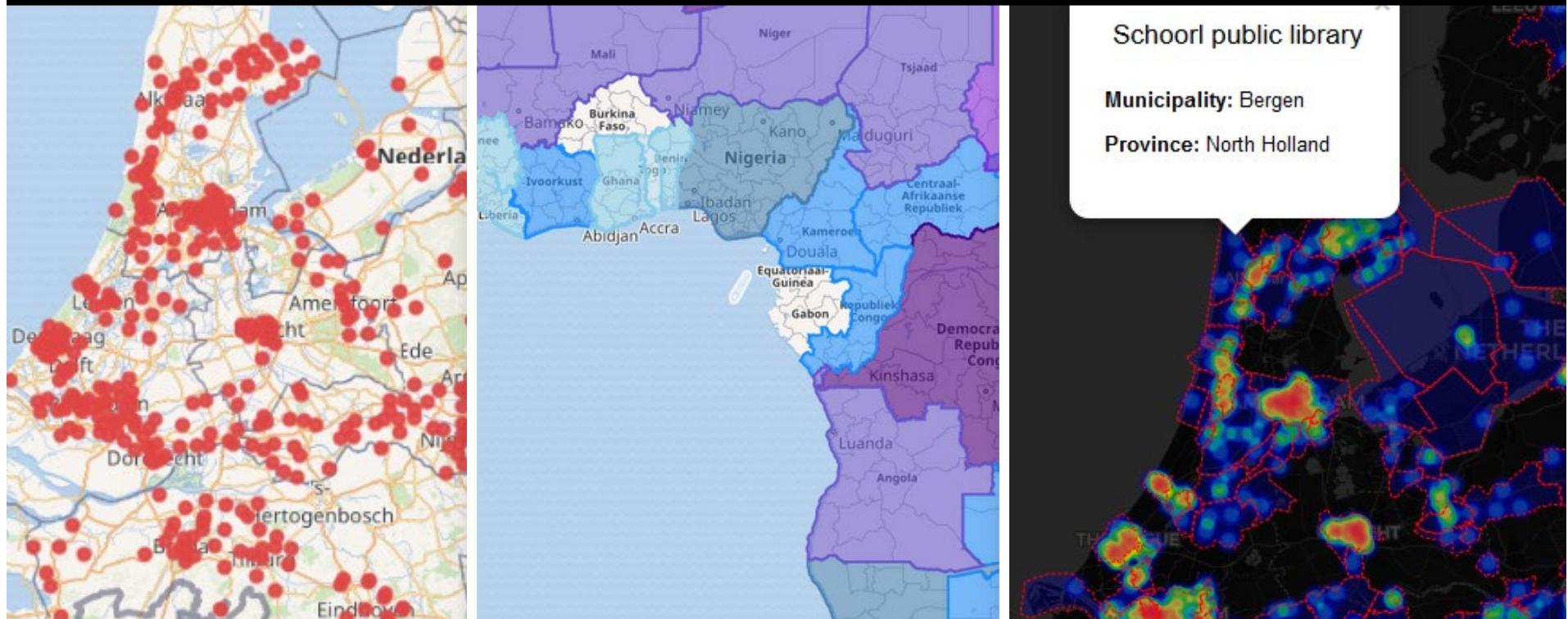


Map making workshop

from Wikidata to interactive off-Wiki maps in three steps



Wikimania 2019, Stockholm, 18-8-2019

Olaf Janssen, National Library of the Netherlands

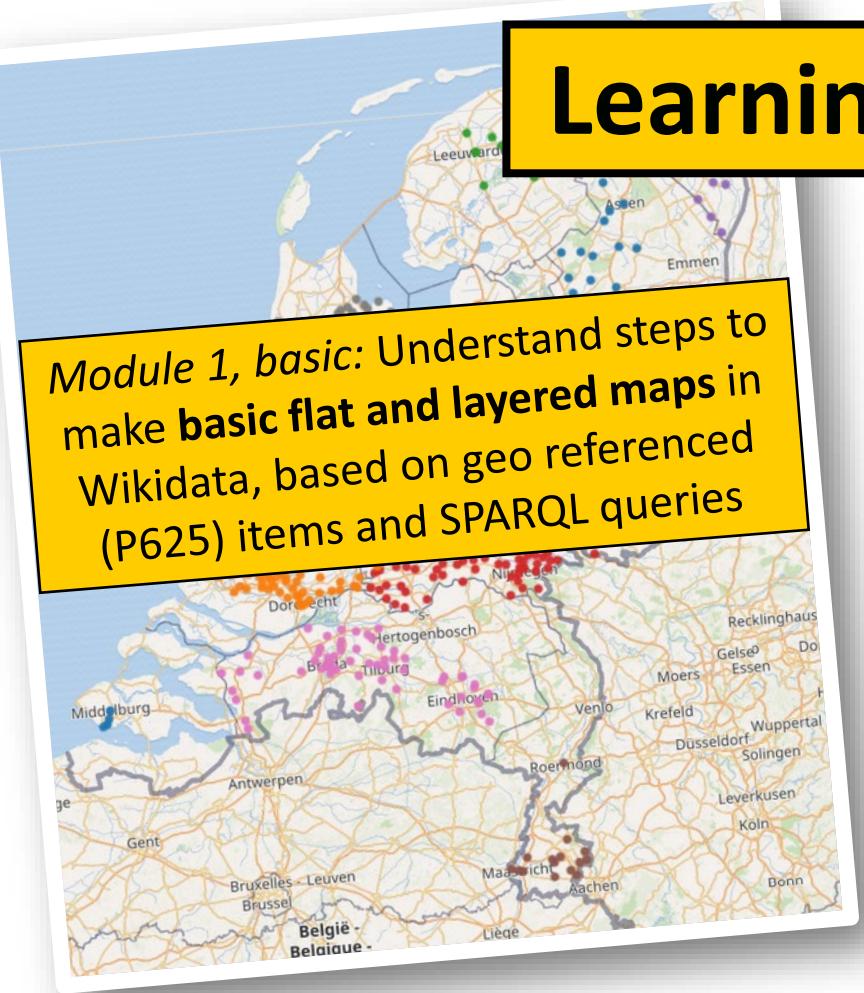
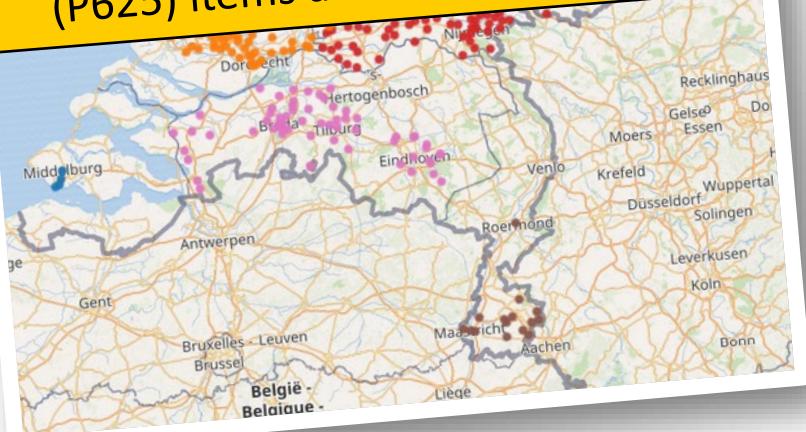
User:OlafJanssen // olaf.janssen@kb.nl // @ookgezellig

KB } nationale
bibliotheek



Learning objectives

Module 1, basic: Understand steps to make **basic flat and layered maps** in Wikidata, based on geo referenced (P625) items and SPARQL queries



Learning objectives

Module 1, basic: Understand steps to make **basic flat and layered maps** in Wikidata, based on geo referenced (P625) items and SPARQL queries



Hoofdpagina
Welkom

Data:DutchPublicLibraries.map
Uit Wikimedia Commons

Map of Dutch public libraries, work in progress, 21-5-2019

Module 2, intermediate: Understand steps to **embed maps in Wikimedia sites** like Wikipedia, Wikimedia Commons and Wikidata

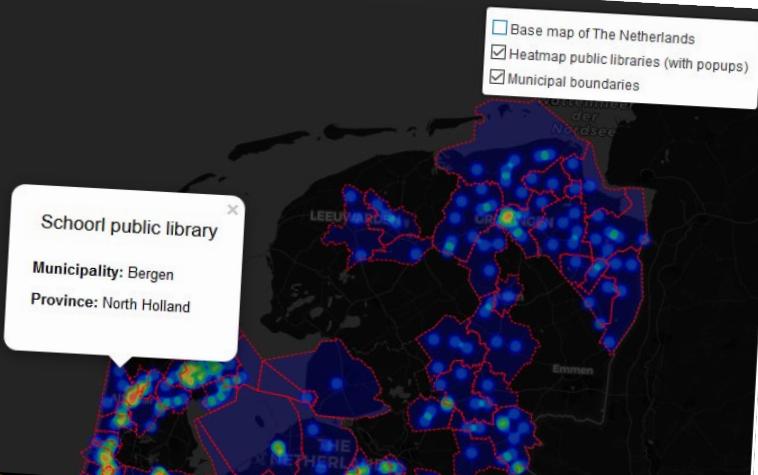
Contact

Afdrukken/exporteren
Als PDF downloaden
Hulpmiddelen
Verwijzingen naar deze pagina
Verwante wijzigingen
Speciale pagina's
Permanente koppeling
Paginagegevens
Geocoding Recent Changes
Geocoding Search
Geocoding Daily Log
Subpagina's
Voor verwijdering nomineren

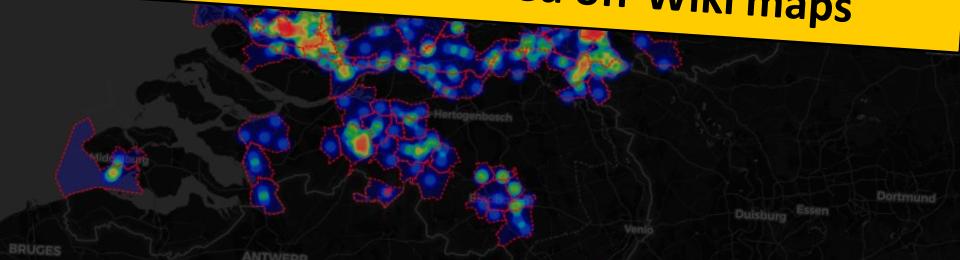


Learning objectives

Module 1, basic: Understand steps to make **basic flat and layered maps** in Wikidata, based on geo referenced items and SPARQL queries



Module 3, advanced: Understand steps to create **Wikidata-based off-Wiki maps**



Data:DutchPublicLibraries.map
Uit Wikimedia Commons

Map of Dutch public libraries, work in progress, 21-5-2019

Module 2, intermediate: Understand steps to embed maps in **Wikimedia sites** like Wikipedia, Wikimedia Commons and Wikidata

WIKIMEDIA COMMONS

Hoofdpagina
Welkom

Contact

Afdrukken/exporteren

Alle PDF downloaden



Learning objectives

Module 1, basic: Understand steps to make **basic flat and layered maps** in Wikidata, based on geo referenced items and SPARQL queries



Module 3, advanced: Understand steps to create **Wikidata-based off-Wiki maps**



Module 2, intermediate: Understand steps to embed maps in **Wikimedia sites** like Wikipedia, Wikimedia Commons and Wikidata



PAWS WikidataMapMakingWorkshop Last Checkpoint één uur geleden (autosaved)

File Edit View Insert Cell Kernel Widgets Help

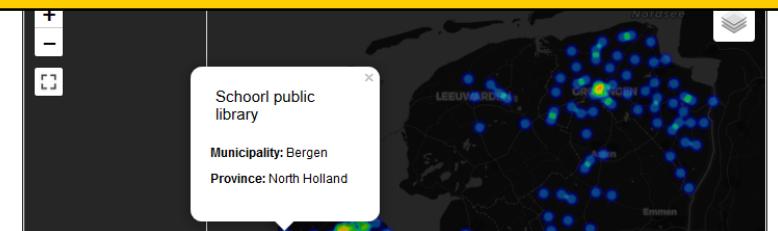
Public Link

```
# First, we start with a simple basemap of The Netherlands
basemap=basemaps.Esri.WorldTopoMap
default_layer = basemap_to_tiles(basemap)
default_layer.name='Base map of The Netherlands'

# Overview of more basemaps: https://leaflet-extras.github.io/leaflet-providers/preview/ +
# https://github.com/jupyter-widgets/ipyleaflet/blob/master/ipyleaflet/basemaps.py
map_center=(52.088889, 5.33) #Utrecht city
map_zoom=8

# Set layout of map
map_layout = {
    'width': '800px',
    'height': '900px',
    'border': '1px solid black',
    'padding': '1px',
    'margin': '10 auto 0 auto'}
```

Access to map making resources, SPARQL examples and Python code snippets **to build upon**

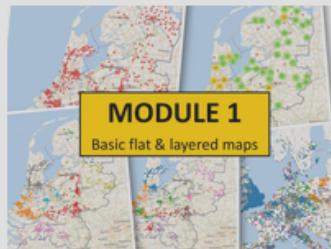


Workshop outline & notes

Workshop outline and notes

Last update: 12th August 2019

Module 1: Basic flat & layered maps



Prerequisites for this Module

- [Wikimedia account](#)
- Working knowledge of [Wikidata](#)
- Basic understanding of [SPARQL](#) and the [Wikidata Query Service](#) (WDQS)
- A Wikidata set of items with geo coordinates [P625](#)

If you

[**https://github.com/ookgezellig/WikidataMapMkingWorkshop/blob/master/OutlineAndNotes.md**](https://github.com/ookgezellig/WikidataMapMkingWorkshop/blob/master/OutlineAndNotes.md)

1.

2.

3.

4. [Volcanos](#)

5. [Airports around the equator](#) (between -10 and +10 degrees latitude)

Tips & tricks welcome!

I'm not a maps / Wikidata guru....

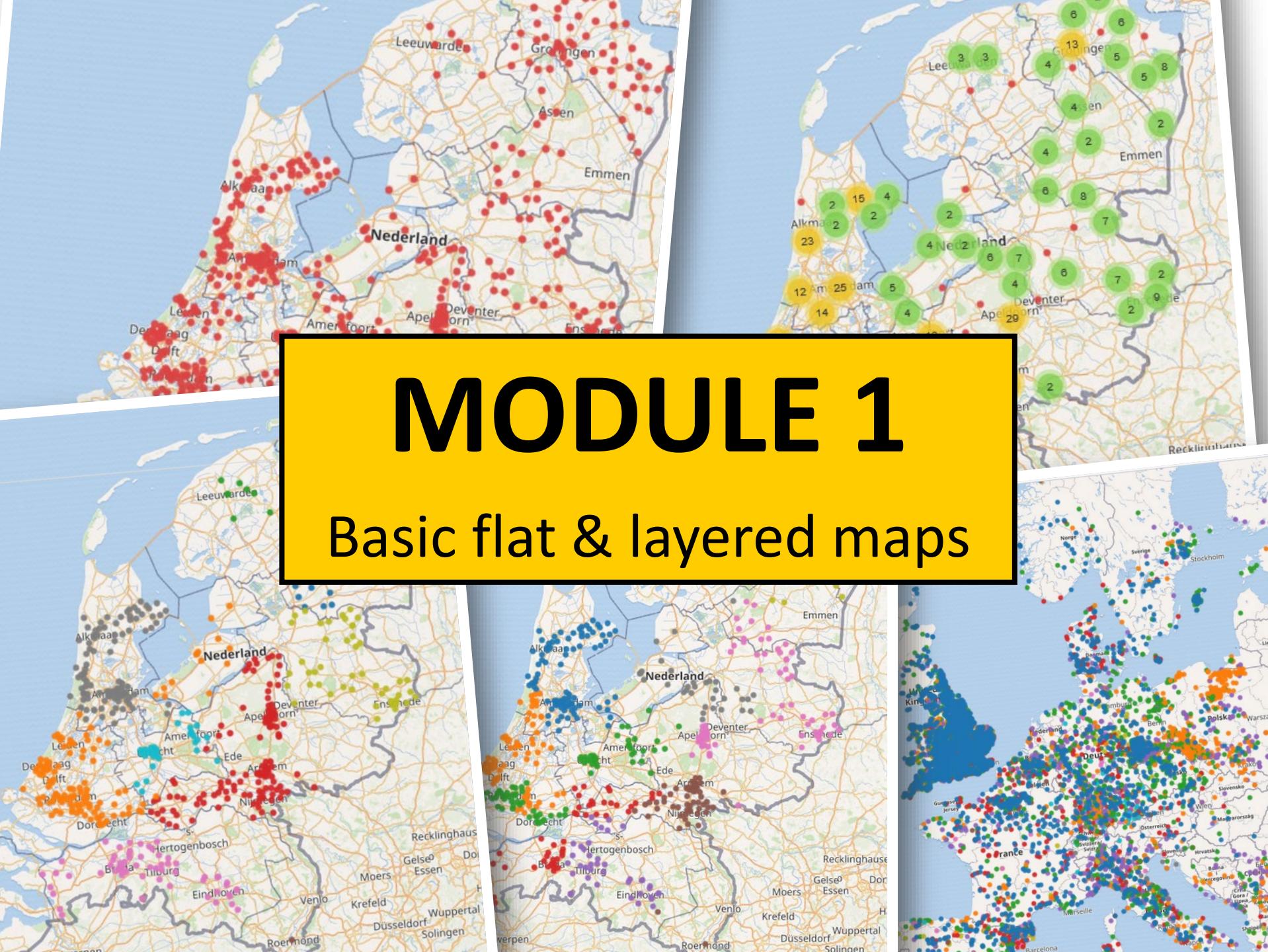


3 MODULES

- 1) Basic flat & layered maps
- 2) Embedded maps in Wikimedia projects
- 3) Interactive, layered off-Wiki maps
driven by Wikidata

MODULE 1

Basic flat & layered maps





For this Module, you will need

- Wikimedia account
- Working knowledge of Wikidata...
- ... and SPARQL
- A Wikidata set of items with geo coordinates
(P625)....

coordinate location (P625)

geocoordinates of the subject. For Earth, please note that only WGS84 coordinating system is supported at the moment

[edit](#)

coordinates | co-ordinate location | co-ordinates | coords | co-ords | geographic coordinate | gps coordinate | gps co-ordinate | gps coordinates | gps co-ordinates | gps location | geotag | wgs 84 | wgs-84 | wgs84 | position | longitude | latitude | gps | coordinate location | geographical coordinates | geo | location | point on a map | point on the globe | point on earth | location on earth | geolocation | geocoordinates | Location on map

▼ In more languages

Language	Label	Description	Also known as
English	coordinate location	geocoordinates of the subject. For Earth, please note that only WGS84 coordinating system is supported at the moment	coordinates co-ordinate location co-ordinates coords co-ords geographic coordinate gps coordinate gps co-ordinate gps coordinates gps co-ordinates gps location geotag wgs 84 wgs-84 wgs84 position longitude latitude gps coordinate location geographical coordinates geo location point on a map point on the globe point on earth location on earth geolocation geocoordinates Location on map
German	geographische Koordinaten	Koordinaten eines sich auf der Erde befindlichen Objekts, momentan werden nur WGS84-basierte Koordinaten unterstützt.	Koordinate geografische Koordinate Koordinaten

P625

<https://www.wikidata.org/wiki/Property:P625>

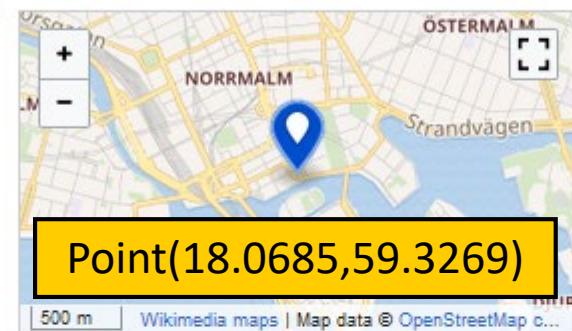
Stockholm

[wd:Q1754](#)

+ add value

coordinate location

P625



500 m Wikimedia maps | Map data © OpenStreetMap c...

59°19'46"N, 18°4'7"E



▶ 1 reference

edit

office held by head of government

mayor

edit

▼ 0 references

+ add reference

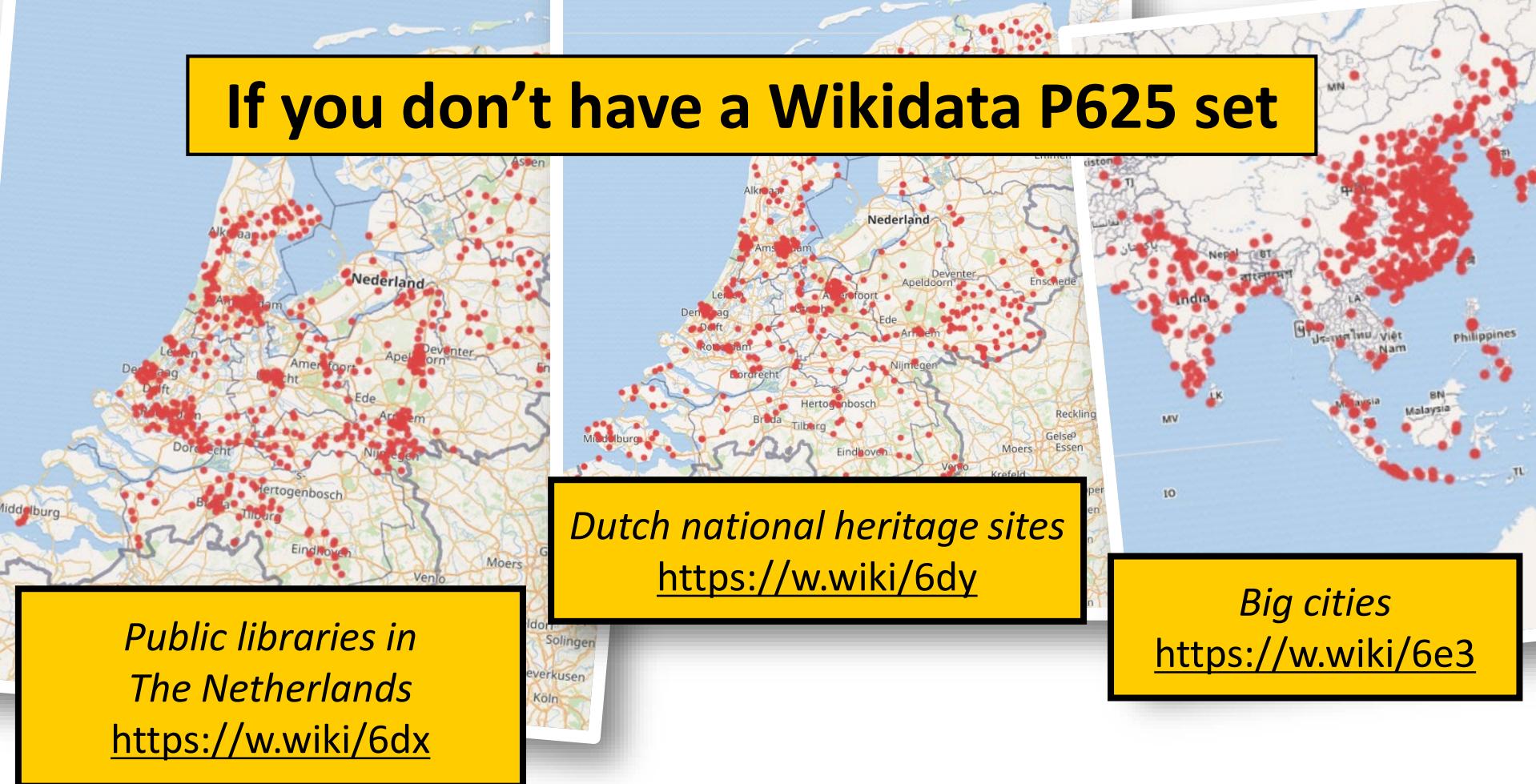
+ add value

head of government

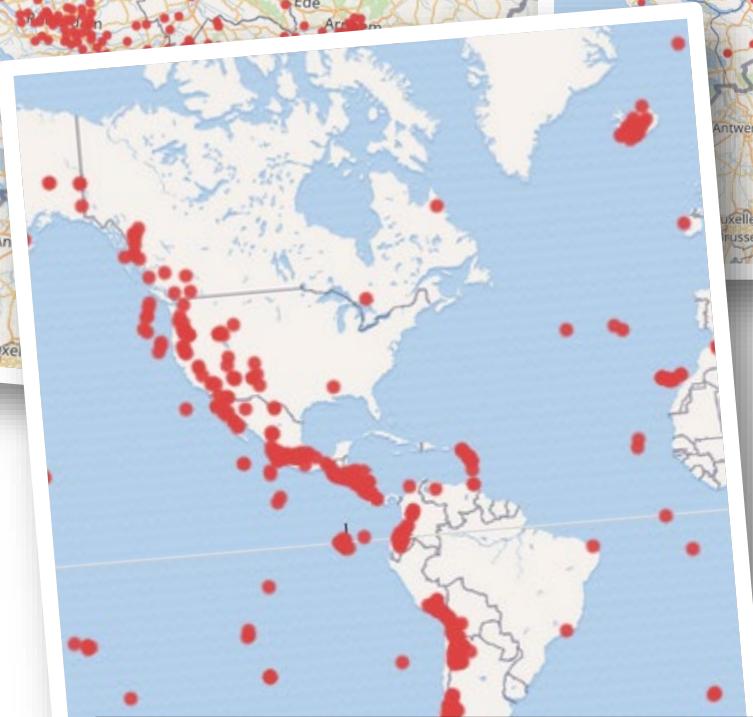
Karin Wanngård

edit

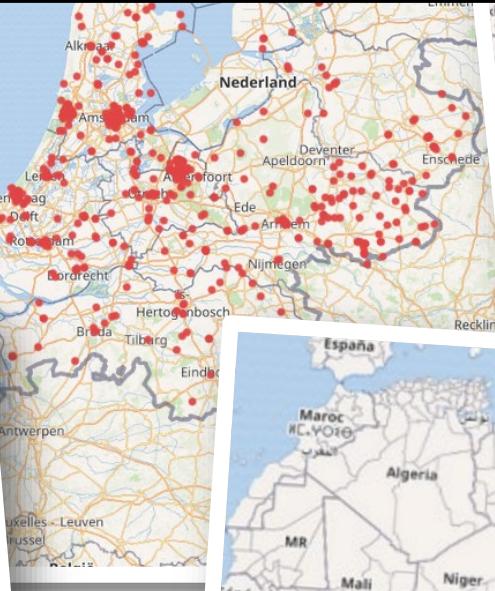
If you don't have a Wikidata P625 set



If you don't have a Wikidata P625 set



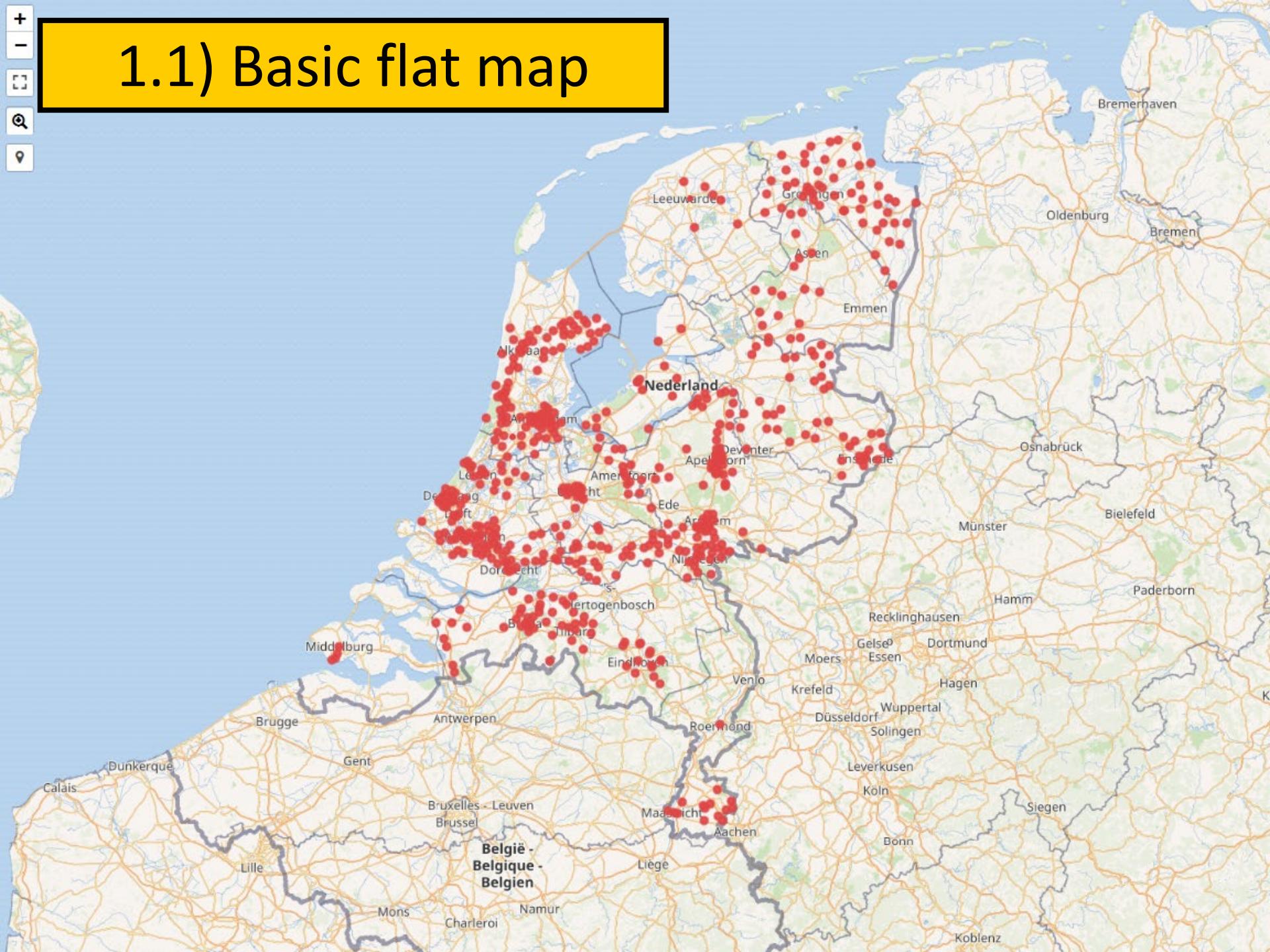
Volcanos of the world
<https://w.wiki/6e9>

