

GIS in Archaeology

03 - Making Maps

Martin Hinz

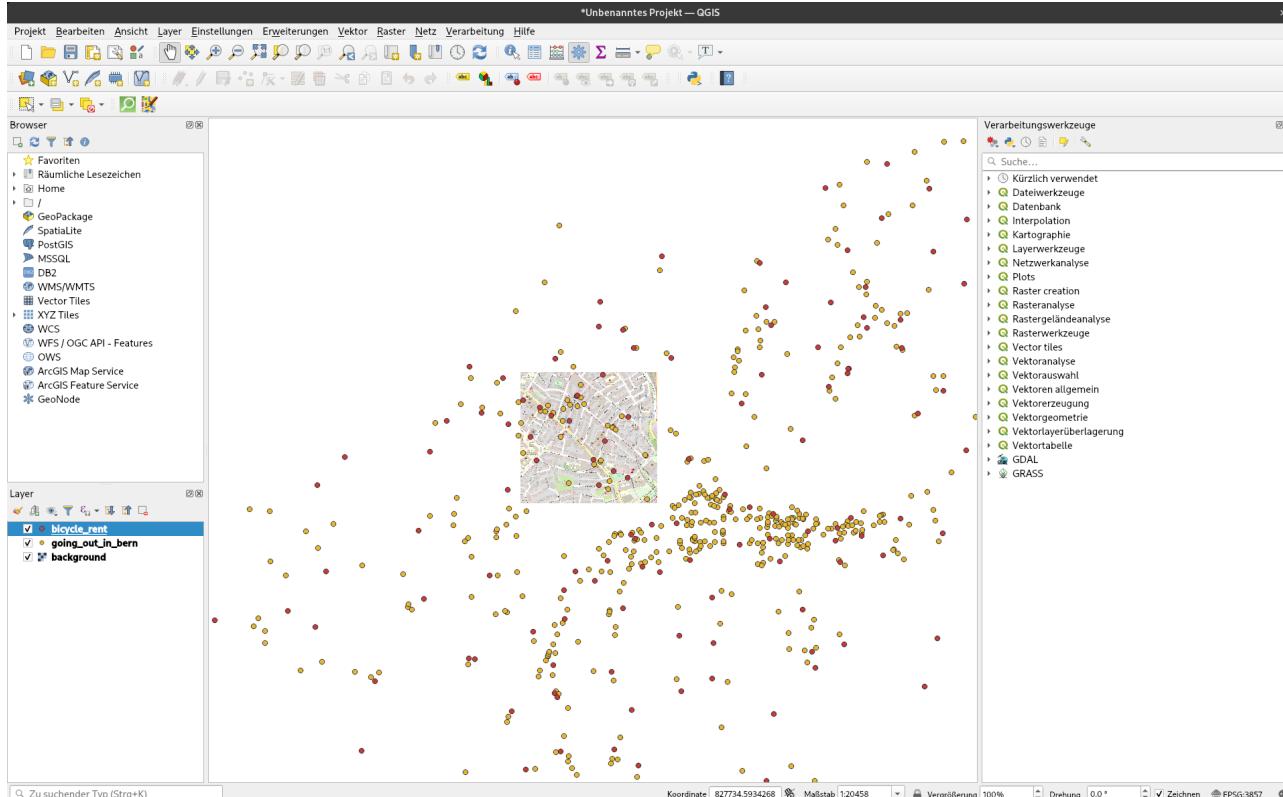
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30/09/20

Let's Get Started

1. [Click this link](#) and download the 'going_out_in_bern' data to your desktop
2. [Click this link](#) and download the csv data to your desktop
3. [Click this link](#) and download the background map also to your desktop
4. Open QGIS
5. Start a new project and Add all layers

