

The magic of online maps

Petr Pridal, Ph.D.
Klokan Technologies GmbH

IIIF Conference, Fantastic Futures - Nasjonalbiblioteket,
December 5th, 2018
National Library of Norway

Search...



0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

2018

Who we are?

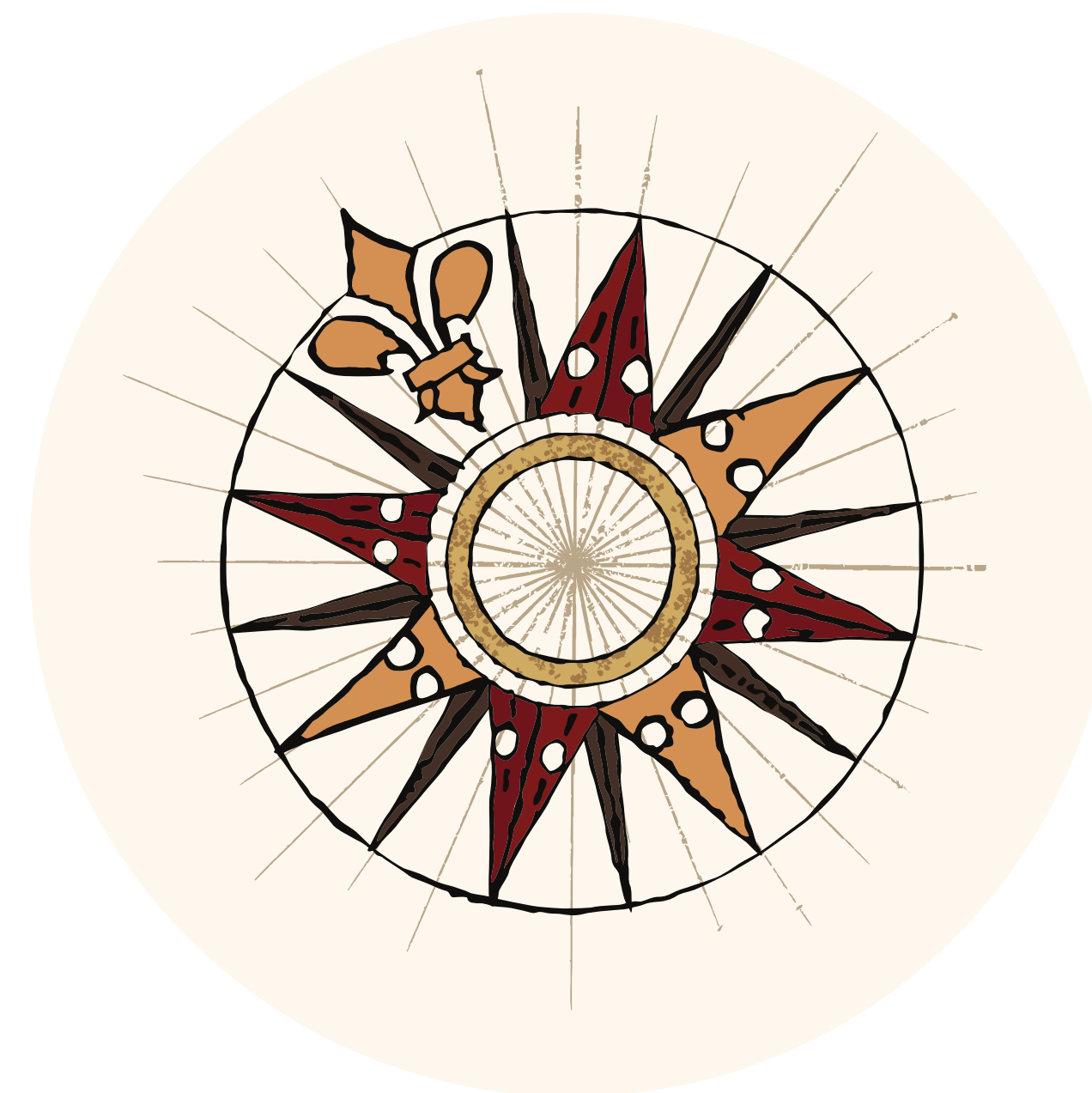
Klokan Technologies GmbH is a Swiss company specialized in online map publishing, geographic information retrieval and applications of open-source software for the cultural heritage sector.