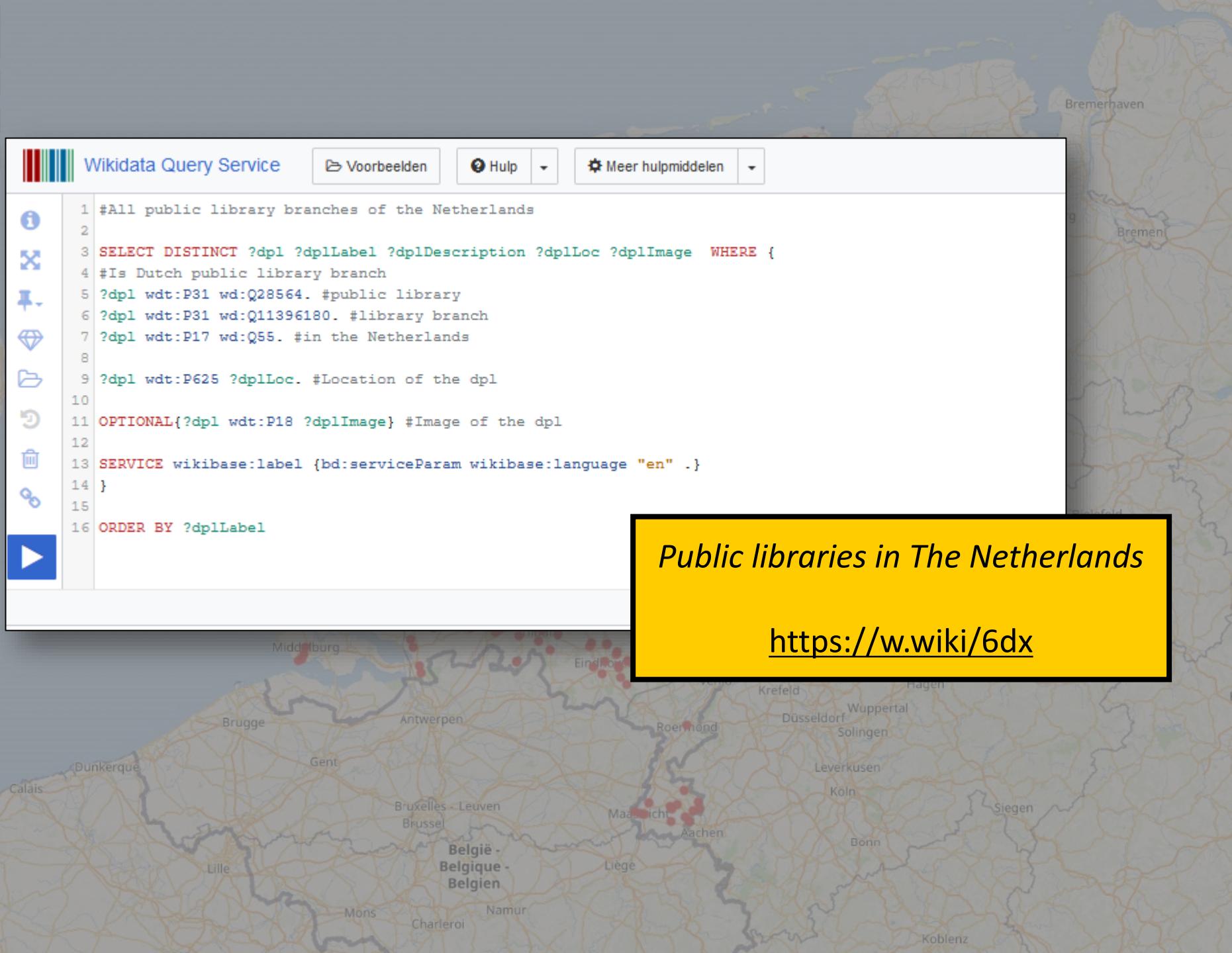


Airports around equator
<https://w.wiki/6eB>



1.1) Basic flat map





Wikidata Query Service
Voorbeelden
Hulp
Meer hulpmiddelen

i
x
l
diamond
file
refresh
trash
link
play

583 resultaten in 512 ms

dpl	dplLabel	dplDescription	dplLoc	dplImage
Q wd:Q61785962	's-Heerenberg public library	Public library in 's-Heerenberg, municipality of Montferland, The Netherlands	Point(6.2454886 51.8731333)	 com
Q wd:Q63677419	't Harde public library service point	Public library in the village of 't Harde, The Netherlands	Point(5.877917 52.4172699)	
Q wd:Q61915721	Aalsmeer public library	Public library in Aalsmeer, The Netherlands	Point(4.7496987 52.2679063)	
Q wd:Q59772713	Aalst public library	Public library in Aalst, The Netherlands	Point(5.1259789 51.7841643)	
Q wd:Q60499424	Abbekerk public library	Public library in Abbekerk, municipality of Medemblik, The Netherlands	Point(5.0160659 52.7313345)	
Q wd:Q63385185	Achterveld public library	Public library in the village of Achterveld, municipality of Leusden, The Netherlands	Point(5.4973655 52.1365067)	
Q wd:Q60020855	Aduard public library	Public library in Aduard, province of Groningen, The Netherlands	Point(6.4570135 53.2599615)	
Q wd:Q63890044	Akersloot public library	Public library in Akersloot, The Netherlands	Point(4.7322704 52.5633782)	 com (518264)
Q wd:Q59871315	Alblasserdam public library	Public library in Alblasserdam, The Netherlands	Point(4.65723 51.86473)	
Q wd:Q63890048	Alkmaar De Mare public library	Public library in Alkmaar De Mare, The Netherlands	Point(4.7588585 52.6535348)	
Q wd:Q63890041	Alkmaar Oudorp public library	Public library in the Oudorp neighbourhood in the city of Alkmaar , The Netherlands	Point(4.7657342 52.6240205)	

583 resultaten in 512 ms



Table



Image grid



Graph builder



Map



Line chart



Bar chart



Scatter chart



Area chart



Bubble chart



Tree map



Tree



Timeline



Dimensions



Graph



wd:Q60020855

Aduard public library

/ in Aduard, province of Groningen, The Netherlands

Point(6.4570135
53.2599615)

wd:Q63890044

Akersloot public library

/ in Akersloot, The Netherlands

Point(4.7322704
52.5633782)

wd:Q59871315

Alblasserdam public library

Public library in Alblasserdam, The Netherlands

Point(4.65723
51.86473)

wd:Q63890048

Alkmaar De Mare public library

Public library in Alkmaar De Mare, The Netherlands

Point(4.7588585
52.6535348)

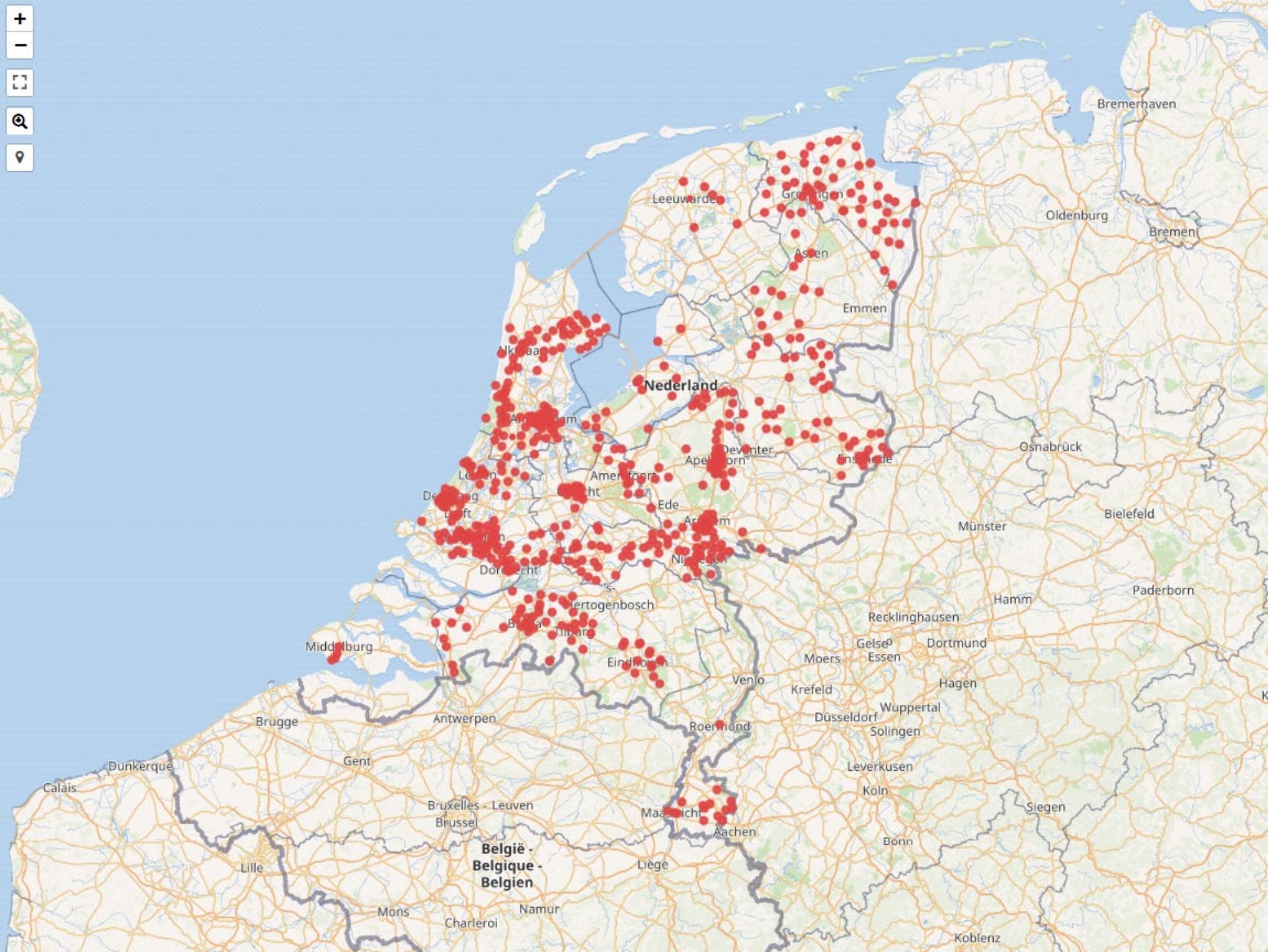
wd:Q63890041

Alkmaar Oudorp public library

Public library in the Oudorp neighbourhood in the city of Alkmaar , The Netherlands

Point(4.7657342
52.6240205)

label	dplDescription	dplLoc	dplImage
s-Heerenberg public library	Public library/ in s-Heerenberg, municipality of Montferland, The Netherlands	Point(6.2454886 51.8731333)	
't Harde public library service point	Public library/ in the village of 't Harde, The Netherlands	Point(5.877917 52.4172699)	
Aalsmeer public library	Public library/ in Aalsmeer, The Netherlands	Point(4.7496987 52.2679063)	
	/ in Aalst, The Netherlands	Point(5.1259789 51.7841643)	
	/ in Abbekerk, municipality of Medemblik, The Netherlands	Point(5.0160659 52.7313345)	
	/ in the village of Achterveld, municipality of Leusden, The Netherlands	Point(5.4973655 52.1365067)	
	/ in Aduard, province of Groningen, The Netherlands	Point(6.4570135 53.2599615)	
	/ in Akersloot, The Netherlands	Point(4.7322704 52.5633782)	
	Public library in Alblasserdam, The Netherlands	Point(4.65723 51.86473)	
	Public library in Alkmaar De Mare, The Netherlands	Point(4.7588585 52.6535348)	
	Public library in the Oudorp neighbourhood in the city of Alkmaar , The Netherlands	Point(4.7657342 52.6240205)	



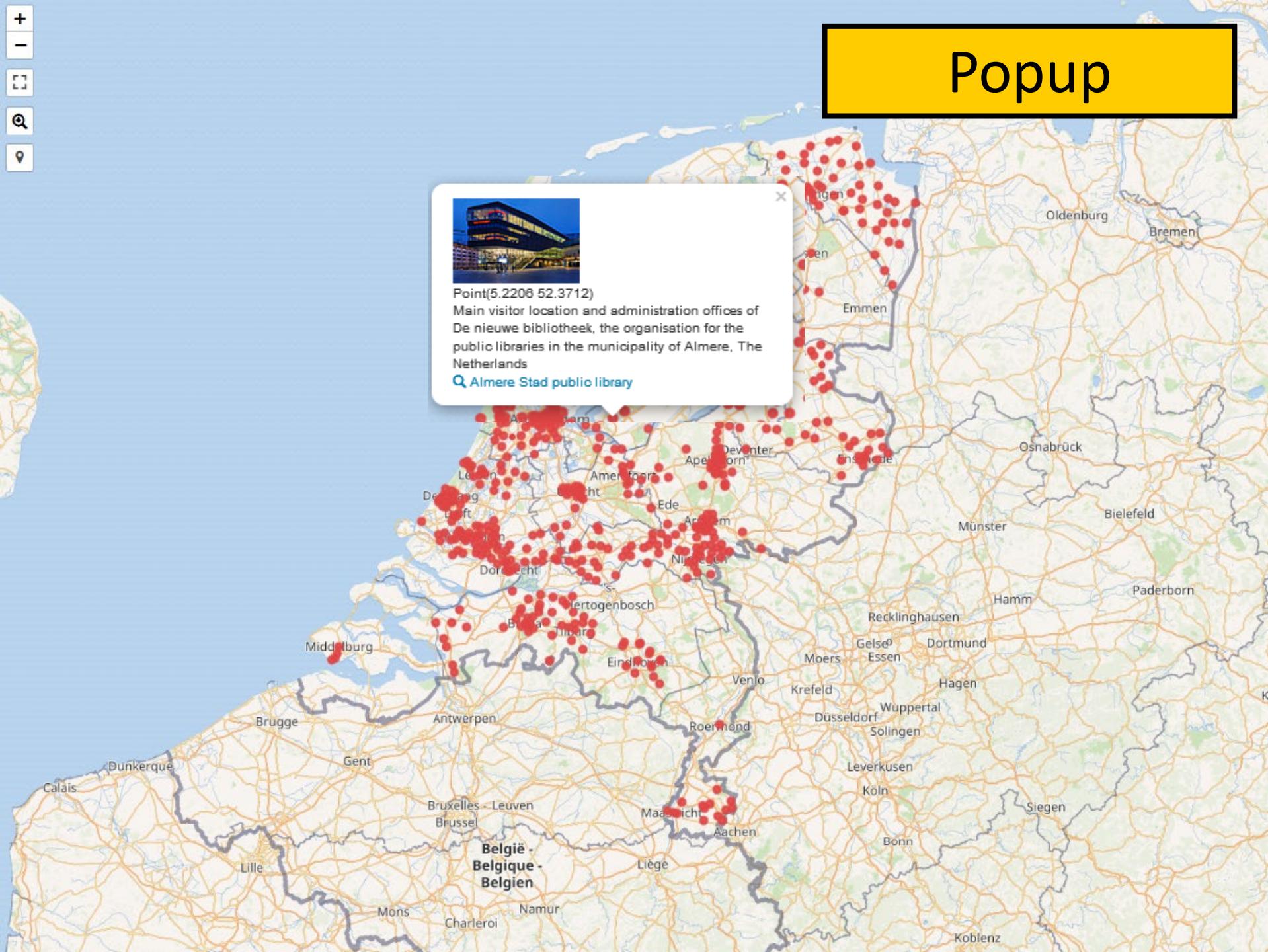
Default map view

Wikidata Query Service Voorbeelden Hulp Meer hulpmiddelen

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel
```

<https://w.wiki/6eq>

Popup



Relation between query and popup

The screenshot shows a map of the Netherlands with red dots representing library locations. A callout box highlights a specific location in Almere, showing a building image and the following text:

Point(5.2206 52.3712)
Main visitor location and administration offices of
De nieuwe bibliotheek, the organisation for the
public libraries in the municipality of Almere, The
Netherlands
Q Almere Stad public library

A red arrow points from the "Almere Stad public library" link in the callout box to the corresponding line in the Wikidata Query Service code.

Wikidata Query Service

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel|
```

<https://w.wiki/6eq>

Relation between query and popup

The screenshot shows the Wikidata Query Service interface. At the top, there's a search bar with the query "Almere Stad public library". Below it is a results table with one row. The table has two columns: the first is a blue icon representing a location, and the second contains the following text:

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel|
```

A red arrow points from the "dplLabel" part of the query (line 5) to the "Almere Stad public library" entry in the results table. Another red circle highlights the "dplLabel" part of the query. A third red circle highlights the "dpl" part of the query.

<https://w.wiki/6eq>

Relation between query and popup

The image shows a map of Europe with several red dots representing library locations. A specific location in Almere, The Netherlands, is highlighted with a larger red dot and a callout box. The callout box contains:

- A small image of a modern building.
- The coordinates: Point(5.2206 52.3712).
- A description: Main visitor location and administration offices of De nieuwe bibliotheek, the organization for the public libraries in the municipality of Almere, The Netherlands.
- A link: [Almere Stad public library](#).

A red arrow points from the coordinate in the callout box to the corresponding line in the Wikidata Query Service code, which is circled in red.

Wikidata Query Service

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel|
```

<https://w.wiki/6eq>

Relation between query and popup

The screenshot shows a map interface with a specific location highlighted. A red circle is drawn around the thumbnail image of a modern building in the popup window. A red arrow points from this image to the `?dplImage` term in the Wikidata Query Service code below.

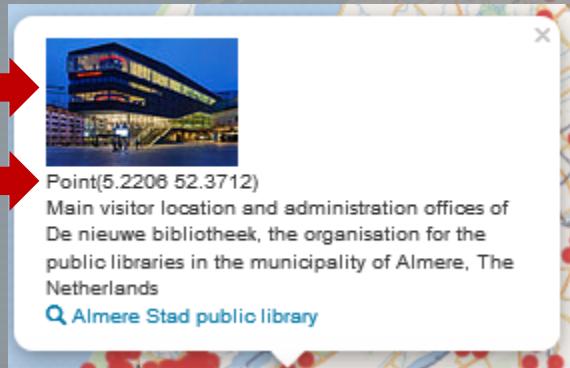
Wikidata Query Service

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel|
```

<https://w.wiki/6eq>

Hiding fields from popup

Hide image and coordinates

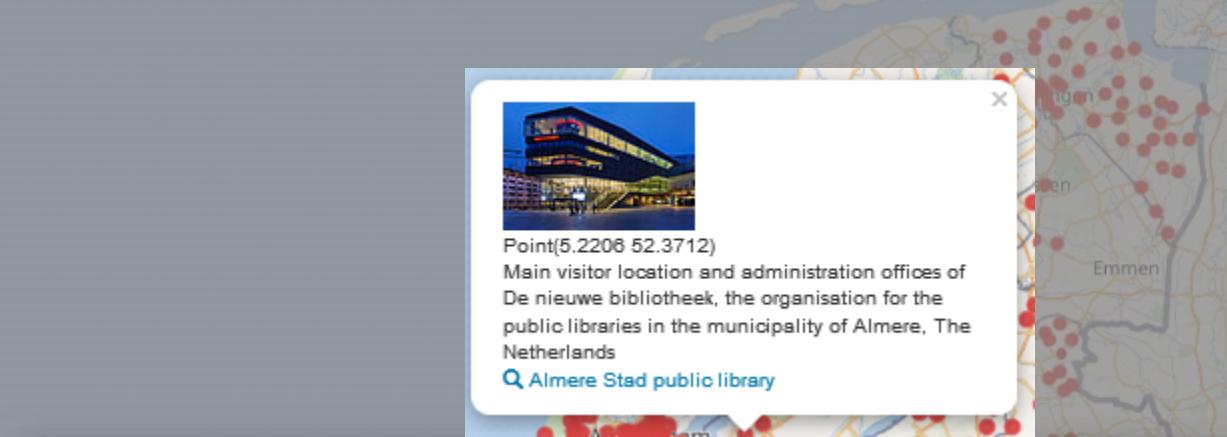


Wikidata Query Service

Voorbeelden Hulp Meer hulpmiddelen

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel|
```

Hiding fields from popup



Wikidata Query Service

Voorbeelden Hulp Meer hulpmiddelen

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map{"hide":["?dplLoc", "?dplImage"]}
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel|
```

<https://w.wiki/6mU>

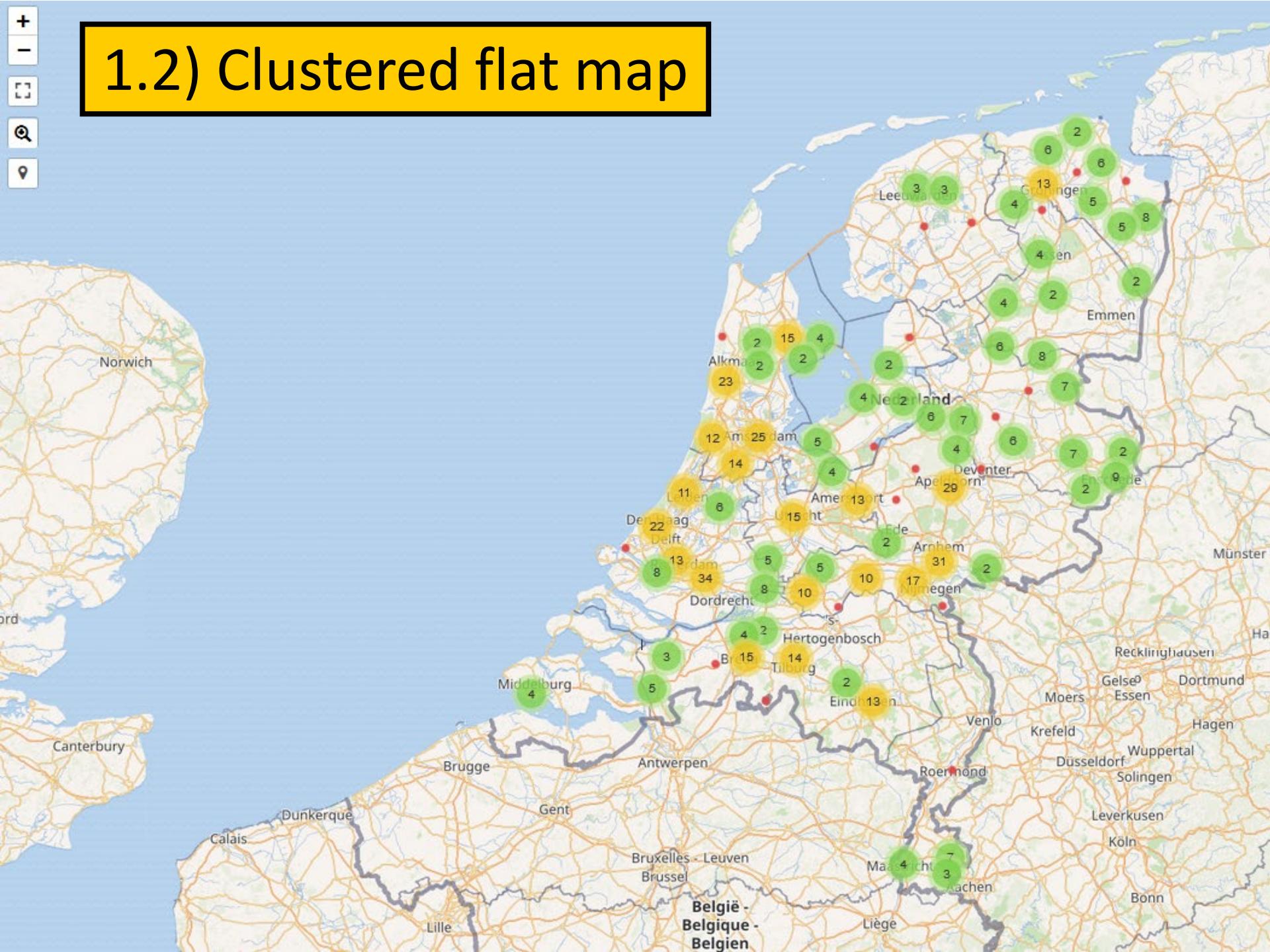
Hiding fields from popup

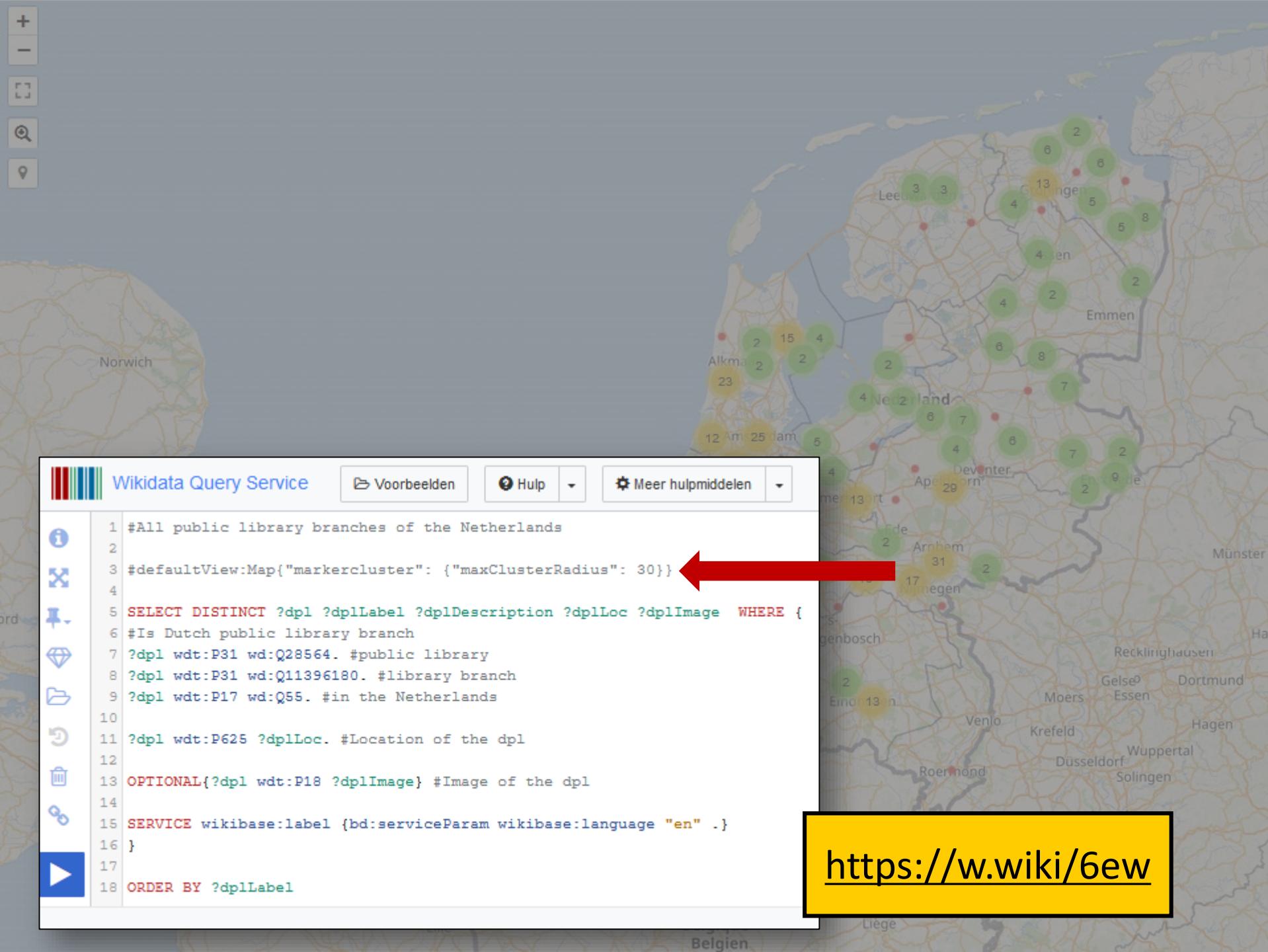
The Wikidata Query Service interface is shown, featuring a sidebar with icons for search, add, edit, and more, and a main area with a query editor and results. The query is:

