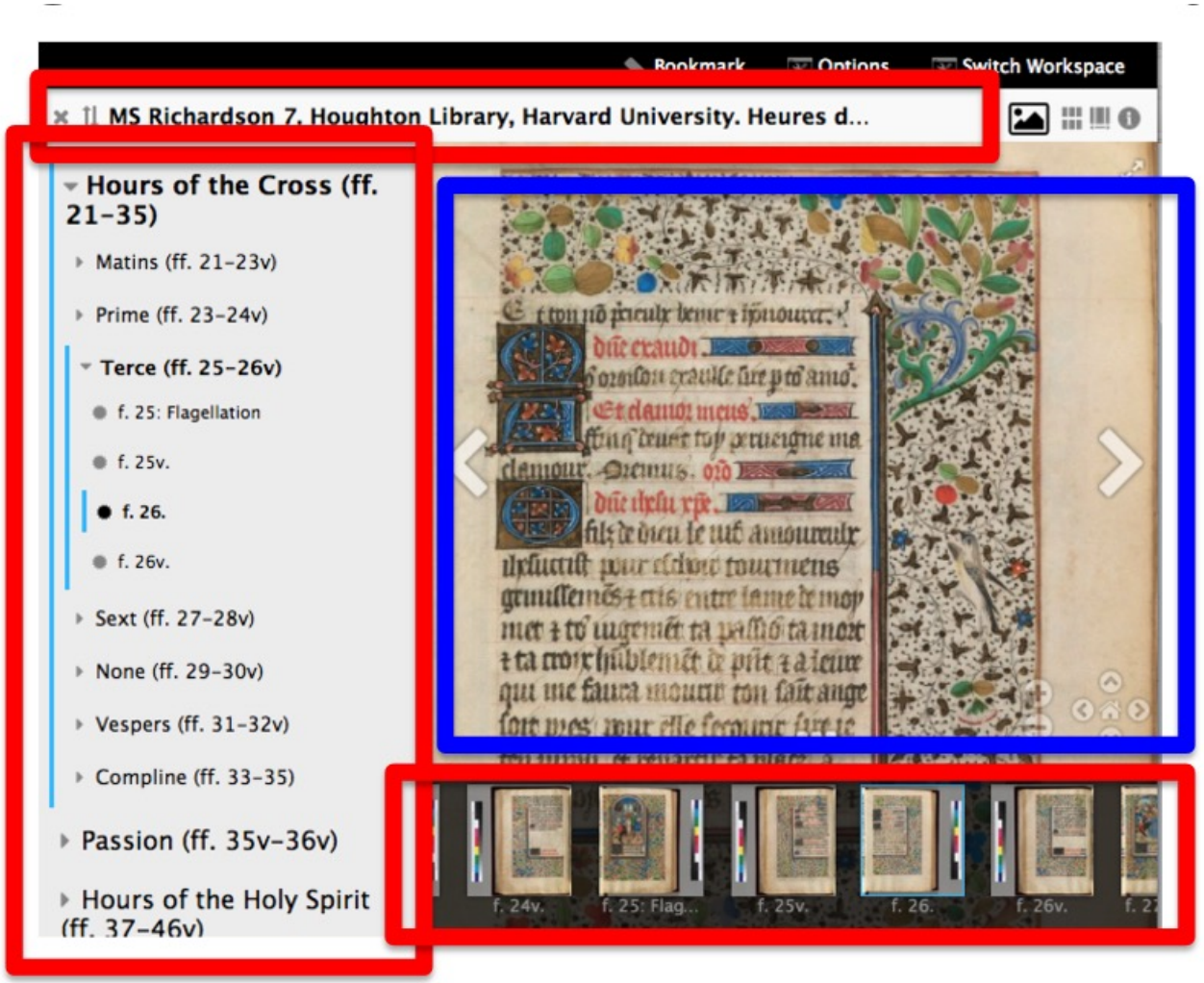
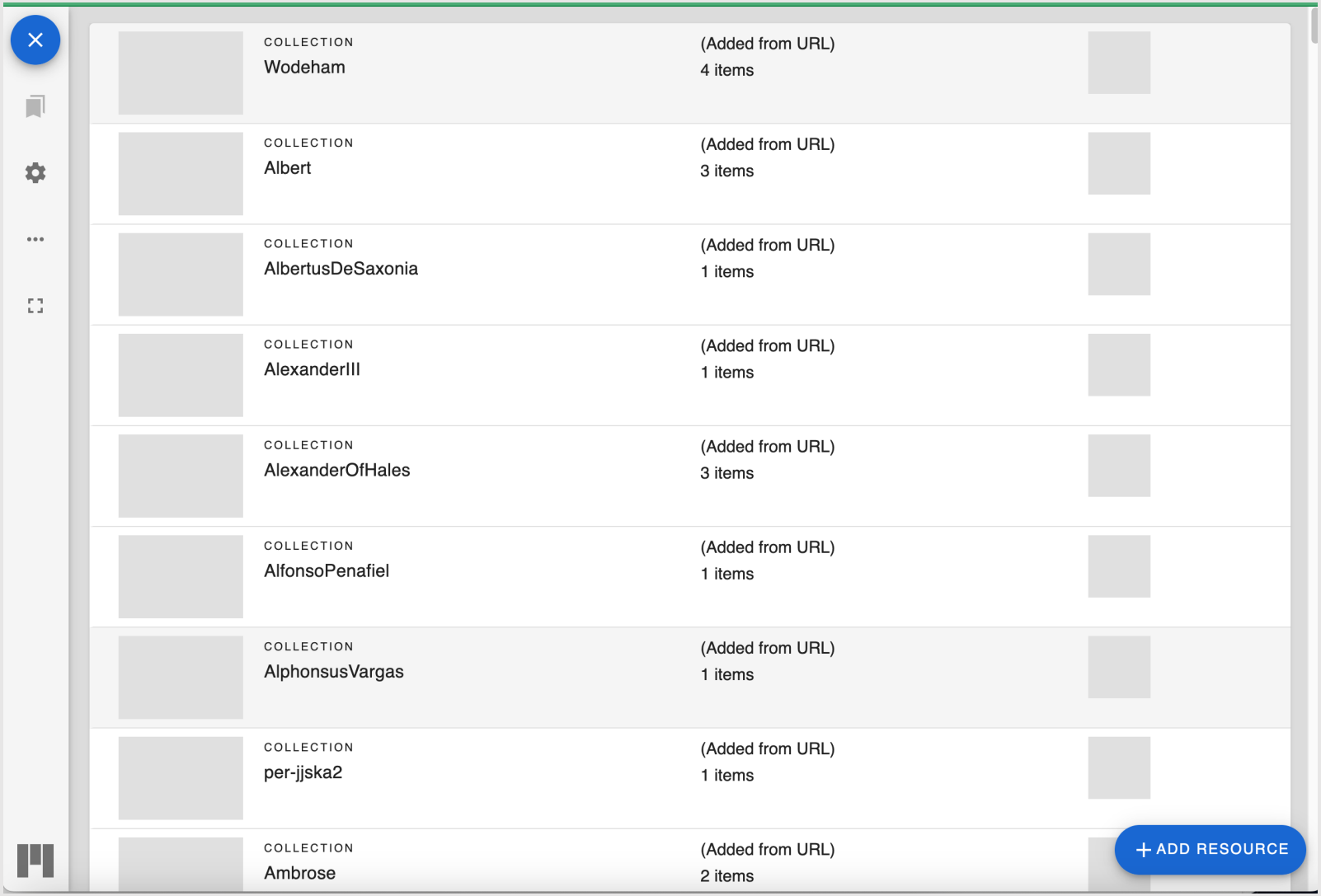