MapTiler.com



OldMapsOnline.org





maptiler CLOUD



Streets **PREMIUM**



Satellite **PREMIUM**



Topo **PREMIUM**



Basic



Bright



Positron



Dark Matter

vector map ☒ raster map

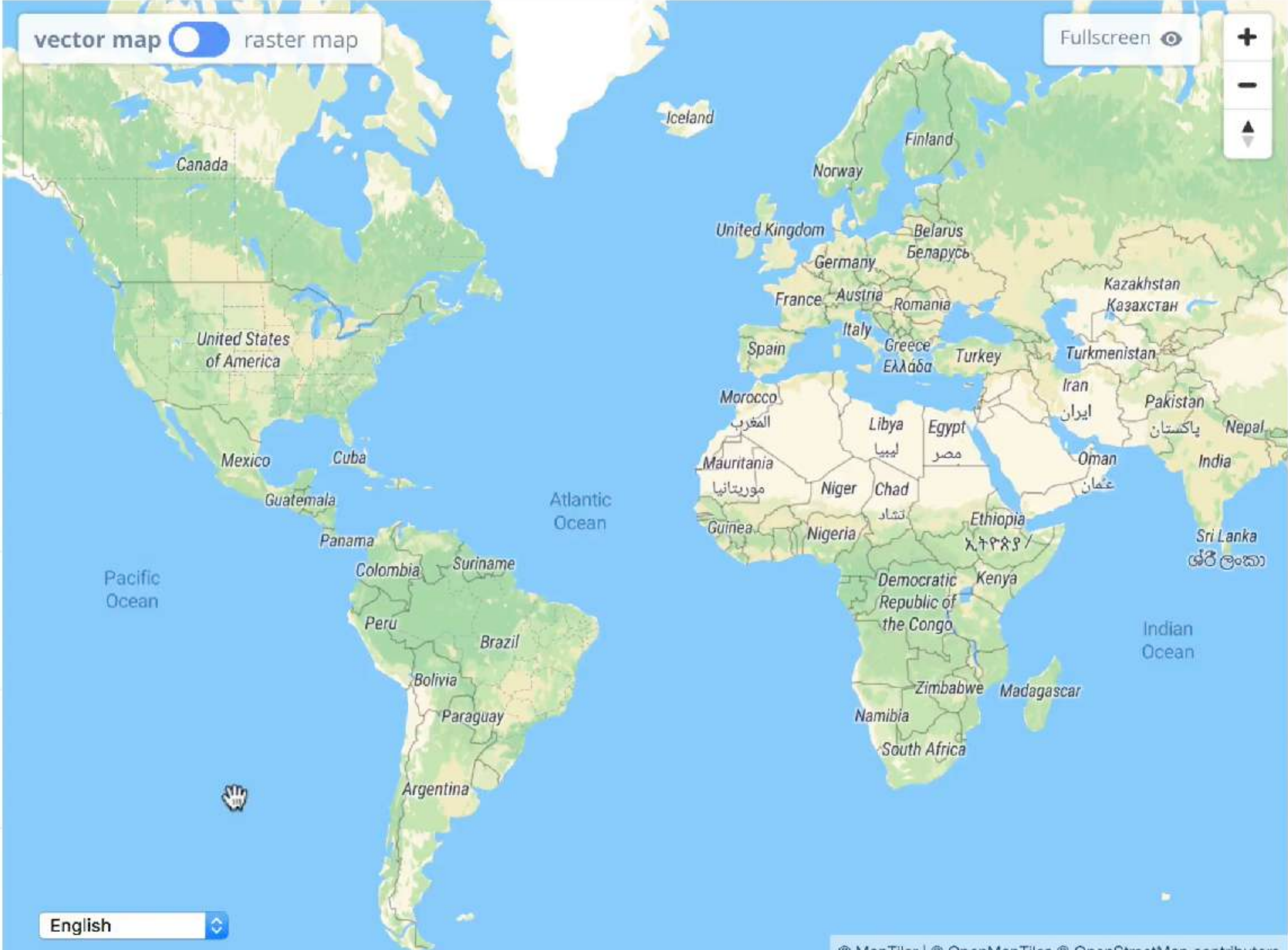
Fullscreen 

+

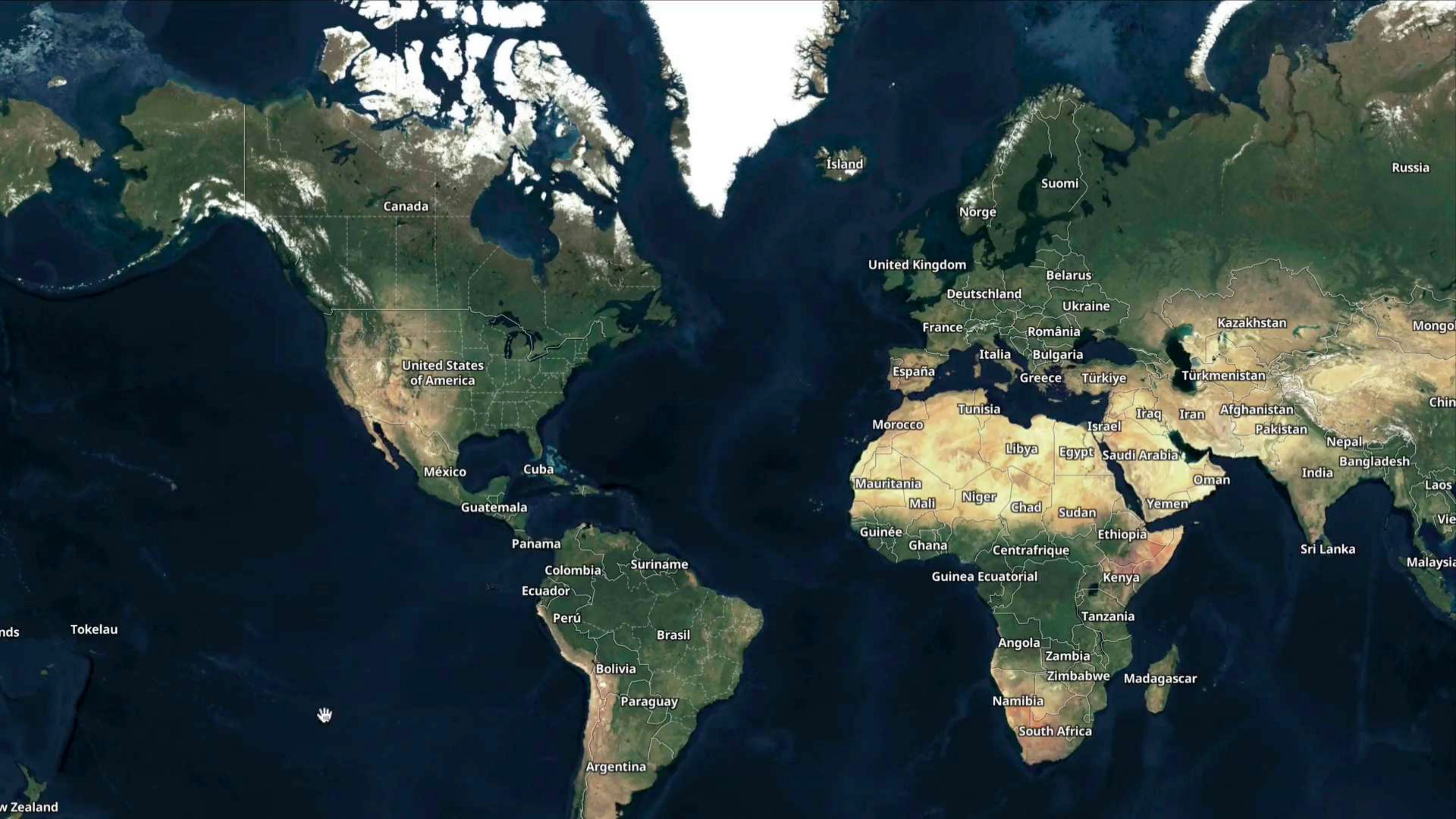
-



English 



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Canada

United States of America

México

Cuba

Guatemala

Panama

Colombia

Ecuador

Perú

Brasil

Bolivia

Paraguay

Argentina

Ísland

Norge

Suomi

United Kingdom

Deutschland

France

Italia

España

Belarus

Ukraine

România

Bulgaria

Greece

Türkiye

Kazakhstan

Türkmenistan

Israel

Iraq

Iran

Afghanistan

Pakistan

Nepal

Bangladesh

India

Sri Lanka

Malaysia

Vietnam

Laos

China

Mongolia

Russia

Morocco

Tunisia

Libya

Egypt

Saudi Arabia

Oman

Yemen

Mauritania

Mali

Niger

Chad

Sudan

Ethiopia

Centrafrique

Guinea Ecuatorial

Kenya

Tanzania

Angola

Zambia

Zimbabwe

Madagascar

Namibia

South Africa

Islands

Tokelau

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www.maptiler.com

Maps APIs for developers. Software to build maps.

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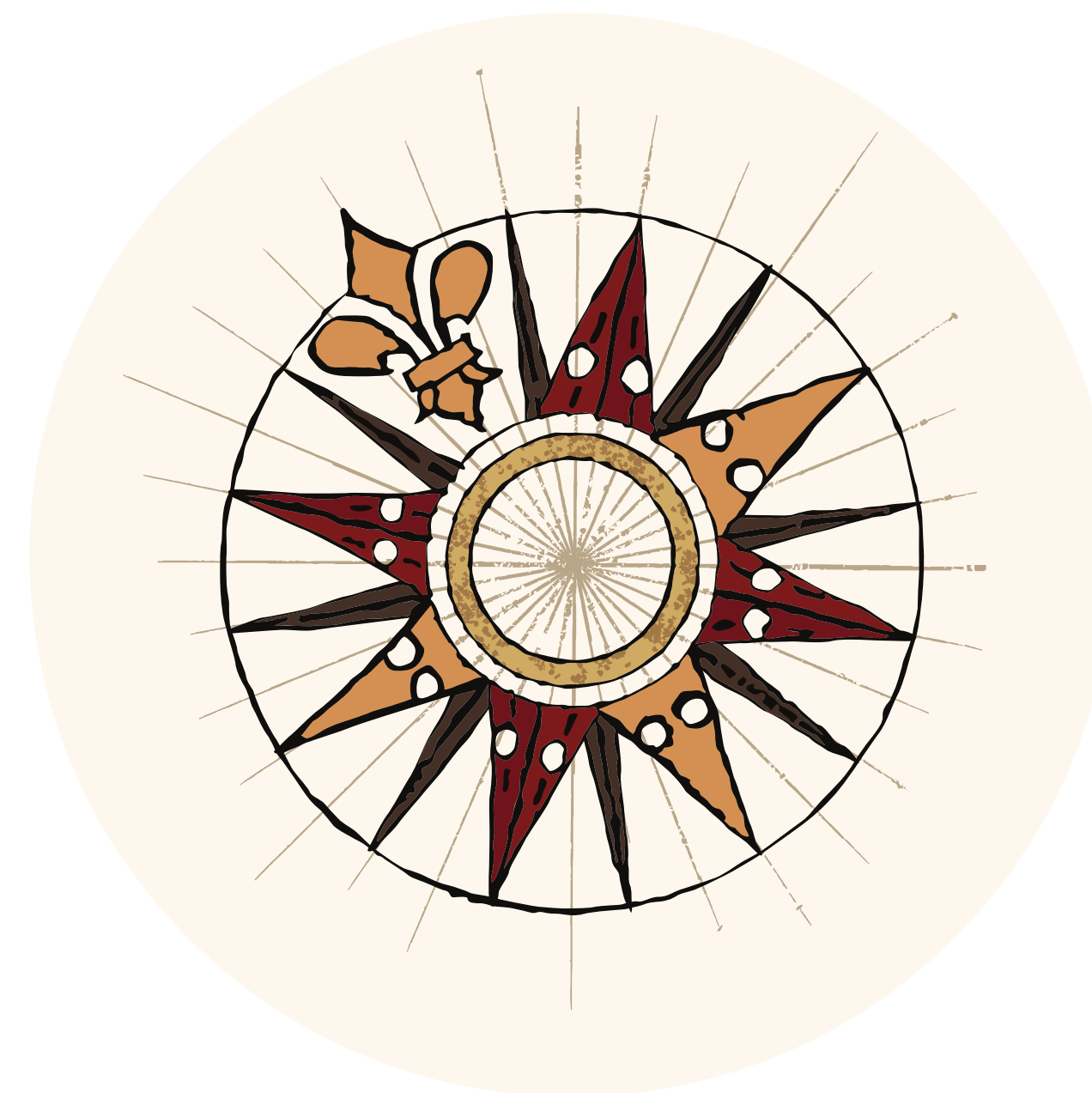
IBM