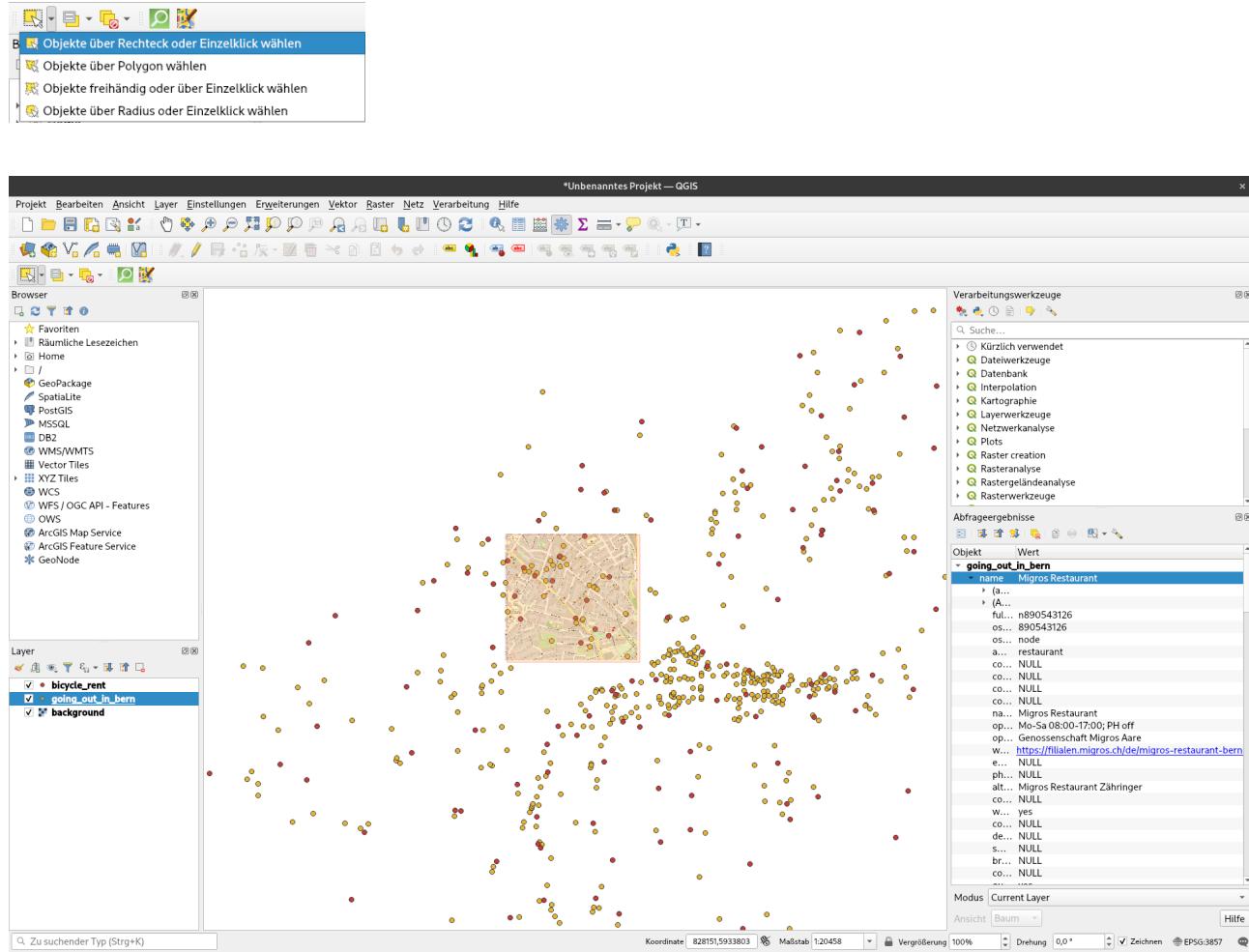
Selecting Points



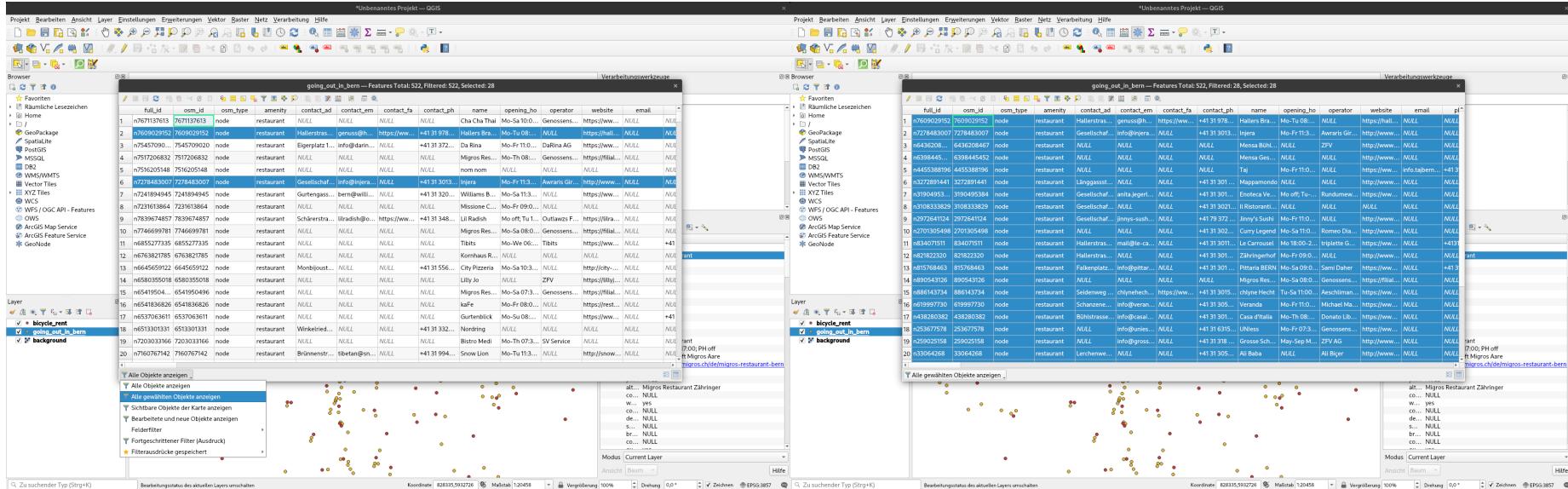
Selecting Points



Selecting Points



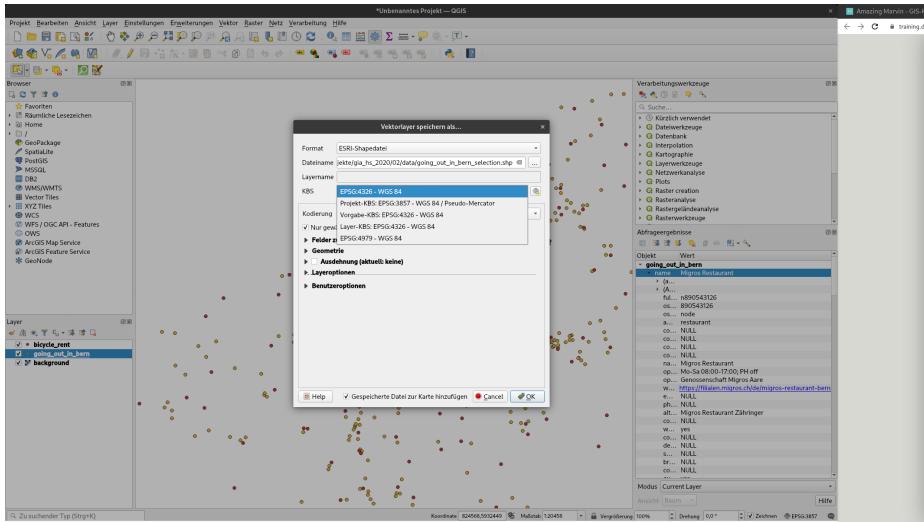
Selecting Points - Attribute Table



Selecting Points - Saving Selection

Selecting Points - Saving Selection

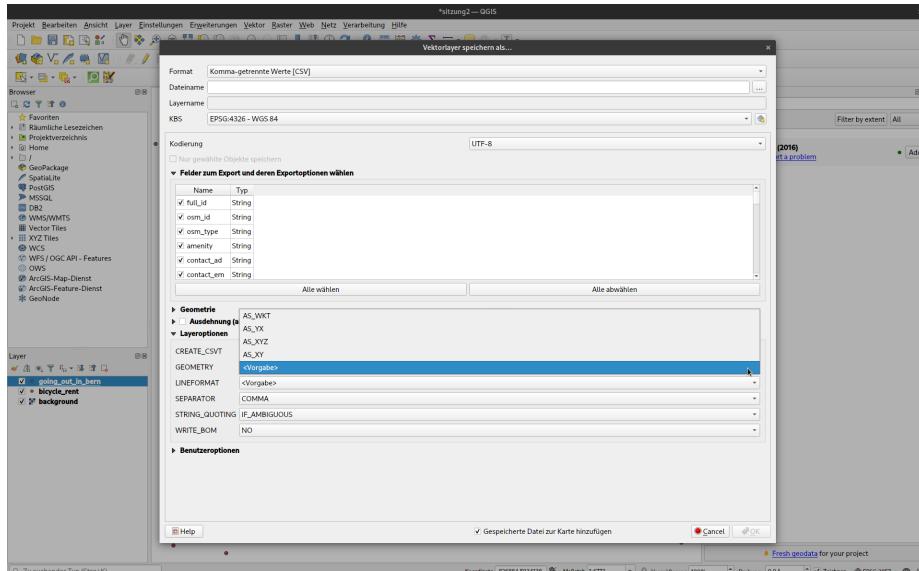
- If we wanted to reproject the data into a different CRS, we could do that here



- Pick the new projection in the CRS field (like when we imported the CSV)
- You can also export your CSV file as shape file - making further adding to the map easier

Selecting Points - Saving Selection as CSV

- If we wanted analyse our data using eg. statistical software, we also can export as csv.

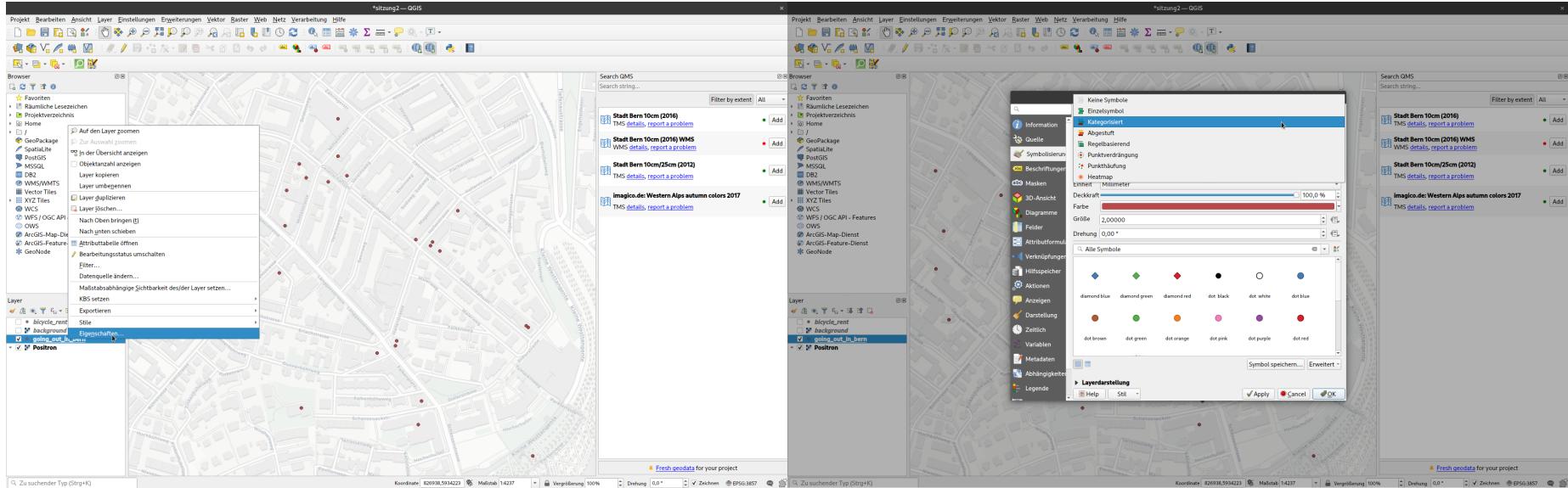


- If you like to export the coordinates, you can select that at 'Layer options'