Image API

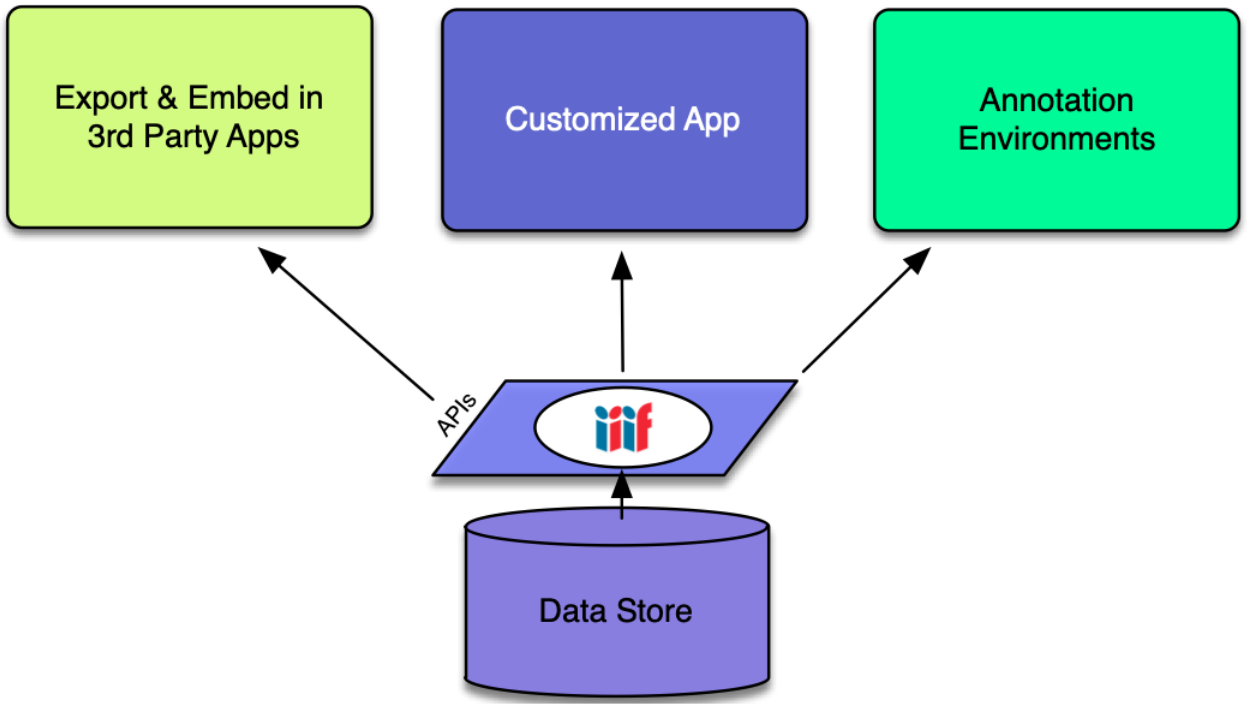
- Image Data

Bringing content together

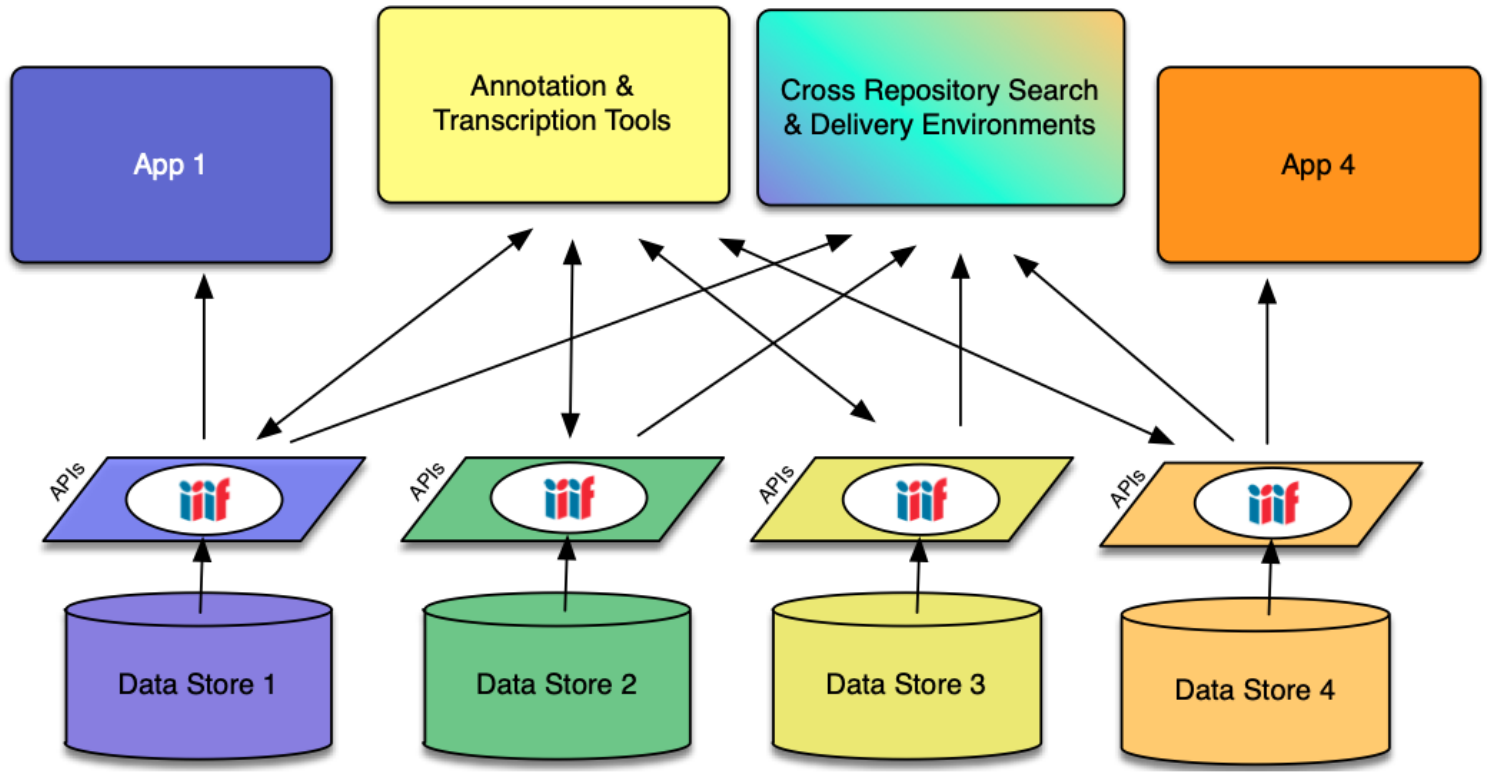


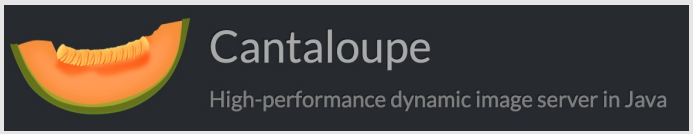
https://scta.lombardpress.org/

APIs enable reuse



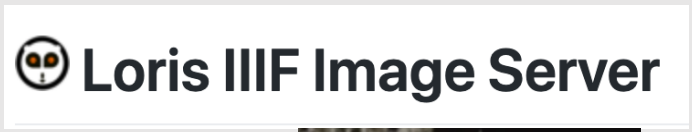
APIs → Framework → Ecosystem

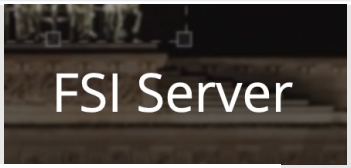


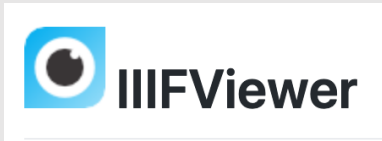


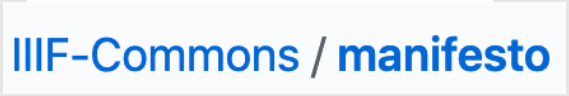
djatoka

cogapp







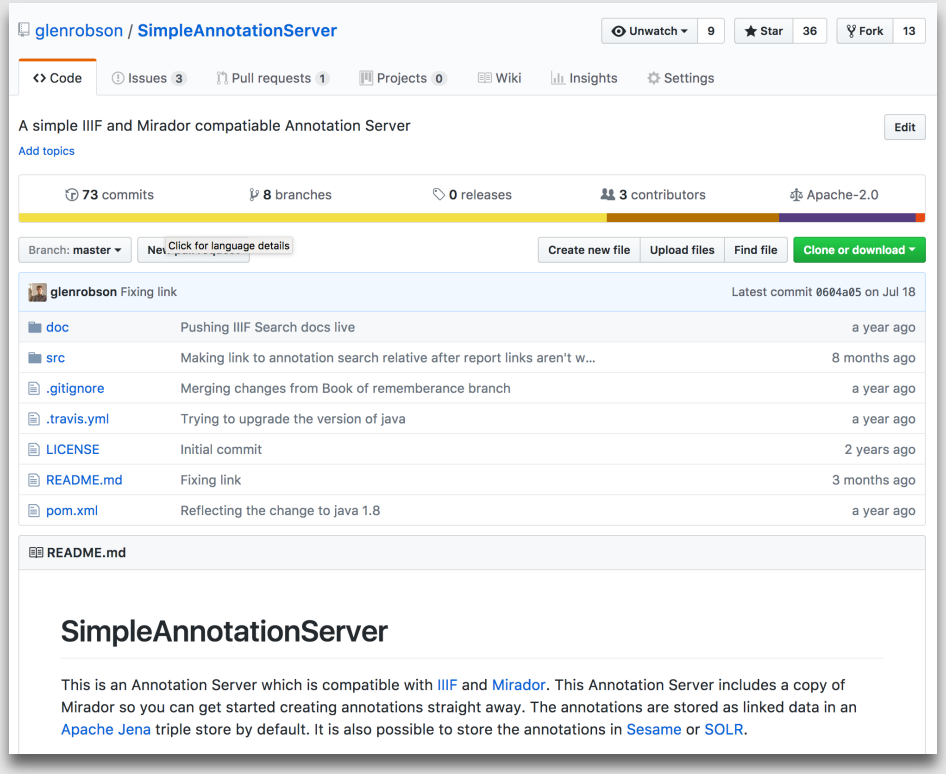


IIIF and Annotations

- Annotations can be:
  - OCR - Optical Character Recognition
  - Transcriptions e.g. through Mirador
  - Automated image analysis e.g. google vision
  - A teaching tool
- Can be used for:
  - Searching
  - Machine learning analysis
  - Statistical Analysis

IIIF and Annotations Example

- https://github.com/glenrobson/SimpleAnnotationServer
- Stores IIIF Annotations
- Supports the IIIF Search API
- Options to store annotations in Triple store



CONTENTS

front cover

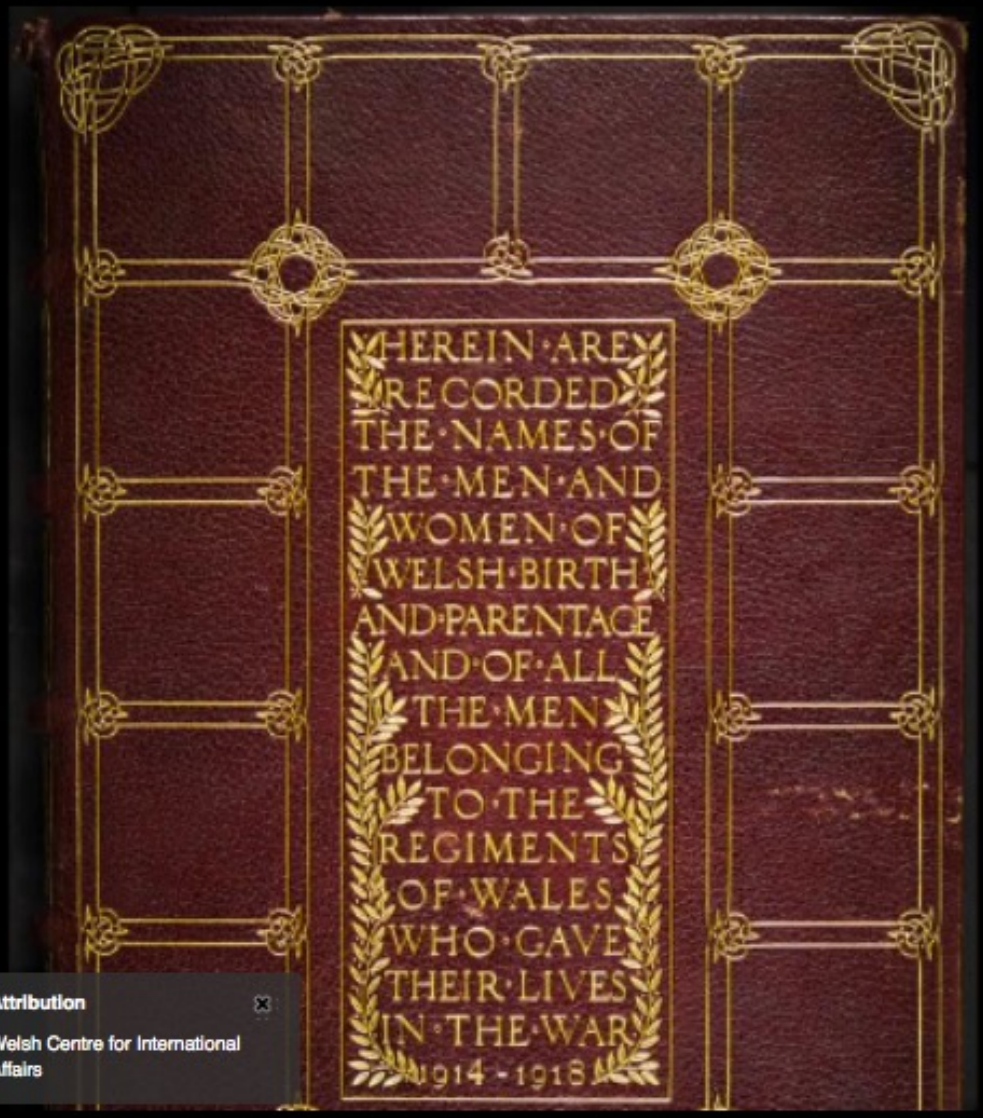
inside front cover

Er Cof

Er Cof - verso

Intro page

The Welsh Book of Remembrance 1928



Attribution

Welsh Centre for International Affairs

MORE INFORMATION

LICENSE

http://hdl.handle.net/10107/Copyright_AllRightsReserved

ATTRIBUTION

Welsh Centre for International Affairs

DESCRIPTION

This volume is bound in morrocan leather and has gold lettering and lines on the boards and spine. The volume is made up of parchment…

MORE

TITLE

The Welsh Book of Remembrance 1928

AUTHOR

Windsor, Edward Duke of 1894-1972

PERIOD

-

PHYSICAL DESCRIPTION

1 manuscript volume, 1075 pages: parchment; 465mm x 320mm x 138mm.