BOSCH

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Old MAPS ONLINE



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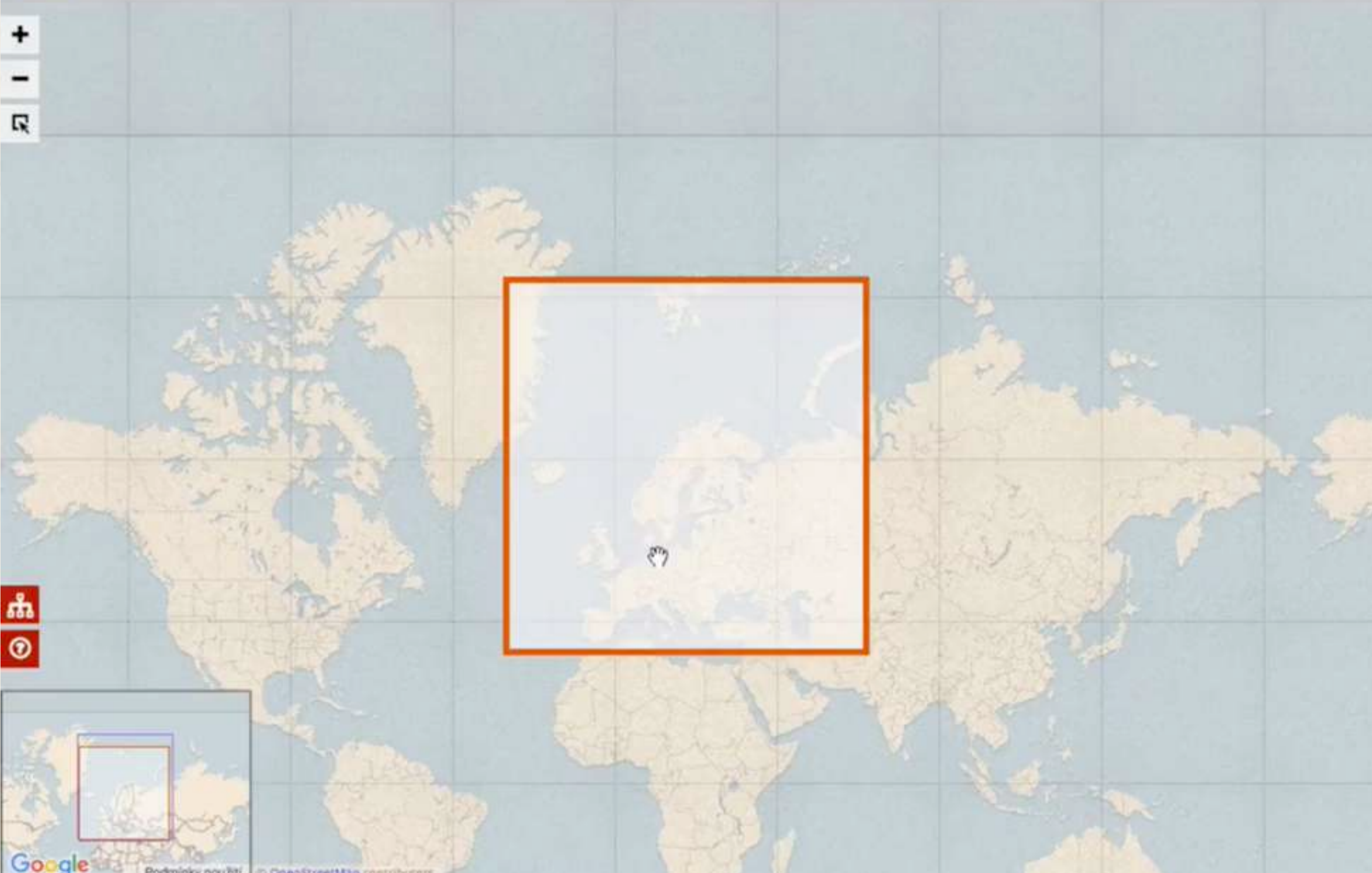


The search engine for historical maps

www.oldmapsonline.org

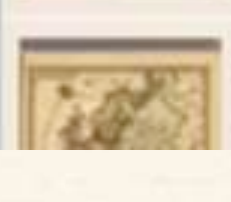
 Timeline Attributes

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Maps of Europe

Share    

-  **Europe.**
Carey, Mathew 1825 1:27 000 000
-  **Europe.**
Carey, Mathew 1820 1:28 000 000
-  **Elementary Map.**
Melish, John 1820 1:26 611 200
-  **Verbreitung der Mammalia od...**
Berghaus, Heinrich 1844 1:15 000 000
-  **Europe.**
Melish, John 1820 1:20 275 200
- 
-  **Versuch Einer Übersicht Der G...**
Berghaus, Heinrich 1849
-  **Europa.**
Brudin, J. L.; Stieler, Adolf 1852 1:50 000

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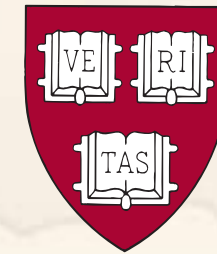


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Partners

A vision of
BRITAIN
THROUGH TIME



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Harvard Map Collection



David Rumsey Map Collection
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Norman B. Leventhal Map Center
at the
Boston Public Library

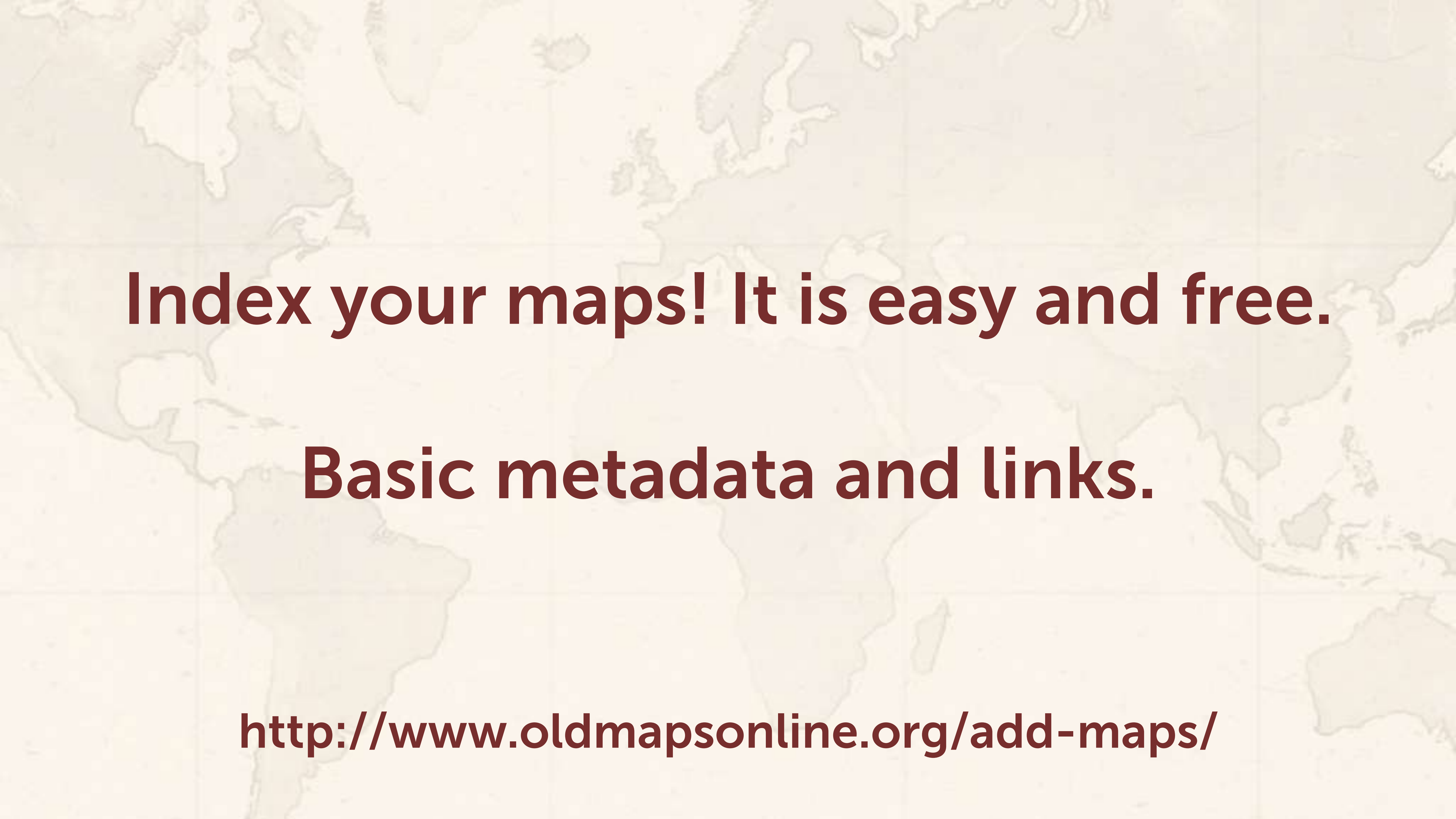


New York
Public
Library

North Carolina **MAPS**



.. and more are joining



Index your maps! It is easy and free.