Styling points according to data

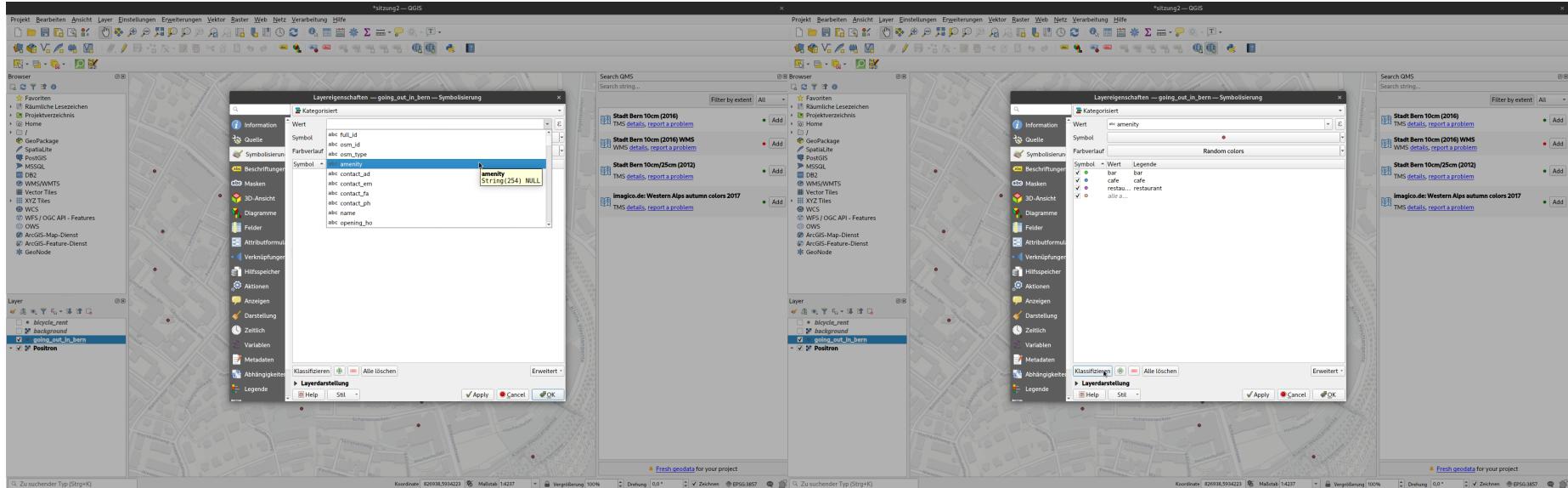
- can be used to map different categories within a vector dataset
- is available for all kinds of vector data

Styling points according to data



- Select Properties
- Go to Symbology and change 'Single Symbol' to 'Categorised'

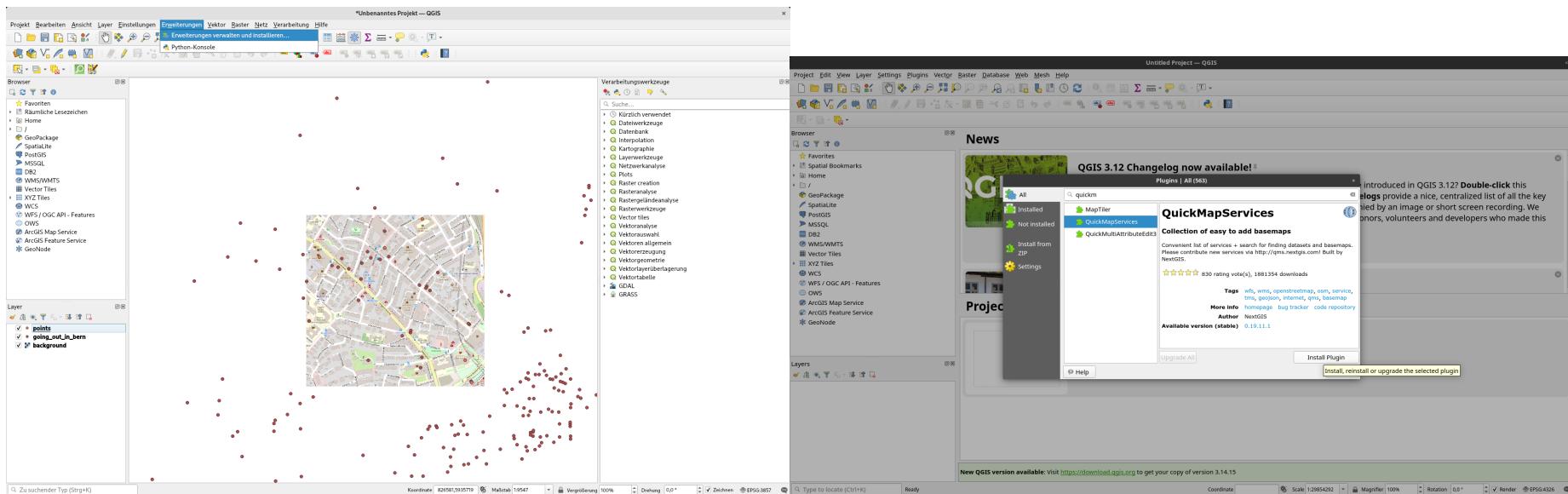
Styling points according to data



- Select the data (column) that represents your categories
- Select 'Classify'
- Enjoy the result
- You can the colors according to your needs

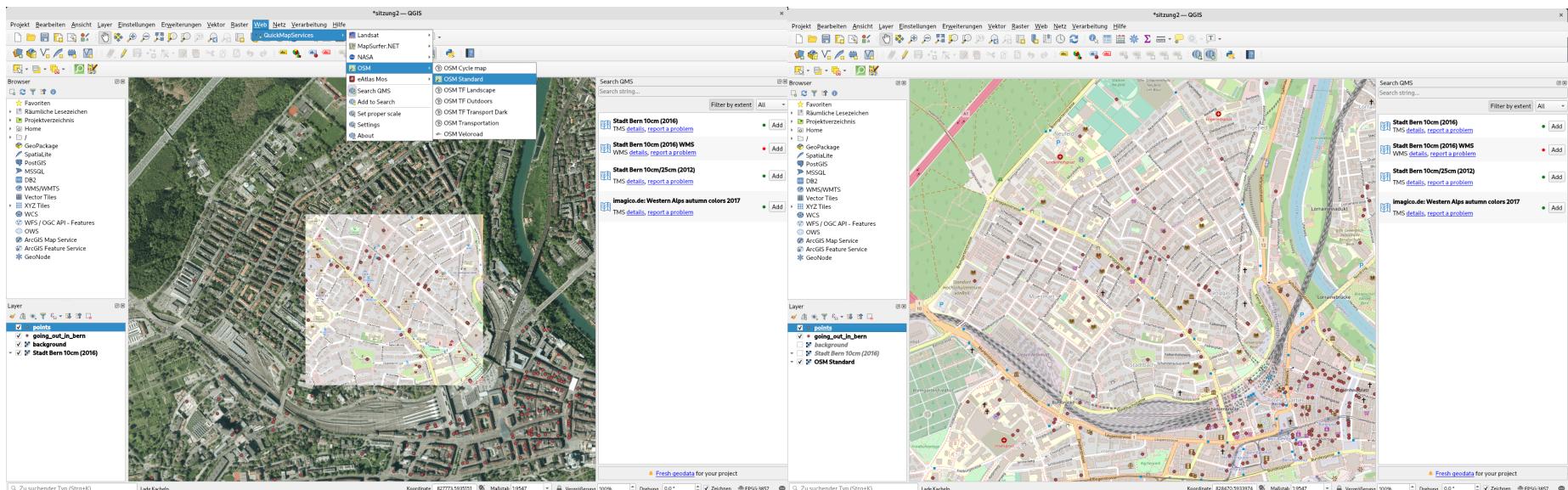
Installing Plugins

- QGIS has many third party functionality available
- We will use some of them in the course
- let's get some Background with QuickMapServices