```
1 #All public library branches of the Netherlands
2
3 #defaultView:Map{"hide":["?dplLoc", "?dplImage"]}
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplDescription ?dplLoc ?dplImage WHERE {
6 #Is Dutch public library branch
7 ?dpl wdt:P31 wd:Q28564. #public library
8 ?dpl wdt:P31 wd:Q11396180. #library branch
9 ?dpl wdt:P17 wd:Q55. #in the Netherlands
10
11 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
12
13 OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
14
15 SERVICE wikibase:label {bd:serviceParam wikibase:language "en" .}
16 }
17
18 ORDER BY ?dplLabel|
```

<https://w.wiki/6mU>

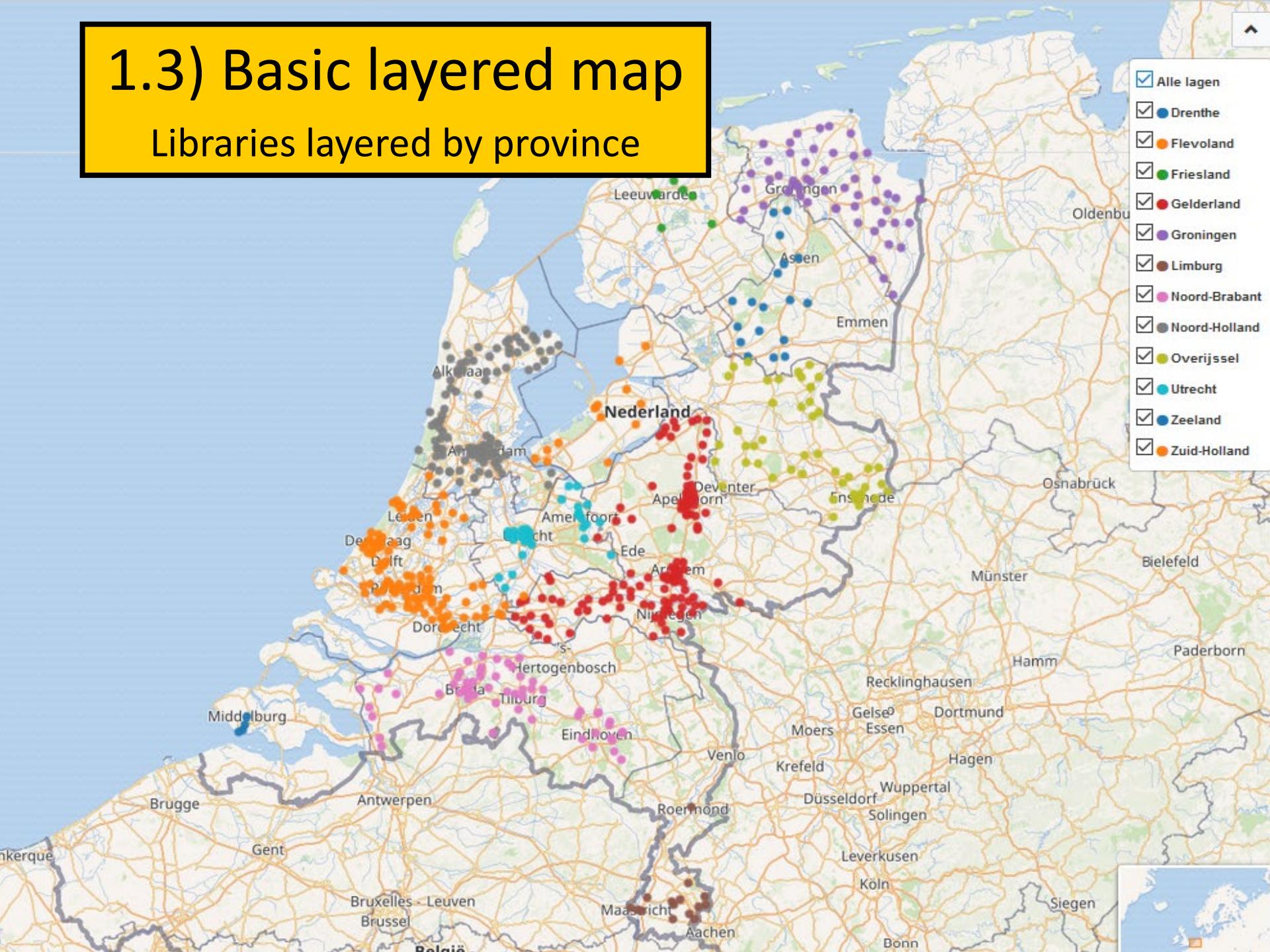
1.2) Clustered flat map





1.3) Basic layered map

Libraries layered by province





Wikidata Query Service

Voorbeelden

Hulp

Meer hulpmiddelen

```
1 #All public library branches of the Netherlands, layered by province
2
3 #defaultView:Map{"hide": ["?dplLoc"], "layer": "?provLabel"} -----
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplImage ?dplLoc ?muniLabel ?provLabel WHERE {
6   ?dpl p:P31/ps:P31 wd:Q28564,wd:Q11396180;wdt:P17 wd:Q55. #public library branch in The Netherlands
7   ?dpl wdt:P625 ?dplLoc. #Geo location of the dpl
8   OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl
9
10 --- Find the municipality the library is in
11 ?dpl wdt:P131 ?muni. #municipality derived from library item, has one sing
12 ?muni p:P31 [ps:P31 ?muniIsA].
13 VALUES ?muniIsA {wd:Q2039348}
14 #Instead of the the above line, you can also do: FILTER(?muniIsA = wd:Q203
15
16 --- Find the province the municipality is in
17 ?muni wdt:P131 ?prov. #find the province
18 ?prov p:P31 [ps:P31 ?provIsA].
19 VALUES ?provIsA {wd:Q134390} #Only: province of the Netherlands (Q134390)
20
21 SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }
22
23 }
24 ORDER BY ?provLabel
```

Non-custom layer names
= labels from WD-items

<https://w.wiki/6gJ>

-
- Alle lagen
 - Drenthe
 - Flevoland
 - Friesland
 - Gelderland
 - Groningen
 - Limburg
 - Noord-Brabant
 - Noord-Holland
 - Overijssel
 - Utrecht
 - Zeeland
 - Zuid-Holland

Wikidata Query Service

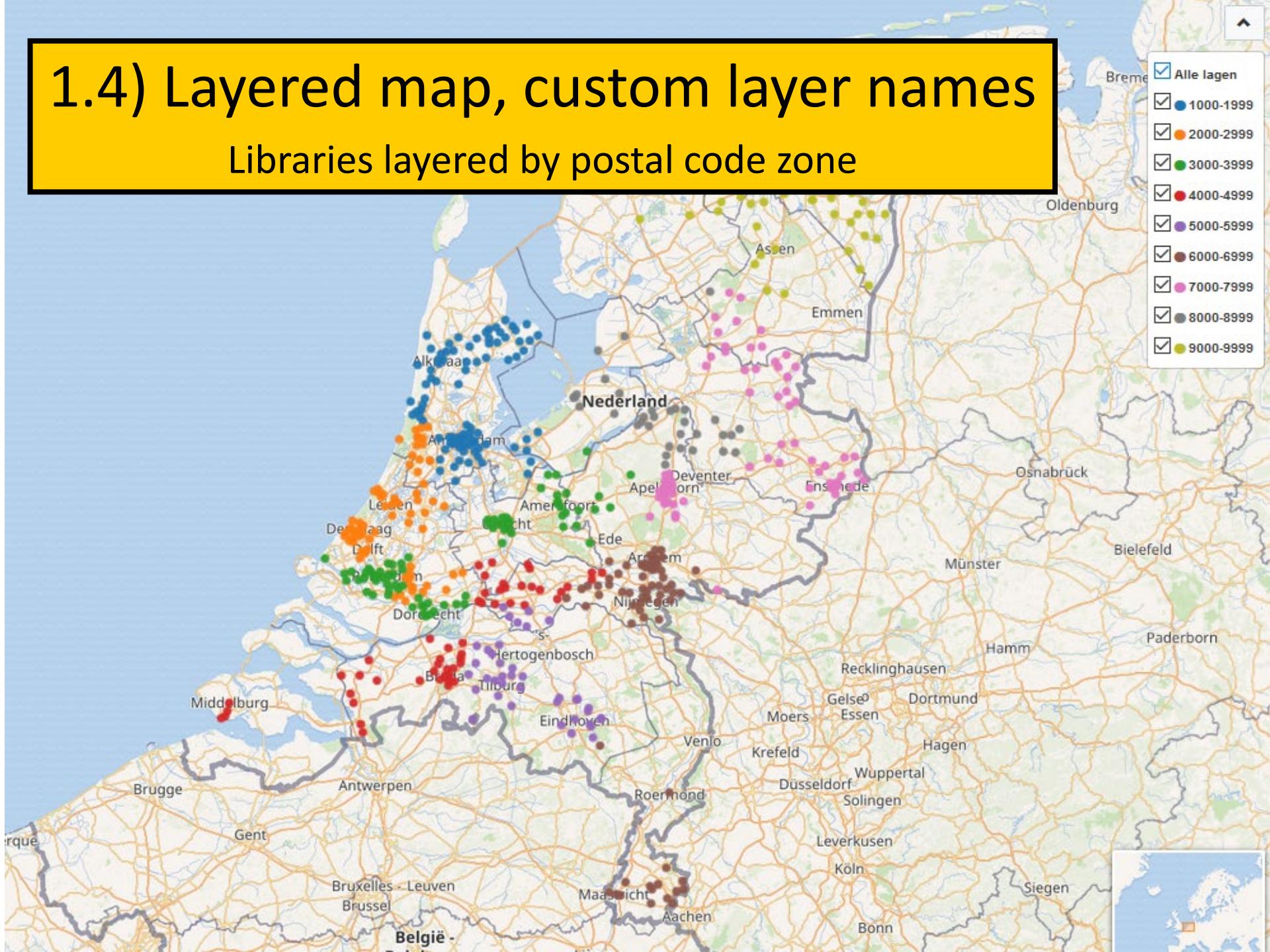
[Voorbeelden](#)[Hulp](#)[Meer hulpmiddelen](#)

```
1 #All public library branches of the Netherlands, layered by province
2
3 #defaultView:Map{"hide": ["?dplLoc"], "layer": "?provLabel"}
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplImage ?dplLoc ?muniLabel ?provLabel WHERE {
6   ?dpl p:P31/ps:P31 wd:Q28564,wd:Q11396180;wdt:P17 wd:Q55. #public library branch in The Netherlands
7   ?dpl wdt:P625 ?dplLoc. #Geo location of the dpl
8   OPTIONAL{?dpl wdt:P18 ?dplImage} #Image of the dpl}
9
10 --- Find the municipality the library is in
11 ?dpl wdt:P131 ?muni. #municipality derived fr
12 ?muni p:P31 [ps:P31 ?muniIsA].
13 VALUES ?muniIsA {wd:Q2039348}
14 #Instead of the the above line, you can also do
15
16 --- Find the province the municipality is in
17 ?muni wdt:P131 ?prov. #find the province
18 ?prov p:P31 [ps:P31 ?provIsA].
19 VALUES ?provIsA {wd:Q134390} #Only: province of the Netherlands (Q134390)
20
21 SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en".}
22
23 }
24 ORDER BY ?provLabel
```

Layer order

1.4) Layered map, custom layer names

Libraries layered by postal code zone



Amsterdam Public Library, OBA De Hallen (Q60290390)

Public library in De Hallen building in the Kinkerbuurt neighbourhood of Amsterdam, The Netherlands

[edit](#)

[In more languages](#)

Language	Label	Description	Also known as
English	Amsterdam Public Library, OBA De Hallen	Public library in De Hallen building in the Kinkerbuurt neighbourhood of Amsterdam, The Netherlands	
German	No label defined	öffentliche Bibliothek in den Niederlanden	
Spanish	No label defined	No description defined	
French	No label defined	No description defined	
Italian	No label defined	No description defined	
Dutch	OBA De Hallen	Openbare Bibliotheek Amsterdam in de Kinkerbuurt	

All entered languages

Postal code zone =
1000 - 1999

postal code

1053RT

[1 reference](#)

[edit](#)

[+ add value](#)

P281

phone number

+31-20-616-3275

[1 reference](#)

[edit](#)

[+ add value](#)

e-mail address

<mailto:dehallen@oba.nl>

[1 reference](#)

[edit](#)

<https://www.wikidata.org/wiki/Q60290390>

- Alle lagen
- 1000-1999
- 2000-2999
- 3000-3999
- 4000-4999
- 5000-5999
- 6000-6999
- 7000-7999
- 8000-8999
- 9000-9999

- Alle lagen
- 1000-1999
- 2000-2999
- 3000-3999
- 4000-4999
- 5000-5999
- 6000-6999
- 7000-7999
- 8000-8999
- 9000-9999

Wikidata Query Service [Voorbeelden](#) [Hulp](#) [Meer hulpmiddelen](#)

```

1 #Maps of public library branches The Netherlands, layered by postal codes zones (1000-1999, 2000-2999 etc)
2
3 #defaultView:Map{"layer":"?pczone"}
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplImage ?dplLoc ?postcode ?pcdigits ?pczone
6
7 WHERE {
8   ?dpl p:P31/ps:P31 wd:Q28564,wd:Q11396180;wdt:P17 wd:Q55. #public library branch in The Netherlands
9   ?dpl wdt:P625 ?dplLoc. #Geo location of the library
10
11 ?dpl (p:P281/ps:P281) ?postcode. #postal code of the library, format = 4 digits + 2 letters , e.g. '1073RT'
12
13 BIND(SUBSTR(str(?postcode), 1, 4) as ?pcdigits). #get 4 first digits of postal code
14
15 # Create layer object (= ?pczone) with the postal code zones as layers
16 BIND(
17   IF(?pcdigits > "1000" && ?pcdigits <= "1999", "1000-1999",
18   IF(?pcdigits > "2000" && ?pcdigits <= "2999", "2000-2999",
19   IF(?pcdigits > "3000" && ?pcdigits <= "3999", "3000-3999",
20   IF(?pcdigits > "4000" && ?pcdigits <= "4999", "4000-4999",
21   IF(?pcdigits > "5000" && ?pcdigits <= "5999", "5000-5999",
22   IF(?pcdigits > "6000" && ?pcdigits <= "6999", "6000-6999",
23   IF(?pcdigits > "7000" && ?pcdigits <= "7999", "7000-7999",
24   IF(?pcdigits > "8000" && ?pcdigits <= "8999", "8000-8999",
25   IF(?pcdigits > "9000" && ?pcdigits <= "9999", "9000-9999",
26   "REST")))))))))
27 AS ?pczone).
28
29 SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }
30 }
31 ORDER BY ?pczone #ascending order by postal code zone

```

Do not click,
copy-paste in browser!

<https://bit.ly/3368DPk>

- Alle lagen
- 1000-1999
- 2000-2999
- 3000-3999
- 4000-4999
- 5000-5999
- 6000-6999
- 7000-7999
- 8000-8999
- 9000-9999

Wikidata Query Service [Voorbeelden](#) [Hulp](#) [Meer hulpmiddelen](#)

```

1 #Maps of public library branches The Netherlands, layered by postal codes zones (1000-1999, 2000-2999 etc)
2
3 #defaultView:Map{"layer":"?pczone"} 
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplImage ?dplLoc ?postcode ?pcdigits ?pczone 
6
7 WHERE {
8   ?dpl p:P31/ps:P31 wd:Q28564,wd:Q11396180;wdt:P17 wd:Q55. #public library branch in The Netherlands
9   ?dpl wdt:P625 ?dplLoc. #Geo location of the library
10
11 ?dpl (p:P281/ps:P281) ?postcode. #postal code of the library, format = 4 digits + 2 letters , e.g. '1073RT'
12
13 BIND(SUBSTR(str(?postcode), 1, 4) as ?pcdigits). #get 4 first digits of postal code
14
15 # Create layer object (= ?pczone) with the postal code zones as layers
16 BIND(
17   IF(?pcdigits > "1000" && ?pcdigits <= "1999", "1000-1999",
18   IF(?pcdigits > "2000" && ?pcdigits <= "2999", "2000-2999",
19   IF(?pcdigits > "3000" && ?pcdigits <= "3999", "3000-3999",
20   IF(?pcdigits > "4000" && ?pcdigits <= "4999", "4000-4999",
21   IF(?pcdigits > "5000" && ?pcdigits <= "5999", "5000-5999",
22   IF(?pcdigits > "6000" && ?pcdigits <= "6999", "6000-6999",
23   IF(?pcdigits > "7000" && ?pcdigits <= "7999", "7000-7999",
24   IF(?pcdigits > "8000" && ?pcdigits <= "8999", "8000-8999",
25   IF(?pcdigits > "9000" && ?pcdigits <= "9999", "9000-9999",
26   "REST")))))})
27 AS ?pczone) 
28
29 SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en".}
30
31 ORDER BY ?pczone #ascending order by postal code zone

```

<https://bit.ly/3368DPk>

- Alle lagen
- 1000-1999
- 2000-2999
- 3000-3999
- 4000-4999
- 5000-5999
- 6000-6999
- 7000-7999
- 8000-8999
- 9000-9999

Layer names

```
"1000-1999",
"2000-2999",
"3000-3999",
"4000-4999",
"5000-5999",
"6000-6999",
"7000-7999",
"8000-8999",
"9000-9999",
"REST") )))))))) AS ?pczone).
```

Wikidata Query Service [Voorbeelden](#) [Hulp](#) [Meer hulpmiddelen](#)

```

1 #Maps of public library branches The Netherlands, layered by postal codes zones (1000-1999, 2000-2999 etc)
2
3 #defaultView:Map{"layer":"?pczone"}
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplImage ?dplLoc ?postcode ?pcdigits ?pczone
6
7 WHERE {
8   ?dpl p:P31/ps:P31 wd:Q28564,wd:Q11396180;wdt:P17 wd:Q55. #public library branch in The Netherlands
9   ?dpl wdt:P625 ?dplLoc. #Geo location of the library
10
11 ?dpl (p:P281/ps:P281) ?postcode. #postal code of the library, forma
12
13 BIND(SUBSTR(str(?postcode), 1, 4) as ?pcdigits). #get 4 first digits
14
15 # Create layer object (= ?pczone) with the postal code zones as layers
16 BIND(
17   IF(?pcdigits > "1000" && ?pcdigits <= "1999", "1000-1999",
18   IF(?pcdigits > "2000" && ?pcdigits <= "2999", "2000-2999",
19   IF(?pcdigits > "3000" && ?pcdigits <= "3999", "3000-3999",
20   IF(?pcdigits > "4000" && ?pcdigits <= "4999", "4000-4999",
21   IF(?pcdigits > "5000" && ?pcdigits <= "5999", "5000-5999",
22   IF(?pcdigits > "6000" && ?pcdigits <= "6999", "6000-6999",
23   IF(?pcdigits > "7000" && ?pcdigits <= "7999", "7000-7999",
24   IF(?pcdigits > "8000" && ?pcdigits <= "8999", "8000-8999",
25   IF(?pcdigits > "9000" && ?pcdigits <= "9999", "9000-9999",
26   "REST")))))))) AS ?pczone).
27
28 SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }
29
30
31 ORDER BY ?pczone #ascending order by postal code zone

```

- Alle lagen
- 1000-1999
- 2000-2999
- 3000-3999
- 4000-4999
- 5000-5999
- 6000-6999
- 7000-7999
- 8000-8999
- 9000-9999

Wikidata Query Service [Voorbeelden](#) [Hulp](#) [Meer hulpmiddelen](#)

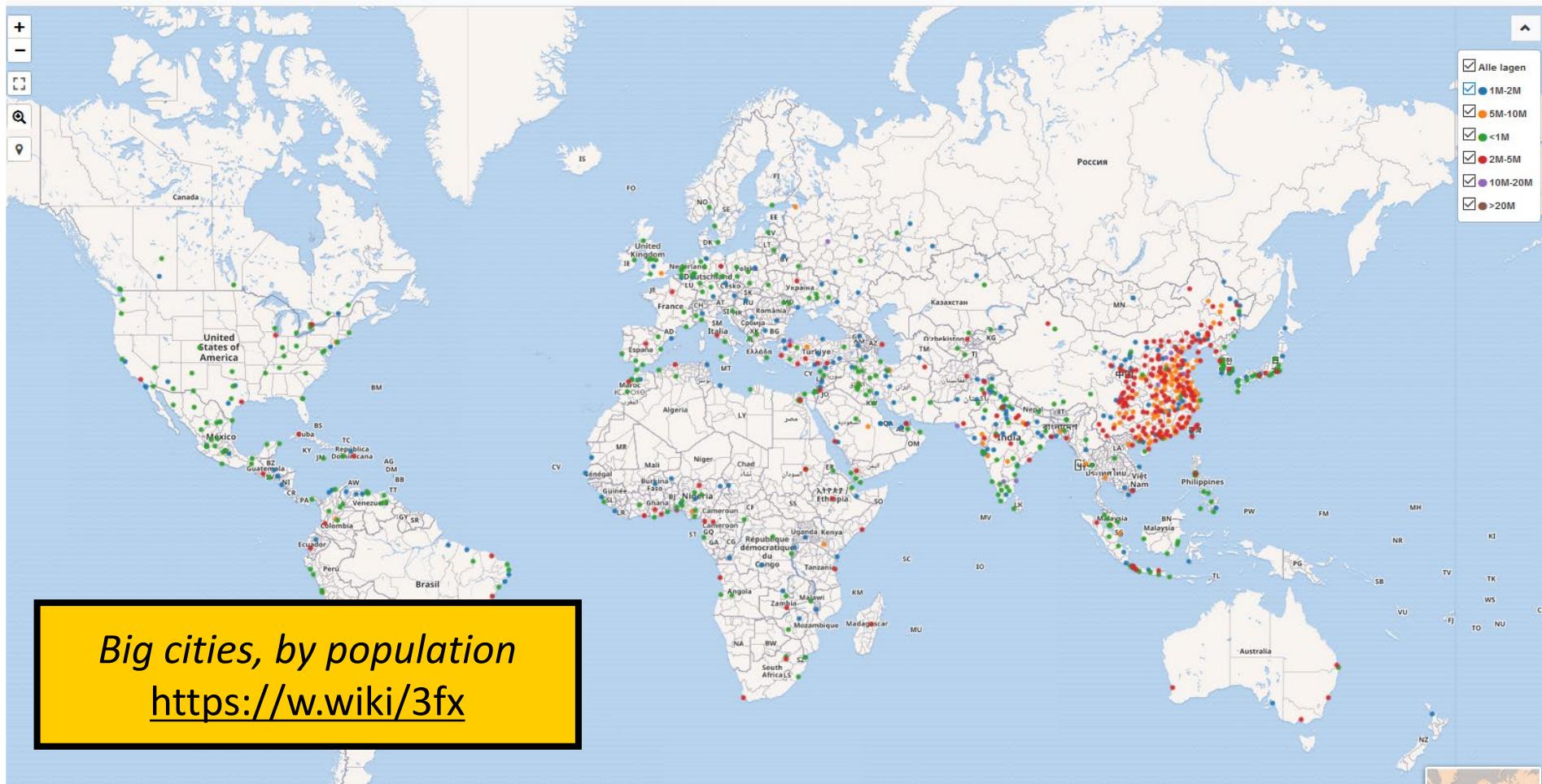
```

1 #Maps of public library branches The Netherlands, layered by postal codes zones (1000-1999, 2000-2999 etc)
2
3 #defaultView:Map{"layer":"?pczone"}
4
5 SELECT DISTINCT ?dpl ?dplLabel ?dplImage ?dplLoc ?postcode ?pcdigits ?pczone
6
7 WHERE {
8   ?dpl p:P31/ps:P31 wd:Q28564,wd:Q11396180;wdt:P17 wd:Q55. #public library branch in The Netherlands
9   ?dpl wdt:P625 ?dplLoc. #Geo location of the library
10
11 ?dpl (p:P281/ps:P281)
12
13 BIND(SUBSTR(str(?postcode),0,4) AS ?pczone) #format = 4 digits + 2 letters , e.g. '1073RT'
14
15 # Create layer object
16 BIND(
17   IF(?pcdigits > "1000" && ?pcdigits <= "1999", "1000-1999",
18   IF(?pcdigits > "2000" && ?pcdigits <= "2999", "2000-2999",
19   IF(?pcdigits > "3000" && ?pcdigits <= "3999", "3000-3999",
20   IF(?pcdigits > "4000" && ?pcdigits <= "4999", "4000-4999",
21   IF(?pcdigits > "5000" && ?pcdigits <= "5999", "5000-5999",
22   IF(?pcdigits > "6000" && ?pcdigits <= "6999", "6000-6999",
23   IF(?pcdigits > "7000" && ?pcdigits <= "7999", "7000-7999",
24   IF(?pcdigits > "8000" && ?pcdigits <= "8999", "8000-8999",
25   IF(?pcdigits > "9000" && ?pcdigits <= "9999", "9000-9999",
26   "REST"))
27 AS ?pczone).
28
29 SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }
30 }
31 ORDER BY ?pczone #ascending order by postal code zone