Basic metadata and links.

<http://www.oldmapsonline.org/add-maps/>



+

Find a place with OpenStreetMap ...

-

📍

🏠

✓ MARC

MARC RDA

MARC Aleph

MARC VTLS

MARC VTLS RDA

MARC OCLC

MARC OCLC DEC

MARC KP-SYS

Archives

DublinCore

KML

GEOJSON

OGC WKT

CSV

CSV RAW

TSV

ISO 19139

FGDC

MARC

Streets

World

034: \$\$\$dE0055700\$\$\$eE0102900\$\$\$fN0474800\$\$\$gN0454900

255: \$\$\$c(E 5°57'00"--E 10°29'00"/N 47°48'00"--N 45°49'00")

☐ Always include bounding box

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boundingbox.klokantech.com



Georeferencer

Online mapping platform for the old maps
in digital world

www.georeferencer.com



Georeferencer

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Drag a file here

Or, if you prefer...

Select a file from your computer

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Install Chrome extension

Institutions: batch with spreadsheet / FTP upload



Side by side

Overlay

Coordinates

Clip

Autosaving

Please, place a few more points.



1732_Herman_Moll...

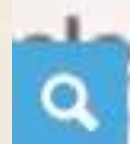


Save

Next

Review:

Skip to next



Side by side

Overlay

Coordinates

Clip

Now you edit location in the **old** map
Hold/Release SHIFT key to switch



1732_Herman_Moll...

Open sidebar to add maps



It looks like this map is finished

Save

Next

Review:

Approve now

Skip to next

Last: never



Transcribe

www.georeferencer.com



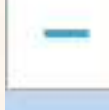
Add transcription





View

www.georeferencer.com



1732_Herman_Moll...



★Praia

Overlay & compare

What next?

Recite



**Compare
(multiple maps)**

www.georeferencer.com



The Alps. ... Nationa...



Drag maps here

My private maps

David Rumsey

Reviewed

All

2017 (all)



Alpenlander.



Italy, and Sardinia.



The upper part of It...



24-26. Italia nord.



Tabula Italiae Antiqua



7. Italy.



Europe 1.



Italie Septentrionale...



Italy

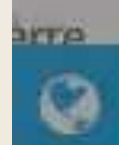


Italie. Italia

All maps



Troyes



Saint-Étienne



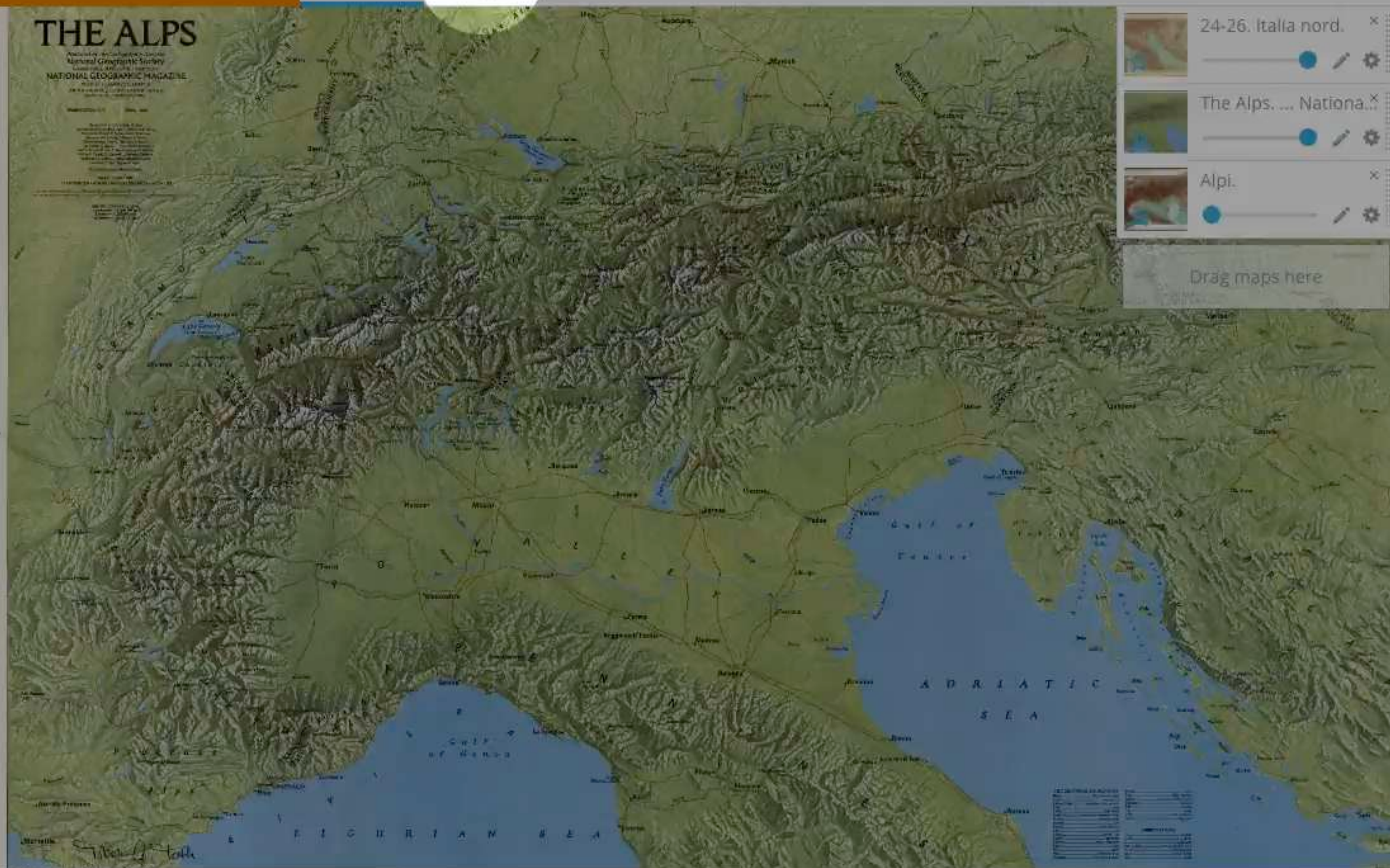
Nîmes

Montpellier



THE ALPS

NATIONAL GEOGRAPHIC MAGAZINE



- 24-26. Italia nord.
- The Alps.... Nationa...
- Alpi.