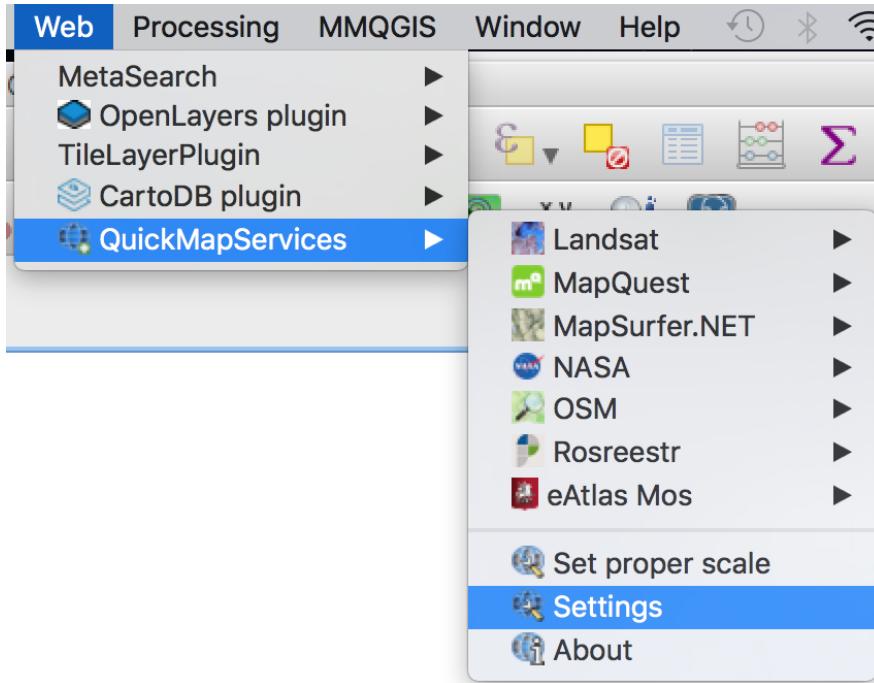


Basemaps (QuickMapServices)

- Satellite imagery
- Map services
- ...
- Fast and easy way to get background maps



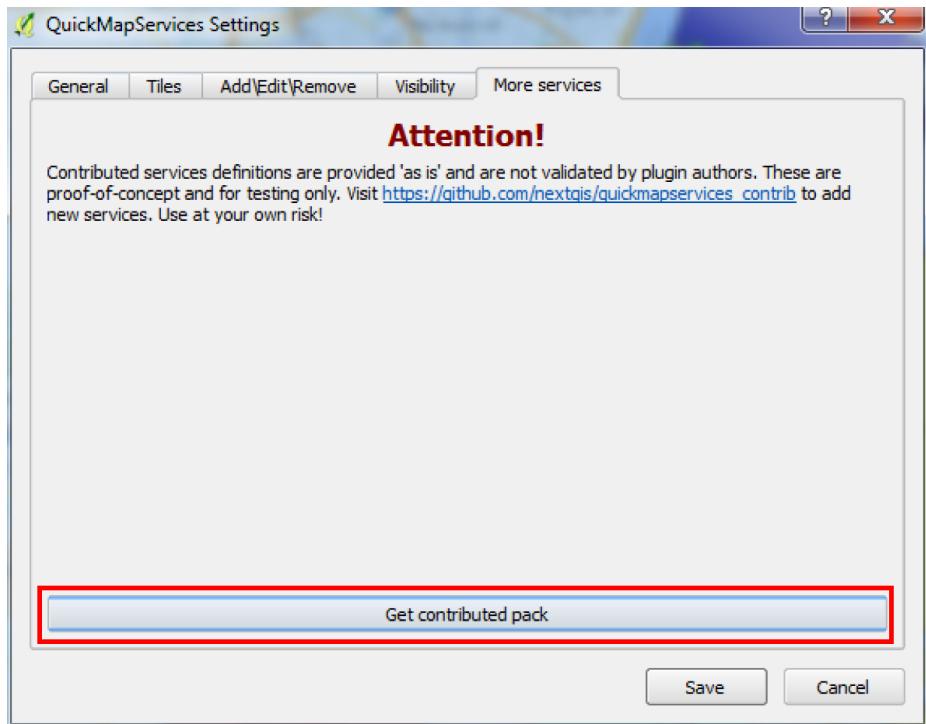
Setting Up QuickMapServices Plugin



- Go to the Settings Menu

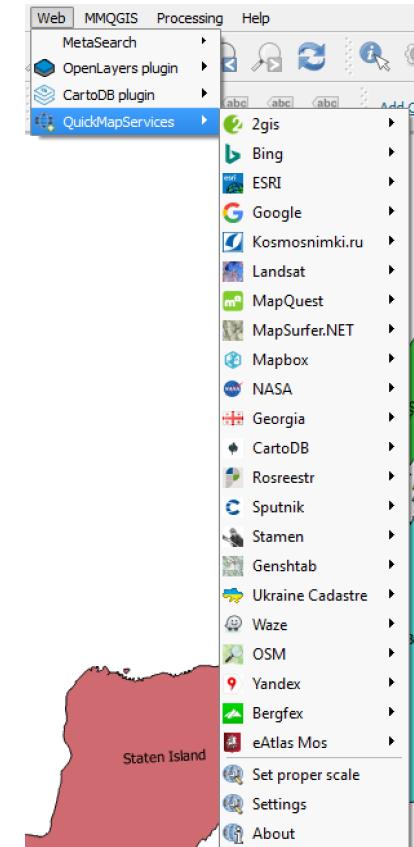
Setting Up QuickMapServices Plugin

- Get the contributed packs



Setting Up QuickMapServices Plugin

- Revel in all the beautiful base maps



Choosing a Base Map

- Think about what someone reading your map needs to see for context
- Think about how the base map interacts with the data on your map

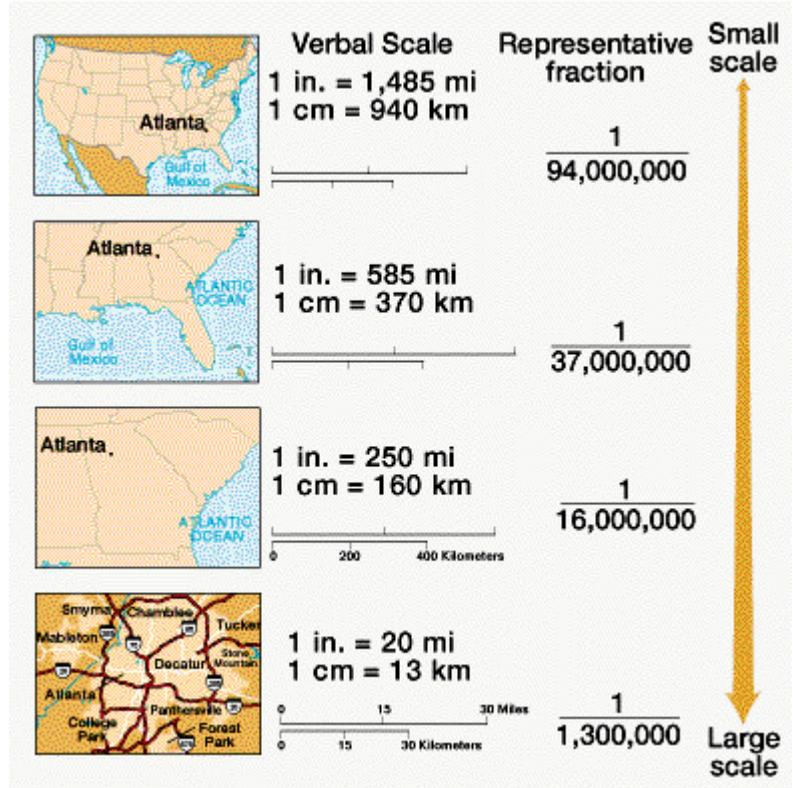
Base Maps - Hierarchy

- If your data is the most important part of the map, make sure it looks more important than the base map
- Avoid base maps that strongly emphasize features that aren't relevant on your map

Base Maps - Colors

- Choose base maps with colors that complement the colors on your map
- The contrast between the color on your map and the color on the base map should be enough to make your layers clearly visible