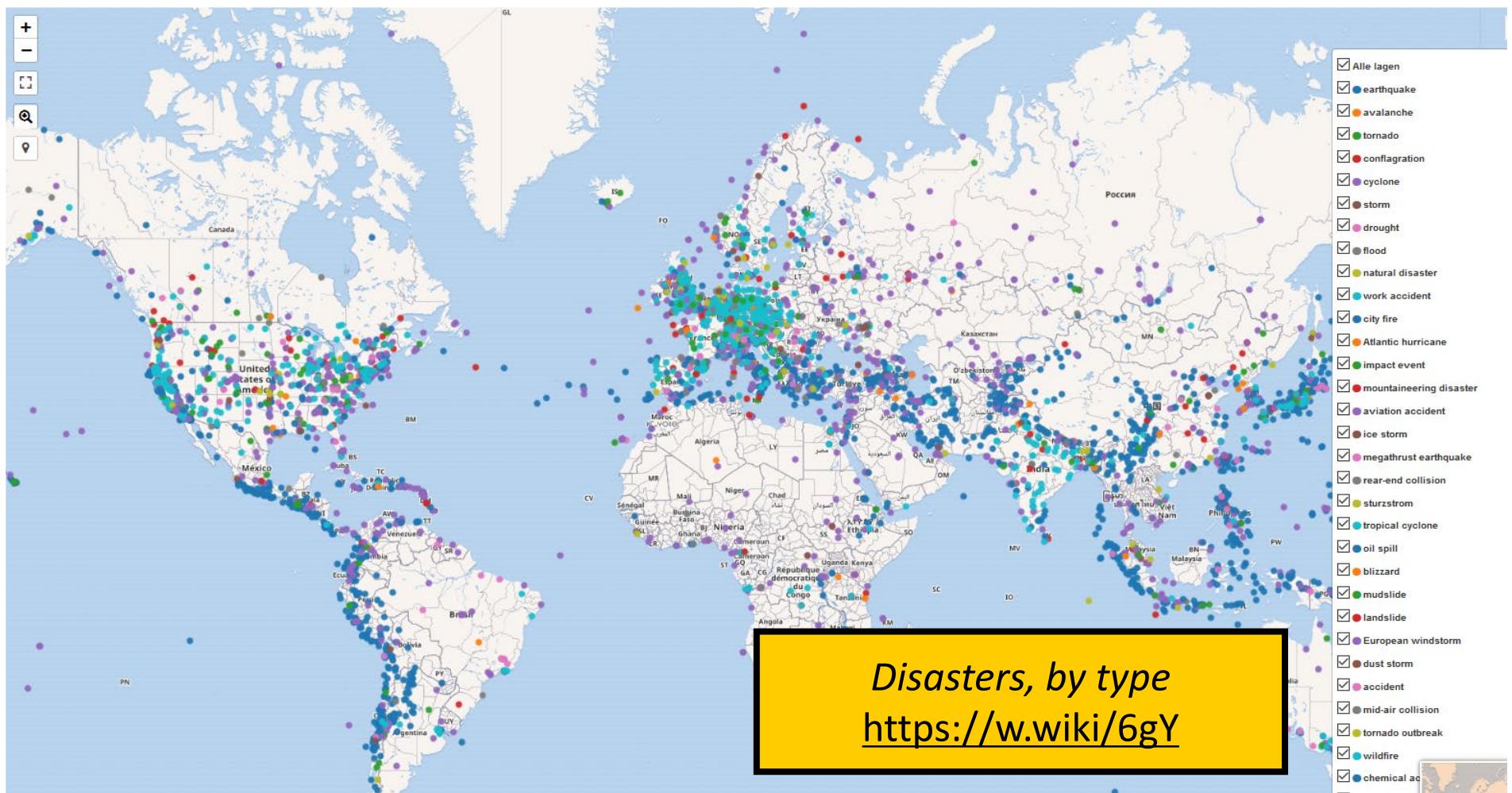
```

'Spill-over' layer name

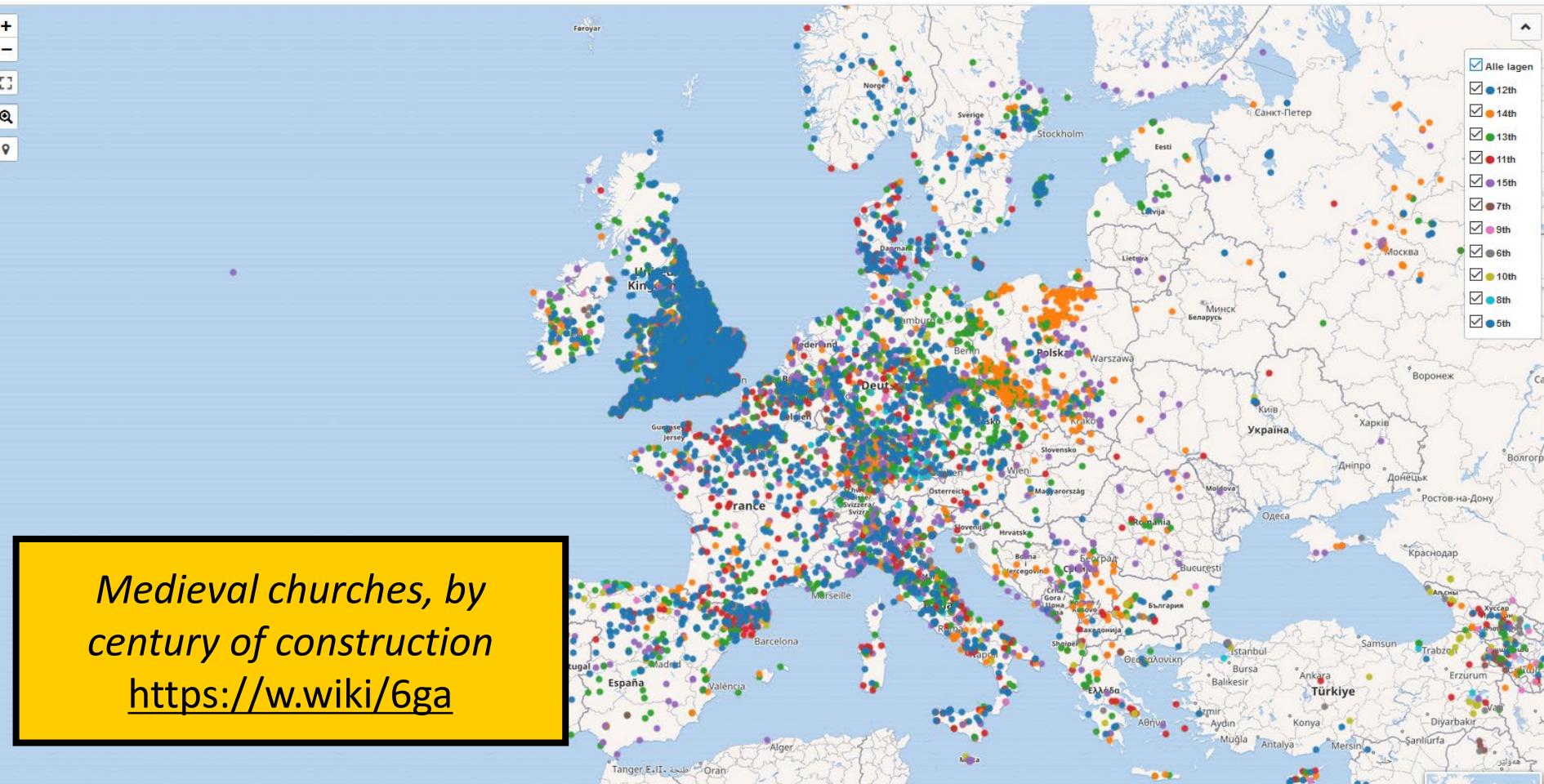
1.5) Other cool layered maps



1.5) Other cool layered maps



1.5) Other cool layered maps



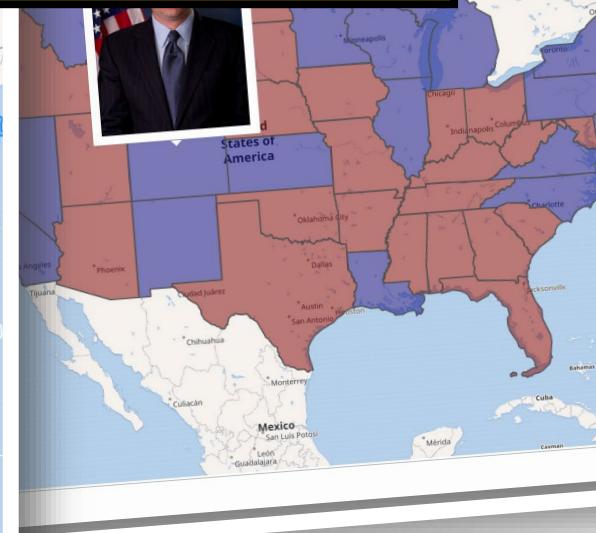
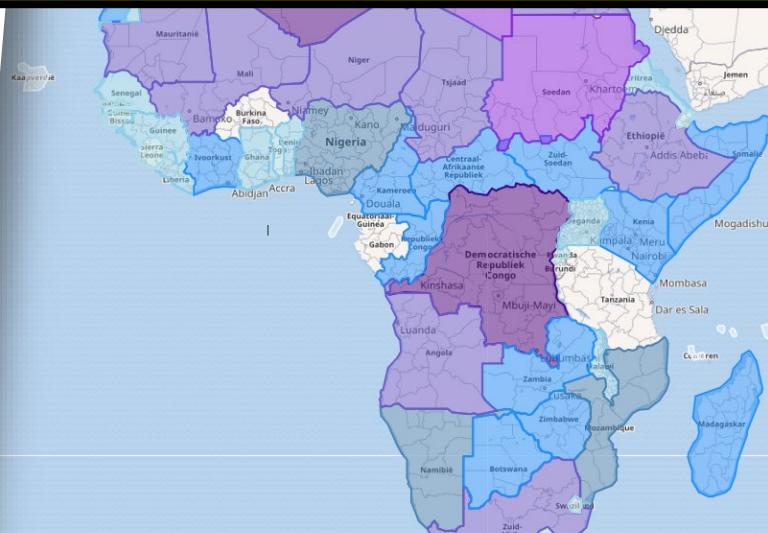
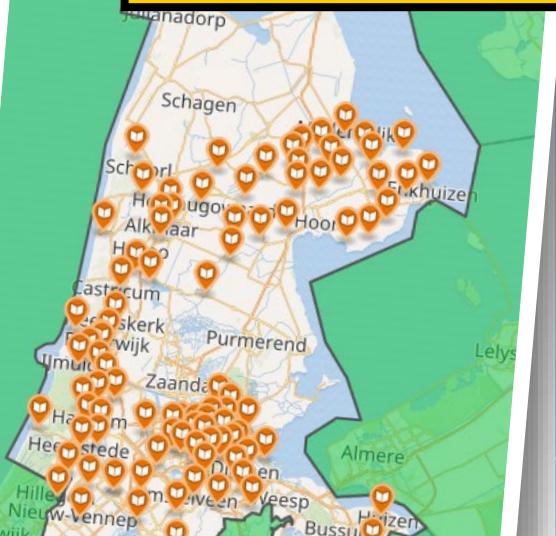
1.5) Other cool layered maps

Dutch municipalities, by number
of public libraries
<https://w.wiki/6gb>



MODULE 2

Embedded maps in Wikimedia projects





For this Module, you will (also) need

- User page on Wikipedia, Commons, Wikidata
- With Sandbox

Nice to have: some knowledge about

- OpenStreetMap and
- GeoJSON

Extension:Kartographer



Main page
Get MediaWiki
Get extensions
Tech blog
Contribute

Support

User help
FAQ

Technical manual
Support desk
Communication

Development

Bug tracker
Code repository
Code docs
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Recent changes
Translate content
Random page
Current issues
Sandbox

Print/export

...

English OlafJanssen 23 26 Talk Preferences Beta Watchlist Contributions Log out

Help Discussion

Read Edit View history More

Search MediaWiki



Help:Extension:Kartographer

Translate this page

Other languages: Bahasa Indonesia • Deutsch • English • Ripoarisch • Tiếng Việt • asturianu • español • français • galego • italiano • magyar • português do Brasil • suomi • svenska • македонски • русский • עברית • سنڌي • العربية • অসমীয়া • 中文 • 日本語 • 한국어



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Edit - Translate



The Kartographer extension powers interactive maps on Wikimedia wikis. This page shows techniques for creating dynamic maps by using the Kartographer tags `<mapframe>`, which embeds maps right in wiki pages, and `<maplink>`, which creates links to dynamic maps.

Contents [hide]

- 1 Getting started
- 2 `<mapframe>` usage
 - 2.1 Frames
- 3 `<maplink>`
 - 3.1 `<maplink>` and auto-counters
- 4 Markers
- 5 Groups
- 6 External data
 - 6.1 GeoShapes via Wikidata Query
 - 6.2 Map data from Commons
 - 6.3 Combining multiple data
- 7 Styling
 - 7.1 Styling Wikidata ID elements
 - 7.2 Overlapping elements

<https://www.mediawiki.org/wiki/Help:Extension:Kartographer>



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De vrije encyclopedie

Gebruiker Overleg

Gebruiker:OlafJanssen/Kladblok

< Gebruiker:OlafJanssen

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Vandaag

Etalage

Categorieën

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Informatie

Gebruikersportaal

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Talen



Basic embedded map, no data

(in my Sandbox on Dutch Wikipedia)

Embedded maps in Dutch Wikipedia [bewerken | brontekst bewerken]

Basic embedded map of The Netherlands [bewerken | brontekst bewerken]





WIKIPEDIA
De vrije encyclopedie

Hoofdpagina
Vind een artikel
Vandaag
Etalage
Categorieën
Recente wijzigingen
Nieuwe artikelen
Willekeurige pagina

Informatie
Gebruikersportaal
Snelcursus
Hulp en contact
Donaties

Hulpmiddelen
Koppelingen van pagina
Links naar deze pagina
Verwante wijzigingen
Gebruikersbijdragen
Logboeken
Deze gebruiker e-gebruikersgroepen weergeven
Bestand uploaden
Speciale pagina's
Permanente koppeling
Paginagegevens

Afdrukken/exporteren
Boek maken
Downloaden als PDF
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Talen

Gebruiker Overleg

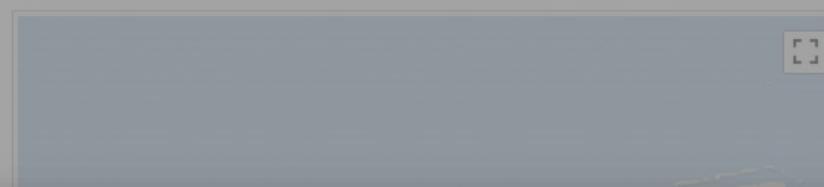
Lezen Bewerken

Gebruiker:OlafJanssen/KladblokMapMakingWorkshopWM2019

< Gebruiker:OlafJanssen

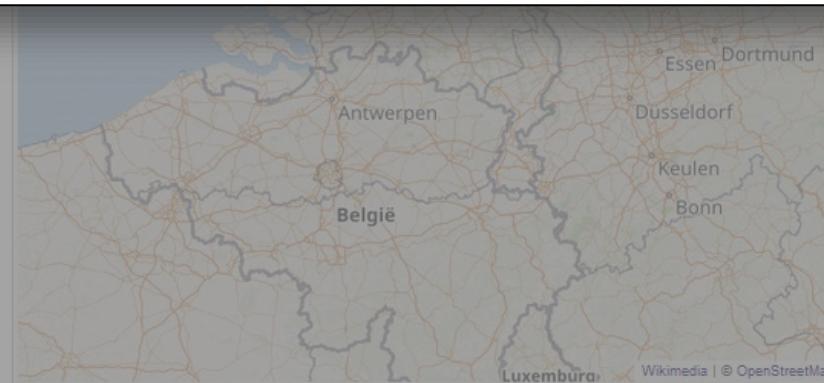
Embedded maps in Dutch Wikipedia [bewerken | brontekst bewerken]

Basic embedded map of The Netherlands [bewerken | brontekst bewerken]



== Basic embedded map of The Netherlands ==

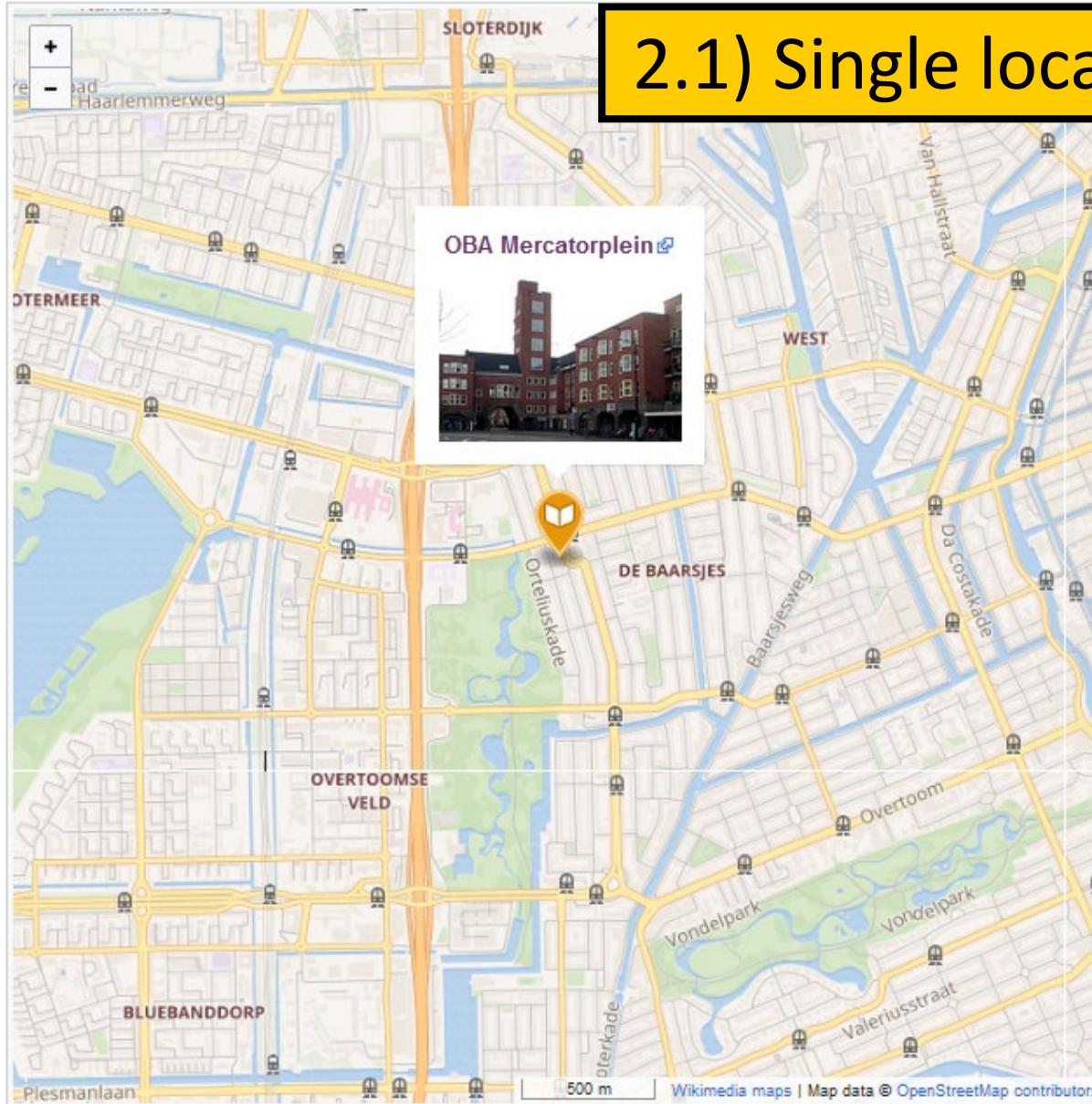
```
<mapframe width=600 height=700 zoom=7 latitude=52.20 longitude=5.179627565 text="Basic embedded map of [[w:The_Netherlands|The Netherlands]]" align=left/>
```



Basic embedded map of The Netherlands

One public library in Amsterdam, geo coordinates hard coded

2.1) Single location, hard-coded



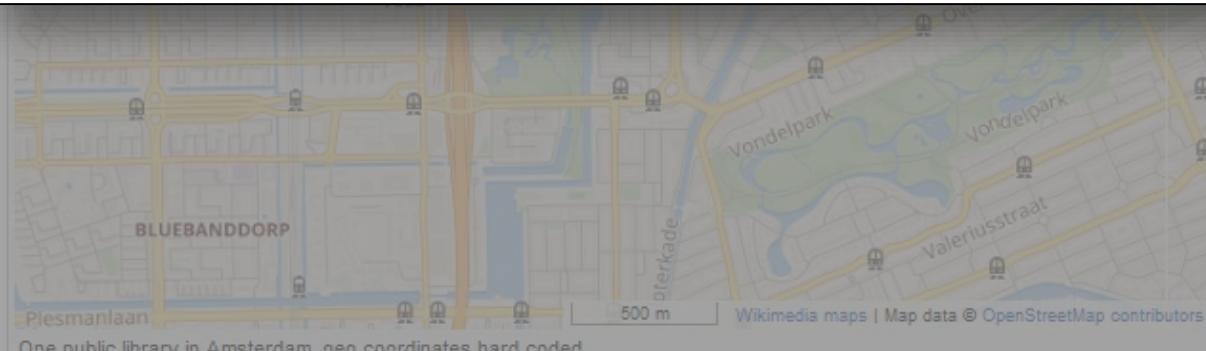
One public library in Amsterdam, geo coordinates hard coded

One public library in Amsterdam, geo coordinates hard coded

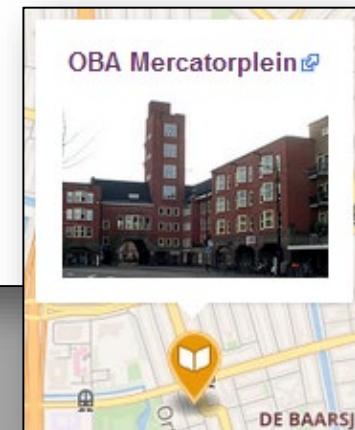


== One public library in Amsterdam, geo coordinates hard-coded ==

```
<mapframe text="One public library in Amsterdam, geo coordinates hard-coded" width=700 height=700 zoom=14
latitude=52.3693887 longitude=4.8502319 align=left>
{
  "type": "Feature",
  "geometry": { "type": "Point", "coordinates": [4.8502319, 52.3693887] },
  "properties": {
    "title": "[https://www.oba.nl/vestigingen/oba-mercatorplein.html OBA Mercatorplein]",
    "description": "[[File:Mercatorplein west.JPG|300px]]",
    "marker-symbol": "library",
    "marker-size": "large",
    "marker-color": "ea9809"
  }
}
</mapframe>
```



One public library in Amsterdam, geo coordinates hard coded



One public library in Amsterdam, geo coordinates hard coded

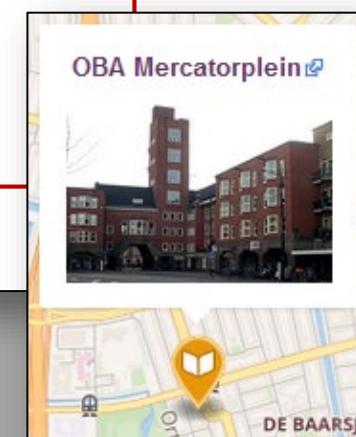


```
== One public library in Amsterdam, geo coordinates hard-coded ==
```

```
<mapframe text="One public library in Amsterdam, geo coordinates hard-coded" width=700 height=700 zoom=14
latitude=52.3693887 longitude=4.8502319 align=left>
{
  "type": "Feature",
  "geometry": { "type": "Point", "coordinates": [4.8502319, 52.3693887] },
  "properties": {
    "title": "[https://www.oba.nl/vestigingen/oba-mercatorplein.html OBA Mercatorplein]",
    "description": "[[File:Mercatorplein west.JPG|300px]]",
    "marker-symbol": "library",
    "marker-size": "large",
    "marker-color": "ea9809"
  }
}</mapframe>
```

Styling of markers

- <https://github.com/mapbox/simplestyle-spec/tree/master/1.1.0#3-client-behavior>
- <https://www.mediawiki.org/wiki/Help:Extension:Kartographer>



2.2) Three locations, hard-coded



Library, museum and archive in Amsterdam, geo coordinates hard-coded

Library, museum and archive in Amsterdam, geo coordinates hard-coded



```
== Library, museum and archive in Amsterdam, geo coordinates hard-coded ==

<mapframe text="Library, museum and archive in Amsterdam, geo coordinates hard-coded" width=700 height=700 zoom=14 latitude=52.3693887 longitude=4.871111111111111 [
  {
    "type": "FeatureCollection", "features": [
      [
        {
          "type": "Feature",
          "geometry": { "type": "Point", "coordinates": [4.8502319, 52.3693887] },
          "properties": {
            "title": "[https://www.oba.nl/vestigingen/oba-mercatorplein.html OBA Mercatorplein]",
            "description": "[[File:Mercatorplein west.JPG|300px]]",
            "marker-symbol": "library",
            "marker-size": "large",
            "marker-color": "ea9809"
          }
        },
        {
          "type": "Feature",
          "geometry": { "type": "Point", "coordinates": [4.8846644, 52.3598658] },
          "properties": {
            "title": "[https://www.rijksmuseum.nl Rijksmuseum]",
            "description": "[[File:Rijksmuseum.Amsterdam.jpg|300px]]",
            "marker-symbol": "museum",
            "marker-size": "small",
            "marker-color": "f01080"
          }
        },
        {
          "type": "Feature",
          "geometry": { "type": "Point", "coordinates": [4.8923905, 52.3645600] },
          "properties": {
            "title": "[https://www.amsterdam.nl/stadsarchief/ Stadsarchief Amsterdam]",
            "description": "[[File:Gebouw de Bazel.jpg|300px]]",
            "marker-symbol": "-letter",
            "marker-size": "medium",
            "marker-color": "228b22"
          }
        }
      ]
    }
  ]
</mapframe>
```

Library, museum and archive in Amsterdam, geo coordinates hard-coded



```
== Library, museum and archive in Amsterdam, geo coordinates hard-coded ==

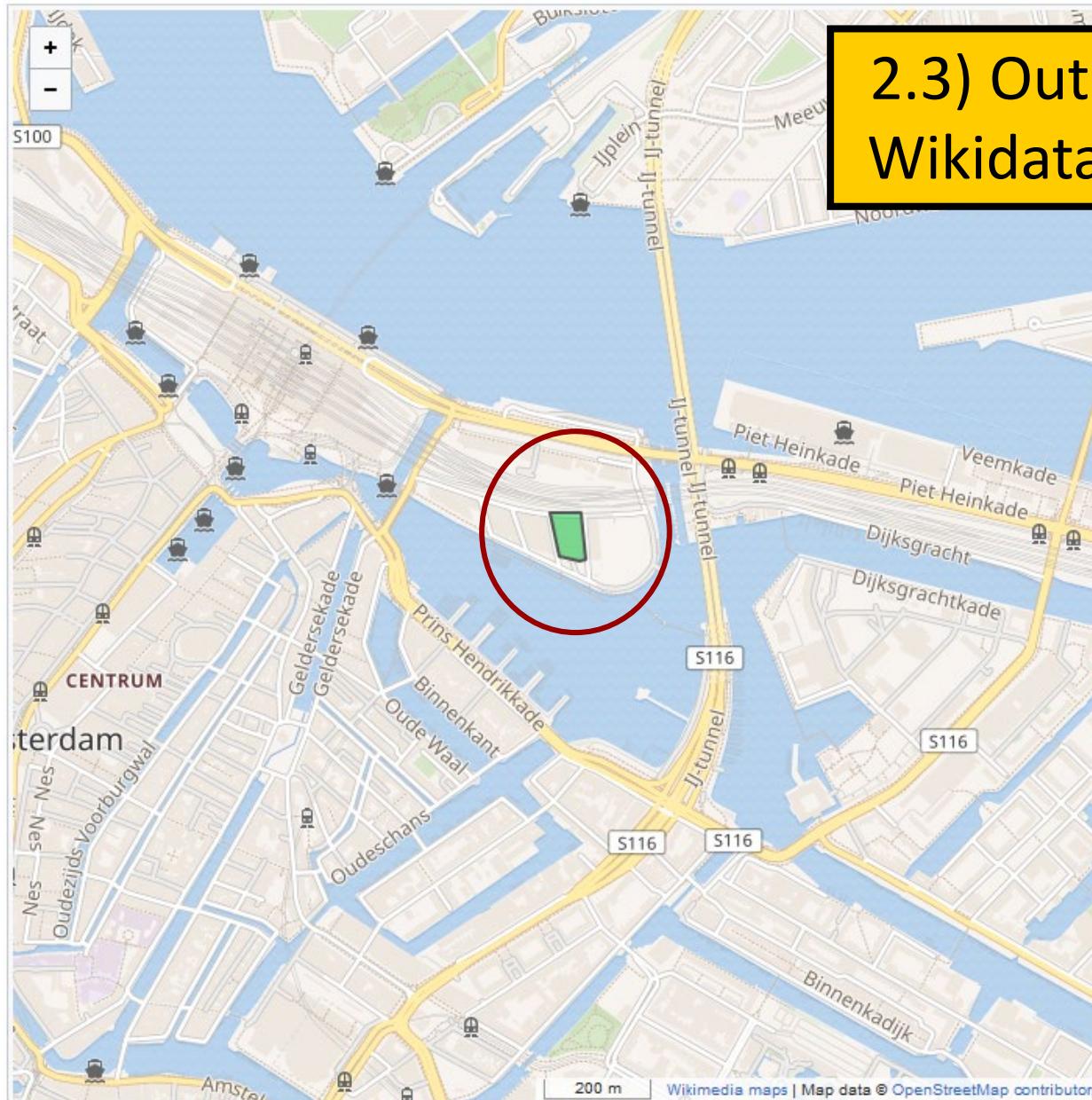
<mapframe text="Library, museum and archive in Amsterdam, geo coordinates hard-coded" width=700 height=700 zoom=14 latitude=52.3693887 longitude=4.871311111111111 [
  {
    "type": "FeatureCollection", "features": [
      {
        "type": "Feature",
        "geometry": { "type": "Point", "coordinates": [4.8502319, 52.3693887] },
        "properties": {
          "title": "[https://www.oba.nl/vestigingen/oba-mercatorplein.html OBA Mercatorplein]",
          "description": "[[File:Mercatorplein west.JPG|300px]]",
          "marker-symbol": "library",
          "marker-size": "large",
          "marker-color": "ea9809"
        }
      },
      {
        "type": "Feature",
        "geometry": { "type": "Point", "coordinates": [4.8846644, 52.3598658] },
        "properties": {
          "title": "[https://www.rijksmuseum.nl Rijksmuseum]",
          "description": "[[File:Rijksmuseum.Amsterdam.jpg|300px]]",
          "marker-symbol": "museum",
          "marker-size": "small",
          "marker-color": "f01080"
        }
      },
      {
        "type": "Feature",
        "geometry": { "type": "Point", "coordinates": [4.8923905, 52.3645600] },
        "properties": {
          "title": "[https://www.amsterdam.nl/stadsarchief/ Stadarchief Amsterdam]",
          "description": "[[File:Gebouw de Bazel.jpg|300px]]",
          "marker-symbol": "-letter",
          "marker-size": "medium",
          "marker-color": "228b22"
        }
      }
    ]
  }
]</mapframe>
```

Library, museum and archive in Amsterdam, geo coordinates hard-coded