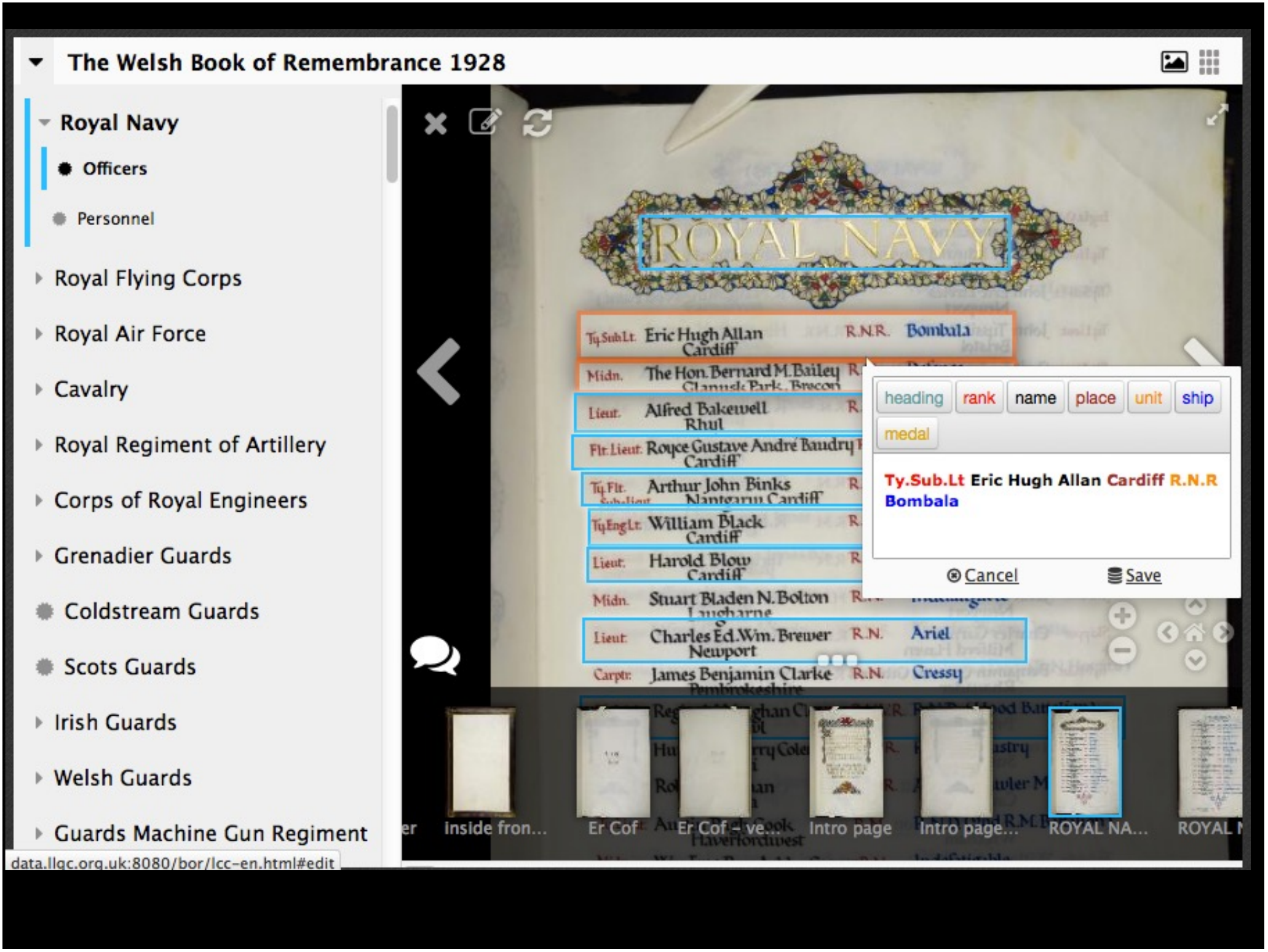
PERMALINK

http://hdl.handle.net/10107/4642022

LANGUAGE

Embed

Full Screen


The Welsh Book of Remembrance 1928
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Officers
Personnel
Royal Flying Corps
Royal Air Force
Cavalry
Royal Regiment of Artillery
Corps of Royal Engineers
Grenadier Guards
Coldstream Guards
Scots Guards
Irish Guards
Welsh Guards
Guards Machine Gun Regiment
ROYAL NAVY
Ty.Sub.Lt. Eric Hugh Allan Cardiff R.N.R. Bombala
Midn. The Hon. Bernard M. Bailey
Lieut. Alfred Bakewell Rhul
Flt. Lieut. Royce Gustave André Baudry Cardiff
Ty. Flt. Arthur John Binks
Ty. Eng. Lt. William Black Cardiff
Lieut. Harold Blow Cardiff
Midn. Stuart Bladen N. Bolton
Lieut. Charles Ed. Wm. Brewer Newport R.N. Ariel
Carptr. James Benjamin Clarke R.N. Cressy
heading
rank
name
place
unit
ship
medal
Ty.Sub.Lt Eric Hugh Allan Cardiff R.N.R Bombala
Cancel
Save
Inside fron...
Er Cof
Er Cof - ve...
Intro page
Intro page...
ROYAL NA...
ROYAL
data.llgc.org.uk:8080/bor/lcc-en.html#edit

CONTENTS

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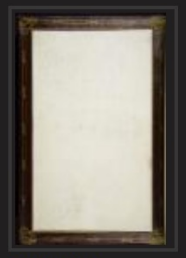
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Er Cof

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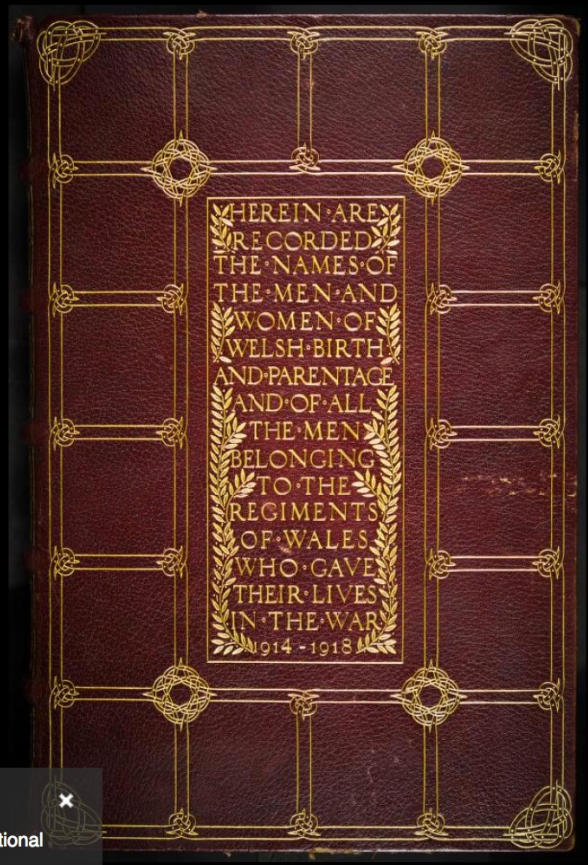
Intro page

The Welsh Book of Remembrance 1928



ATTRIBUTION

Welsh Centre for International Affairs

MORE INFORMATION

About the item

Title

The Welsh Book of Remembrance 1928

Author

Windsor, Edward Duke of 1894-1972

Physical description

1 manuscript volume, 1075 pages: parchment; 465mm x 320mm x 138mm.

Permalink

http://hdl.handle.net/10107/4642022

Language

English;