Base Maps - Scale

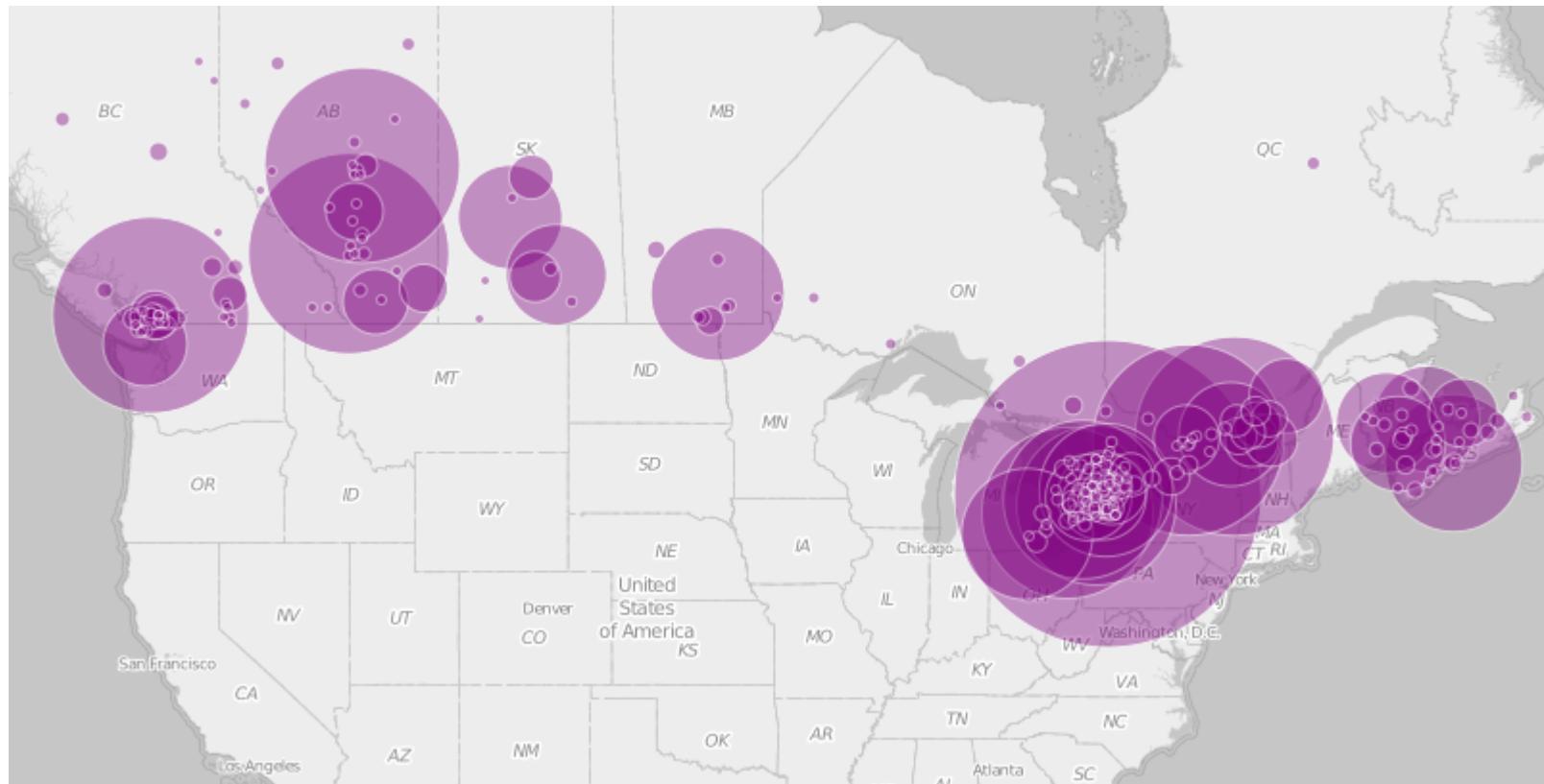


Source: http://go.owu.edu/~jbkrygie/krygier_html/geog_222/geog_222_lo/geog_222_lo04.html

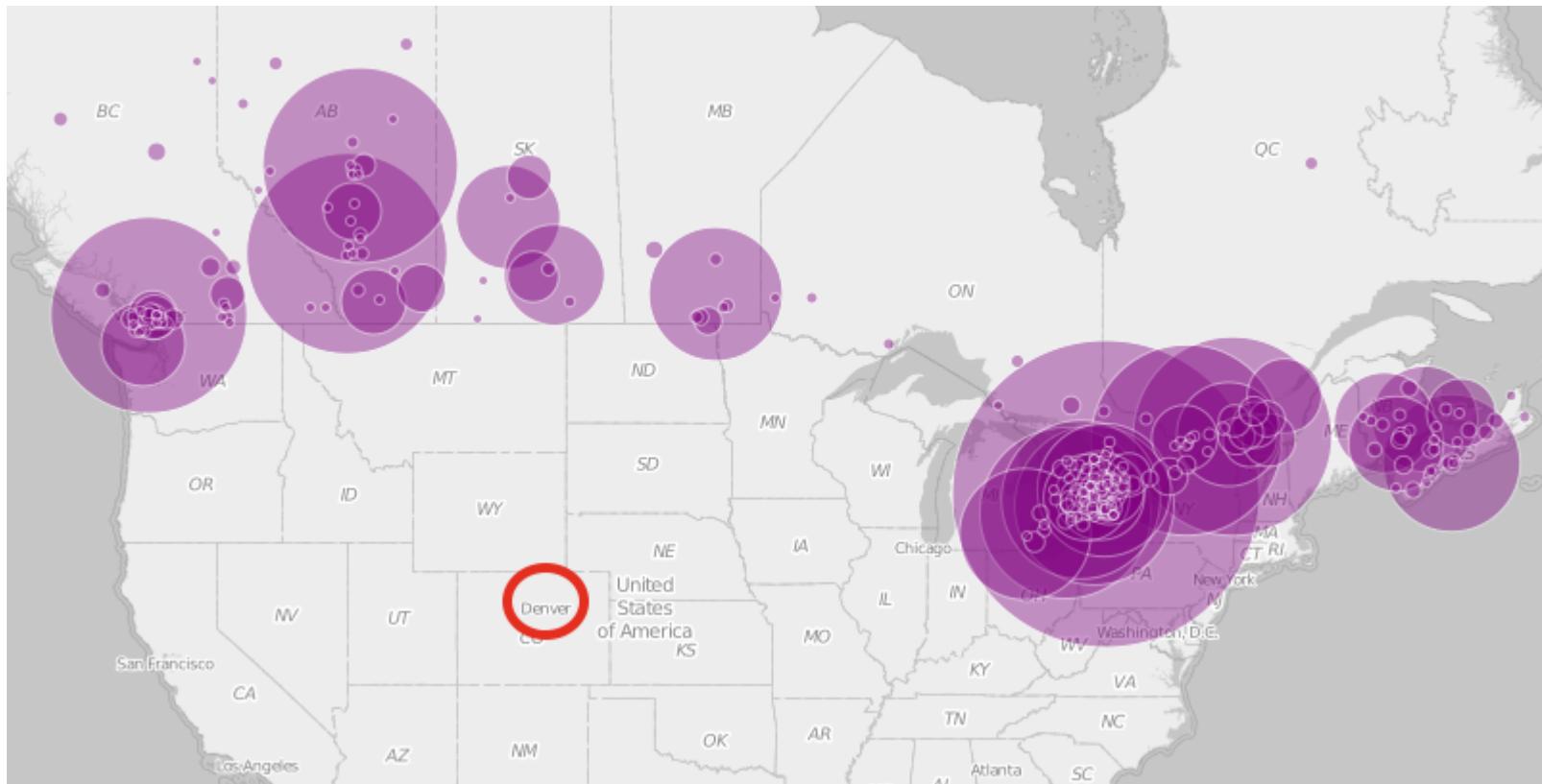
Base Maps - Scale

- Base maps show different levels of detail at different scales
- Make sure the level of detail is appropriate to your map

Scale



Scale



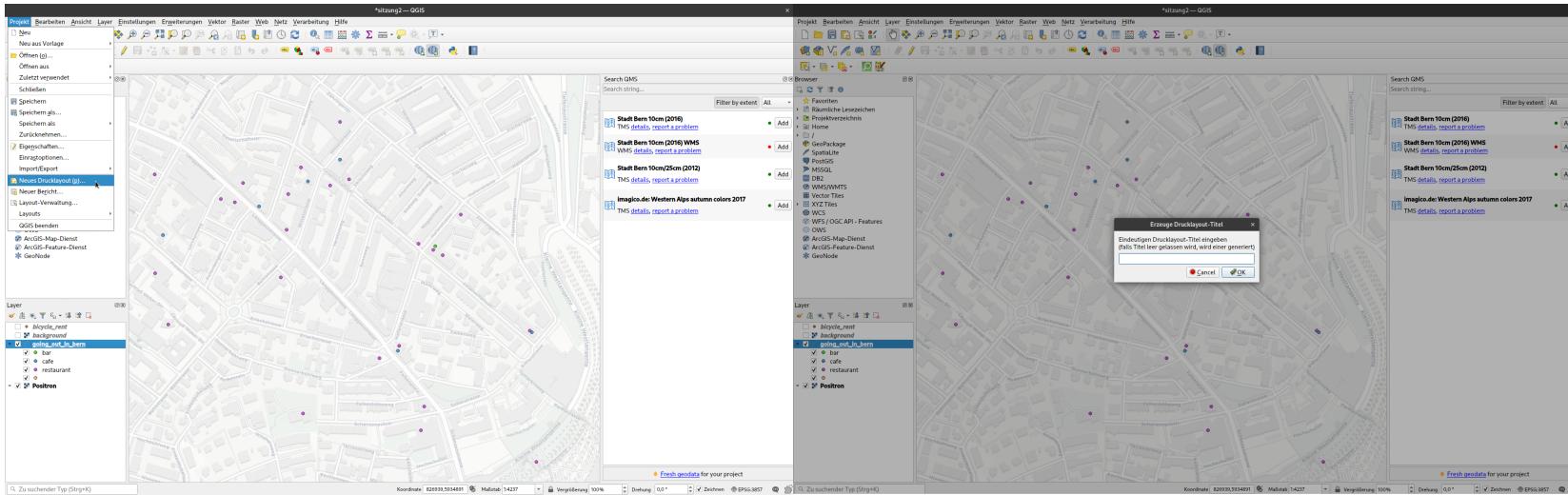
Your Turn

- Find a good base map for your data
- Think about hierarchy, color, and scale
- Don't be afraid to play around