```
== Library, museum and archive in Amsterdam, geo coordinates hard-coded ==

<mapframe text="Library, museum and archive in Amsterdam, geo coordinates hard-coded" width=700 height=700 zoom=14 latitude=52.3693887 longitude=4.871111111111111 {
  "type": "FeatureCollection", "features":
  [
    { "type": "Feature",
      "geometry": { "type": "Point", "coordinates": [4.8502319, 52.3693887] },
      "properties": {
        "title": "[https://www.oba.nl/vestigingen/oba-mercatorplein.html OBA Mercatorplein]",
        "description": "[[File:Mercatorplein west.JPG|300px]]",
        "marker-symbol": "library",
        "marker-size": "large",
        "marker-color": "ea9809" }
    },
    { "type": "Feature",
      "geometry": { "type": "Point", "coordinates": [4.8846644, 52.3598658] },
      "properties": {
        "title": "[https://www.rijksmuseum.nl Rijksmuseum]",
        "description": "[[File:Rijksmuseum.Amsterdam.jpg|300px]]",
        "marker-symbol": "museum",
        "marker-size": "small",
        "marker-color": "f01080" }
    },
    { "type": "Feature",
      "geometry": { "type": "Point", "coordinates": [4.8923905, 52.3645600] },
      "properties": {
        "title": "[https://www.amsterdam.nl/stadsarchief/ Stadarchief Amsterdam]",
        "description": "[[File:Gebouw de Bazel.jpg|300px]]",
        "marker-symbol": "-letter",
        "marker-size": "medium",
        "marker-color": "228b22" }
    }
  ]
}
</mapframe>
```



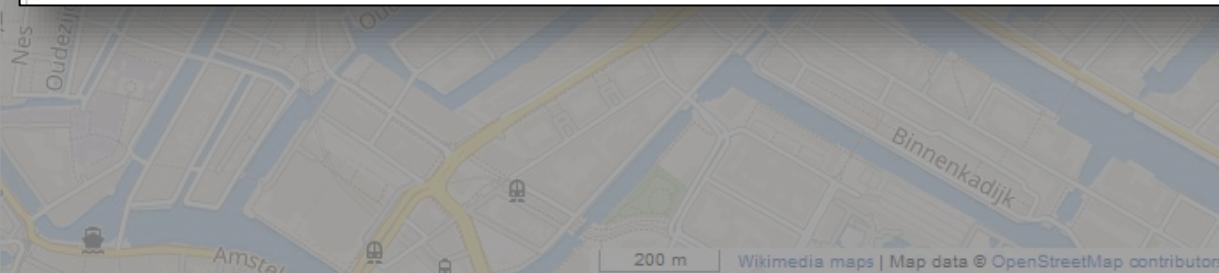
2.3) Outline (GeoShape) via Wikidata & OpenStreetMap

Outline (geoshape) of Amsterdam public library (main site), using Wikidata and Open Street Map



```
== Outline (geoshape) of Amsterdam public library (main site), using Wikidata and Open Street Map ==

<mapframe width=700 height=700 zoom=15 latitude=52.3757964 longitude=4.9079461 text="Outline (geoshape) of Amsterdam public library (main site), using Wikidata and Open Street Map" align=left>
{
  "type": "ExternalData",
  "service": "geoshape",
  "ids": "Q50413436", ←
  "properties": {
    "fill": "#07c63e", "title": "Amsterdam public library, main site" }
}
</mapframe>
```



Amsterdam Public Library, OBA Oosterdok (Centrale) (Q50413436)

Main visitor location and administration offices of the Amsterdam Public Library, The Netherlands

OBA Oosterdok (Centrale)

 edit

<https://www.wikidata.org/wiki/Q50413436>

[▼ In more languages](#)

Language	Label	Description	Also known as
English	Amsterdam Public Library, OBA Oosterdok (Centrale)	Main visitor location and administration offices of the Amsterdam Public Library, The Netherlands	OBA Oosterdok (Centrale)
German	No label defined	Bibliothek	
Spanish	No label defined	No description defined	
French	No label defined	bibliothèque	
Italian	No label defined	No description defined	
Dutch	OBA Oosterdok (Centrale)	Hoofvestiging en administratief hoofdkantoor van de Openbare Bibliotheek Amsterdam	OBA Oosterdok (Centrale) Centrale OBA

[All entered languages](#)

Statements

instance of	 public library  ▼ 0 references	 edit  + add reference
	 library branch  ▼ 0 references	 edit  + add reference

Zoeken

Waar is dit?

OK

<https://www.openstreetmap.org/way/240467636#map=19/52.37605/4.90853>**Weg: OBA Oosterdok (240467636)**

De oude gegevens verwijzen naar de Stichting Openbare Bibliotheeken Amsterdam (Q2105660 op Wikidata), de nieuwe verwijzen naar Q50413436, de belangrijkste bezoekerslocatie en het hoofdkantoor van deze organisatie

25 minutes ago bewerkt door OlafJanssen

Versie #12 · Wijzigingenset #72901147

Tags

addr:city	Amsterdam
addr:housenumber	143
addr:postcode	1011 DL
addr:street	Oosterdokskade
alt_name	Openbare Bibliotheek Amsterdam
amenity	library
building	yes

website

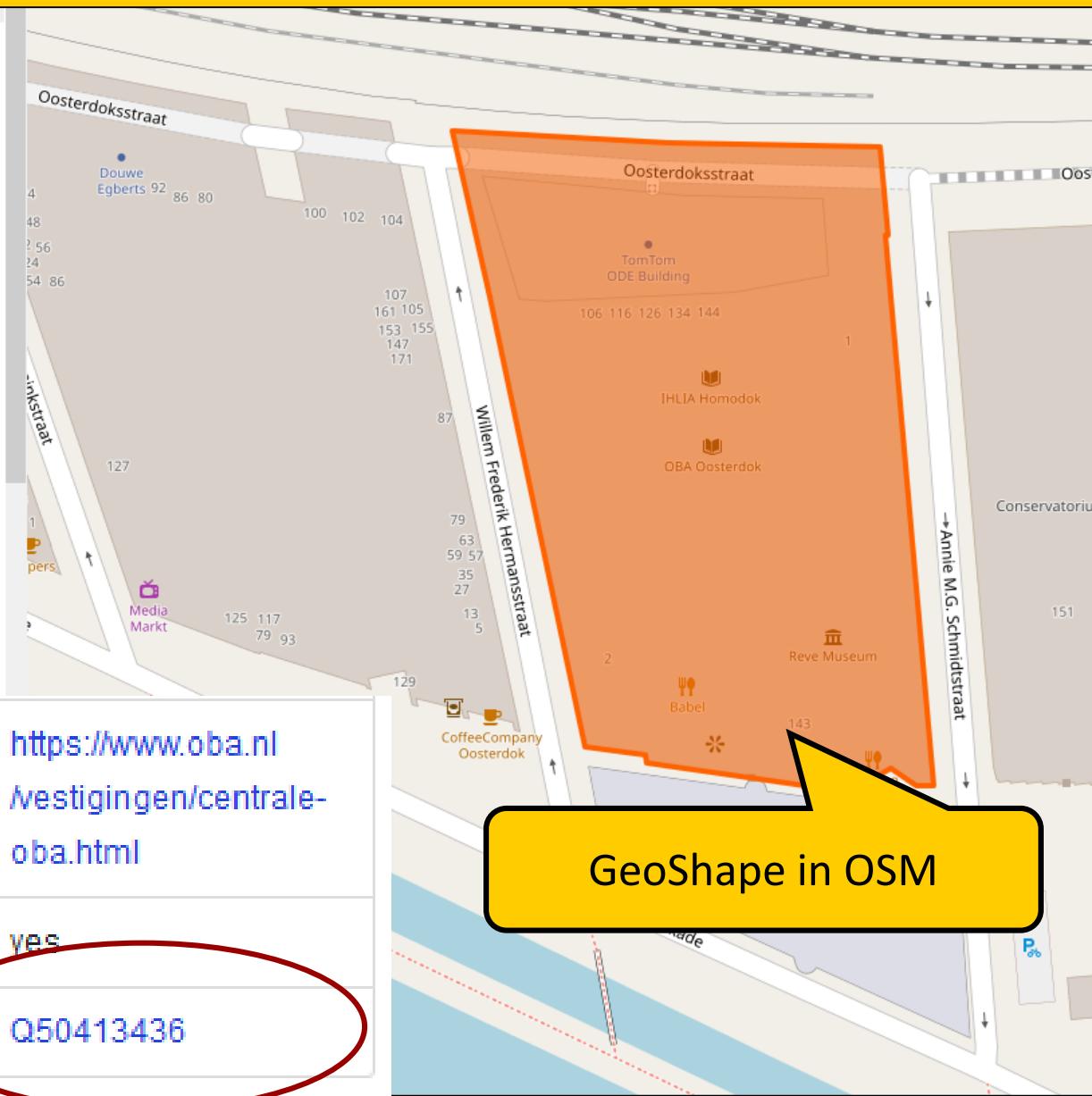
[https://www.oba.nl
Nestigingen/centrale-
oba.html](https://www.oba.nl/Nestigingen/centrale-oba.html)

wheelchair

yes

wikidata

Q50413436



2.4) Many locations, GeoJSON .map file



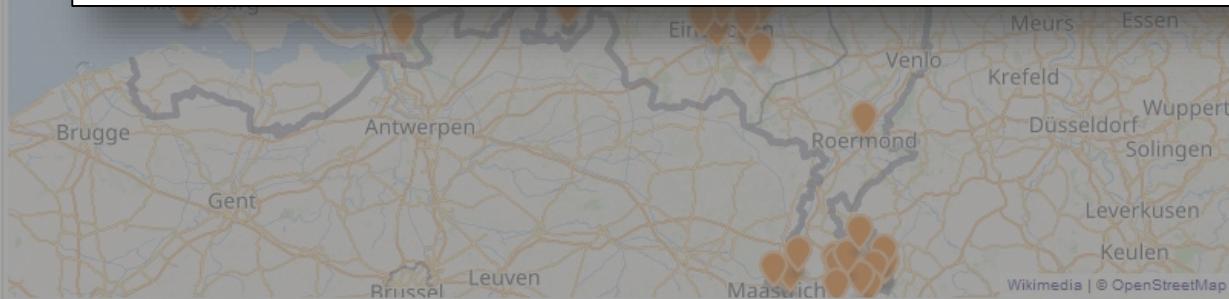


-- Map of Dutch public libraries, work in progress, 21-5-2019 --

```
<mapframe width=800 height=800 zoom=8 latitude=52.20 longitude=5.119627565 text="Map of Dutch public libraries, work in progress, 21-5-2019" align=left>
```

```
{  
  "type": "ExternalData",  
  "service": "page",  
  "title": "DutchPublicLibraries.map",  
}
```

```
</mapframe>
```

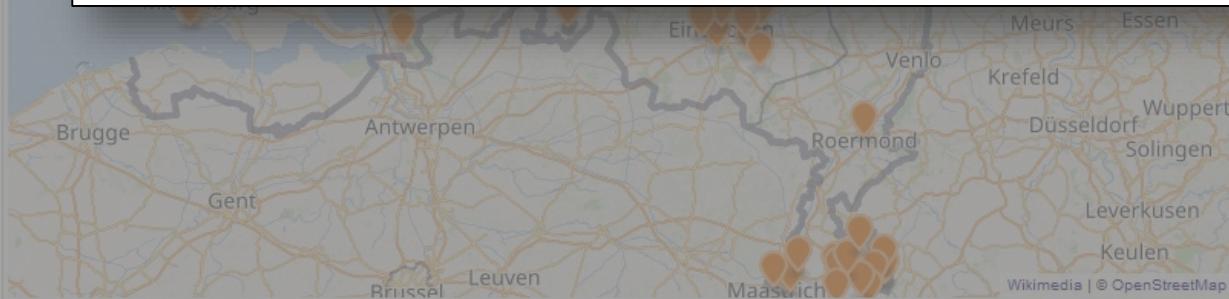


Map of Dutch public libraries, work in progress, 21-5-2019



-- Map of Dutch public libraries, work in progress, 21-5-2019 --

```
<mapframe width=800 height=800 zoom=8 latitude=52.20 longitude=5.119627565 text="Map of Dutch  
public libraries, work in progress, 21-5-2019" align=left>  
{  
  "type": "ExternalData",  
  "service": "page",  
  "title": "DutchPublicLibraries.map",  
}  
</mapframe>
```



Map of Dutch public libraries, work in progress, 21-5-2019



Data

<https://commons.wikimedia.org/wiki/Data:DutchPublicLibraries.map>

Data:DutchPublicLibraries.map

Uit Wikimedia Commons

Map of Dutch public libraries, work in progress, 21-5-2019



Hoofdpagina
Welkom
Gebruikersportaal
De Kroeg
Hulp

Doe mee

Bestand uploaden
Recente wijzigingen
Recente bestanden
Willekeurig bestand
Contact

Afdrukken/exporteren
Als PDF downloaden

Hulpmiddelen

Verwijzingen naar deze pagina
Verwante wijzigingen
Speciale pagina's
Permanente koppeling
Paginagegevens
Geocoding Recent Changes
Geocoding Search
Geocoding Daily Log
Subpagina's
Voor verwijdering nomineren



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Verwante wijzigingen
Speciale pagina's
Paginagegevens
Geocoding Recent Changes
Geocoding Search
Geocoding Daily Log
Subpagina's
Voor verwijdering nomineren

Nederlands OlafJanssen

Data Overleg

Lezen Bewerken Geschiedenis weergeven

Lezen

Bewerken

Geschiedenis weergeven

Bewerken van Data:DutchPublicLibraries.map



Note: When you edit this page, you agree to release your contribution under the CC0.



<> Edittools

```
1 < {  
2     "license": "CC0-1.0",  
3     "description": {  
4         "en": "Map of Dutch public libraries, work in progress, 21-5-2019"  
5     },  
6     "sources": "",  
7     "zoom": 7,  
8     "latitude": 52.091656341,  
9     "longitude": 5.119627565,  
10    "data": {  
11        "type": "FeatureCollection",  
12        "features": [  
13            {  
14                "type": "Feature",  
15                "properties": {  
16                    "title": "[[d:Q59772713|Aalst public library]]",  
17                    "marker-size": "small",  
18                    "marker-color": "#ee7302",  
19                    "type": "Point"  
20                },  
21            }  
22        ]  
23    }  
24}
```



Standard [] { } {{ }} - - " ' < < " , . x o € ← → § ~~~~
<pre> [[Category:]] [:File:]] [[Media:]] {{DEFAULTSORT:}} {{NAMESPACE:}} {{PAGENAME:}} #REDIRECT[[<galler

<noinclude>

<onlyinclude>

<translate>

<tvar>

<languages>



Help Discussion

https://www.mediawiki.org/wiki/Help:Map_Data

Help:Map Data



Note: When you edit this page, you agree to release your contribution under the CC0. See [Public Domain Help Pages](#) for more info.

[Edit](#) · [Translate](#)

Map data allows users to store [GeoJSON](#) data on wiki, similar to images. Other wikis may use this data to draw on top of the maps, together with other map customizations.

To create a new map data, go to [Wikimedia Commons](#), and create a new page in the **Data** namespace with the **.map** suffix, such as [Data:Sandbox/Name/Example.map](#). For experiment by creating pages with the **Sandbox/<username>/** prefix. For now, page content can only be edited in the raw [JSON format](#). Eventually, we hope there will be a page editor to simplify GeoJSON creation.

Data licensing [\[edit\]](#)

All data in the **Data:** namespace must licensed under one of the following licences:

- CC0-1.0
- CC-BY versions: CC-BY-1.0, CC-BY-2.0, CC-BY-2.5, CC-BY-3.0, CC-BY-4.0, CC-BY-4.0+
- CC-BY-SA versions: CC-BY-SA-1.0, CC-BY-SA-2.0, CC-BY-SA-2.5, CC-BY-SA-3.0, CC-BY-SA-4.0, CC-BY-SA-4.0+
- ODbL-1.0

The default license is empty string (e.g invalid license) and when a user tries to save page with invalid license, they will be notified of the allowed licenses.

Top-level fields [\[edit\]](#)

Map data has several required and optional top-level elements:

- The **required** `"license"` field must always be set to one of the allowed string values, e.g. `"cc0-1.0"` (see [#Data licensing](#)).
- The **optional** `"description"` field must be set to a localized string value - an object with at least one key-value, where the key is a language code (e.g. "en"), and the value is the localized string.
- The **optional** `"sources"` field must be a Wiki markup string value that describes the source of the map data.
- The **optional** `"zoom"` field must be an integer between 0 and 18. This value is only used for displaying map on its own page, not when including it in the articles.
- The **optional** `"latitude"` and `"longitude"` fields specify the center of the map when displaying it on its own page, not when including it in the articles.
- The **required** `"data"` field must be set to the valid [GeoJSON](#) content. Per [GeoJSON specification](#), `"properties"` field may be set for every Feature object. The map properties, such as `"title"`, `"description"`, `"fill"` (color), and others. Additionally, the `"title"` and `"description"` fields may be either strings or localized tabular data). This allows the same map data to appear differently depending on the user's language.



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Paginagegevens
Geocoding Recent Changes
Geocoding Search
Geocoding Daily Log
Subpagina's
Voor verwijdering nomineren

Data Overleg

Nederlands OlafJanssen

Lezen Bewerken Geschiedenis weergeven

Bewerken van Data:DutchPublicLibraries.map



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<> Edittools

```
1  {
2      "license": "CC0-1.0",
3      "description": {
4          "en": "Map of Dutch public libraries, work in progress"
5      },
6      "sources": "",
7      "zoom": 7,
8      "latitude": 52.091656341,
9      "longitude": 5.119627565,
10     "data": {
11         "type": "FeatureCollection",
12         "features": [
13             {
14                 "type": "Feature",
15                 "properties": {
16                     "title": "[[d:Q59772713|Aalst public library]]",
17                     "marker-size": "small",
18                     "marker-color": "#ee7302",
19                     "type": "Point"
20             }
21         ]
22     }
23 }
```

Data in
GeoJSON format

<https://en.wikipedia.org/wiki/GeoJSON>

Standard [] { } {{ }} - - " ' < < " , . x o € ← → § ~~~~
<pre> [[Category: <File: <Media: {{DEFAULTSORT: {{NAMESPACE}} {{PAGENAME}} #REDIRECT[[<galler
<noinclude> <onlyinclude> <translate> <tvar> <languages>

Data Overleg Lezen Bewerken Geschiedenis weergeven

Nederlands OlafJanssen

Data Overleg Lezen Bewerken Geschiedenis weergeven

Recente bewerkingen van Data:DutchPublicLibraries.map

W C <> Edittools

Hoofd Welk Gebruik De K Hulp Doe Best Recl Reca Wille Cont Hulp Verw pagin Verw Spec Pag Geod Char Geod Geod Subp Voor nomi

1 {
2 "license": "CC0-1.0",
3 "description": {
4 "en": "Your English title here"
5 },
6 "sources": "",
7 "zoom": 8,
8 "latitude": 52.091656341,
9 "longitude": 5.119627565,
10 "data":
11 |
12 INSERT YOUR GEOJSON DATA HERE (output of <http://geojson.io>)
13 |
14 }
15

Single “}”

<noinclude> <onlyinclude> <translate> <tvar> <languages>

nomineren

Geojson.io

Open Save New Share Meta unsaved

Arctic Ocean
Baffin Bay
Greenland Sea
Norwegian Sea
Borens Sea
Kara Sea
Laptsev Sea
North Atlantic Ocean
South Atlantic Ocean
Scotia Sea
Arabian Sea
Indian Ocean

Mapbox Satellite OCM OSM

Feedback | About | © Mapbox © OpenStreetMap Improve this map

3000 km
2000 mi

Search icon
Zoom (+/-)
Edit tools (pen, star, square, location)
Table icon
Help icon

```
</> JSON Table Help
```

```
1 {  
2   "type": "FeatureCollection",  
3   "features": []  
4 }
```

anon | login

Geojson.io

The screenshot shows the Geojson.io web application interface. At the top, there is a menu bar with options: Open, Save, New, Share, Meta, unsaved. To the right of the menu is a search bar and a JSON editor pane displaying the following code:

```
1 {  
2   "type": "FeatureCollection",  
3   "features": []  
4 }
```

Below the menu is a map of the Arctic region, including the Arctic Ocean, Greenland, and various seas. On the left side of the map, there is a vertical sidebar with icons for different layers: Deze pc, 3D-objecten, Afbeeldingen, Bureaublad, Documenten, Downloads, Muziek, Video's, OSDisk (C:), and a network share folder. A red arrow points upwards from this sidebar towards the 'Open' button in the top left.

A yellow callout bubble with the word 'Open' is positioned over a file browser window titled 'Bestand uploaden'. The browser window shows a file list with the following entries:

| | Naam | Gewijzigd op | Type |
|--|--------------------------------------|-----------------|-------------|
| | GeocodingOSM | 1-5-2019 12:13 | Bestandsmap |
| | LibraryMapInputData.tsv | 22-5-2019 12:04 | TSV-bestand |
| | LibraryMapInputData_NoordHolland.csv | 22-5-2019 12:59 | CSV-bestand |

The 'Bestandsnaam:' dropdown at the bottom of the browser window is set to 'LibraryMapInputData.tsv'. There are 'Openen' and 'Annuleren' buttons at the bottom right of the browser window.

At the very bottom of the page, there is a footer with links: Mapbox, Satellite, OCM, OSM, Feedback, About, © Mapbox © OpenStreetMap Improve this map.

Geojson.io

Open Save New Share Meta unsaved

Arctic Ocean



</> JSON

Table

? Help

anon | login

LibraryMapInputData.tsv

```
1 title marker-size marker-color type long lat
2 [[d:Q59772713|Aalst public library]] small #ee7302 Point 5.1259789 51.7841643
3 [[d:Q59772714|Ammerzoden public library]] small #ee7302 Point 5.2201121 51.7506792
4 [[d:Q59772716|Asperen public library]] small #ee7302 Point 5.1045091 51.8806175
5 [[d:Q59772717|Beesd public library]] small #ee7302 Point 5.1930425 51.8868067
6 [[d:Q59772718|Beneden-Leeuwen public library]] small #ee7302 Point 5.516266 51.8777727
7 [[d:Q59772719|Culemborg public library]] small #ee7302 Point 5.223026 51.9574438
8 [[d:Q59772720|Dodewaard public library]] small #ee7302 Point 5.6607362 51.9090619
9 [[d:Q59772721|Dreumel public library]] small #ee7302 Point 5.4329593 51.846106
10 [[d:Q59772722|Druten public library]] small #ee7302 Point 5.6023973 51.8864962
11 [[d:Q59772723|Geldermalsen public library]] small #ee7302 Point 5.28966 51.87324
12 [[d:Q59772724|Haafoten public library]] small #ee7302 Point 5.209602 51.8222877
13 [[d:Q59772725|Herwijnen public library]] small #ee7302 Point 5.132461 51.8278308
14 [[d:Q59772726|Heukelum public library]] small #ee7302 Point 5.075112 51.8717037
15 [[d:Q59772727|Kerkdriel public library]] small #ee7302 Point 5.3380551 51.7712143
16 [[d:Q59772729|Kesteren public library]] small #ee7302 Point 5.5680087 51.9321838
17 [[d:Q59772731|Ochten public library]] small #ee7302 Point 5.5680429 51.9084892
18 [[d:Q59772732|Ophemert public library]] small #ee7302 Point 5.3849607 51.8441046
19 [[d:Q59772733|Opheusden public library]] small #ee7302 Point 5.6276707 51.9319108
20 [[d:Q59772735|Zaltbommel public library]] small #ee7302 Point 5.2321253 51.8034576
21 [[d:Q59772736|Self-service library point Boven-Leeuwen]] small #ee7302 Point 5.5459884 51.8853943
22 [[d:Q59772737|Self-service library point Brakel]] small #ee7302 Point 5.0926245 51.8141786
23 [[d:Q59772738|Self-service library point Deest]] small #ee7302 Point 5.6643959 51.8902209
24 [[d:Q59772739|Self-service library point Deil]] small #ee7302 Point 5.2459089 51.8840328
25 [[d:Q59772740|Self-service library point Horssen]] small #ee7302 Point 5.6090658 51.8547778
26 [[d:Q59772741|Self-service library point Lek en Linge]] small #ee7302 Point 5.2348588 51.9457687
27 [[d:Q59772742|Self-service library point Maasdriel]] small #ee7302 Point 5.5353727 51.8199371
28 [[d:Q59772743|Self-service library point Nederhemert]] small #ee7302 Point 5.1667443 51.7636824
29 [[d:Q59772745|Self-service library point Vuren]] small #ee7302 Point 5.0489027 51.8248737
30 [[d:Q59772808|Tiel public library]] small #ee7302 Point 5.4366236 51.8845787
```

2000 mi

Geojson.io

Open Save New Share Meta unsaved

anon | login



Copy this whole
GeoJSON to....