Repository

This content has been digitised by The National Library of Wales

Description

This volume is bound in morrocan

page front cover of spine

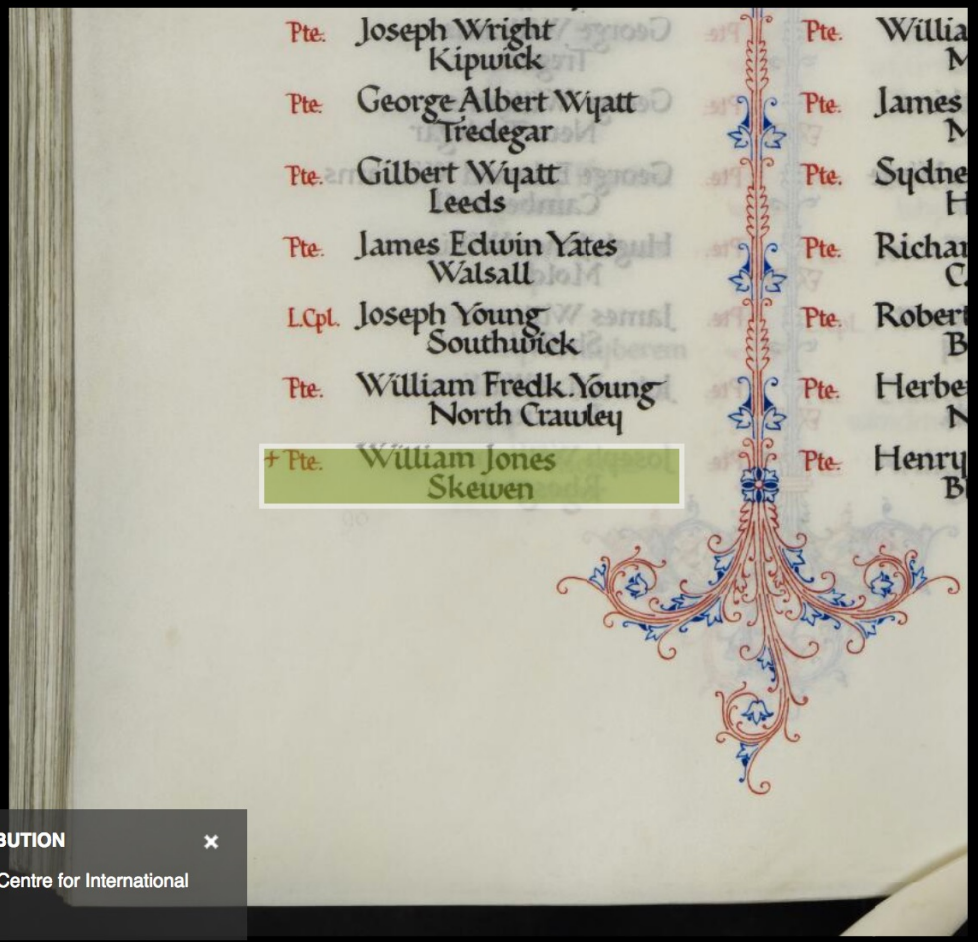
Search within this item: jones

Embed

Full Screen

CONTENTS

The Welsh Book of Remembrance 1928



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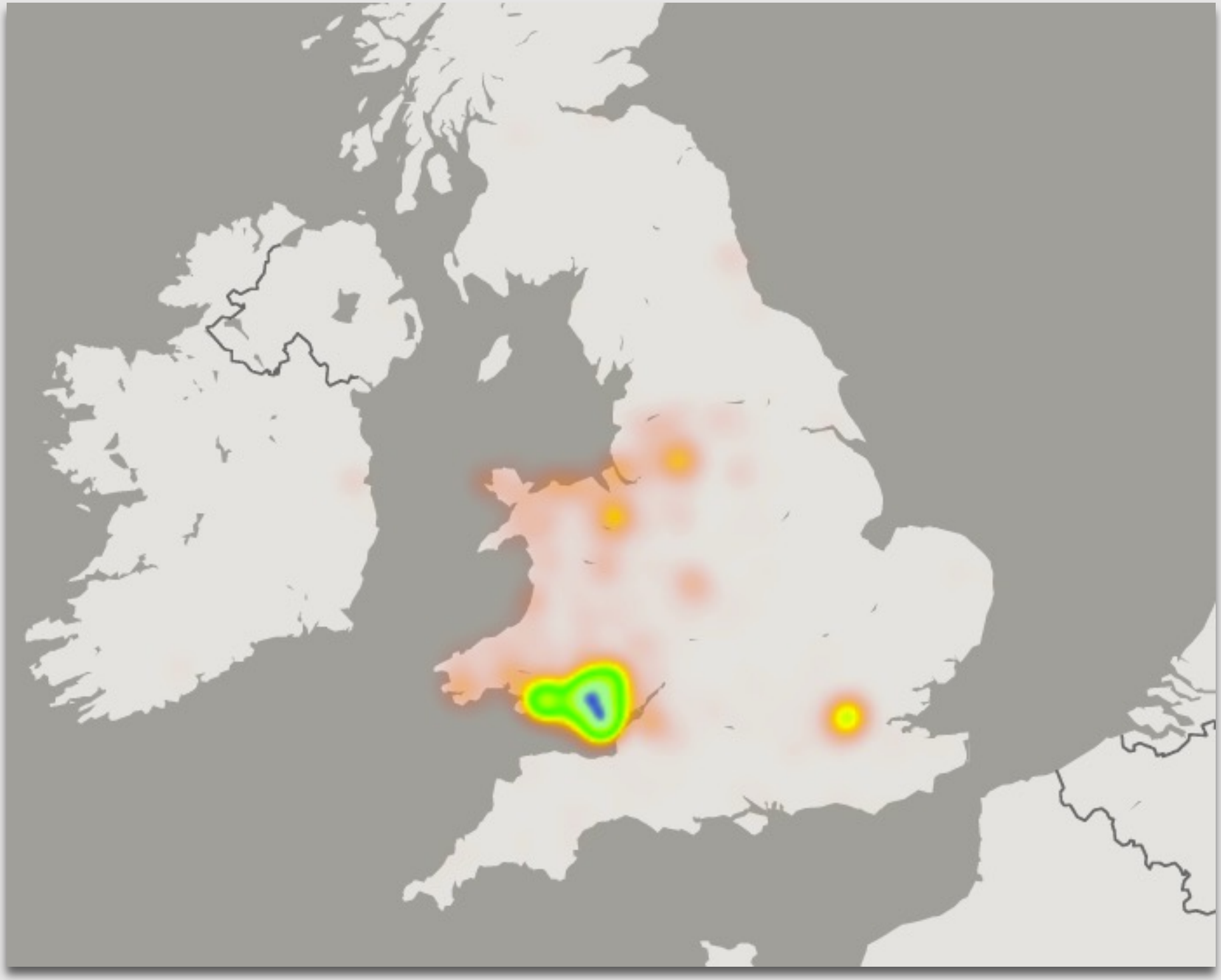
```


Analysis Method

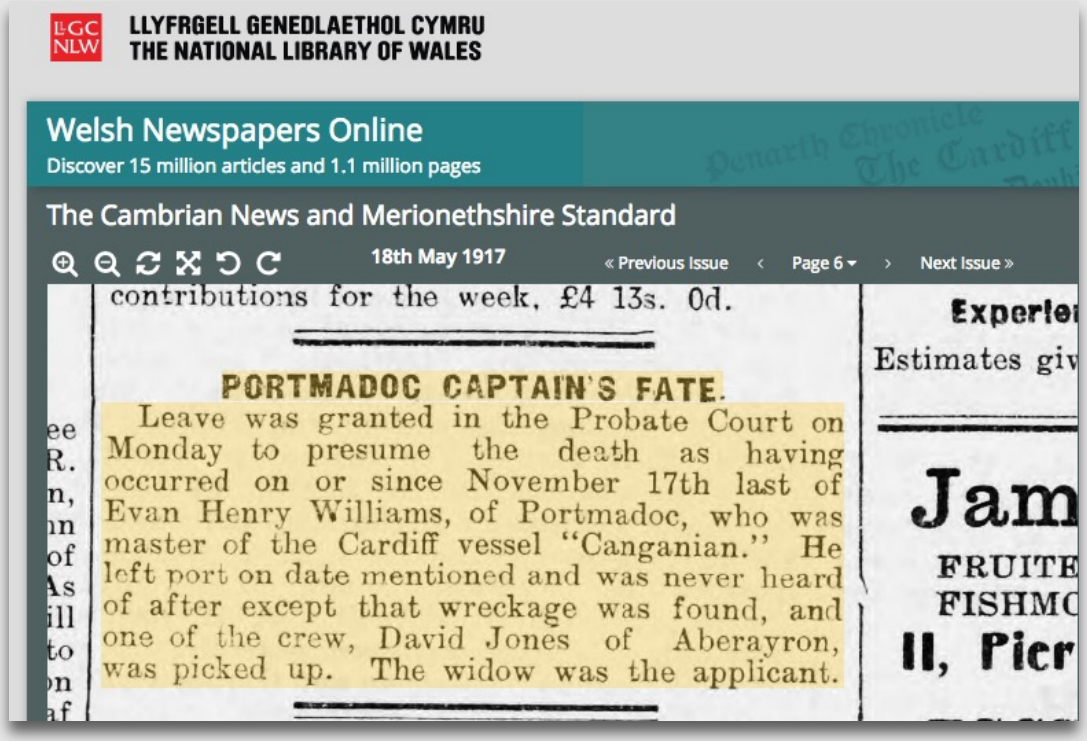
- Load annotation lists in to BlazeGraph
- Convert bodies to Linked data
- Query data using SPARQL
- Resolve places with Google
- Manually resolve ships with Wikidata

Annotation Body:
Rank
Name
Place
Unit
Ship
Medal



Welsh Sailors Lost

H.M.S. Indefatigable	41	https://en.wikipedia.org/wiki/HMS_	Jutland	Jutland	31 May 1916
H.M.S. Defence	36	https://en.wikipedia.org/wiki/HMS_	Jutland	Jutland	31 May 1916
H.M.S. Invincible	24	https://en.wikipedia.org/wiki/HMS_	Jutland	Jutland	31 May 1916
H.M.S. Goliath	20	https://en.wikipedia.org/wiki/HMS_	Torpedoed		12 May 1915
Anglia	20	https://en.wikipedia.org/wiki/HMHS	Mine	Hospital Ship	17 November 19
Leinster	20	https://en.wikipedia.org/wiki/RMS_	Torpedoed		10 October 1918
H.M.S. Monmouth	17	https://en.wikipedia.org/wiki/HMS_	Coronel		1 November 191
H.M.S. Queen Mary	17	https://en.wikipedia.org/wiki/HMS_	Jutland	Jutland	31 May 1916
H.M.S. Black Prince	12	https://en.wikipedia.org/wiki/HMS_	Jutland	Jutland	31 May 1916
Canganian	10		Mine	Merchant	17 November 19
Don Arturo	10		Torpedoed	Merchant	28 Jun 1917
H.M.S. Bulwark	9	https://en.wikipedia.org/wiki/HMS_	Accident	Accident	26 November 19