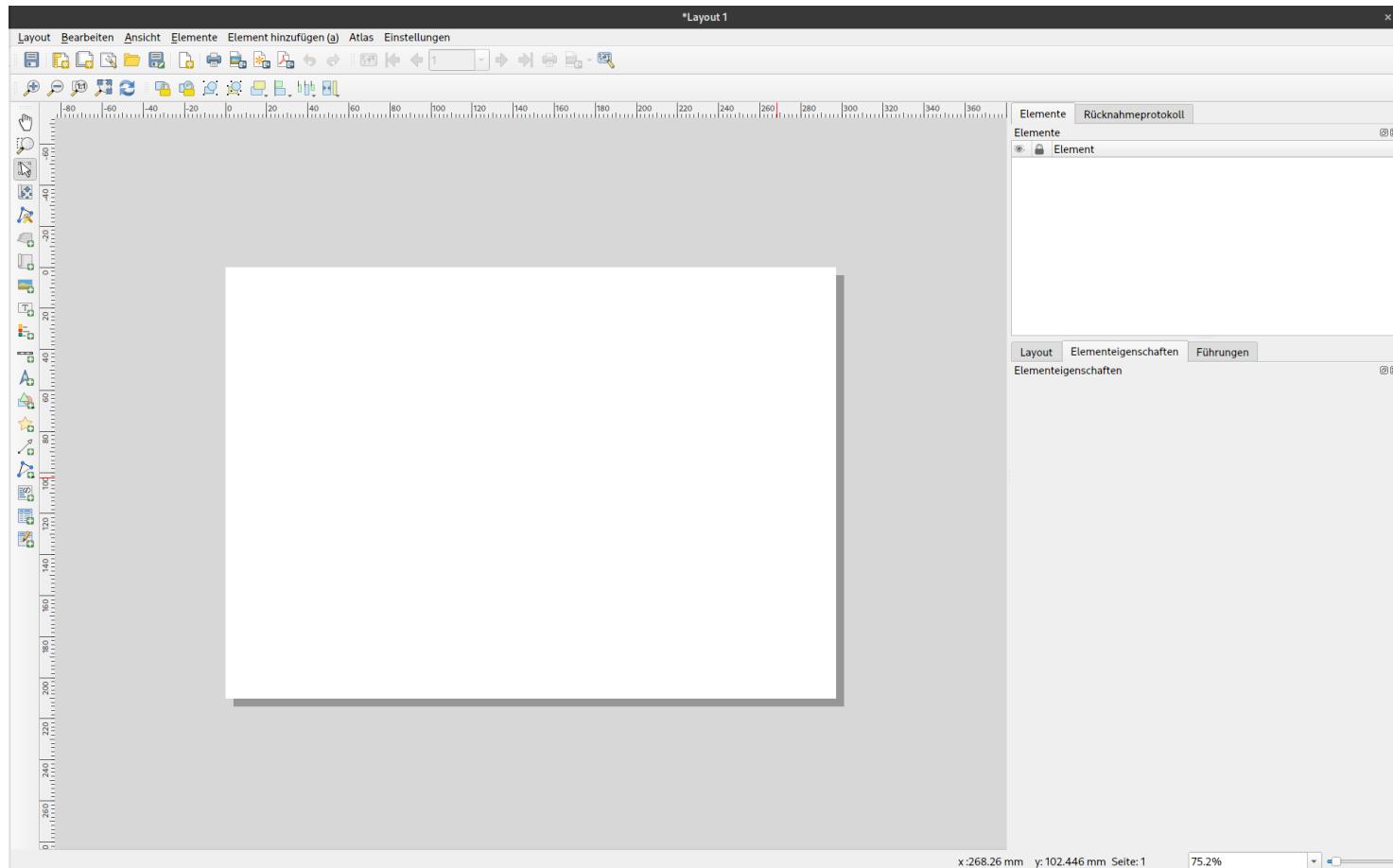
Print Composer

- How you make exportable and printable maps in QGIS
- Able to add map elements (legends, scales, text, etc)