```
1 {
2   "type": "FeatureCollection",
3   "features": [
4     {
5       "type": "Feature",
6       "properties": {
7         "title": "[[d:Q59772713|Aalst public library]]",
8         "marker-size": "small",
9         "marker-color": "#ee7302",
10        "type": "Point"
11      },
12      "geometry": {
13        "type": "Point",
14        "coordinates": [
15          5.1259789,
16          51.7841643
17        ]
18      }
19    },
20    {
21      "type": "Feature",
22      "properties": {
23        "title": "[[d:Q59772714|Ammerzoden public library]]",
24        "marker-size": "small",
25        "marker-color": "#ee7302",
26        "type": "Point"
27      },
28      "geometry": {
29        "type": "Point",
30        "coordinates": [
31          5.2201121,
32          51.7506792
33        ]
34      }
35    },
36    {
37      "type": "Feature",
```

<https://commons.wikimedia.org/wiki/Data:DutchPublicLibraries.map>

```
1  {
2      "license": "CC0-1.0",
3      "description": {
4          "en": "Your English title here"
5      },
6      "sources": "",
7      "zoom": 8,
8      "latitude": 52.091656341,
9      "longitude": 5.119627565,
10     "data": [
11         ...
12     ]
13 }
14 }
```

.. to here

INSERT YOUR GEOJSON DATA HERE (output of <http://geojson.io>)

Geojson.io

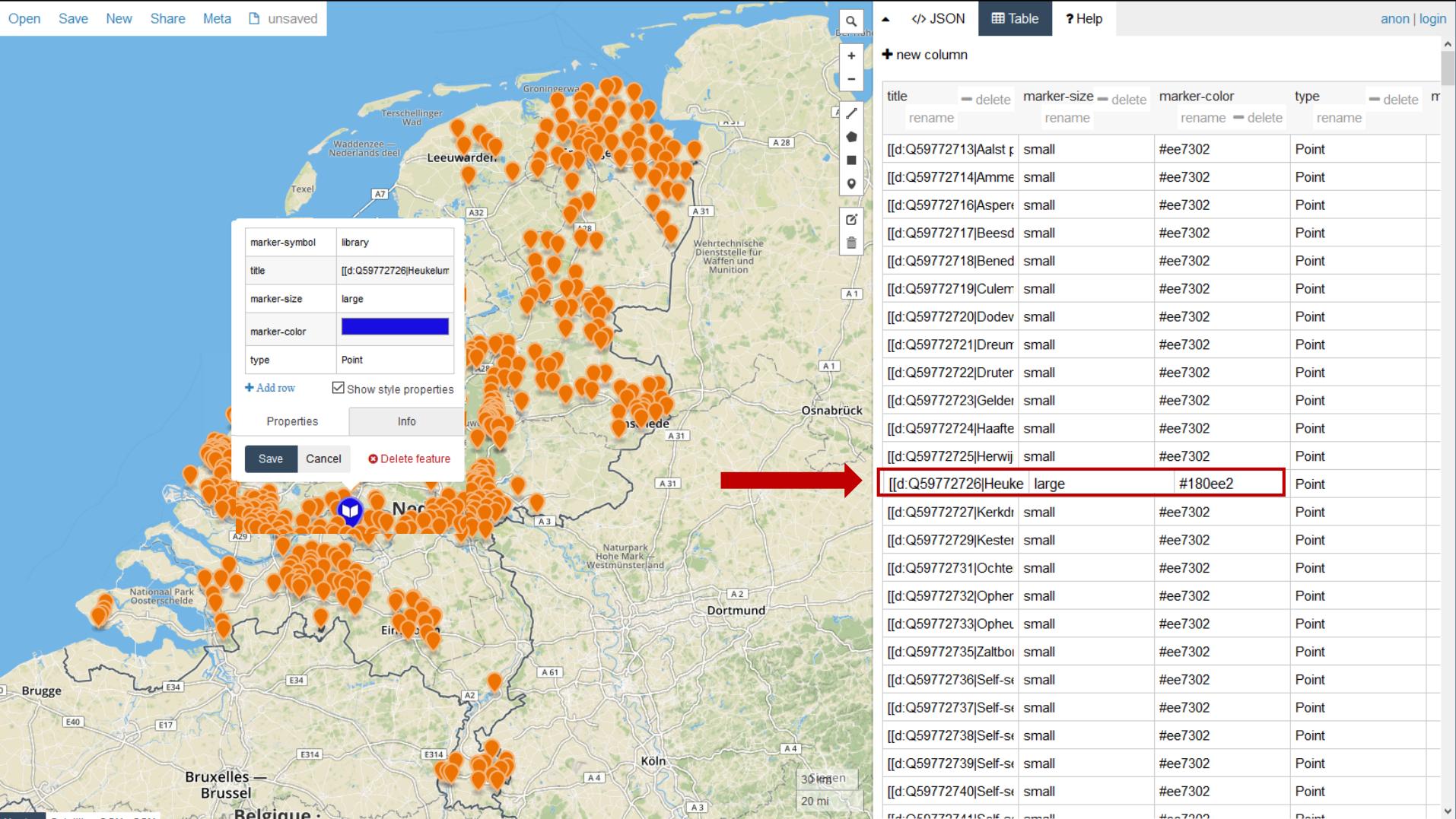
The screenshot shows the Geojson.io interface. At the top, there's a yellow header bar with the title "Geojson.io". Below it is a navigation bar with links: Open, Save, New, Share, Meta, and a status message "unsaved". A large red arrow points from the top right towards the right side of the interface.

The main area features a map of Europe with numerous orange location markers. A speech bubble highlights the styling options: "Here you can tweak & style the markers..." and "... and also in this popup". On the left, a modal window displays the current styling settings: marker-symbol (orange pin), title (Aalst), marker-size (small), marker-color (#ee7302), and type (Point). It also includes buttons for "+ Add row", "Show style properties", "Save", and "Delete feature".

To the right of the map is a "Table" tab, which is currently selected. It shows a JSON table with 40 rows, each representing a marker. The columns include title, marker-size, marker-color, and type. The "marker-color" column consistently lists the hex code #ee7302. The "type" column lists "Point" for all entries. The "marker-size" column has "small" listed for most entries, with "medium" appearing once. The "title" column lists various place names, such as Aalst, Amme, Aspern, Beesd, Bened, Culem, Dodev, Dreurr, Druter, Gelder, Haafte, Herwij, Heuke, Kerkdr, Kester, Ochte, Opher, Ophe, Zaltboi, and Self-sr.

| title | marker-size | marker-color | type |
|-------------------------------|-------------|--------------|-------|
| [[{"id": "Q59772713"} Aalst p | small | #ee7302 | Point |
| [[{"id": "Q59772714"} Amme | small | #ee7302 | Point |
| [[{"id": "Q59772716"} Aspern | small | #ee7302 | Point |
| [[{"id": "Q59772717"} Beesd | small | #ee7302 | Point |
| [[{"id": "Q59772718"} Bened | small | #ee7302 | Point |
| [[{"id": "Q59772719"} Culem | small | #ee7302 | Point |
| [[{"id": "Q59772720"} Dodev | small | #ee7302 | Point |
| [[{"id": "Q59772721"} Dreurr | small | #ee7302 | Point |
| [[{"id": "Q59772722"} Druter | small | #ee7302 | Point |
| [[{"id": "Q59772723"} Gelder | small | #ee7302 | Point |
| [[{"id": "Q59772724"} Haafte | small | #ee7302 | Point |
| [[{"id": "Q59772725"} Herwij | small | #ee7302 | Point |
| [[{"id": "Q59772726"} Heuke | small | #ee7302 | Point |
| [[{"id": "Q59772727"} Kerkdr | small | #ee7302 | Point |
| [[{"id": "Q59772729"} Kester | small | #ee7302 | Point |
| [[{"id": "Q59772731"} Ochte | small | #ee7302 | Point |
| [[{"id": "Q59772732"} Opher | small | #ee7302 | Point |
| [[{"id": "Q59772733"} Ophe | small | #ee7302 | Point |
| [[{"id": "Q59772735"} Zaltboi | small | #ee7302 | Point |
| [[{"id": "Q59772736"} Self-sr | small | #ee7302 | Point |
| [[{"id": "Q59772737"} Self-sr | small | #ee7302 | Point |
| [[{"id": "Q59772738"} Self-sr | small | #ee7302 | Point |
| [[{"id": "Q59772739"} Self-sr | small | #ee7302 | Point |
| [[{"id": "Q59772740"} Self-sr | small | #ee7302 | Point |
| [[{"id": "Q59772741"} Self-sr | small | #ee7302 | Point |

Open Save New Share Meta  unsaved



The screenshot shows a map application interface with a central map displaying numerous orange location markers. A red arrow points from the bottom of the map area to a table on the right side of the screen.

Map Properties (popup):

- marker-symbol: library
- title: [[d:Q59772726]Heukelum
- marker-size: large
- marker-color: #ee7302
- type: Point

Table (right side):

| title | marker-size | marker-color | type |
|-----------------------|-------------|--------------|-------|
| [[d:Q59772713]Aalst p | small | #ee7302 | Point |
| [[d:Q59772714]Amme | small | #ee7302 | Point |
| [[d:Q59772716]Asper | small | #ee7302 | Point |
| [[d:Q59772717]Beesd | small | #ee7302 | Point |
| [[d:Q59772718]Bened | small | #ee7302 | Point |
| [[d:Q59772719]Culem | small | #ee7302 | Point |
| [[d:Q59772720]Dodev | small | #ee7302 | Point |
| [[d:Q59772721]Dreurr | small | #ee7302 | Point |
| [[d:Q59772722]Druter | small | #ee7302 | Point |
| [[d:Q59772723]Gelder | small | #ee7302 | Point |
| [[d:Q59772724]Haafte | small | #ee7302 | Point |
| [[d:Q59772725]Herwij | small | #ee7302 | Point |
| [[d:Q59772726]Heuke | large | #180ee2 | Point |
| [[d:Q59772727]Kerkdt | small | #ee7302 | Point |
| [[d:Q59772729]Kester | small | #ee7302 | Point |
| [[d:Q59772731]Ochte | small | #ee7302 | Point |
| [[d:Q59772732]Opher | small | #ee7302 | Point |
| [[d:Q59772733]Ophei | small | #ee7302 | Point |
| [[d:Q59772735]Zaltboi | small | #ee7302 | Point |
| [[d:Q59772736]Self-s | small | #ee7302 | Point |
| [[d:Q59772737]Self-s | small | #ee7302 | Point |
| [[d:Q59772738]Self-s | small | #ee7302 | Point |
| [[d:Q59772739]Self-s | small | #ee7302 | Point |
| [[d:Q59772740]Self-s | small | #ee7302 | Point |
| [[d:Q59772741]Self-s | small | #ee7302 | Point |

How do you make this TSV?

| | title | marker-size | marker-color | type | long | lat |
|----|--|-------------|--------------|-------|-----------|------------|
| 1 | [[d:Q59772713 Aalst public library]] | small | #ee7302 | Point | 5.1259789 | 51.7841643 |
| 2 | [[d:Q59772714 Ammerzoden public library]] | small | #ee7302 | Point | 5.2201121 | 51.7506792 |
| 3 | [[d:Q59772716 Asperen public library]] | small | #ee7302 | Point | 5.1045091 | 51.8806175 |
| 4 | [[d:Q59772717 Beesd public library]] | small | #ee7302 | Point | 5.1930425 | 51.8868067 |
| 5 | [[d:Q59772718 Beneden-Leeuwen public library]] | small | #ee7302 | Point | 5.516266 | 51.8777727 |
| 6 | [[d:Q59772719 Culemborg public library]] | small | #ee7302 | Point | 5.223026 | 51.9574438 |
| 7 | [[d:Q59772720 Dodewaard public library]] | small | #ee7302 | Point | 5.6607362 | 51.9090619 |
| 8 | [[d:Q59772721 Dreumel public library]] | small | #ee7302 | Point | 5.4329593 | 51.846106 |
| 9 | [[d:Q59772722 Druten public library]] | small | #ee7302 | Point | 5.6023973 | 51.8864962 |
| 10 | [[d:Q59772723 Geldermalsen public library]] | small | #ee7302 | Point | 5.28966 | 51.87324 |
| 11 | [[d:Q59772724 Haaften public library]] | small | #ee7302 | Point | 5.209602 | 51.8222877 |
| 12 | [[d:Q59772725 Herwijnen public library]] | small | #ee7302 | Point | 5.132461 | 51.8278308 |
| 13 | [[d:Q59772726 Heukelum public library]] | small | #ee7302 | Point | 5.075112 | 51.8717037 |
| 14 | [[d:Q59772727 Kerkdriel public library]] | small | #ee7302 | Point | 5.3380551 | 51.7712143 |
| 15 | [[d:Q59772729 Kesteren public library]] | small | #ee7302 | Point | 5.5680087 | 51.9321838 |
| 16 | [[d:Q59772731 Ochten public library]] | small | #ee7302 | Point | 5.5680429 | 51.9084892 |
| 17 | [[d:Q59772732 Ophemert public library]] | small | #ee7302 | Point | 5.3849607 | 51.8441046 |
| 18 | [[d:Q59772733 Opheusden public library]] | small | #ee7302 | Point | 5.6276707 | 51.9319108 |
| 19 | [[d:Q59772735 Zaltbommel public library]] | small | #ee7302 | Point | 5.2321253 | 51.8034576 |
| 20 | [[d:Q59772736 Self-service library point Boven-Leeuwen]] | small | #ee7302 | Point | 5.5459884 | 51.8853943 |
| 21 | [[d:Q59772737 Self-service library point Brakel]] | small | #ee7302 | Point | 5.0926245 | 51.8141786 |
| 22 | [[d:Q59772738 Self-service library point Deest]] | small | #ee7302 | Point | 5.6643959 | 51.8902209 |
| 23 | [[d:Q59772739 Self-service library point Deil]] | small | #ee7302 | Point | 5.2459089 | 51.8840328 |
| 24 | [[d:Q59772740 Self-service library point Horssen]] | small | #ee7302 | Point | 5.6090658 | 51.8547778 |
| 25 | [[d:Q59772741 Self-service library point Lek en Linge]] | small | #ee7302 | Point | 5.2348588 | 51.9457687 |
| 26 | [[d:Q59772742 Self-service library point Maasbommel]] | small | #ee7302 | Point | 5.5353727 | 51.8199371 |
| 27 | [[d:Q59772743 Self-service library point Nederhemert]] | small | #ee7302 | Point | 5.1667443 | 51.7636824 |
| 28 | [[d:Q59772745 Self-service library point Vuren]] | small | #ee7302 | Point | 5.0489027 | 51.8248737 |
| 29 | [[d:Q59772808 Tiel public library]] | small | #ee7302 | Point | 5.4366236 | 51.8845787 |
| 30 | | | | | | |

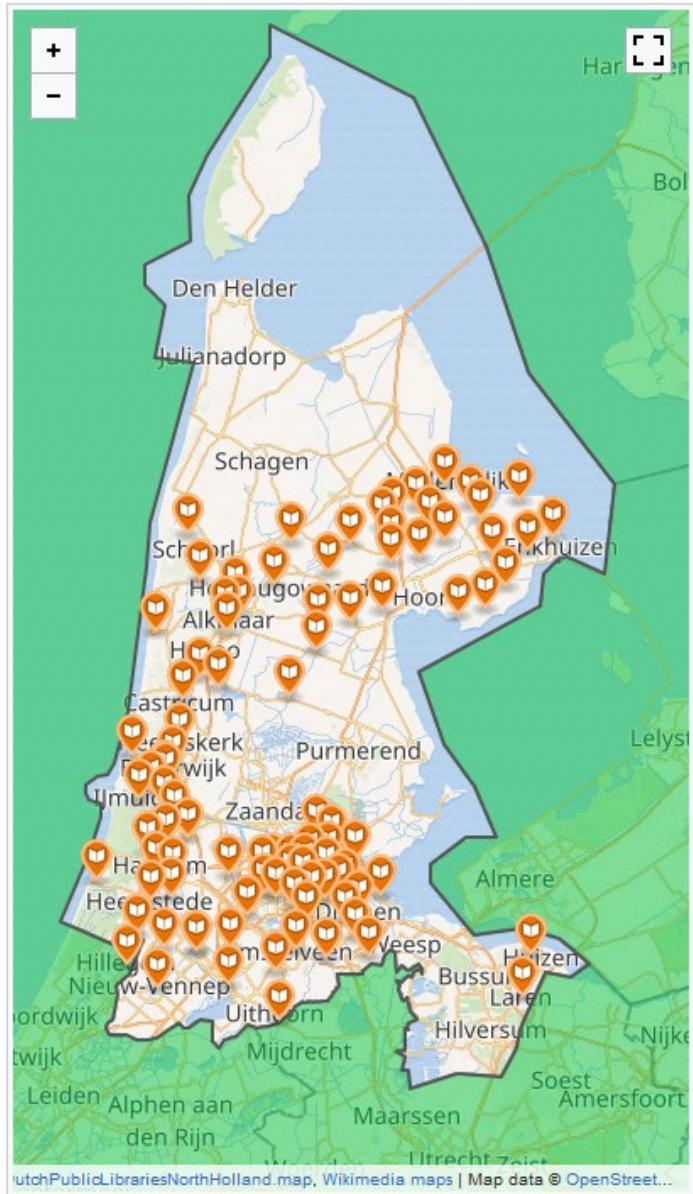
Adapt this query, save output as .tsv

Wikidata Query Service [Voorbeelden](#) [Hulp](#) [Meer hulpmiddelen](#)

```
1 #Query used to make GeoJSON input for https://commons.wikimedia.org/wiki/Data:DutchPublicLibraries.map
2 #Steps involved
3 #1) Download and save query result as tsv file
4 #2) Rename headers (replace '_' with '-') in this tsv file :
5 #     marker_size --> marker-size
6 #     marker_color --> marker-color
7 #     marker_symbol --> marker-symbol
8 #3) Upload this file to geojson.io (Open --> File)
9 #4) Copy-paste GeoJSON output (right pane) into Data:DutchPublicLibraries.map file (in the "data" field)
10
11 SELECT DISTINCT ?title ?marker_size ?marker_color ?type ?marker_symbol ?long ?lat WHERE {
12 #Is Dutch public library branch
13 ?dpl wdt:P31 wd:Q28564. #public library
14 ?dpl wdt:P31 wd:Q11396180. #library branch
15 ?dpl wdt:P17 wd:Q55. #in the Netherlands
16
17 ?dpl wdt:P625 ?dplLoc. #Location of the dpl
18
19 # Get the English Wikidata label of the dpl
20 ?dpl rdfs:label ?dplLabel.
21 FILTER (lang(?dplLabel) = 'en')
22
23 #Transform from 'http://www.wikidata.org/entity/Q63890044 Akersloot public library' to '[[d:Q63890044|Akersloot public library]]'
24 BIND(CONCAT('[[d:', STRAFTER(STR(?dpl), "http://www.wikidata.org/entity/"), '|', ?dplLabel, ']]') AS ?title)
25
26 # Set 4 default values
27 BIND("small" AS ?marker_size)
28 BIND("#ee7302" AS ?marker_color)
29 BIND("library" AS ?marker_symbol)
30 BIND("Point" AS ?type)
31
32 #Transform: 'Point(4.7322704 52.5633782)' (in 1 column) to '4.7322704', '52.5633782' ( i.e. 2 columns longitude + latitude)
33 BIND(STRBEFORE(STRAFTER(STR(?dplLoc), ' '), ',')) AS ?lat
34 BIND(STRBEFORE(STRAFTER(STR(?dplLoc), 'Point('), ',')) AS ?long)
35
36 }
37 ORDER BY ?title
```

<https://bit.ly/2YG48aY>

Copy-paste in browser!



2.5) Combining data types

GeoShape + .map

Combining geoshape (with geomask) and .map

<https://nl.wikipedia.org/wiki/Gebruiker:OlafJanssen/KladblokMapMakingWorkshopWM2019>



```
<mapframe width=400 height=700 zoom=9 latitude=52.65 longitude=4.95 text="Map of public libraries in the province of North-Holland, The Netherlands. Geomask is used" align=left>
[
{
  "type": "ExternalData",
  "service": "geoshape",
  "service": "geomask", ←
  "ids": "Q701",
  "properties": {
    "fill": "#07c63e", "title": "Noord-Holland"
  }
},
{
  "type": "ExternalData",
  "service": "page",
  "title": "DutchPublicLibrariesNorthHolland.map"
}
]
</mapframe>
```

A red arrow points to the "geomask" service entry in the JSON code. A yellow box highlights the URL "https://commons.wikimedia.org/wiki/Data:DutchPublicLibrariesNorthHolland.map".



<https://commons.wikimedia.org/wiki/Data:DutchPublicLibrariesNorthHolland.map>, Wikimedia maps | Map data © OpenStreet...

Map of public libraries in the province of North-Holland, The Netherlands. Geomask is used

2.6) GeoShapes using SPARQL and OSM

OpenStreetMap

Bewerken Geschiedenis Exporteren GPS-traces Gebruikersdagboeken

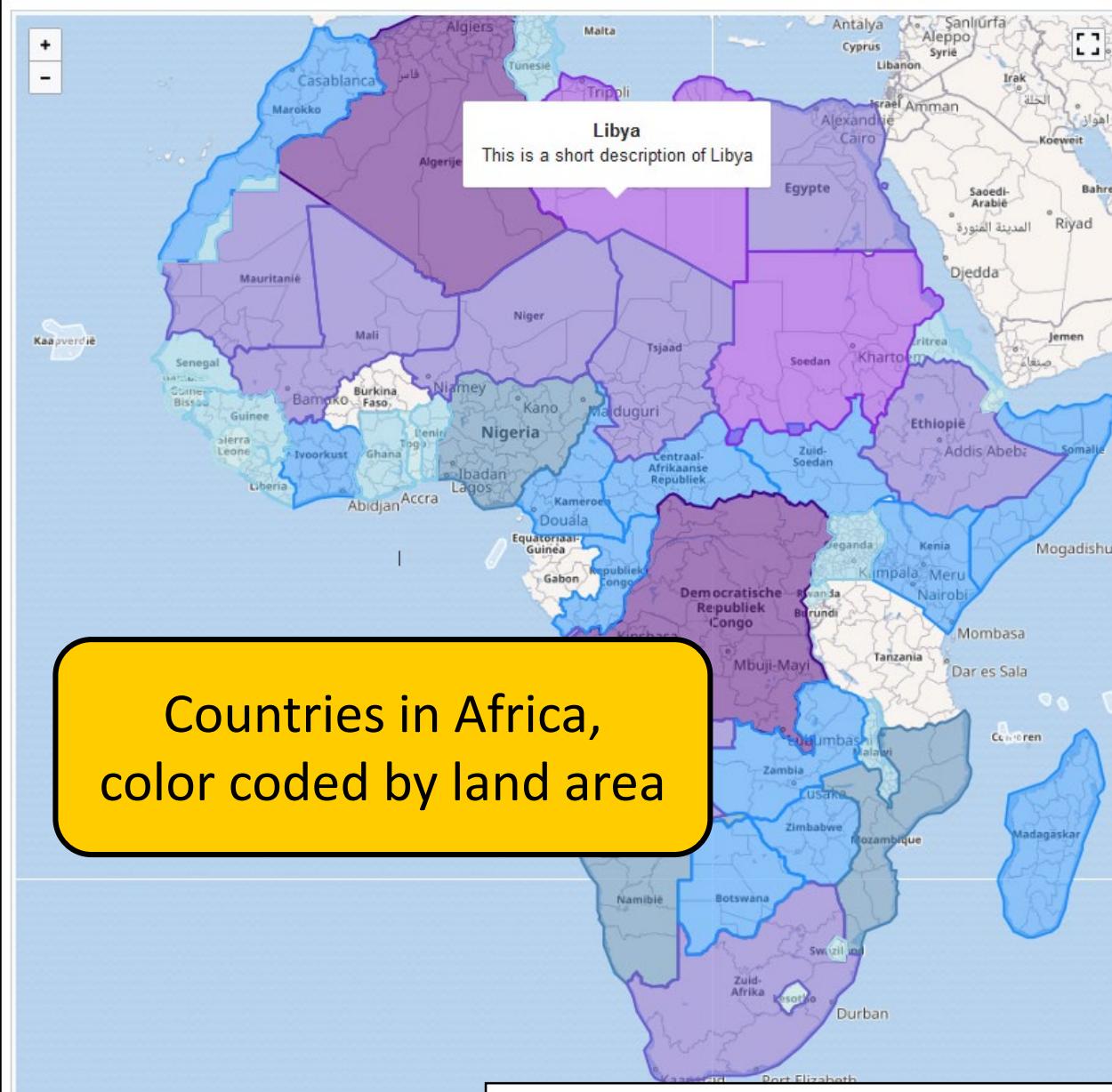
| | |
|------------------|--------------------------|
| name:ka | ლიბუდინ აბე |
| name:ru | Социализмън Араб Улс Орн |
| name:xmf | ლიბია |
| name:yi | לביא |
| name:yo | Líbyà |
| name:ue | 利比亞 |
| name:zae | Libië |
| name:zgh | ليبيا |
| name:zh | 利比亚 |
| name:zu | ILibya |
| official_name:cs | Libyjský stát |
| timezone | Africa/Tripoli |
| type | boundary |
| wikidata | Q1016 |
| wikipedia | ar:ليبيا |

Onderdeel van

GeoShape of Libya

<https://www.openstreetmap.org/relation/192758#map=5/22.086/20.039>

https://www.mediawiki.org/wiki/Help:Extension:Kartographer#GeoShapes_via_Wikidata_Query



```
-- Maps with geoshapes based on SPARQL queries in Wikidata ==
```

```
https://www.mediawiki.org/wiki/Help:Extension:Kartographer#GeoShapes\_via\_Wikidata\_Query
```

```
<mapframe width=900 height=900 zoom=4 latitude=0 longitude=12 text="Countries in Africa, color coded by land area" align=left>
```

```
{
```

```
    "type": "ExternalData",
```

```
    "service": "geoshape",
```

```
    "query": "
```

```
----- Begin SPARQL query // Make sure you only use single quotes ('') in the query, otherwise you get a JSON parse error ---
```

```
SELECT DISTINCT
```

```
    ?id          #Wikidata Qid matching the geoshape on Open Street Map
```

```
    ?title        #Popup title when you click on the country
```

```
    ?description  #Description in the popup
```

```
    ?fill         #Color the geoshape is filled with
```

```
    ?stroke       #Color of the geoshape outline
```

```
WHERE {
```

```
    ?id wdt:P31 wd:Q6256; wdt:P30 wd:Q15. #Country in the continent of Africa
```

```
    ?id wdt:P2046 ?area. # Land area of the country
```

```
    ?id rdfs:label ?idLabel . FILTER(lang(?idLabel)='en') #only English labels
```

```
    BIND(?idLabel as ?title)
```

```
    BIND(CONCAT('This is a short description of ',STR(?title)) as ?description)
```

```
    # Fill & stroke colors depend on land area of country
```

```
    BIND(
```

```
        IF(?area < 5000, '#F0F8FF',
```

```
        IF(?area < 100000, '#B0E0E6',
```

```
        IF(?area < 300000, '#87CEEB',
```

```
        IF(?area < 800000, '#1E90FF',
```

```
        IF(?area < 1000000, '#4682B4',
```

```
        IF(?area < 1500000, '#6A5ACD',
```

```
        IF(?area < 2000000, '#8A2BE2',
```

```
        '#4B0082')))))) AS ?color)
```

```
    BIND(?color as ?fill)
```

```
    BIND(?color as ?stroke)
```

```
}
```

```
----- End SPARQL query -----
```

```
"}
```

```
</mapframe>
```

<https://bit.ly/2YBxV4t>

== Maps with geoshapes based on SPARQL queries in Wikidata ==

https://www.mediawiki.org/wiki/Help:Extension:Kartographer#GeoShapes_via_Wikidata_Query

<mapframe width=900 height=900 zoom=4 latitude=0 longitude=12 text="Countries in Africa, color coded by land area" align=left>

52 resultaten in 102 ms

Code Downloaden Koppeling

| id | title | description | fill | stroke |
|-------------------------|--------------------------|---|---------|---------|
| wd:Q912 | Mali | This is a short description of Mali | #6A5ACD | #6A5ACD |
| wd:Q916 | Angola | This is a short description of Angola | #6A5ACD | #6A5ACD |
| wd:Q79 | Egypt | This is a short description of Egypt | #6A5ACD | #6A5ACD |
| wd:Q114 | Kenya | This is a short description of Kenya | #1E90FF | #1E90FF |
| wd:Q924 | Tanzania | This is a short description of Tanzania | #4682B4 | #4682B4 |
| wd:Q115 | Ethiopia | This is a short description of Ethiopia | #6A5ACD | #6A5ACD |
| wd:Q117 | Ghana | This is a short description of Ghana | #87CEEB | #87CEEB |
| wd:Q929 | Central African Republic | This is a short description of Central African Republic | #1E90FF | #1E90FF |
| wd:Q948 | Tunisia | This is a short description of Tunisia | #87CEEB | #87CEEB |
| wd:Q262 | Algeria | This is a short description of Algeria | #4B0082 | #4B0082 |
| wd:Q945 | Togo | This is a short description of Togo | #B0E0E6 | #B0E0E6 |
| wd:Q953 | Zambia | This is a short description of Zambia | #1E90FF | #1E90FF |
| wd:Q258 | South Africa | This is a short description of South Africa | #6A5ACD | #6A5ACD |
| wd:Q657 | Chad | This is a short description of Chad | #6A5ACD | #6A5ACD |
| wd:Q954 | Zimbabwe | This is a short description of Zimbabwe | | |
| wd:Q958 | South Sudan | This is a short description of South Sudan | | |
| wd:Q962 | Benin | This is a short description of Benin | #87CEEB | #87CEEB |

<https://bit.ly/2YBxV4t>

"]>

</mapframe>

```
-- Maps with geoshapes based on SPARQL queries in Wikidata --
https://www.mediawiki.org/wiki/Help:Extension:Kartographer#GeoShapes_via_Wikidata_Query
```