H.M.S. Hampshire	9	https://en.wikipedia.org/wiki/HMS_	Mine		5 June 1916
Llandovery Castle	9	https://en.wikipedia.org/wiki/HMHS	Torpedoed	Hospital Ship	27 June 1918
Ribston	9		Torpedoed	Merchant	23 Apr 1916
H.M.S. Vanguard	9	https://en.wikipedia.org/wiki/HMS_	Accident	Accident	9 July 1917
Isleworth	8		Torpedoed	Merchant	30 Apr 1918



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18th May 1917 « Previous Issue ‹ Page 6 › Next Issue »

contributions for the week, £4 13s. 0d.

PORTMADOC CAPTAIN'S FATE.

Leave was granted in the Probate Court on Monday to presume the death as having occurred on or since November 17th last of Evan Henry Williams, of Portmadoc, who was master of the Cardiff vessel "Canganian." He left port on date mentioned and was never heard of after except that wreckage was found, and one of the crew, David Jones of Aberayron, was picked up. The widow was the applicant.

Estimates giv

Jam

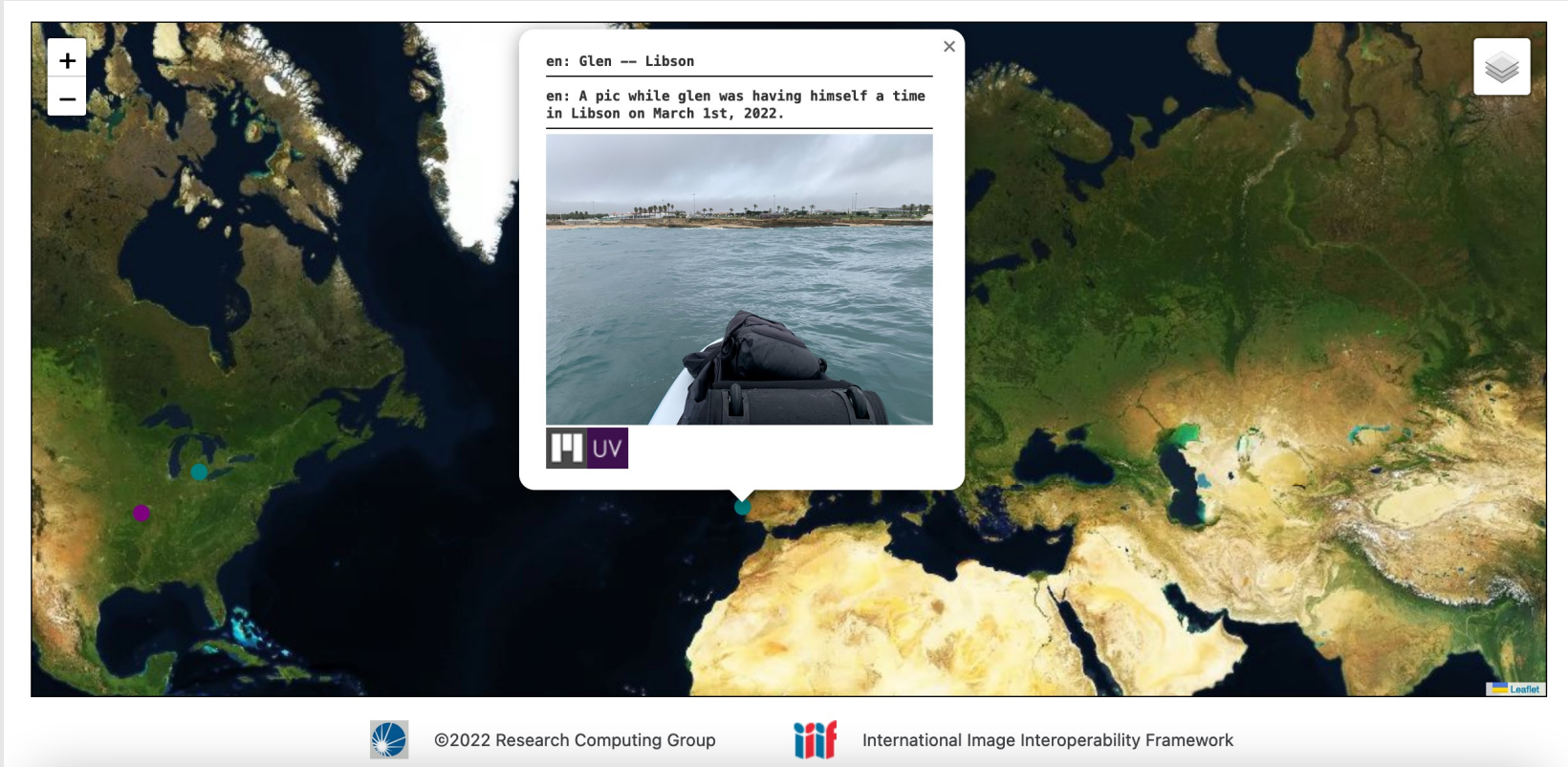
FRUITE
FISHMC

II, Pier

name	place	rank
E.H.Williams	Portmadoc	Master
Daniel E. Jones	Borth	1st Eng.
W.C.Jones	Chwilog	2nd Eng.
David J. Hughes	Pwllheli	O.S.
David M.Jones	Cardigan	O.S.
Thomas G. Jones	Carnarvon	Seaman
Hugh D. Owens	Nevin	Seaman
Hugh Thomas	Morfa	Carpenter
William Thomas	Morfa	Btswn.
William Williams	Anglesey	Lamp Tmr.