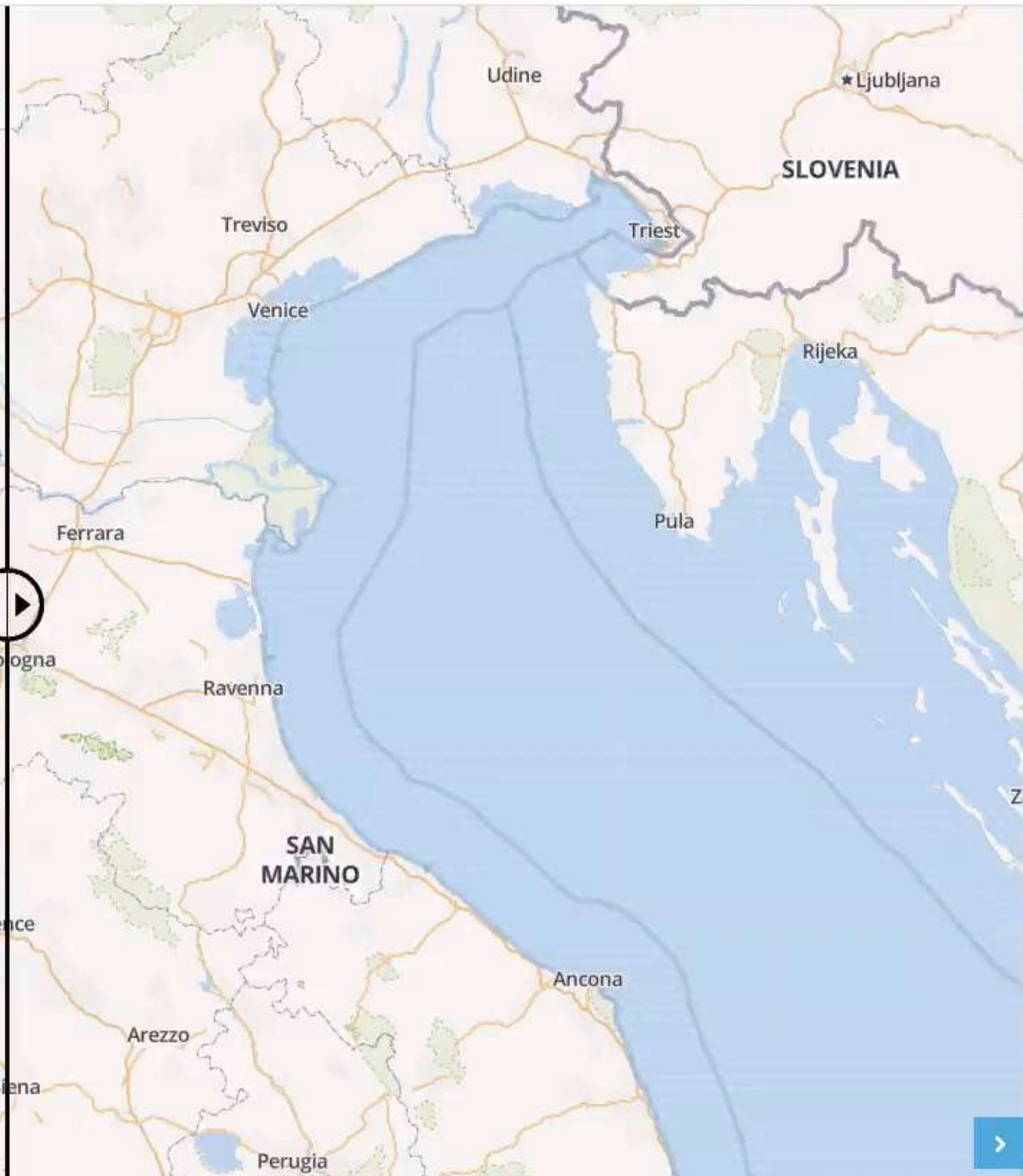
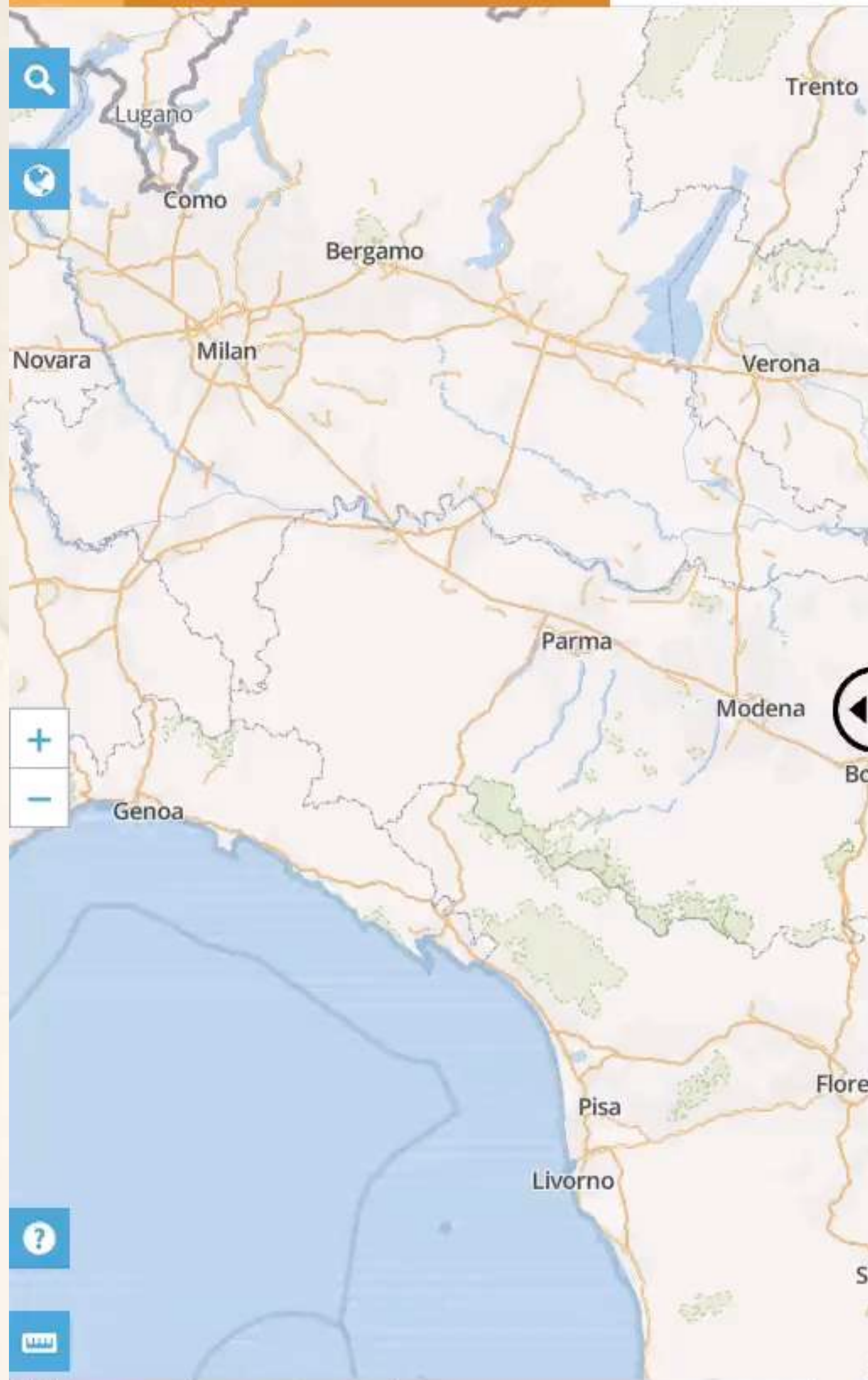
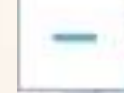
Drag maps here

My private maps

David Rumsey

- Reviewed All 2017 (all)
- N. Italy, Alps, Apenn...
- The Alps: ... Nationa...
- Alpi.
- 76-77. Italy, North. T.
- Italy I.
- Partie, l'Italie. Europ..
- Italy I.
- Composite: Map of ...
- Northern Italy. Italia...
- Northern Italy.
- North Italy.
- Italie Septentrionale..

All maps



My private maps

David Rumsey

Reviewed All 2017 (all)

-  Pannonia, Illyricum,...
-  Tabula Italiae Antiq...
-  Yugoslavia and Dan...
-  Italy
-  Le Cours de Danube.
-  L'Italie.
-  Austria.
-  Italy.
-  7. Italy.
-  The upper part of It...
-  Italia Fisica.
-  Italy.