```
<mapframe width=900 height=900 zoom=4 latitude=0 longitude=12 text="Countries in Africa, color coded by land area" align=left>
{
  "type": "ExternalData",
  "service": "geoshape",
  "query": "
----- Begin SPARQL query // Make sure you only use single quotes ('') in the query, otherwise you get a JSON parse error -----
SELECT DISTINCT
  ?id          #Wikidata Qid mat
  ?title        #Popup
  ?description  #Description in t
  ?fill          #Color the geoshap
  ?stroke        #Color of the geo
WHERE {
  ?id wdt:P31 wd:Q6256; wdt:P30 wd:Q15. #Country in the continent of Africa
  ?id wdt:P2046 ?area. # Land area of the country

  ?id rdfs:label ?idLabel . FILTER(lang(?idLabel)='en') #only English labels

  BIND(?idLabel as ?title)
  BIND(CONCAT('This is a short description of ',STR(?idLabel)) as ?description)

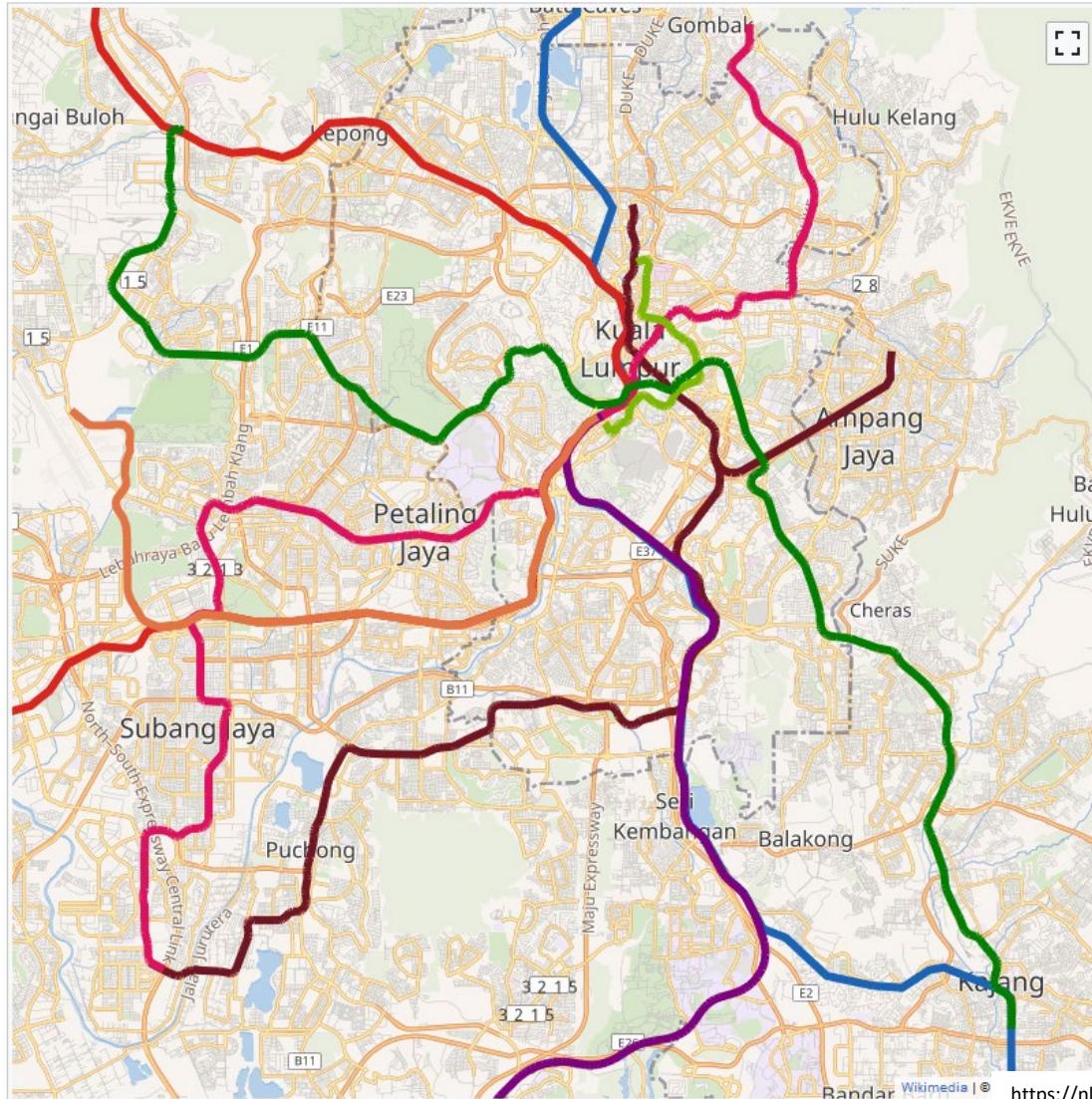
  # Fill & stroke colors depend on land area of country
  BIND(
    IF(?area < 5000, '#F0F8FF',
    IF(?area < 100000, '#B0E0E6',
    IF(?area < 300000, '#87CEEB',
    IF(?area < 800000, '#1E90FF',
    IF(?area < 1000000, '#4682B4',
    IF(?area < 1500000, '#6A5ACD',
    IF(?area < 2000000, '#8A2BE2',
    '#4B0082'))))) AS ?color)
  BIND(?color as ?fill)
  BIND(?color as ?stroke)
}
----- End SPARQL query -----"
```

Variables must have these names

Only use single quotes,
otherwise you'll get a
JSON parse error

2.7) Other cool embedded maps

Railway lines around Klang Valley, Malaysia [bewerken | brontekst bewerken]



Railway lines around Klang Valley, Malaysia [bewerken | brontekst bewerken]

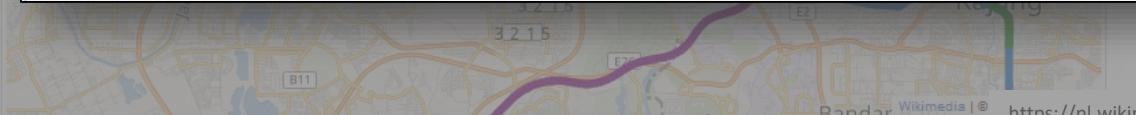
Geavanceerde functies Speciale tekens Hulp

```
= Railway lines around Klang Valley, Malaysia =
<mapframe text="Railway lines around [[:en:Klang Valley|Klang Valley]], Malaysia" width="800" height=
align=left>
[
|{
  "type": "ExternalData",
  "service": "geoline",
  "ids": "Q4207166", ←
  "properties": {
    "stroke": "#1964b7",
    "stroke-width": 6 }
},
{
  "type": "ExternalData",
  "service": "geoline",
  "ids": "Q4873303",
  "properties": {
    "stroke": "#dc241f",
    "stroke-width": 6 }
},
```

Identifiers

| | |
|-----------------|---------|
| OSM relation ID | 8390976 |
| ▼ 0 references | |

<https://www.wikidata.org/wiki/Q4207166>

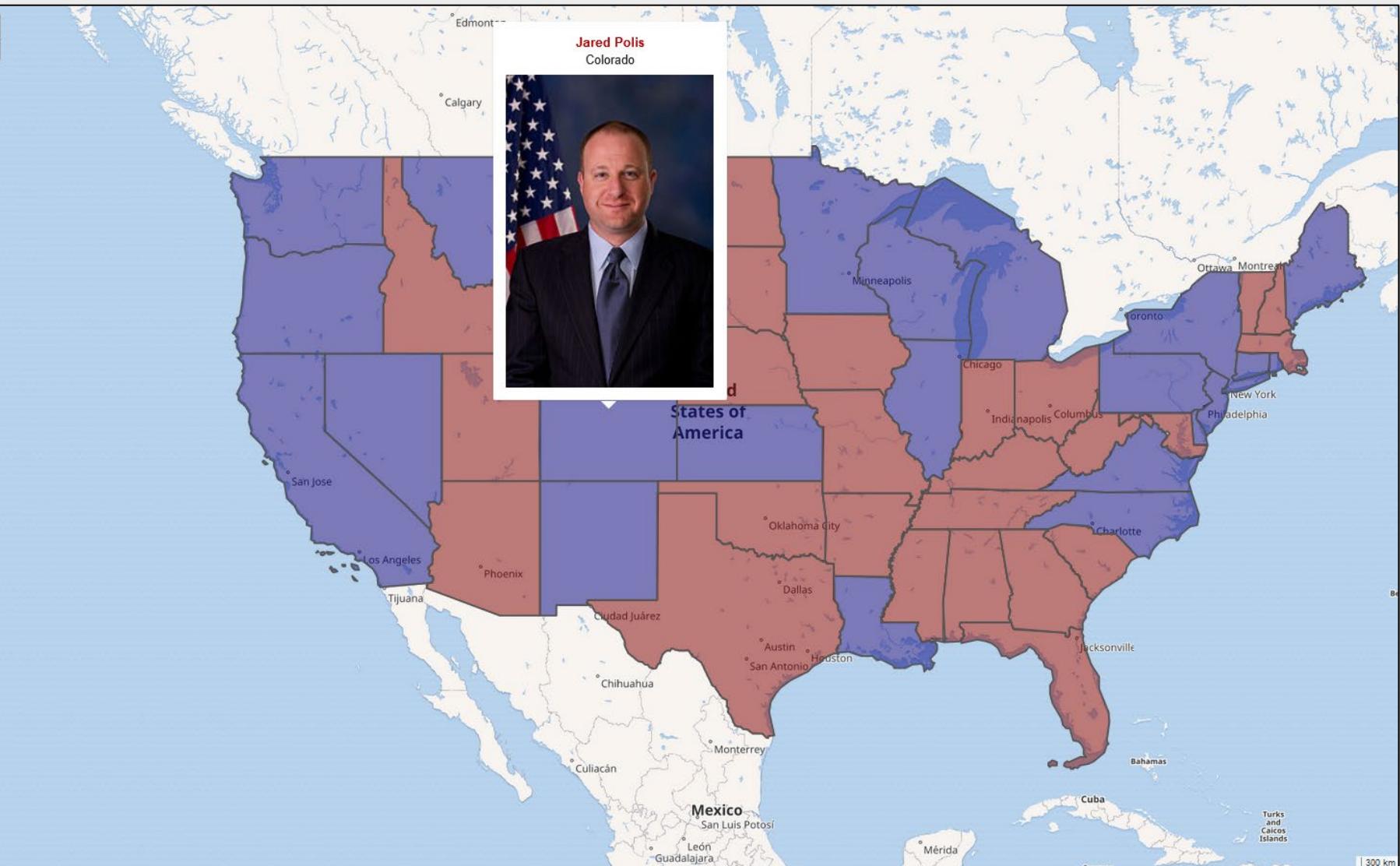


Railway lines around Klang Valley, Malaysia

<https://nl.wikipedia.org/wiki/Gebruiker:OlafJanssen/KladblokMapMakingWorkshopWM2019>, from https://en.wikipedia.org/wiki/User:*angys*/sandbox

+

-

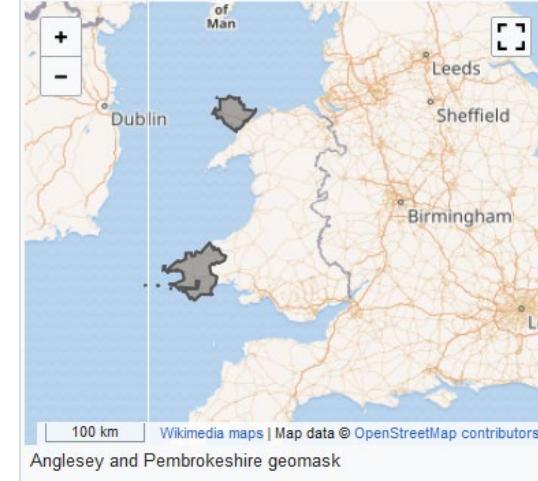
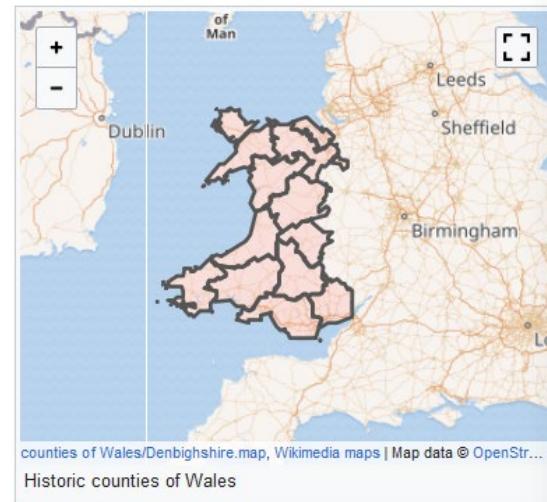
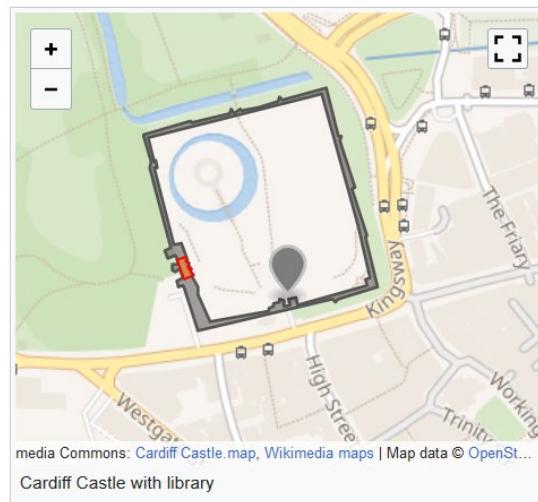


Governors of US states with their party affiliation

<https://www.mediawiki.org/wiki/Help:Extension:Kartographer#/map/4>

<https://www.mediawiki.org/wiki/Help:Extension:Kartographer#/map/4>

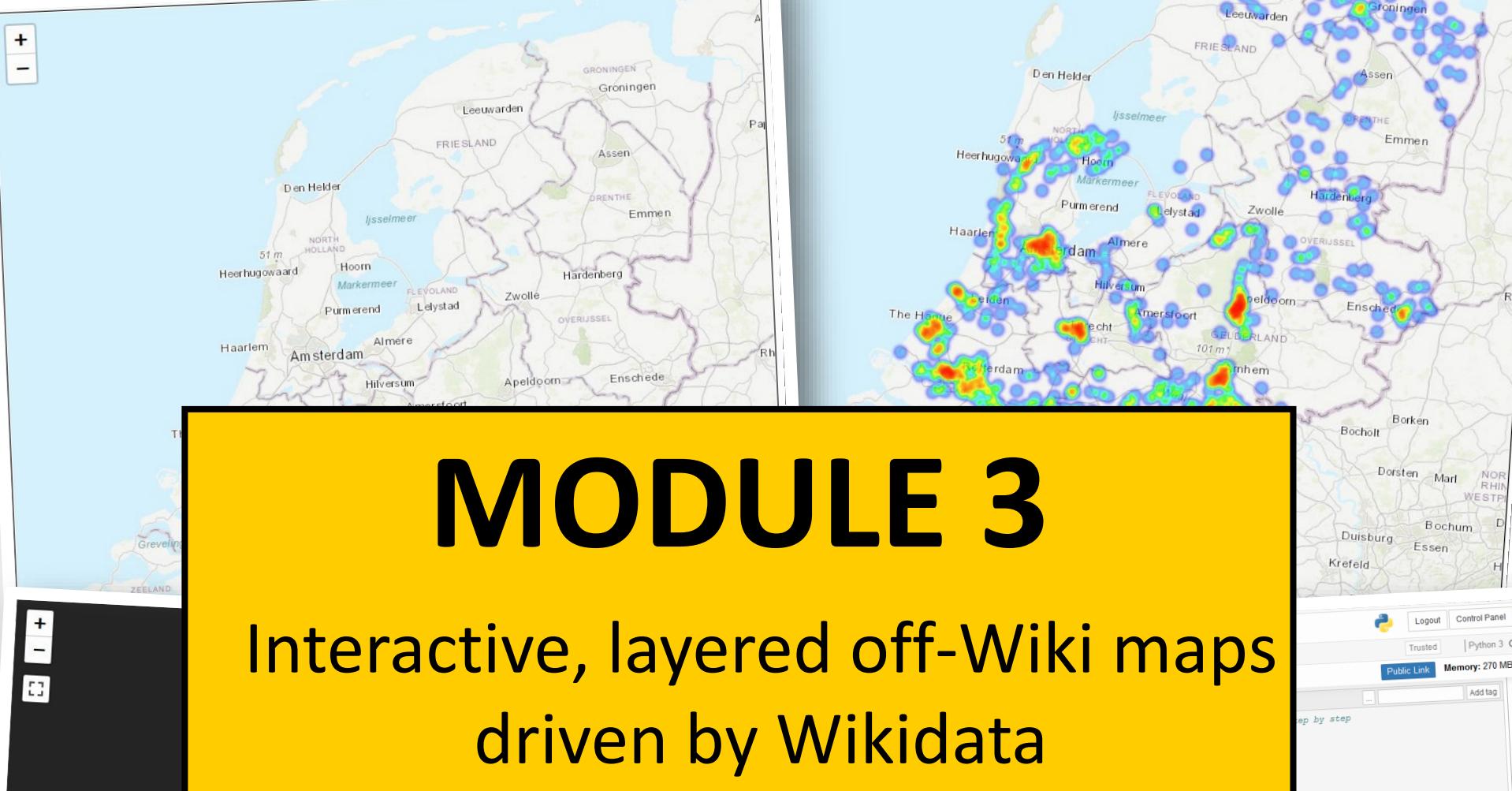
GeoShapes [edit]



Governors of US states with their

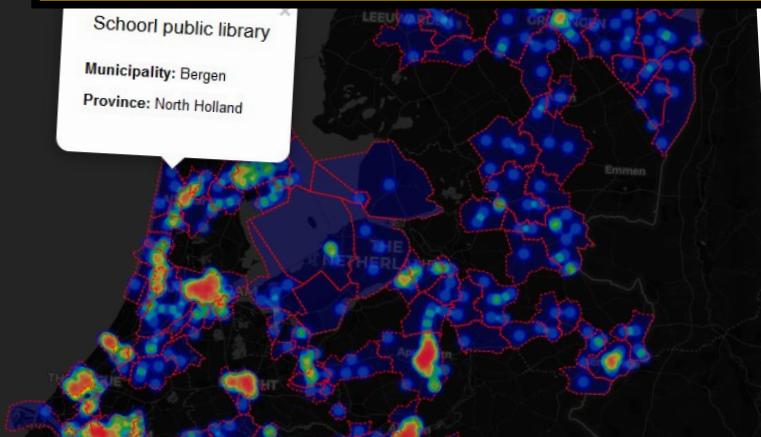
<https://www.wikidata.org/wiki/User:Sic19#GeoShapes>

<https://www.wikidata.org/wiki/User:Sic19#GeoShapes>



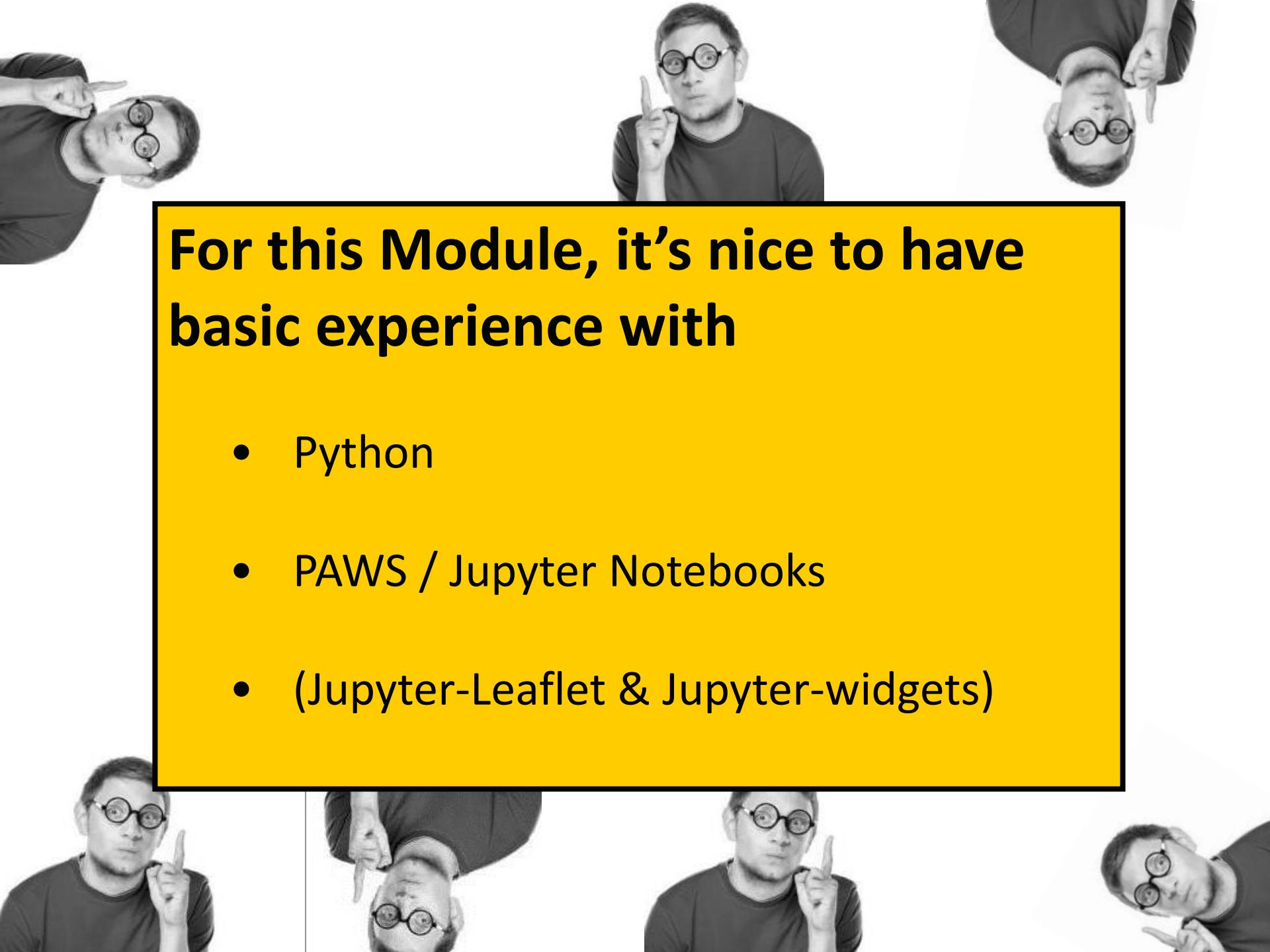
MODULE 3

Interactive, layered off-Wiki maps driven by Wikidata