David Morris Jones, Ordinary Seaman, Mercantile Marine. David was the son of John Parry Jones, and Martha Jane Jones, of Plasnewydd, Beulah. He served with the Mercantile Marine aboard the S.S. Canganian, which was a Cardiff registered merchant steamer. On 17 November 1916, Canganian was en-route from Methil to Scapa Flow with a cargo of coal, when she struck a mine which had been laid by the German submarine UC-29, and sank with the loss of eighteen lives. David was just 16 years old when he drowned in the sinking. His body was washed ashore in Scotland, and he was originally buried in St. Cyrus Parish Churchyard. A Scottish woman was on holiday in Aberaeron at the time, and was sent a newspaper by a friend of hers. One article took her interest, and it was the story of the burial of a sailor in her home village, who could only be identified by the label of Ben Davies, Tailor, Newcastle Emlyn on his coat. She showed the newspaper to the local JP, who contacted David's father, who travelled to Scotland to identify the body. His body was duly identified, and re-interred at the request of his parents in Beulah Congregational Chapelyard on 9 December 1916.

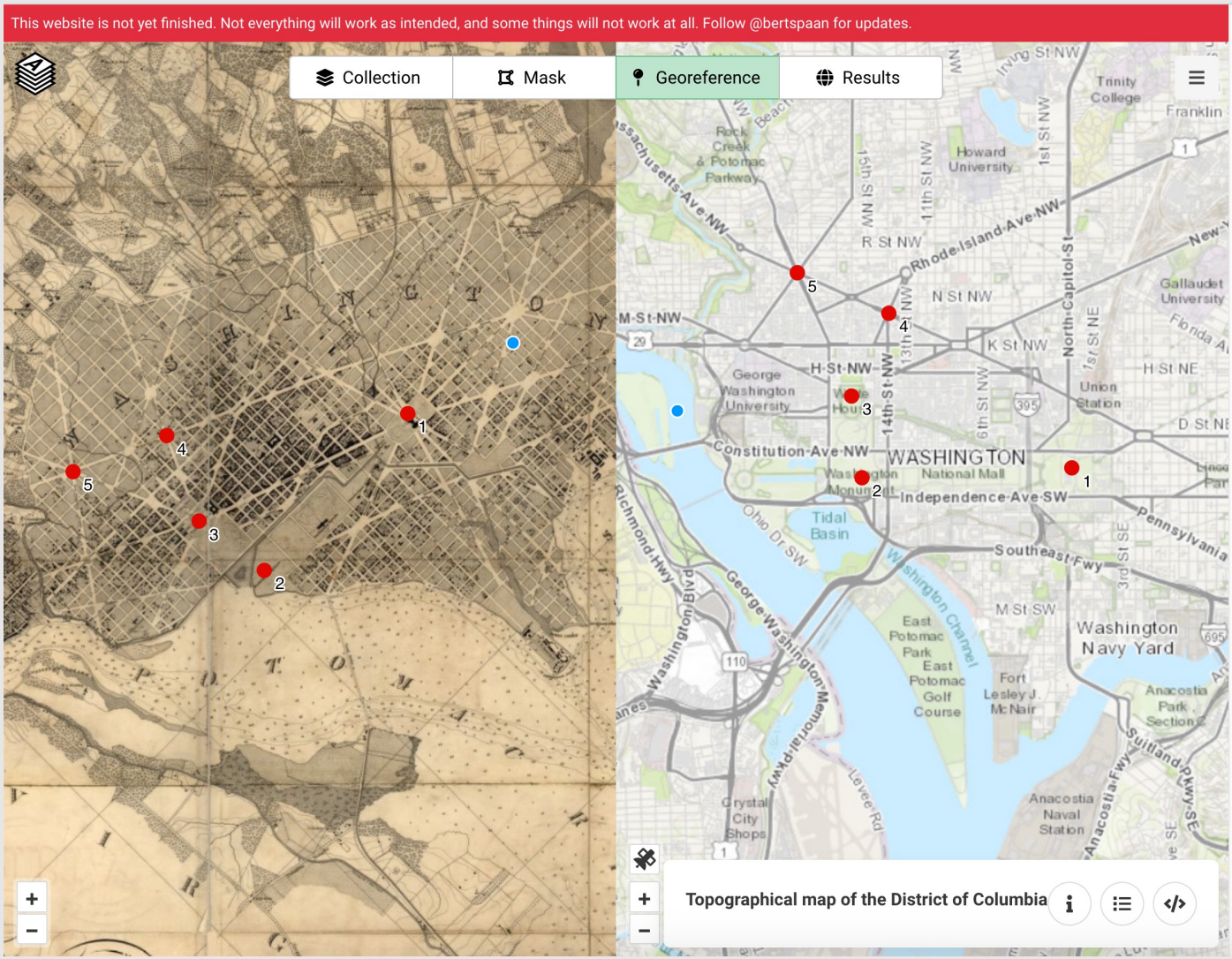
New navPlace extension



IIIF Tools

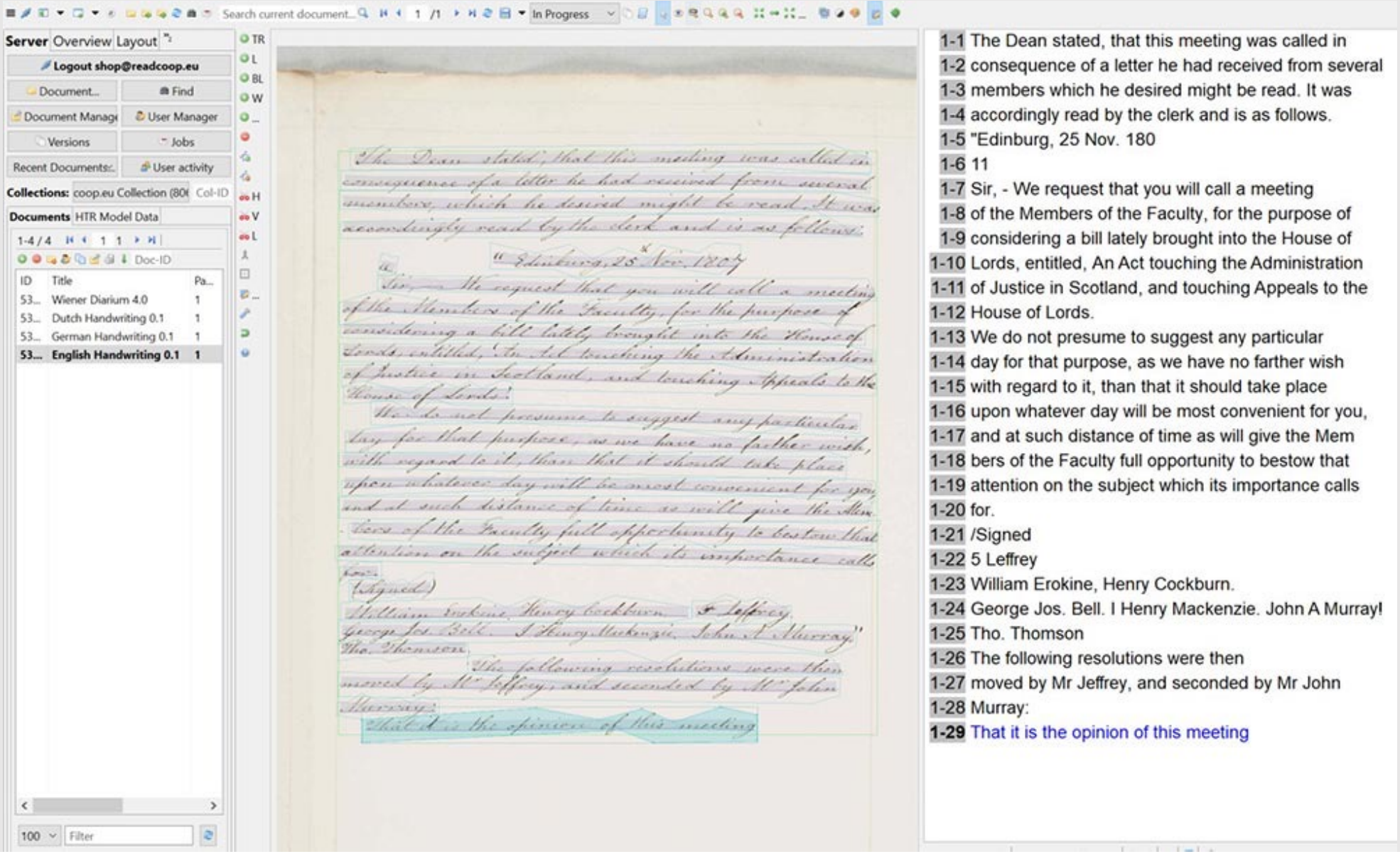
Geo-referencing maps

https://training.iiif.io/annotations/use_cases/allmaps.html



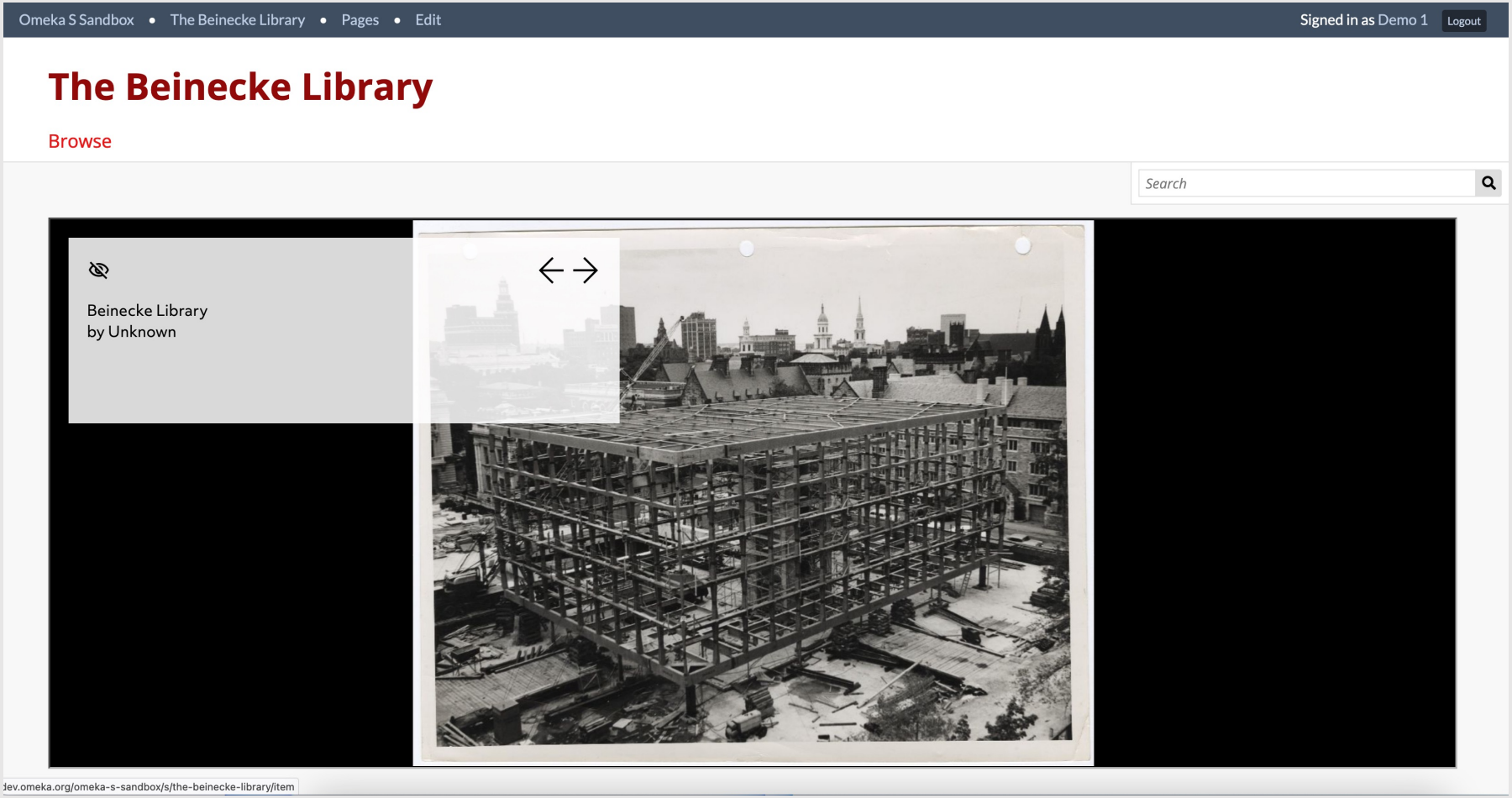
Transkribus

https://readcoop.eu/transkribus/

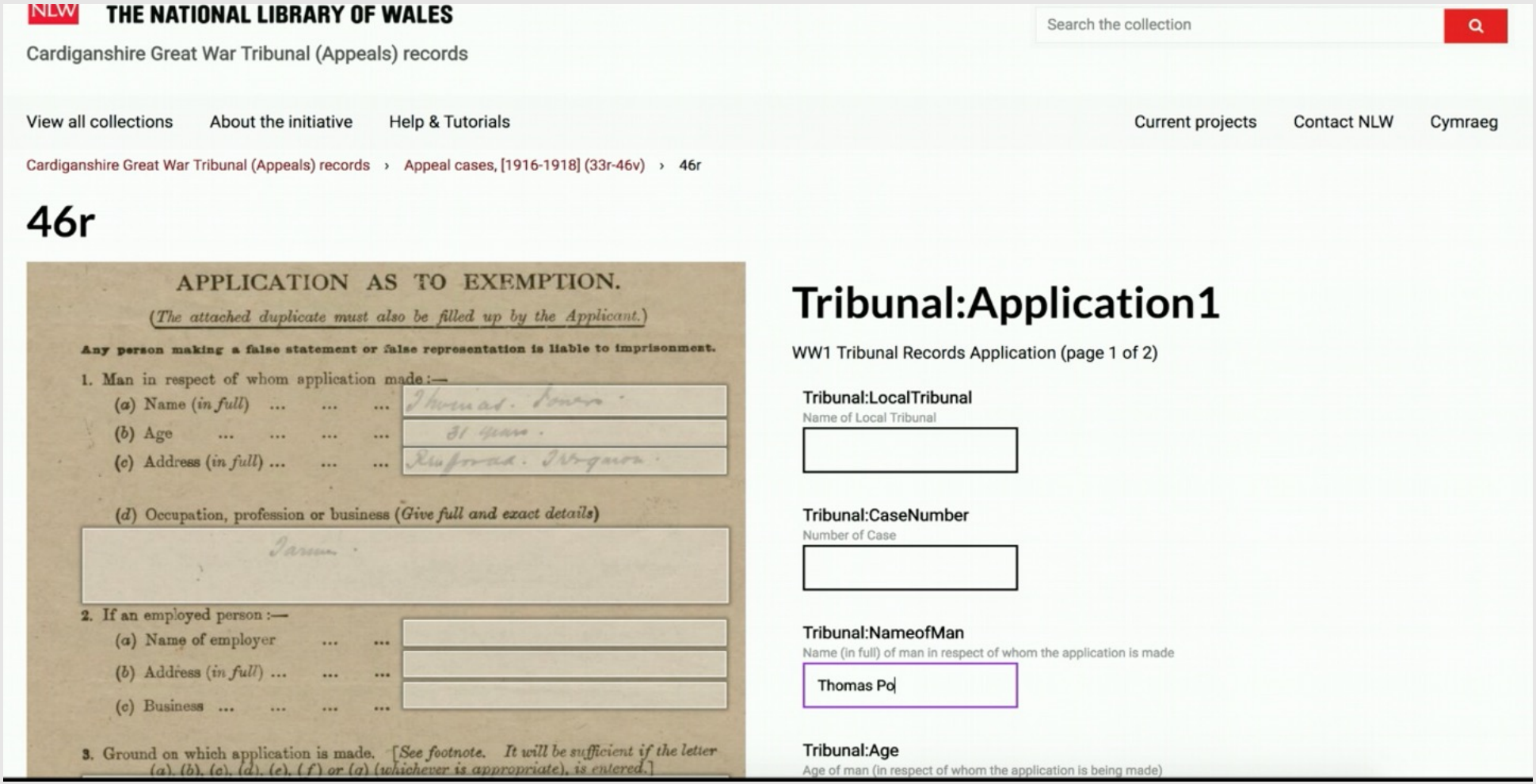


Omeka-s

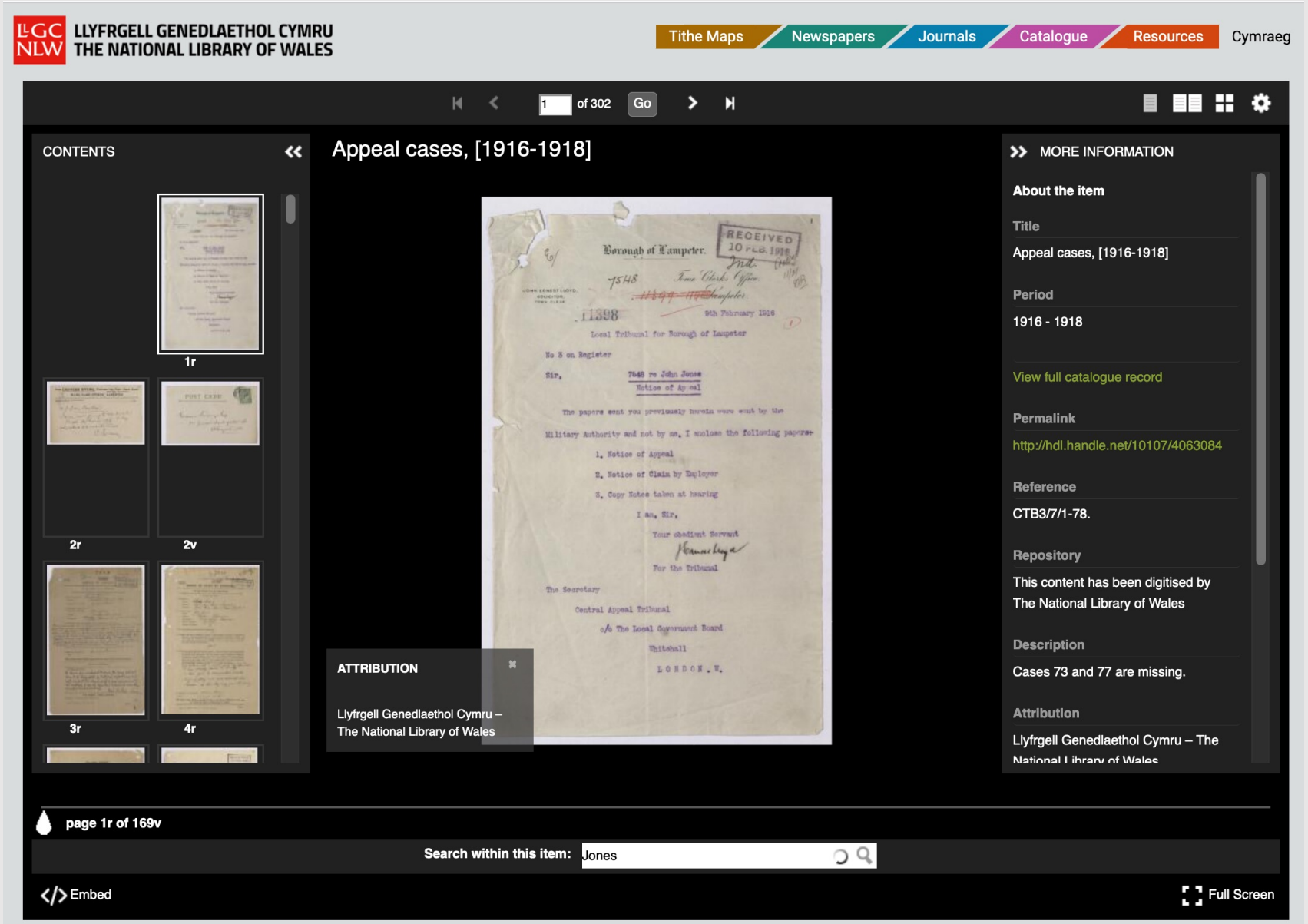
https://training.iiif.io/advanced_iiif/modules/omeka/



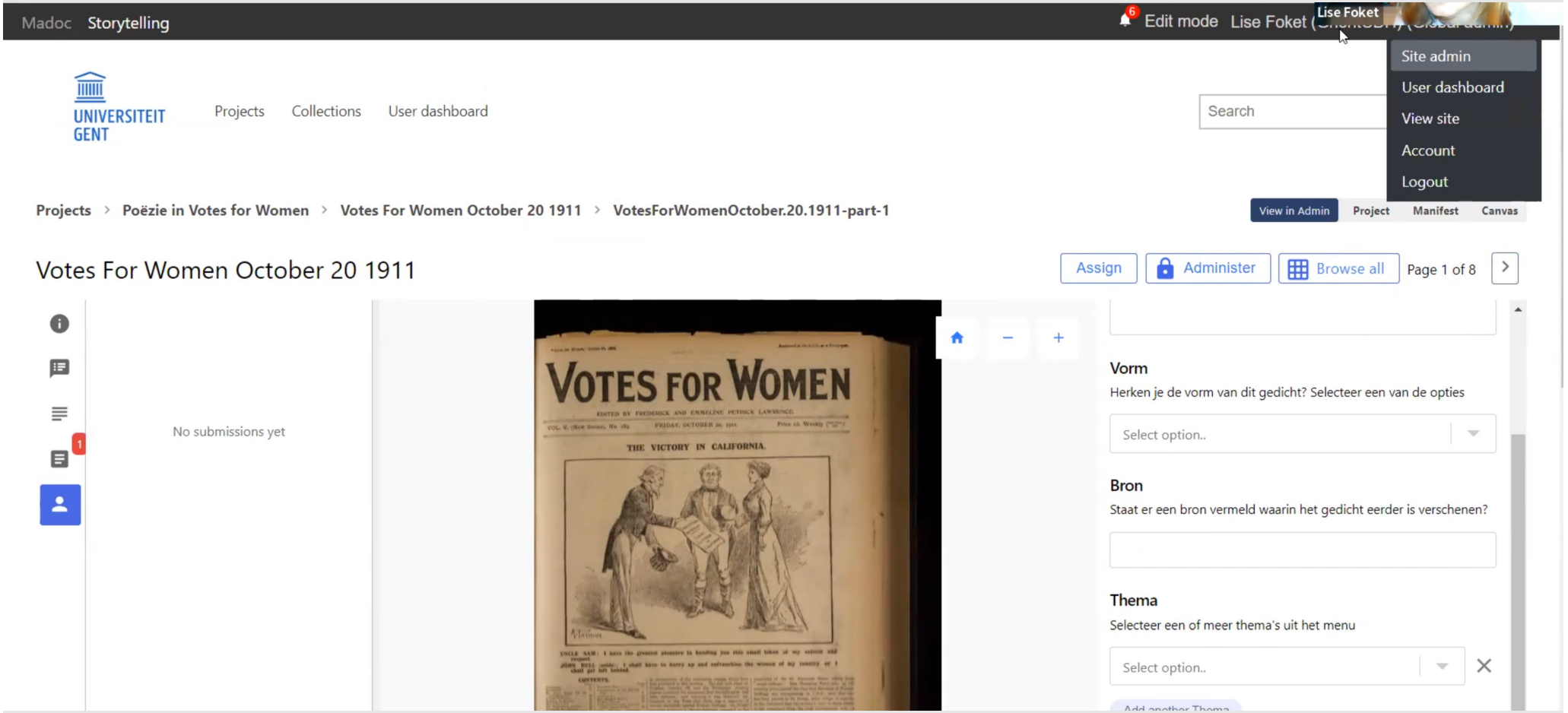
Crowdsourcing with Madoc



Searching the results

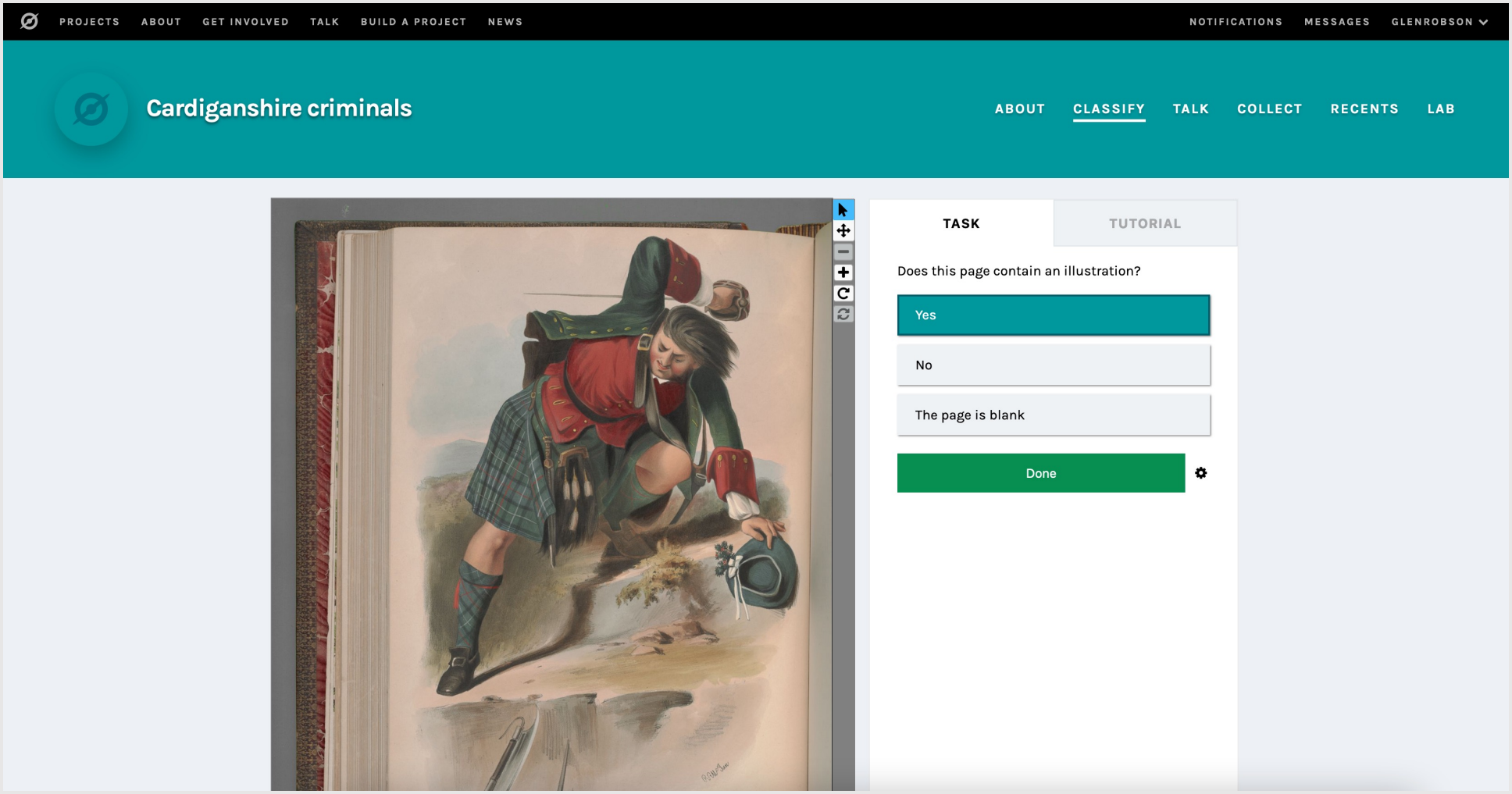


Madoc for Student projects