All maps



Exports

www.georeferencer.com

1732_Herman_Moll_Map_of_the_West_Indies_and_Caribbean.jpg



Bookmark this map ☆

View

Overlay & compare

Original viewer

Draw features

Open in GeoEditor

Metadata

Title

1732_Herman_Moll_Map_of_the_West_Indies_and_Caribbean.jpg

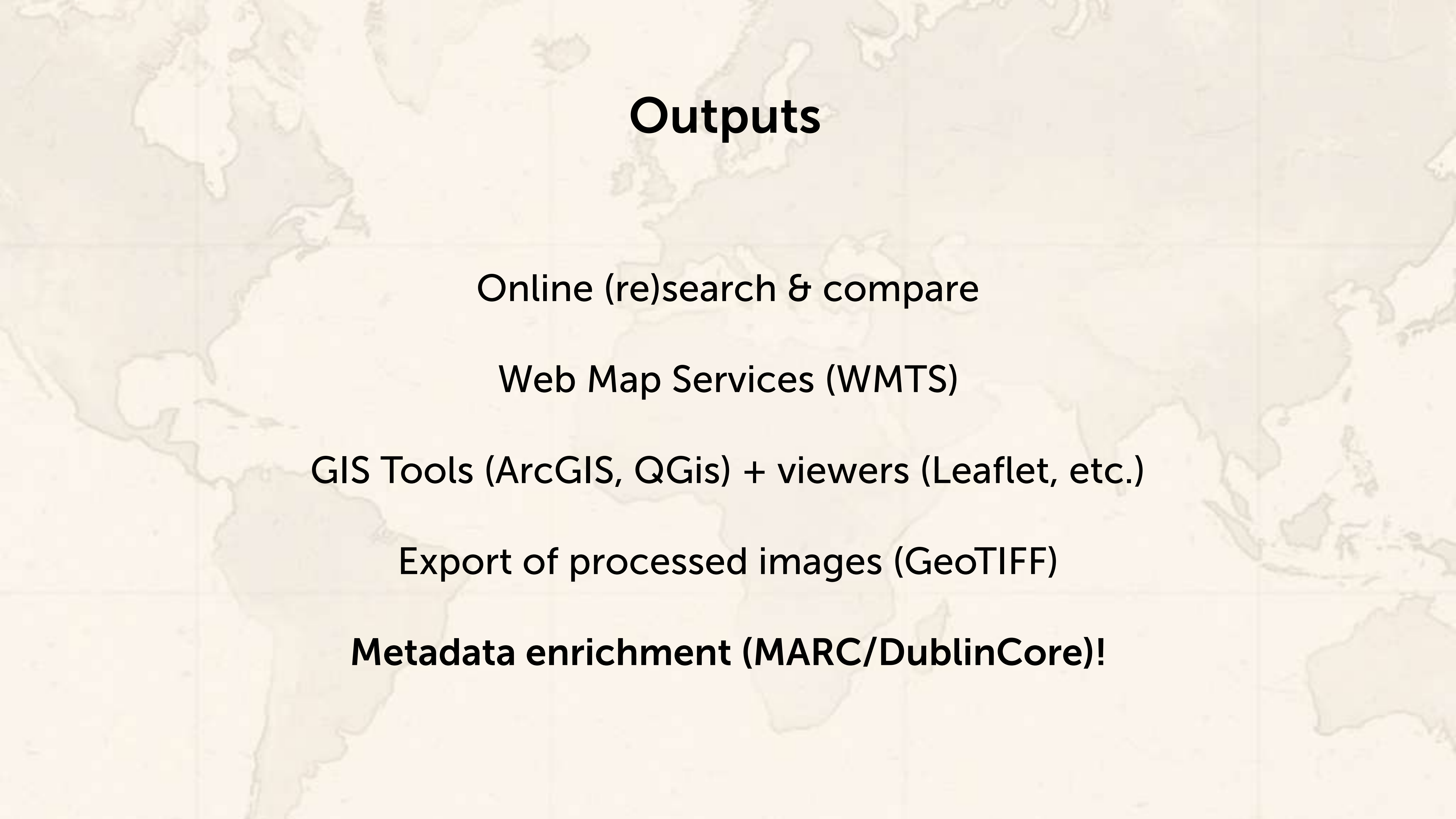
Identifier

p11

Use in GIS apps

ArcGIS, QGIS or web apps can simply use this map with web map services.

WMTS, TileJSON or XYZ tiles are provided for quick access to processed maps.



Outputs

Online (re)search & compare

Web Map Services (WMTS)

GIS Tools (ArcGIS, QGis) + viewers (Leaflet, etc.)

Export of processed images (GeoTIFF)

Metadata enrichment (MARC/DublinCore)!



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Crowdsourcing

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Fix the location of a map

Results



Top contributors

Name	Contributions
P.K. Neukirchen	7211
Heleen Hayes	4663
Nelleke Hovestreydt	713
Eric Vanderveen	520
Stefan Droste	256
Koen Molenaars	198
P. van Zuylen	194
HarryS	191
gerard	168
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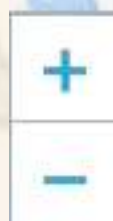
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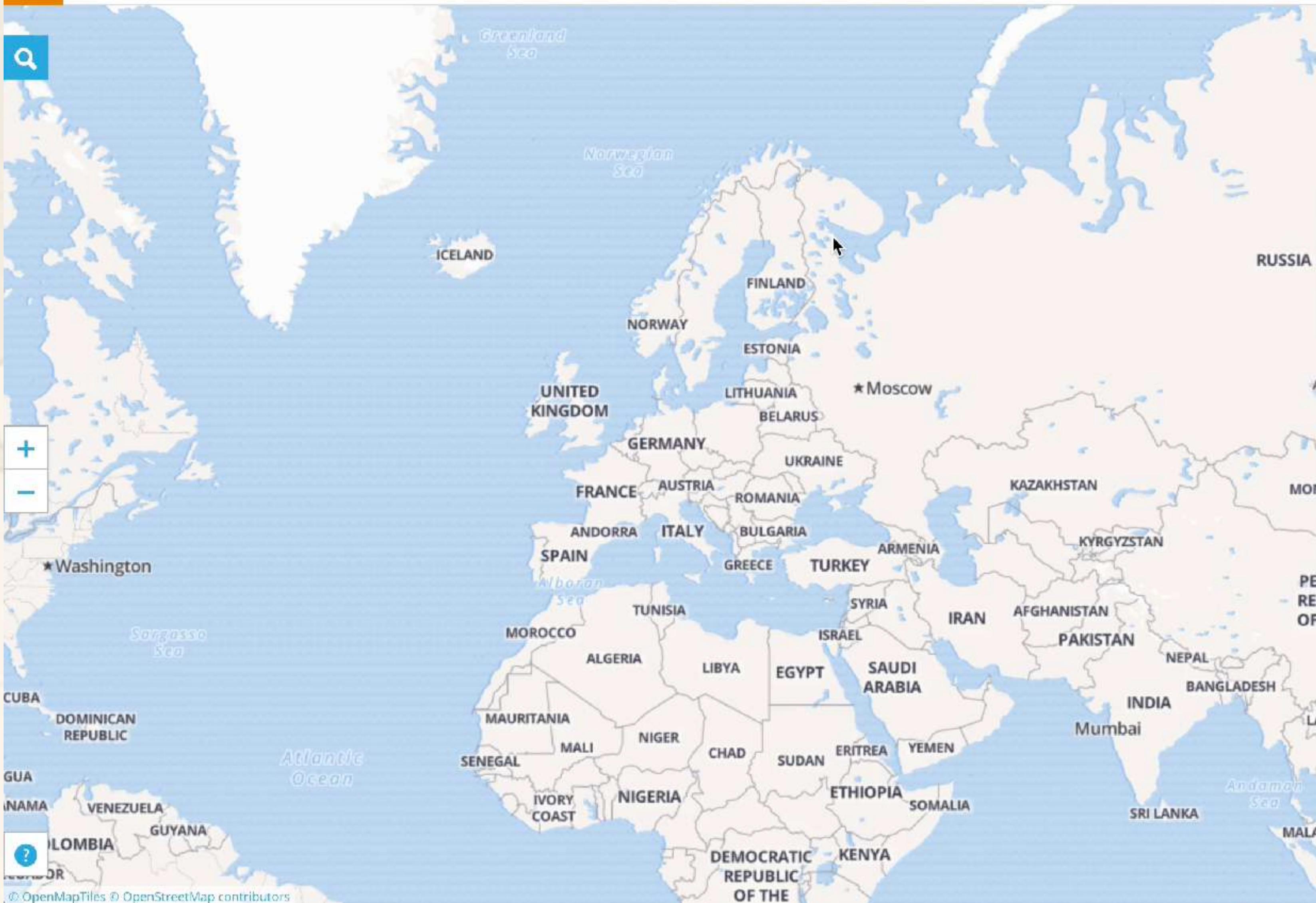
Attributes



Timeline



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Europa politisch_1905.jpg



Alaska Wall Planning Chart 1.tif



Map_showing_the_telegraph_lin...



1901_Eastern_Telegraph_cables...



CD-10 WAC 25.tif



1732_Herman_Moll_Map_of_the...



Atlas_Van_der_Hagen-KW1049B...



Institutions

Crowdsourcing

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Topographical Map Of The Yosemite Valley And Vicinity. Preliminary Edition.



View

Overlay & compare

iiif viewer, iiif info json

Website

Draw features

Open in GeoEditor

Metadata

Title

Topographical Map Of The Yosemite Valley And Vicinity. Preliminary Edition.

Identifier

2738.110

Description

Topographical Map Of The Yosemite Valley And Vicinity. Preliminary Edition. Part Of East Central California. Mountain Drawing by J.E. Weyss; Lettering by J. Franke. From Topographical Plat by Lt. Macomb, Nov. 30, 1883. Julius Bien & Co. Photo. lith. Expeditions Of 1878-79, Under the Command of Capt. Geo. M. Wheeler, Corps of Engineers, U.S. Army. U.S. Geographical Surveys West Of The 100th Meridian.

Depicted date

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Use in GIS apps

ArcGIS, QGIS or web apps can simply use this map with web map services. WMTS, TileJSON or XYZ tiles are provided for quick access to processed maps.