```
1 # Load required libraries
2 import ipyleaflet as ipyleaflet
3 from ipyleaflet import Map, basemaps, LayerControl, Feature, FeatureCollection
4
5 # Set up the map
6 map = Map(layers=[basemaps.Esri], center=(52.0, 5.0), zoom=8)
7
8 # Add a heatmap layer
9 heatmap_layer = FeatureCollection([{"lat": 52.0, "lon": 5.0, "value": 1000}])
10 map.add_layer(heatmap_layer)
11
12 # Set up a callout
13 callout = ipyleaflet.Popup()
14
15 # Set up a layer control
16 layer_control = LayerControl()
17
18 # Set up a zoom control
19 zoom_control = ipyleaflet.ZoomControl()
20
21 # Set up a full screen control
22 full_screen_control = ipyleaflet.FullScreenControl()
23
24 # Output the map to screen, embedded in notebook
25 # https://ipyleaflet.readthedocs.io/en/latest/api_reference/map.html
26 m = Map(layers=[default_layer], center=map_center, zoom=map_zoom, layout=map_layout)
27
```





**For this Module, it's nice to have
basic experience with**

- Python
- PAWS / Jupyter Notebooks
- (Jupyter-Leaflet & Jupyter-widgets)

MediaWiki account + login

Special page

Search MediaWiki

Log in

Language: Deutsch | English | Esperanto | français | español | italiano | Nederlands

Username
OlafJanssen

Password

Keep me logged in (for up to 365 days)

Log in

[Help with logging in](#)
[Forgot your password?](#)

<https://www.mediawiki.org>

<https://www.mediawiki.org/wiki/PAWS>

MediaWiki

Main page
Get MediaWiki
Get extensions
Tech blog
Contribute

Support
User help
FAQ
Technical manual
Support desk
Communication

Development
Bug tracker

Page Discussion Read Edit View history More Search MediaWiki

PAWS

i <https://paws.wmflabs.org> now redirects here (see [m:Talk:Interwiki_map#PAWS](#)).
To access your server go to <https://paws.wmflabs.org/paws/hub>

i See also [Manual:Pywikibot/PAWS](#) and [wikitech:PAWS](#).

PAWS (PAWS: A Web Shell) is an online web-based interactive programming + publishing environment. It is an implementation of the popular Jupyter notebook environment for Python and other programming tasks.

Contents [hide]

1 Why?
2 What?
 2.1 Notebooks



PAWS

Start your PAWS server
<https://paws.wmflabs.org/paws/hub>

Starting your PAWS server

The screenshot shows a web browser window with the URL https://meta.wikimedia.org/w/index.php?title=Special:OAuth/authenticate&oauth_token=41edf591bf825bd48d3cc83. The page title is "OAuth" and it says "Allows usage of OAuth 1.0a for API authorization". On the left, there's a sidebar with links like "Main page", "Community", "Tools", and "Special pages". A large yellow speech bubble points to a modal dialog box. The dialog has a red circle drawn around its top-right corner. It contains a message to "OlafJanssen" asking for permission to perform various actions on behalf of the user. At the bottom of the dialog are "Allow" and "Cancel" buttons.

You might see this screen...

Special page

OAuth

Allows usage of OAuth 1.0a for API authorization

Main page
Wikimedia News
Translations
Recent changes
Random page
Help
Babel

Community

Wikimedia Resource Center
Wikimedia Forum
Mailing lists
Requests
Babylon
Reports
Research
Planet Wikimedia

Beyond the Web

Meet Wikimedians
Events
Movement affiliates
Donate

Tools

Special pages
Printable version

Privacy policy About Meta Disclaimers Developers Cookie statement

Hi OlafJanssen,

In order to complete your request, **PAWS** needs permission to perform the following actions on your behalf on all projects of this site:

- **Perform high volume activity**
High-volume editing
- **Interact with pages**
Edit existing pages; Edit protected pages; Create, edit, and move pages; Patrol changes to pages
- **Interact with media**
Upload new files; Upload, replace, and move files
- **Perform administrative actions**
Rollback changes to pages
- **Interact with your watchlist**
View your watchlist
- **Miscellaneous activity**
Edit your watchlist

Privacy policy Allow Cancel

Starting your PAWS server

The screenshot shows a web browser window with the URL <https://paws.wmflabs.org/paws/hub/user/OlafJanssen/>. The page displays a message: "Welcome to PAWS. Please report any issues on Phabricator." Below it says "Your server is starting up." and "You will be redirected automatically when it's ready for you." A red oval highlights the text "Server ready at </paws/user/OlafJanssen/>". At the bottom left, there is a link "Event log". The browser's address bar also shows the same URL.

https://paws.wmflabs.org/paws/hub/user/USERNAME

Your PAWS server running

A screenshot of the PAWS (Wikimedia Public Access Web Server) interface. The top navigation bar shows the URL <https://paws.wmflabs.org/paws/user/OlafJanssen/tree>. The main area displays a file tree under the 'Running' tab. A large yellow speech bubble points from the right towards the highlighted file. The text inside the bubble reads ".ipynb = interactive python notebook". A red circle highlights the file 'DutchPublicLibraries_OpenStreetMap.ipynb' in the list.

| File | Last Modified | Size |
|--|---------------------------|---------|
| node_modules | een maand geleden | 442 kB |
| Wikibase_Universal_Bot | 5 dagen geleden | 18.1 kB |
| DutchPublicLibraries_OpenStreetMap.ipynb | 5 dagen geleden | 555 B |
| DutchPublicLibraries_GoogleMaps_Test.ipynb | één maand geleden | 8.7 kB |
| UniversalBot.ipynb | 2 maanden geleden | 37.4 kB |
| VariousTests.ipynb | Running 8 minuten geleden | 555 B |
| WikidataMapMakingWorkshop.ipynb | | |
| NetherlandsPublicLibrariesHeatmap.html | | |
| nl_munis_with_public_libs.json | | |
| popupstyle.css | 2 maanden geleden | 170 B |

<https://paws.wmflabs.org/paws/user/USERNAME/tree>

- https://en.wikipedia.org/wiki/Project_Jupyter#Jupyter_Notebook
- <https://realpython.com/jupyter-notebook-introduction>

Starting your PAWS terminal

The screenshot shows the PAWS (Public Access Web Services) interface. At the top, there's a navigation bar with links like Wikipedia:GLAM/Koni..., StuffFromGent, Video Conferencing, Codesnippets, Virustotal, OBSWikidata, LiterairePrijzen, Wikibase, Wikitools, PDdag2019, IIIF, and Servers. Below the bar, the PAWS logo is displayed. The main area has tabs for Files, Running, and Clusters, with 'Files' currently selected. A message says 'Select items to perform actions on them.' Below this is a list of files and folders:

- 0 items selected
- /
- node_modules
- Wikibase_Universal_Bot
- DutchPublicLibraries_OpenStreetMap.ipynb
- DutchPublicLibraries_GoogleMaps_Test.ipynb
- UniversalBot.ipynb
- VariousTests.ipynb
- WikidataMapMakingWorkshop.ipynb
- NetherlandsPublicLibrariesHeatmap.html
- nl_munis_with_public_libs.json
- popupstyle.css

To the right, a modal window titled 'rawgit example' is open. It has 'Upload' and 'New' buttons at the top. The 'New' button is circled in red. The modal lists several options:

- Notebook:
 - Bash
 - Python 3
 - R
- Other:
 - Text File
 - Folder
 - Terminal

The 'Terminal' option is also circled in red.

Your PAWS terminal(s) running

Welcome to PAWS. Please report any issues on Phabricator.

PAWS

Welcome to PAWS!
Please behave responsibly
Getting Started: <https://www.mediawiki.org/wiki/Manual:Pywikibot/PAWS>
Questions? Need help? Find us on #wikimedia-cloud on IRC on freenode
File bugs at <https://phabricator.wikimedia.org/maniphest/task/create>
@PAWS:~\$

https://paws.wmflabs.org/paws/user/USERNAME/terminals/1

/1
/2
/3
/4

nl_public_library_density.json
popupstyle.css

2 maanden geleden 5.7 kB
2 maanden geleden 170 B

Stopping your PAWS server

The screenshot shows the PAWS (Public Access Web Services) interface. At the top, there is a navigation bar with links to various projects like Wikipedia:GLAM/Koni..., StuffFromGent, Video Conferencing, Codesnippets, Virustotal, OBSWikidata, LiterairePrijzen, Wikibase, Wikitools, PDdag2019, Help, and Servers. Below the navigation bar, the PAWS logo is displayed. On the right side of the header, there are buttons for Quit, Logout, and Control Panel, with the Control Panel button circled in red.

The main area displays a file tree under the 'Files' tab. The tree structure includes a root folder with subfolders like 'node_modules', 'Wikibase_Universal_Bot', and several IPython notebook files ('DutchPublicLibraries_OpenStreetMap.ipynb', 'DutchPublicLibraries_GoogleMaps_Test.ipynb', 'UniversalBot.ipynb', 'VariousTests.ipynb', 'WikidataMapMakingWorkshop.ipynb', 'NetherlandsPublicLibrariesHeatmap.html', 'nl_munis_with_public_libs.json', and 'popupstyle.css'). To the right of the tree, there are columns for Name, Last Modified, and File size. A yellow box highlights the URL in the address bar: <https://paws.wmflabs.org/paws/user/USERNAME/tree>.

| Name | Last Modified | File size |
|--|---------------------------|-----------|
| node_modules | 2 maanden geleden | |
| Wikibase_Universal_Bot | één maand geleden | |
| DutchPublicLibraries_OpenStreetMap.ipynb | 5 dagen geleden | 442 kB |
| DutchPublicLibraries_GoogleMaps_Test.ipynb | 5 dagen geleden | 18.1 kB |
| UniversalBot.ipynb | | |
| VariousTests.ipynb | | |
| WikidataMapMakingWorkshop.ipynb | Running 8 minuten geleden | 37.4 kB |
| NetherlandsPublicLibrariesHeatmap.html | 3 dagen geleden | 4.56 MB |
| nl_munis_with_public_libs.json | 3 dagen geleden | 787 kB |
| popupstyle.css | 2 maanden geleden | 170 B |

Stopping your PAWS server



<https://paws.wmflabs.org/paws/hub/home>

Your PAWS public folder (even when server is offline)

| Index of /paws-public/19781798/ | | |
|--|---|--|
| <u>File Name</u> ↓ | <u>File Size</u> ↓ | |
| Parent directory/ | - | |
| Wikibase_Universal_Bot/ | - | |
| node_modules/ | - | |
| WikidataMapMakingWorkshop.ipynb | 37433 | |
| NetherlandsPublicLibrariesHeatmap.html | 4562743 | |
| nl_munis_with_public_libs.json | 786926 | |
| DutchPublicLibraries_OpenStreetMap .ipynb | 442444 | |
| DutchPublicLibraries_GoogleMaps_Test.ipynb | 18132 | |
| UniversalBot.ipynb | 555 | |
| VariousTests.ipynb | https://paws-public.wmflabs.org/paws-public/User:USERNAME | |
| popupstyle.css | 170 | |

PAWS alternative: local Notebook installation



Products

Why Anaconda?

Solutions

Resources

Company

Download

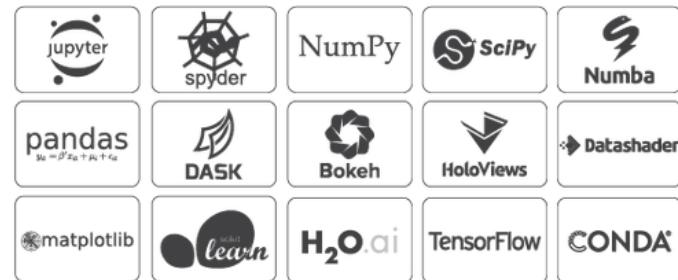
Anaconda Distribution

The World's Most Popular Python/R Data Science Platform

Download

The open-source [Anaconda Distribution](#) is the easiest way to perform Python/R data science and machine learning on Linux, Windows, and Mac OS X. With over 15 million users worldwide, it is the industry standard for developing, testing, and training on a single machine, enabling *individual data scientists* to:

- Quickly download 1,500+ Python/R data science packages
- Manage libraries, dependencies, and environments with [Conda](#)
- Develop and train machine learning and deep learning models with [scikit-learn](#), [TensorFlow](#), and [Theano](#)
- Analyze data with scalability and performance with Dask, NumPy, pandas, and [Numba](#)
- Visualize results with [Matplotlib](#), Bokeh, Datashader, and [Holoviews](#)



- <https://jupyter.org/install>
- <https://www.anaconda.com/distribution/>
- <https://dataiseeasy.com/2019/03/how-to-install-anaconda-and-jupyter-notebook>

Go to public PAWS folder of User:OlafJanssen

Screenshot of a web browser showing the index of a PAWS folder. The URL is https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/19781798/. The page lists several files, with one file circled and a callout pointing to it.

| File Name ↓ | File Size ↓ |
|--|-------------|
| Parent directory/ | |
| Wikibase_Universal_Bot/ | |
| node_modules/ | |
| WikidataMapMakingWorkshop.ipynb | 57455 |
| NetherlandsPublicLibrariesHeatmap.html | 4562743 |
| nl_munis_with_public_libs.json | 786926 |
| DutchPublicLibraries_OpenStreetMap.ipynb | 442444 |
| DutchPublicLibraries_GoogleMaps_Tutorial.ipynb | 18122 |
| UniversalBot.ipynb | |
| VariousTests.ipynb | |
| popupstyle.css | 170 |

A blue oval highlights the file [WikidataMapMakingWorkshop.ipynb](#). A yellow callout box points to this file with the text "Example notebook we will use". Below the callout, a yellow box contains the URL: <https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb>.

This notebook in raw format (json)



The screenshot shows a web browser window with the URL <https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb?format=raw>. The page content is a JSON object representing a Jupyter notebook cell. The cell type is "markdown", and the source contains a multi-line string of text explaining the workshop and providing contact information. A yellow box highlights the URL at the bottom of the JSON object.

```
{
  "cells": [
    {
      "cell_type": "markdown",
      "metadata": {},
      "source": [
        "# Building a stand-alone off-Wiki layered map using Wikidata & SPARQL\n",
        "\n",
        "This Jupyter notebook shows you step by step **how to make a Wikidata-driven layered map that can be used off-Wiki**.\n",
        "\n",
        "It is part of Module 3 of the map making workshop [From Wikidata to interactive off-Wiki maps in three steps] (https://github.com/ookgezellig/WikidataMapMakingWorkshop)\n",
        "\n",
        "See https://github.com/ookgezellig/WikidataMapMakingWorkshop/blob/master/OutlineAndNotes.md for the full layout of this workshop\n",
        "\n",
        "This notebook is publically available at\n",
        "* https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb?format=raw (and in [raw format] (https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb?format=raw))\n",
        "* https://github.com/ookgezellig/WikidataMapMakingWorkshop/blob/master/module3stuff/WikidataMapMakingWorkshop.ipynb (and in [raw format] (https://raw.githubusercontent.com/ookgezellig/WikidataMapMakingWorkshop/master/module3stuff/WikidataMapMakingWorkshop.ipynb))\n"
      ]
    },
    {
      "cell_type": "markdown",
      "metadata": {},
      "source": [
        "For questions about this notebook, contact [Olaf Janssen] (https://www.wikidata.org/wiki/User:OlafJanssen) on Wikidata // olaf.janssen@kb.nl\n",
        "https://twitter.com/ookgezellig\n",
        "\n",
        "*****"
      ]
    },
    {
      "cell_type": "markdown",
      "metadata": {},
      "source": [
        "## Start of tip"
      ]
    },
    {
      "cell_type": "markdown",
      "metadata": {},
      "source": [
        "To make the map we will use\n",
        "1. **PAWS** (Jupyter Notebooks as a cloud service) - https://www.mediawiki.org/wiki/PAWS\n",
        "2. **SPARQL queries** from Wikidata - https://www.wikidata.org + https://query.wikidata.org\n"
      ]
    }
  ]
}
```

<https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb?format=raw>

Save this raw file to your PC

A screenshot of a web browser window displaying a Jupyter Notebook raw file. The URL in the address bar is <https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb?format=raw>. A yellow callout box points to the download dialog window titled "Opslaan als". The dialog shows the save location as "Bureaublad" and the file name as "WikidataMapMakingWorkshop.ipynb". The "Opslaan" button is highlighted in blue.

```
{ "cells": [ { "cell_type": "markdown", "metadata": {}, "source": [ "# Building a stand-alone off-WikiData Jupyter Notebook\n\nThis Jupyter notebook shows you how to use PAWS to build a stand-alone Jupyter Notebook.\n\nIt is part of Module 3 of the map making workshop.\n\nSee https://github.com/ookgezellig/WikidataMapMakingWorkshop\n\nThis notebook is publically available at\n\n* https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb\n* https://github.com/ookgezellig/WikidataMapMakingWorkshop\n(https://raw.githubusercontent.com/ookgezellig/WikidataMapMakingWorkshop/master/WikidataMapMakingWorkshop.ipynb)\n", "\n", { "cell_type": "markdown", "metadata": {}, "source": [ "For questions about this notebook, please contact me via Twitter (@ookgezellig) or GitHub (ookgezellig).", "\n", "*****\n", "\n", "## Start of the notebook\n", "\n", "To make the map we will use\n", "1. **PAWS** (Jupyter Notebooks as a cloud service) - https://www.mediawiki.org/wiki/PAWS\n", "2. **SPARQL queries** from Wikidata - https://www.wikidata.org + https://query.wikidata.org\n", "\n", "The notebook contains several sections, including an introduction to PAWS, a section on using SPARQL queries to extract data from Wikidata, and a section on visualizing data using Matplotlib and Folium. The notebook also includes some sample code and data, such as a JSON file containing Wikidata items and a CSV file containing geographical data. The notebook is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike license." ] } ] }
```

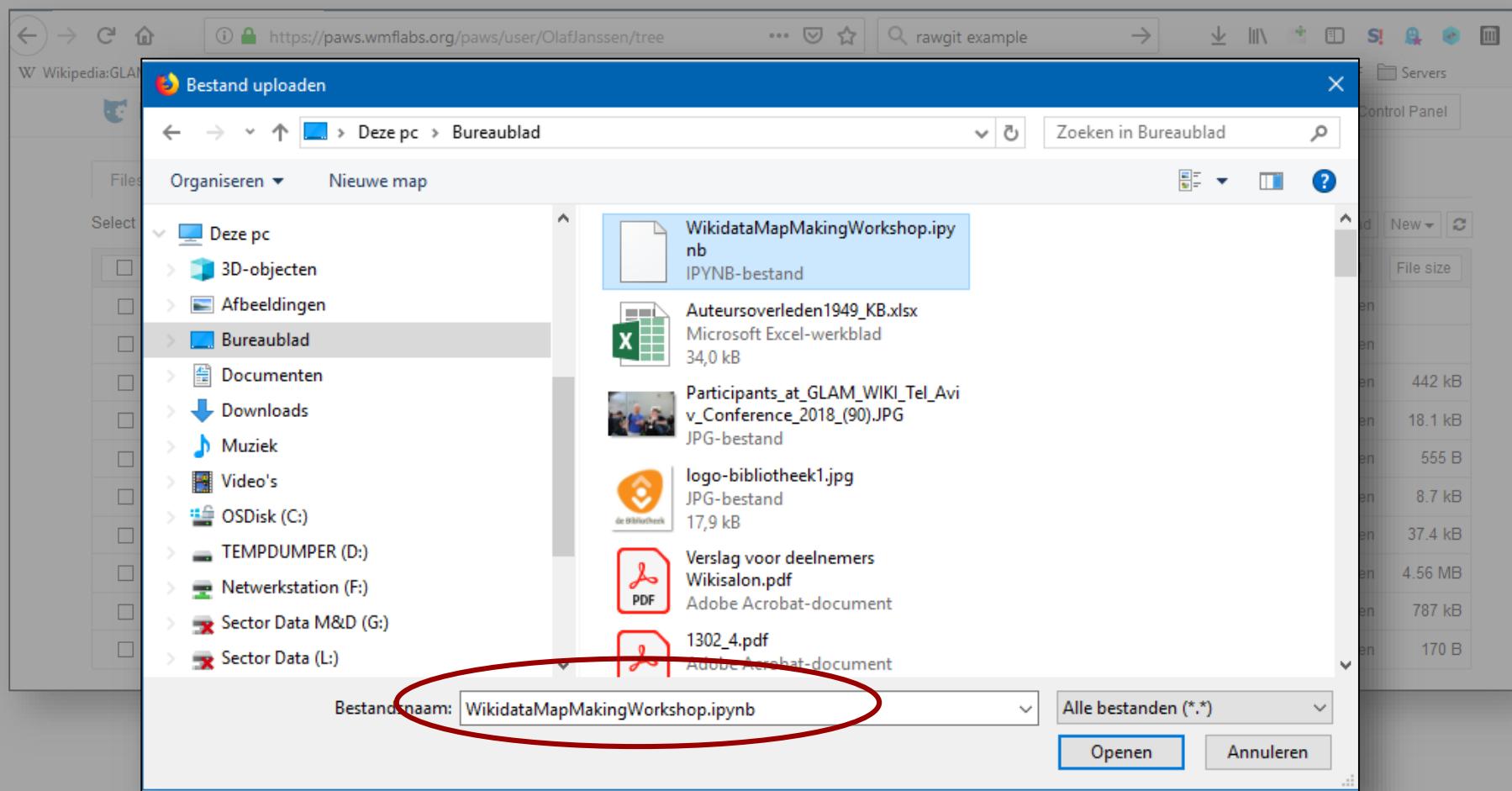
... and upload it to your PAWS server

The screenshot shows the PAWS (Wikimedia Foundation's Platform as a Service) web interface. At the top, the URL is https://paws.wmflabs.org/paws/user/OlafJanssen/tree. The interface has tabs for 'Files', 'Running', and 'Clusters'. The 'Files' tab is selected, showing a list of files and folders in a tree view. The 'Upload' button, located at the top right of the file list, is circled in red. The file list includes:

| Name | Last Modified | File size |
|--|---------------------------|-----------|
| node_modules | 2 maanden geleden | |
| Wikibase_Universal_Bot | één maand geleden | |
| DutchPublicLibraries_OpenStreetMap.ipynb | 5 dagen geleden | 442 kB |
| DutchPublicLibraries_GoogleMaps_Test.ipynb | 5 dagen geleden | 18.1 kB |
| UniversalBot.ipynb | één maand geleden | 555 B |
| VariousTests.ipynb | 2 maanden geleden | 8.7 kB |
| WikidataMapMakingWorkshop.ipynb | Running 8 minuten geleden | 37.4 kB |
| NetherlandsPublicLibrariesHeatmap.html | 3 dagen geleden | 4.56 MB |
| nl_munis_with_public_libs.json | 3 dagen geleden | 787 kB |
| popupstyle.css | 2 maanden geleden | 170 B |

<https://paws.wmflabs.org/paws/user/USERNAME/tree>

... and upload it to your PAWS server



... and upload it to your PAWS server

The screenshot shows the PAWS (Public Access Web Services) interface. At the top, a browser window displays a file upload dialog titled "Bestand uploaden" with a path "Deze pc > Bureaublad". Below the browser is the PAWS application window. The PAWS window has a header with the PAWS logo, "PAWS", "Quit", "Logout", and "Control Panel" buttons. The main area has tabs for "Files", "Running", and "Clusters", with "Files" selected. A message "Select items to perform actions on them." is displayed above a list of files. The file list includes:

| File Name | Last Modified | Size |
|--|-------------------|---------|
| WikidataMapMakingWorkshop.ipynb | 2 maanden geleden | |
| node_modules | één maand geleden | |
| Wikibase_Universal_Bot | één maand geleden | |
| DutchPublicLibraries_OpenStreetMap.ipynb | 5 dagen geleden | 442 kB |
| DutchPublicLibraries_GoogleMaps_Test.ipynb | 5 dagen geleden | 18.1 kB |
| UniversalBot.ipynb | één maand geleden | 555 B |
| VariousTests.ipynb | 2 maanden geleden | 8.7 kB |
| WikidataMapMakingWorkshop.ipynb | Running | 37.4 kB |
| NetherlandsPublicLibrariesHeatmap.html | 3 dagen geleden | 4.56 MB |
| nl_munis_with_public_libs.json | 3 dagen geleden | 787 kB |
| popupstyle.css | 2 maanden geleden | 170 B |

A red circle highlights the "Upload" button in the top right corner of the file list area.

Notebook on your own PAWS server to play with

The screenshot shows a Jupyter Notebook interface running on a PAWS server. The title bar indicates the notebook is titled "WikidataMapMakingWorkshop" and was last checked at 31 minutes ago (autosaved). The top menu bar includes File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. The toolbar contains various icons for file operations like Open, Save, and Print, along with Run, Kernel, and Help buttons. The status bar shows "Trusted", "Python 3", "Public Link", and "Memory: 134 MB".

Building a stand-alone off-Wiki layered map using Wikidata & SPARQL

This Jupyter notebook shows you step by step **how to make a Wikidata-driven layered map that can be used off-Wiki**.

It is part of Module 3 of the map making workshop [From Wikidata to interactive off-Wiki maps in three steps](#)

See <https://github.com/ookgezellig/WikidataMapMakingWorkshop/blob/master/OutlineAndNotes.md> for the full layout of this workshop

This notebook is publically available at

- <https://paws-public.wmflabs.org/paws-public/User:OlafJanssen/WikidataMapMakingWorkshop.ipynb> (and in [raw format](#))
- <https://github.com/ookgezellig/WikidataMapMakingWorkshop/blob/master/module3stuff/WikidataMapMakingWorkshop.ipynb> (and in [raw format](#))

For questions about this notebook, contact [Olaf Janssen](#) on Wikidata // olaf.janssen@kb.nl // <https://twitter.com/ookgezellig>

Start of the workshop

To make the map we will use

1. PAWS / [https://paws.wmflabs.org](#) / [https://paws.wmflabs.org/paws](#)

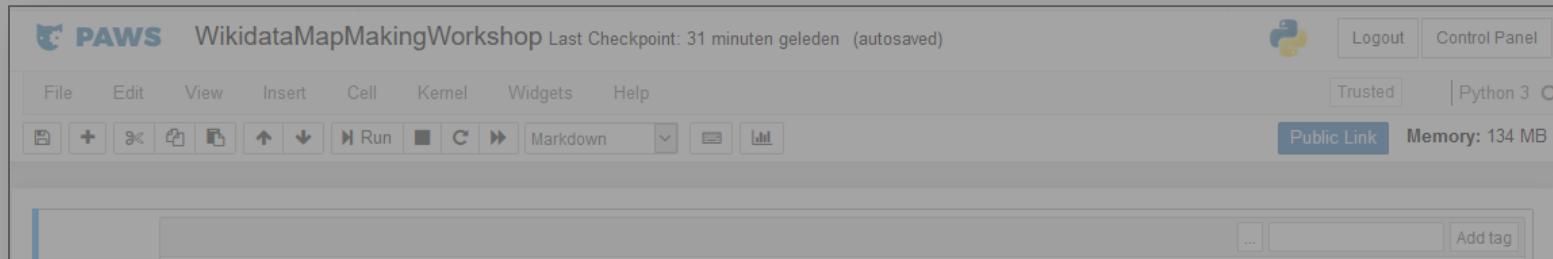
2. [ipywidgets](#) / [https://github.com/jupyter-widgets/ipywidgets](#) / [https://ipywidgets.readthedocs.io/en/latest](#)

3. [ipyvuetify](#) / [https://github.com/ookgezellig/ipyvuetify](#) / [https://ookgezellig.github.io/ipyvuetify](#)

4. **ipywidgets** (or Jupyter-widgets) - <https://github.com/jupyter-widgets/ipywidgets> + <https://ipywidgets.readthedocs.io/en/latest>

<https://paws.wmflabs.org/paws/user/USERNAME/notebooks/WikidataMapMakingWorkshop.ipynb>

Notebook on your own PAWS server to play with



The notebook should be self-explanatory, so

Adapt, play, understand,
get frustrated, learn

Make your own interactive, layered map

1. PAWS (Jupyter Notebooks as a cloud service) - <https://www.mediawiki.org/wiki/PAWS>
2. SPARQL queries from Wikidata - <https://www.wikidata.org> + <https://query.wikidata.org/>
3. ipyleaflet (or Jupyter-Leaflet) : Interactive maps in the Jupyter notebook - <https://github.com/jupyter-widgets/ipyleaflet> + <https://ipyleaflet.readthedocs.io/en/latest/>
4. ipywidgets (or Jupyter-widgets) - <https://github.com/jupyter-widgets/ipywidgets> + <https://ipywidgets.readthedocs.io/en/latest/>

Exporting your map to stand-alone, off-Wiki HTML page

As a final step for this workshop, we want to export the map to a (stand-alone, off-Wiki) HTML page that can be viewed in a browser.

<https://ipywidgets.readthedocs.io/en/latest/embedding.html#python-interface>

The map above is available at <http://ookgezellig.github.io/WikidataMapMakingWorkshop/NetherlandsPublicLibrariesHeatmap.html>

In []:

```
1 # Export the map to html file
2 # https://ipywidgets.readthedocs.io/en/latest/embedding.html#python-interface
3 # The addition of 'state=dependency_state([m])' keeps the html file growing too large
4
5 embed_minimal_html('NetherlandsPublicLibrariesHeatmap.html', views=[m], state=dependency_st
6
7 # This map is available at http://ookgezellig.github.io/WikidataMapMakingWorkshop/Netherlan
```

This is the end of the workshop

Exporting your map to stand-alone, off-Wiki HTML page

PAWS

Files Running Clusters

Duplicate Rename Move **Download** View Edit 

 1  / Name  Last Modified File size

| <input type="checkbox"/> | node_modules | 2 maanden geleden | |
|-------------------------------------|--|-------------------|--------------------|
| <input type="checkbox"/> | Wikibase_Universal_Bot | één maand geleden | |
| <input type="checkbox"/> | DutchPublicLibraries_OpenStreetMap.ipynb | 5 dagen geleden | 442 kB |
| <input type="checkbox"/> | DutchPublicLibraries_GoogleMaps_Test.ipynb | 5 dagen geleden | 18.1 kB |
| <input type="checkbox"/> | UniversalBot.ipynb | één maand geleden | 555 B |
| <input type="checkbox"/> | VariousTests.ipynb | 2 maanden geleden | 8.7 kB |
| <input type="checkbox"/> | WikidataMapMakingWorkshop.ipynb | Running | 34 minuten geleden |
| <input checked="" type="checkbox"/> | NetherlandsPublicLibrariesHeatmap.html | 3 dagen geleden | 4.56 MB |
| <input type="checkbox"/> | nl_munis_with_public_libs.json | 3 dagen geleden | 787 kB |
| <input type="checkbox"/> | popupstyle.css | 2 maanden geleden | 170 B |

Exporting your map to stand-alone, off-Wiki HTML page

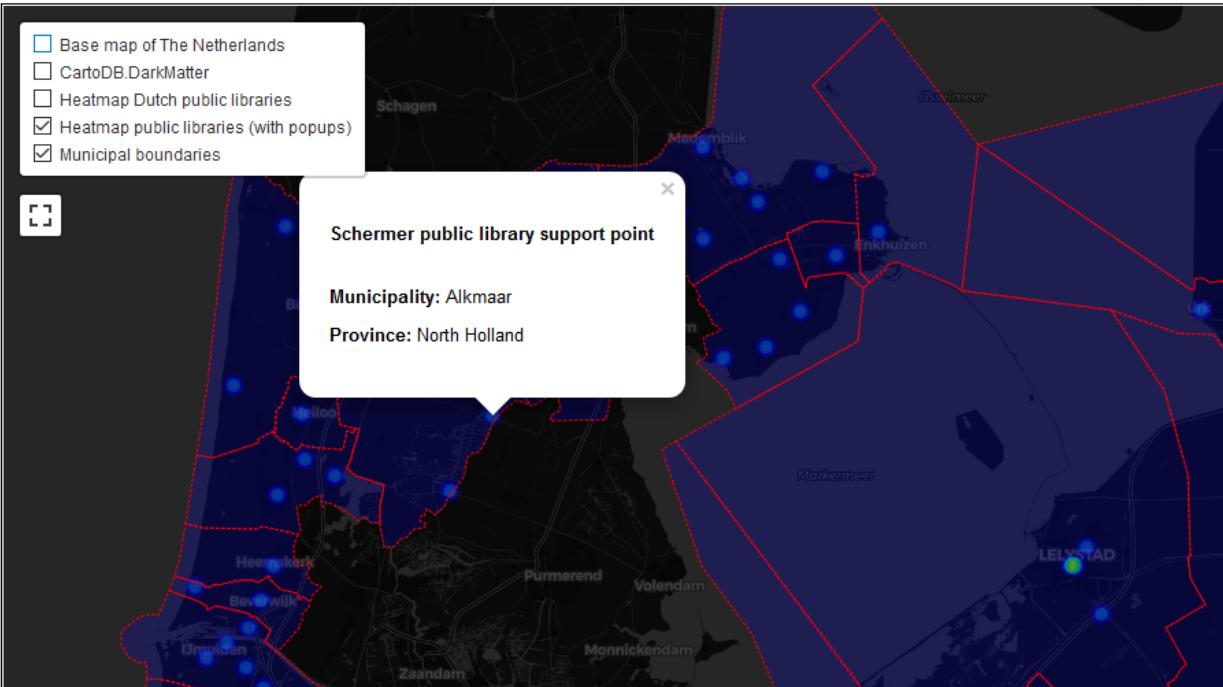
Screenshot of a web browser showing a map of Dutch public libraries. The map is a heatmap where darker shades represent higher concentrations of libraries. Red dashed lines indicate municipal boundaries. A tooltip for a point in Schermer shows:

- Base map of The Netherlands
- CartoDB.DarkMatter
- Heatmap Dutch public libraries
- Heatmap public libraries (with popups)
- Municipal boundaries

Schermer public library support point
Municipality: Alkmaar
Province: North Holland

The URL in the address bar is highlighted in yellow:

file:///C:/Users/oja010/AppData/Local/Temp/NetherlandsPublicLibrariesHeatmap.html





THANKS!!!

Let me know your
feedback on this workshop

In person // User:OlafJanssen // olaf.janssen@kb.nl // @ookgezellig

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