Crowdsourcing with Zooniverse

https://training.iiif.io/advanced_iiif/modules/zooniverse/



Transcribing with FromThePage

https://training.iiif.io/annotations/use_cases/FromThePage.html

FROM THE PAGE

Find A Project Sign Up Sign In EN

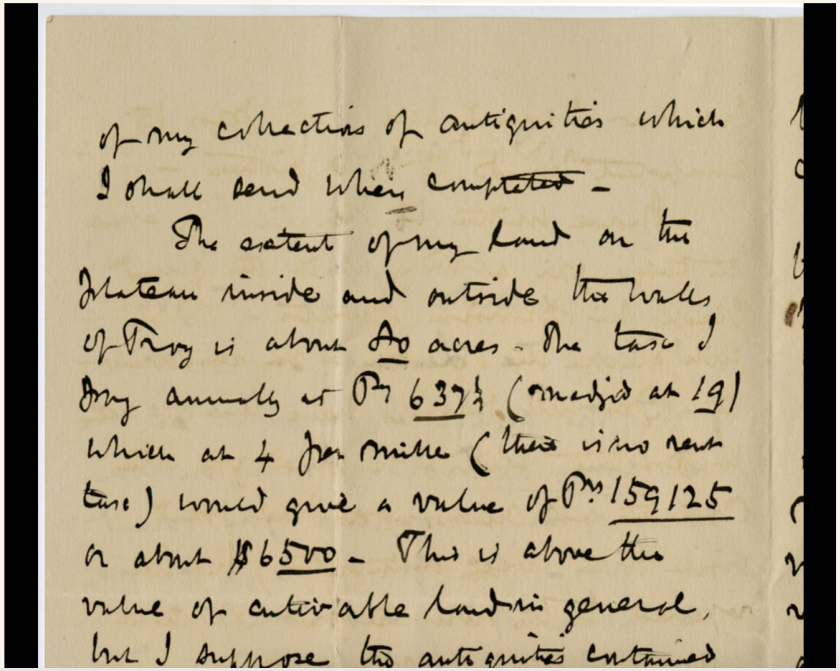
Frank Calvert to Alexander Terrell→ Calvert to Terrell, November 19, 1894

calvert_p3

Page 3 of 4

Overview Versions Help

Facsimile

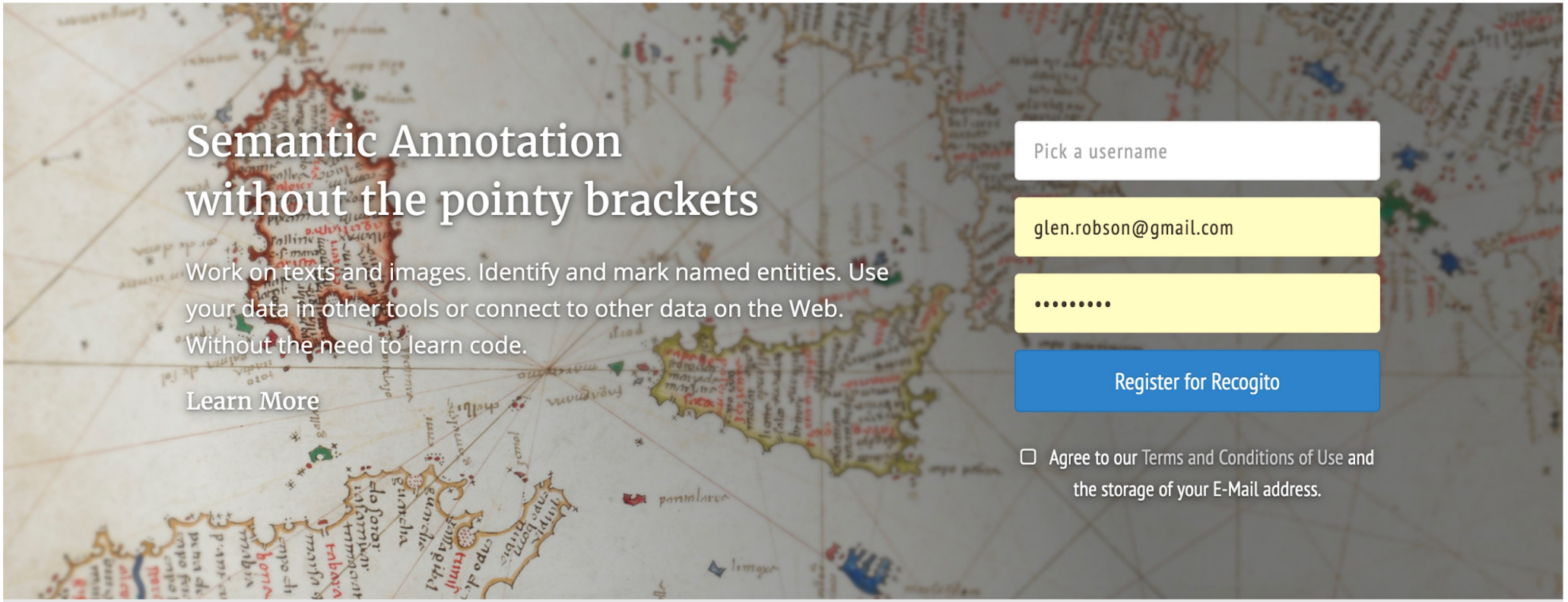


Transcription

Status: Indexed

of my collections of antiquities which
I shall send when completed.

The extent of my land on the
plateau inside and outside the walls
of Troy is about 80 acres. The tax I
pay annually is [sign for Turkish lira?] 6371/2 (m[.....] at 19)
which at 4 per mille (that is [no new?]
tax) would give a value of [sign for Turkish lira?] 159125
or about $6500. This is above the
value of cultivable land in general,
but I suppose the(?) antiquities contained
therein a greater value is set on it.
However I would sell this property
for £1000/$5000, which is a moderate
sum considering the very interesting
remains therein discovered and to be
discovered. Were I a younger man
with the chance of a longer life I
would not part with my property,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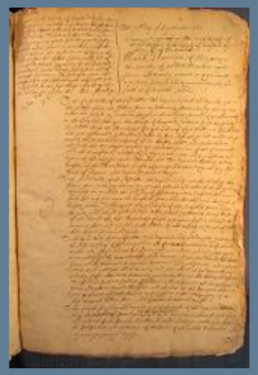

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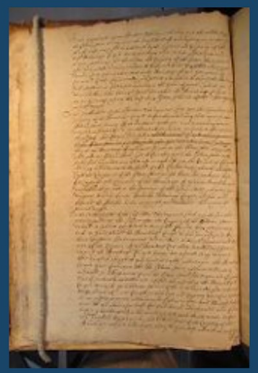

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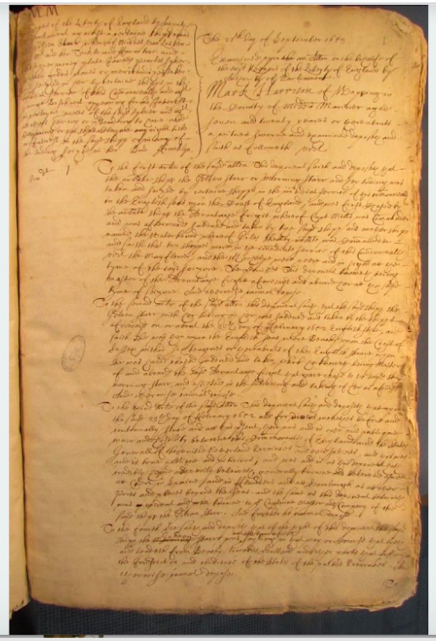
TOOLS: MOVE POINT IMAGE LAYERS OVERLAY COLOUR HELP