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David Rumsey Map Collection

CARTOGRAPHY ASSOCIATES

This map

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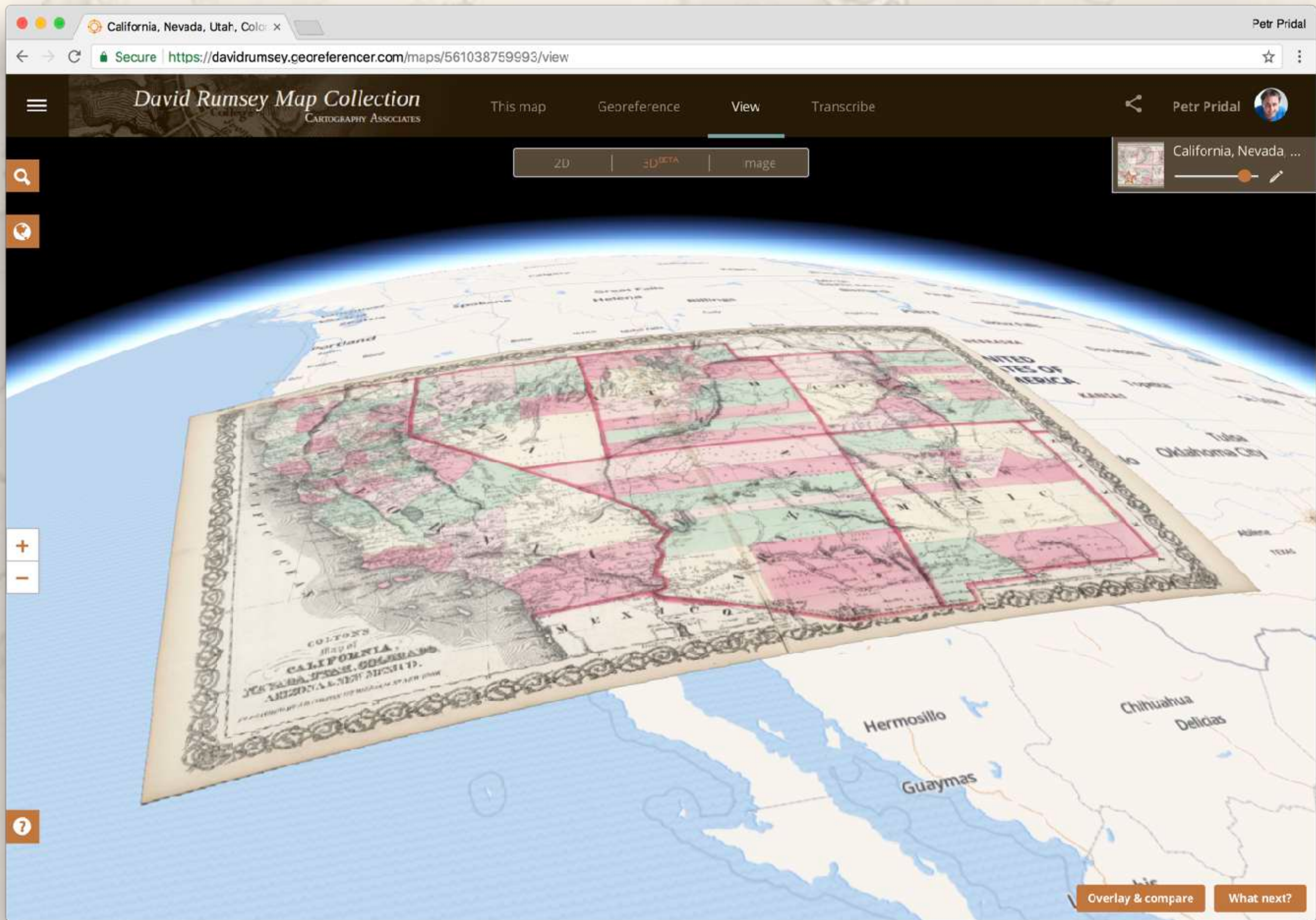
View

Transcribe

Petr Pridal



Secure | https://davidrumsey.georeferencer.com/maps/929406225627/



Cynefin | Cynefin project

Petr Pridal

← → ↻

cynefin.archiveswales.org.uk

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Sign InCymraeg | English

THE TITHE MAPS OF WALES
CYNEFIN
Mapiau Degwm Cymru

GET STARTED

1224
Maps

1455
Total Volunteers

1844258
Records Transcribed

Cynefin Continues

The Cynefin project is officially completed, and all the contributed data can be seen on the National Library of Wales' new website [places.library.wales](#). However, this website will be kept alive until September, and we will be very grateful for any additional checking and tidying work you can do. We will transfer corrections to [places.library.wales](#) in September, including a revised version of the unified tithe map.

A huge thanks to all the volunteers who have helped us produce this great resource.

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Top contributors

Previous day

Philip Owen	50
Colin Rees	8

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Vectorization

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1732_Herman_Moll_Map_of_the_West_Indies_and_Caribbean.jpg



Bookmark this map ☆

View

[Overlay & compare](#)[Original viewer](#)

Draw features

[Open in GeoEditor](#)

Metadata

Title

1732_Herman_Moll_Map_of_the_West_Indies_and_Caribbean.jpg

Identifier

n11

Timesheet – Klokian Technologies GmbH – Harvest

Use in GIS apps

ArcGIS, QGIS or web apps can simply use this map with web map services.

WMTS, TileJSON or XYZ tiles are provided for quick access to processed maps.

[Get links](#)

Edit feature



Building



Name



Aston Business School



Building



yes



Levels



2, 4, 6...



Address



Housename

123

Street



City

Postal c...

Source



visual survey;cities revealed aerial im...

[View on openstreetmap.org](#)

Point

Line

Area



Save





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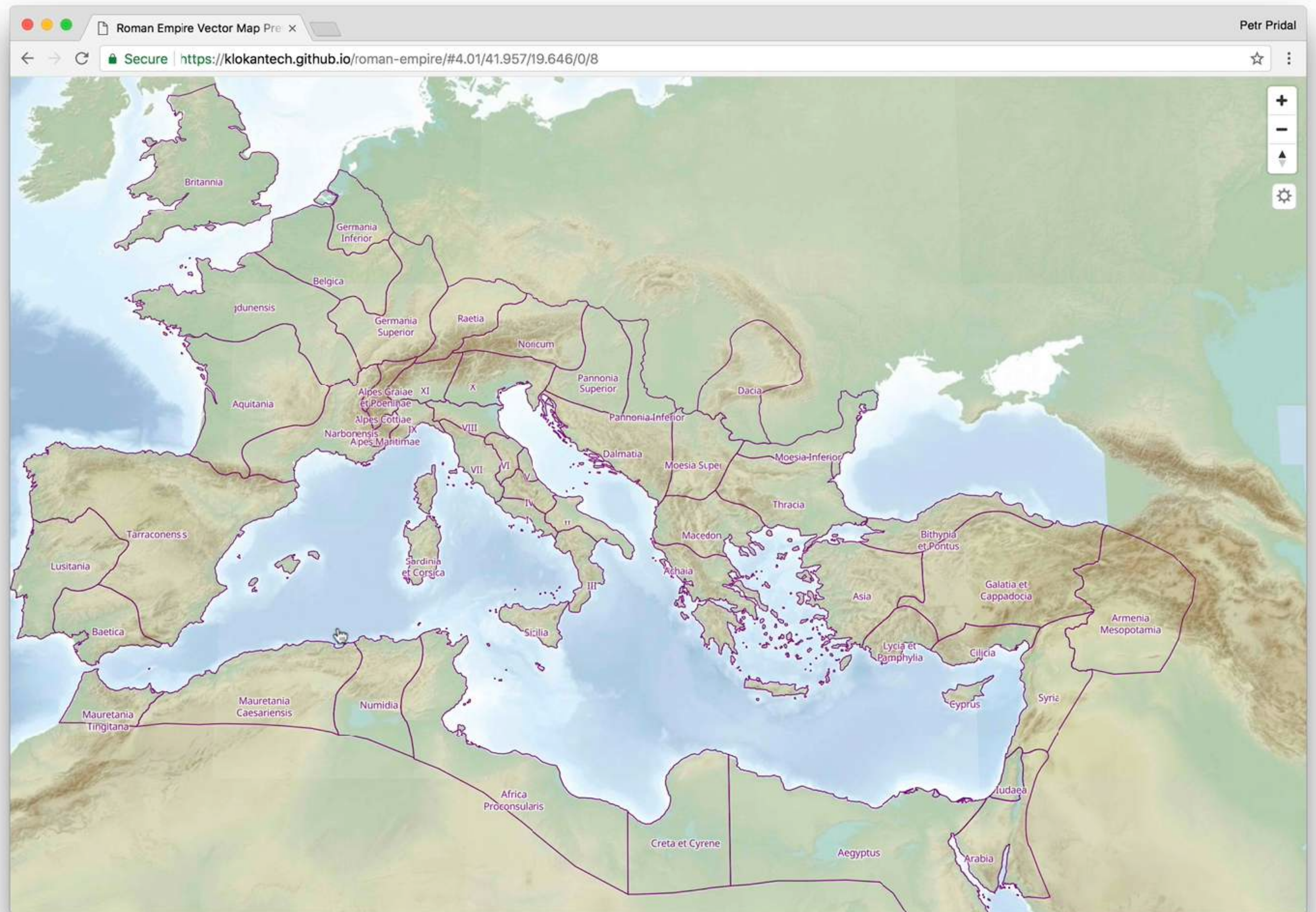
LUND
UNIVERSITY