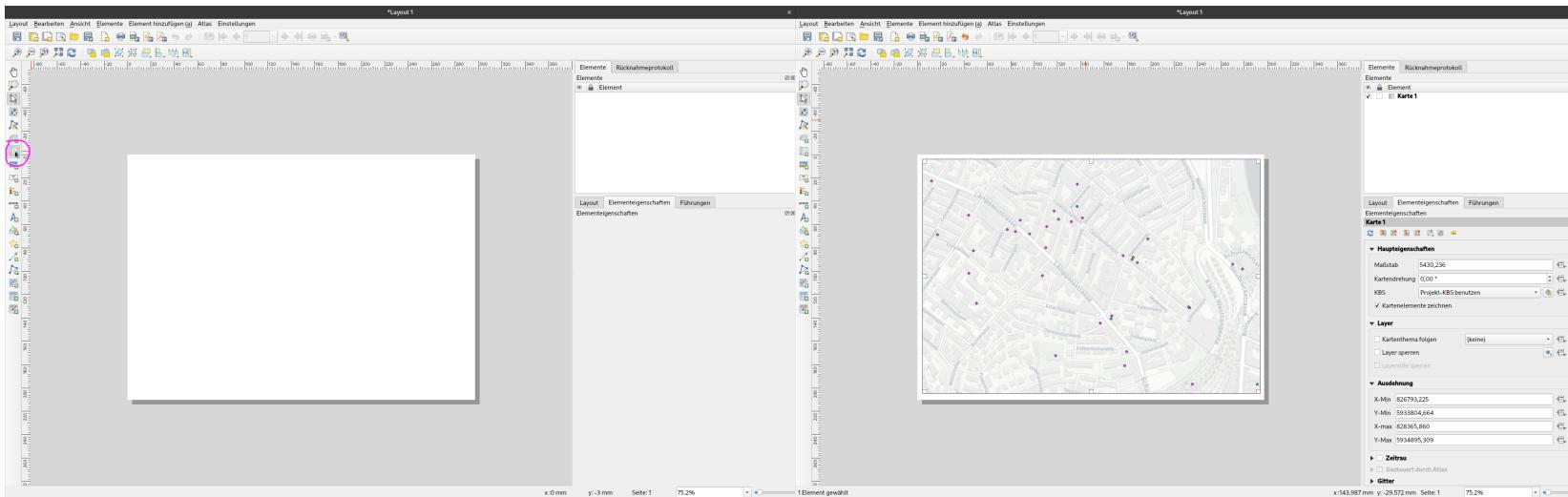
Create a new print composer



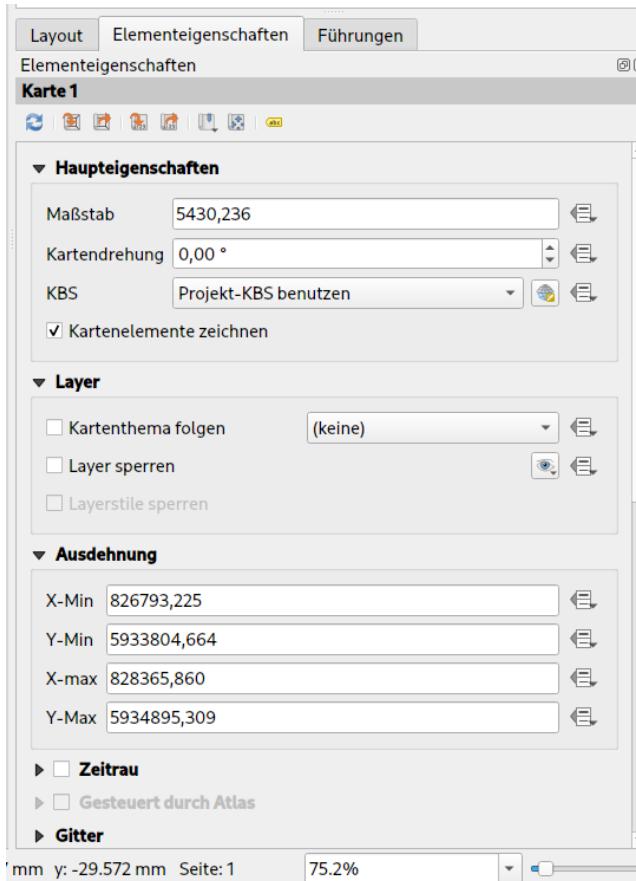
You are greeted with a blank slate



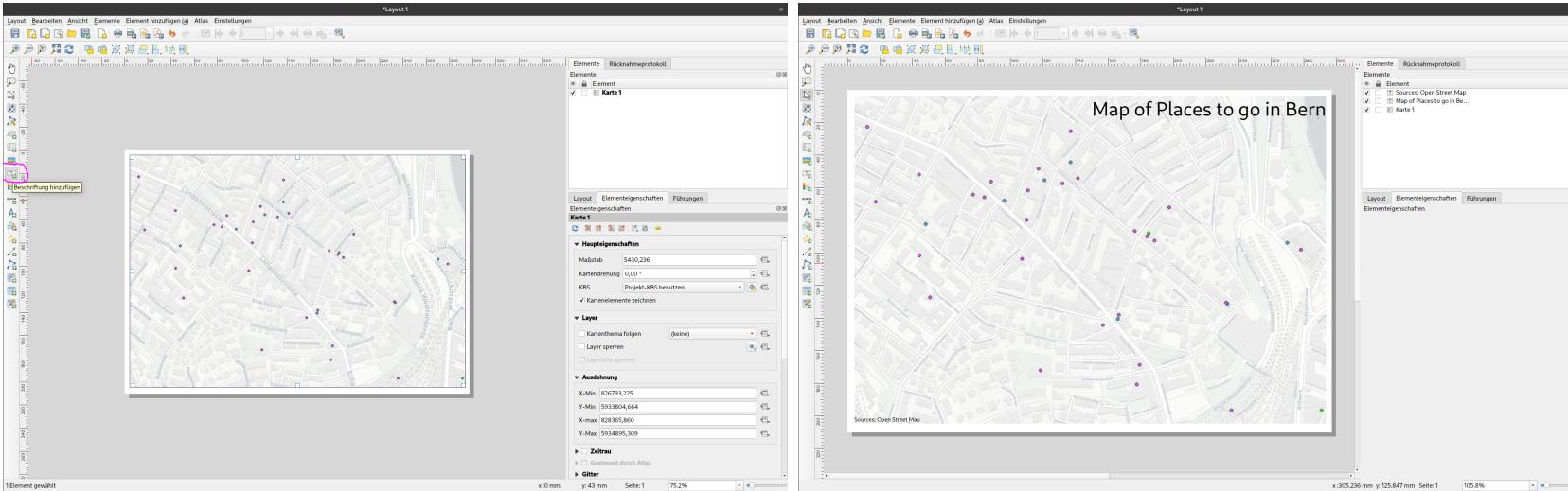
Add New Map tool will add your current map