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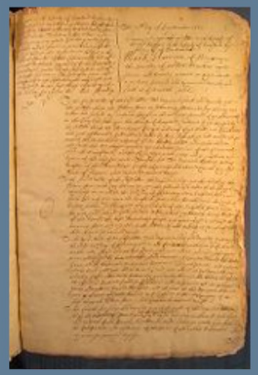

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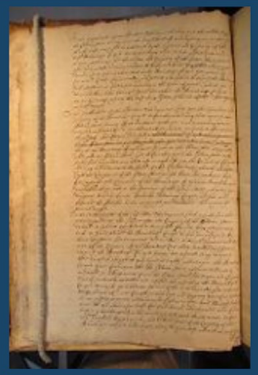

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TOOLS: MOVE | RECTANGLE | IMAGE | LAYERS | OVERLAY COLOUR | HELP

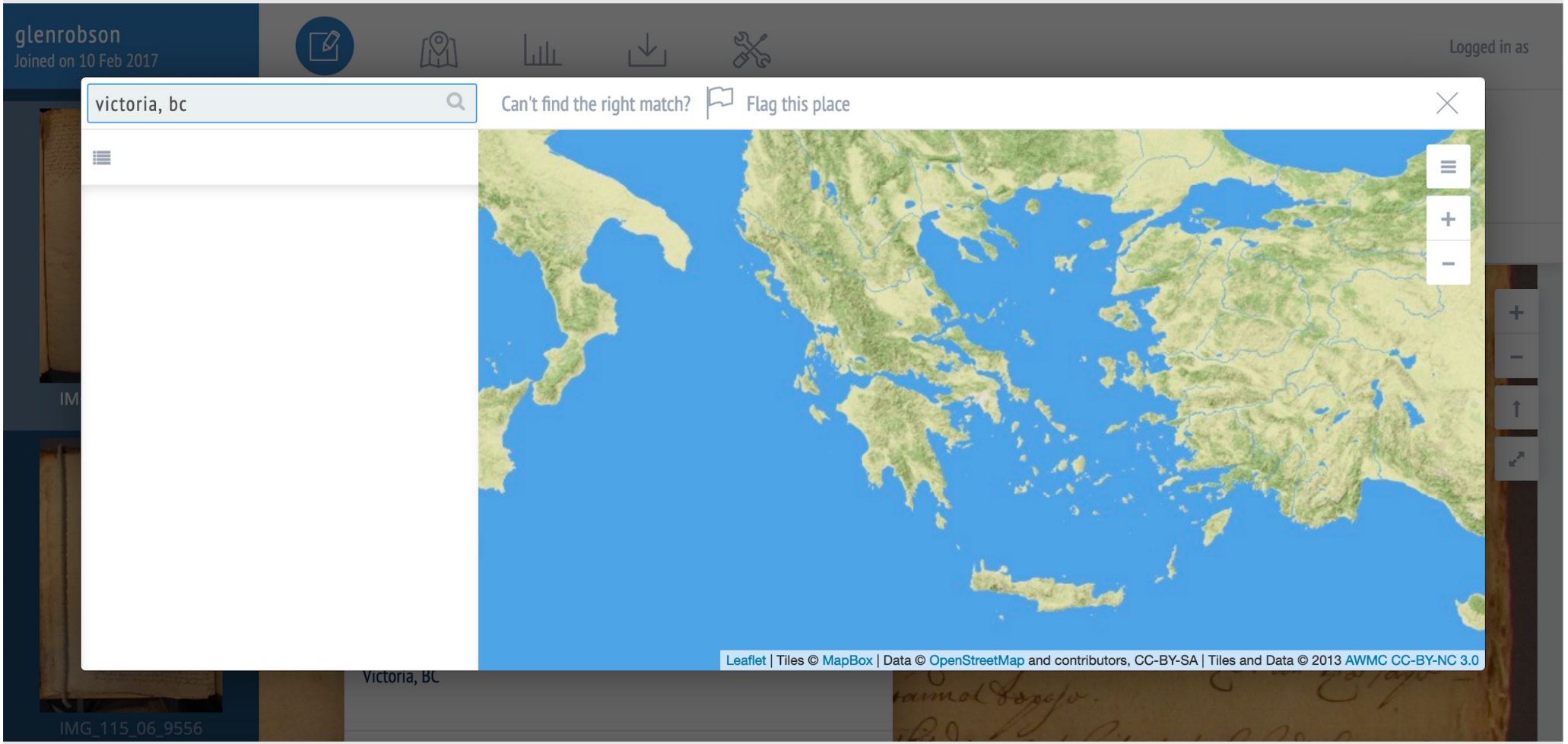
Transcribe...

Place | Person | Event

This is some text with a Place and a person and also an event

Add tag...

Cancel | OK & Next | OK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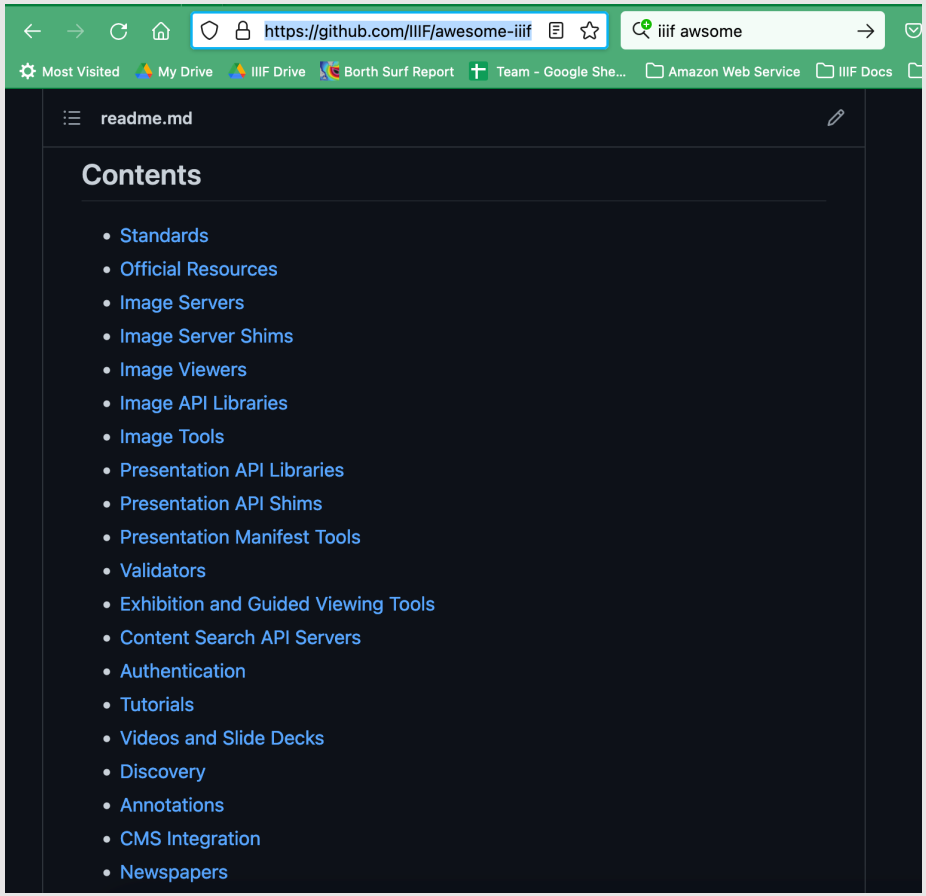
IIIF-Awesome

https://github.com/IIIF/awesome-iiif



Further Resources

- Join the community!
  - Email: iiif-discuss@google.com
  - Slack: http://bit.ly/iiif-slack
  - Fortnightly telephone calls
- Join an interest group:
  - Museums
  - Manuscripts
  - Newspapers
  - Maps
- Shape the next versions of the spec by joining a technical group:
  - Discovery
  - Maps

Further learning Resources

- IIIF Online Workshop:
  - https://training.iiif.io/iiif-online-workshop/index.html
- IIIF Guide from Tom Crane:
  - http://resources.digirati.com/iiif/an-introduction-to-iiif
- A two day workshop from Jason Ronallo:
  - http://ronallo.com/iiif-workshop/
- List of IIIF compatible software and projects:
  - https://github.com/IIIF/awesome-iiif

Summary

- Lots of use cases for IIIF
- Intro to the IIIF APIs
- Demonstrated reuse of IIIF in other tools
- Learn more
  - https://training.iiif.io/iiif-online-workshop/index.html

Questions

- Twitter: @glenrobson
- Email: glen.robson@iiif.io