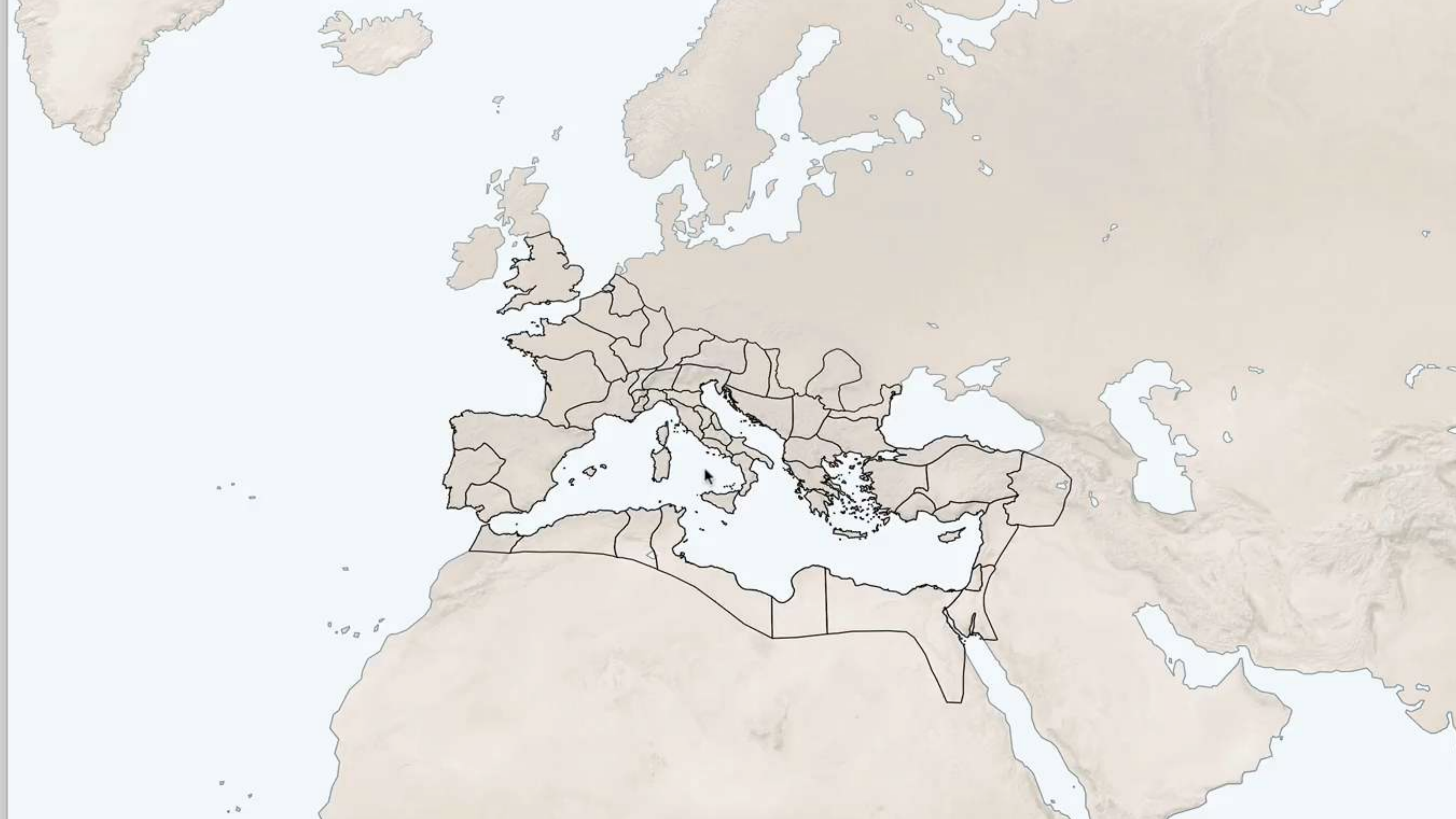


AN INITIATIVE OF
Pelagios
commons



maptiler







YouTube: “Petr Pridal Stanford Speech”

Georeferencer mapping platform

10 years of experience of georeferencing online

300.000 maps processed

Trusted by



David Rumsey Map Collection
CARTOGRAPHY ASSOCIATES

ETH zürich



National Archives of the Netherlands
Ministry of Education, Culture and Science



Universiteit
Leiden



One more thing...

Augmented Reality (AR) from our labs



AR Globe

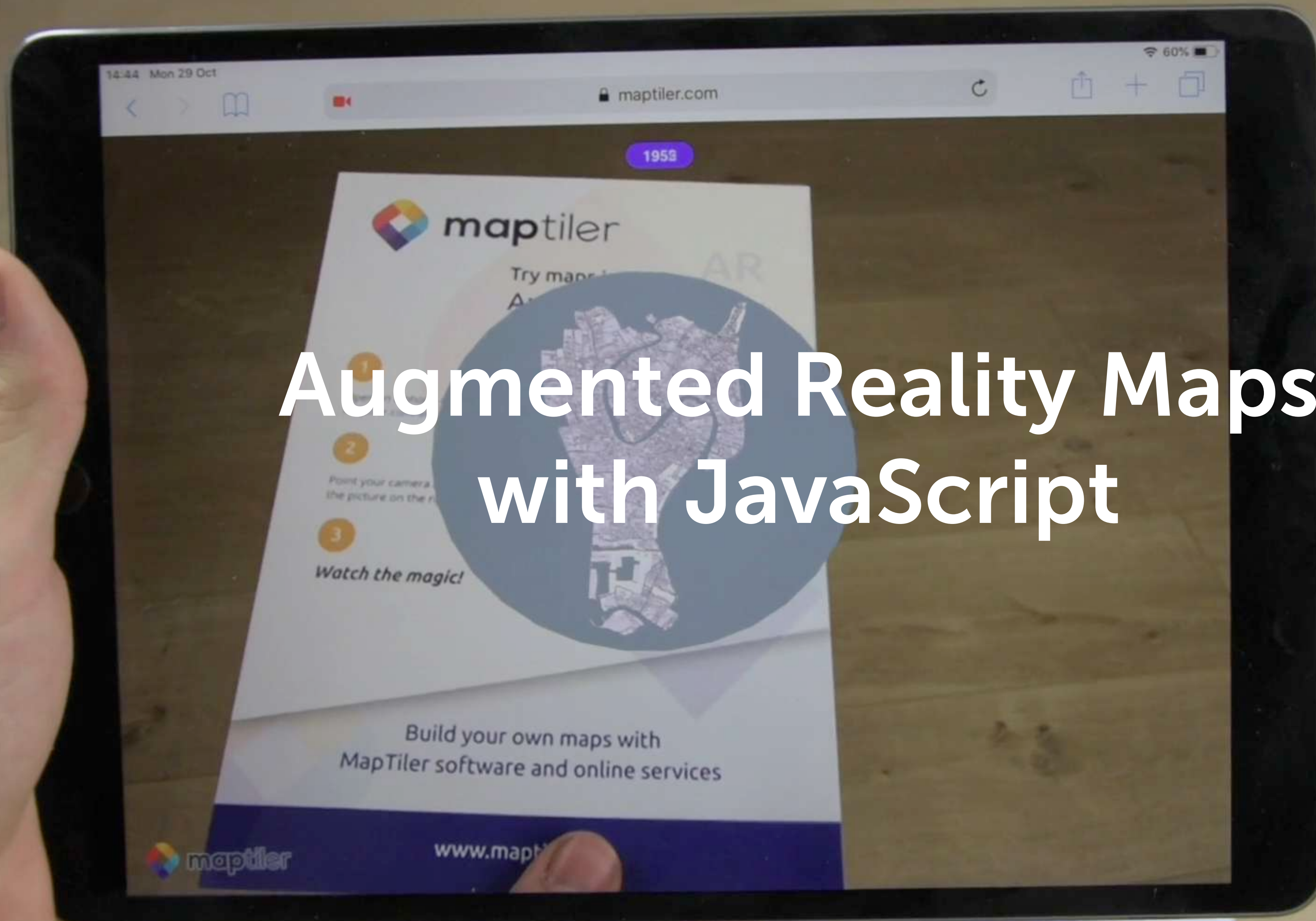
David Rumsey Map collection







Augmented Reality Maps with JavaScript



Thank you!

Let's build maps together!

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