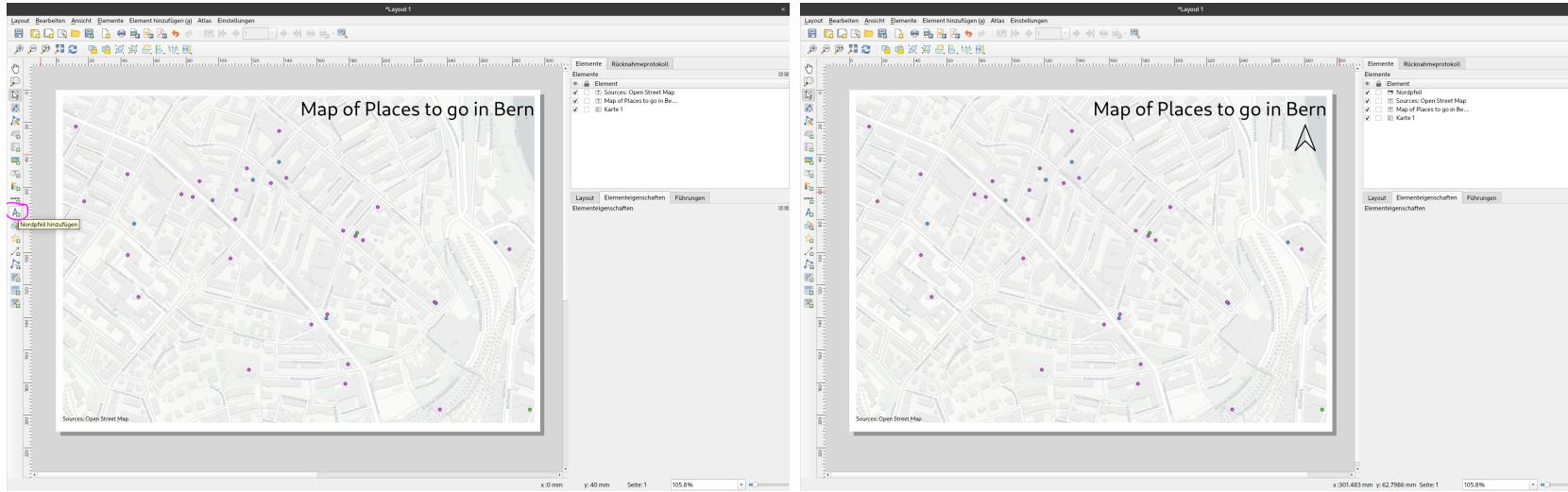
Customize item properties on the right



Don't forget a title and your sources

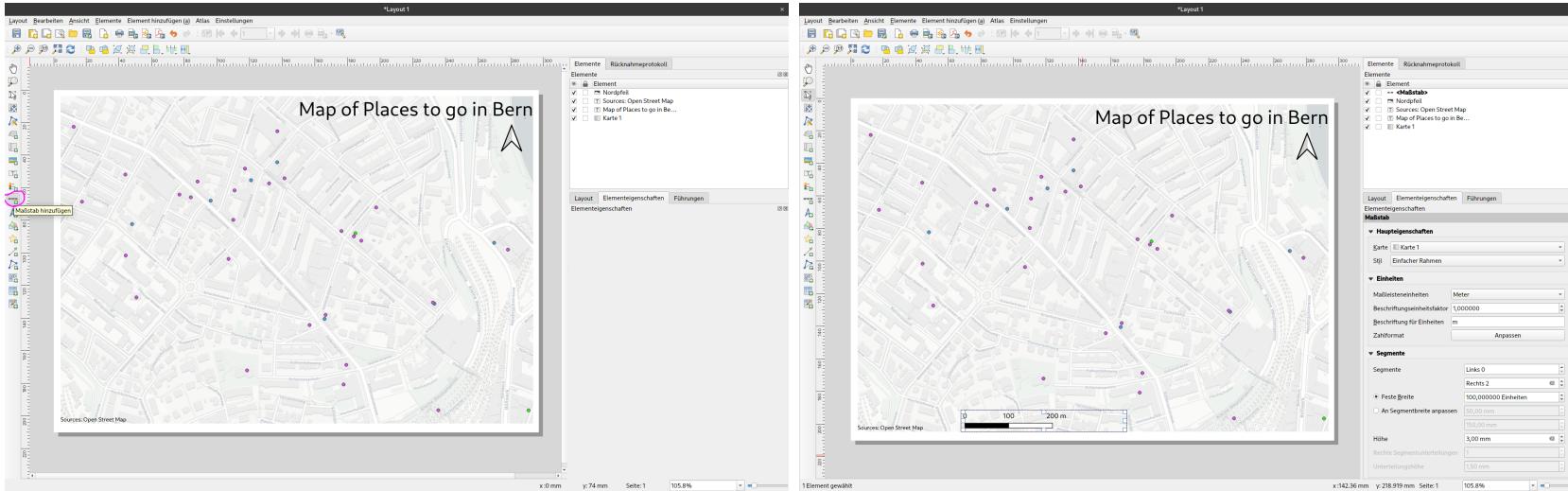


Adding North Arrow



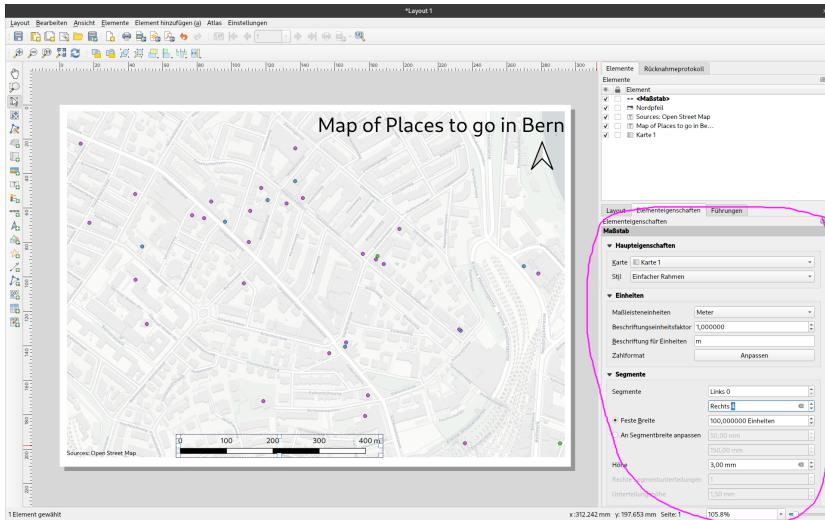
- You can select from multiple arrow types

Adding Scale bar

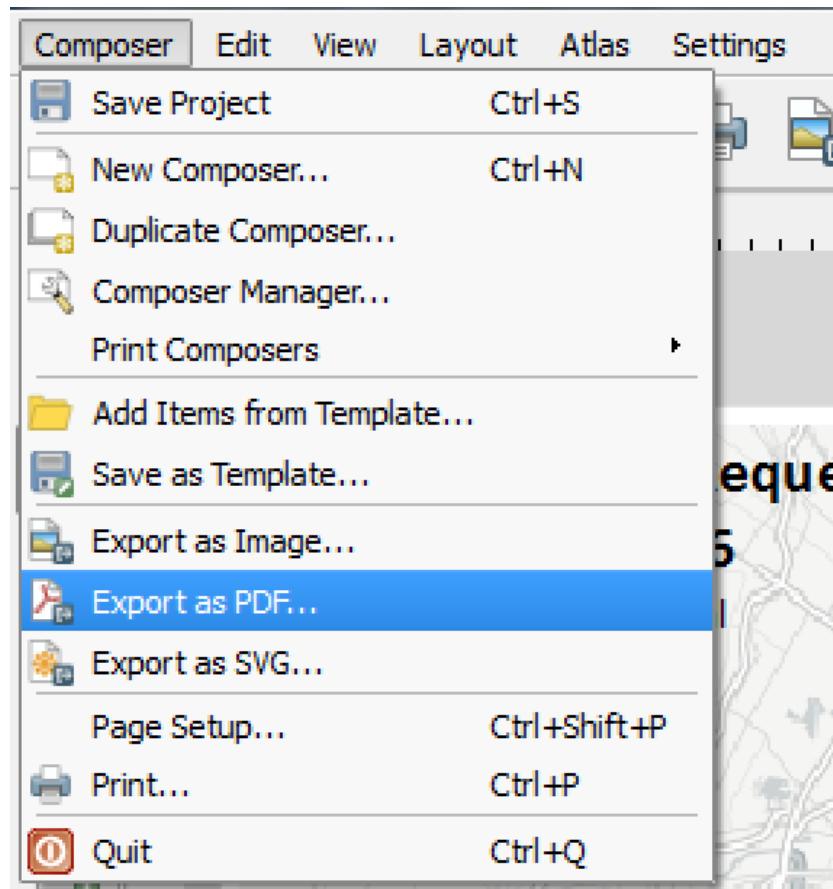


Adding Scale bar

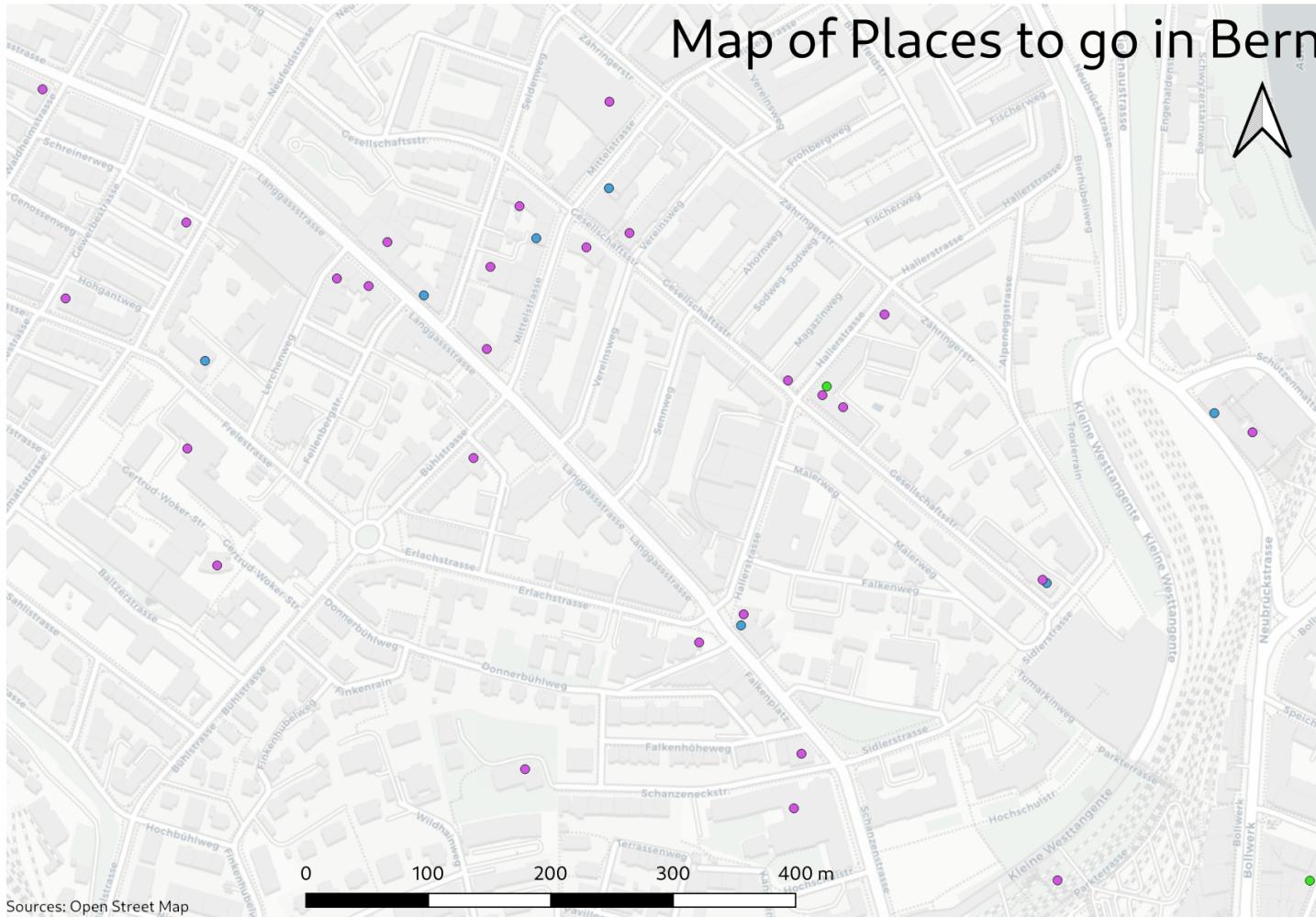
- You can also select and customize different styles of scale bars



There are a few exporting options



Now you can share your map or print it



Print Composer Problems

- Map extent -> "Use current map extent"
- Moving map around -> Adjust with arrows

What We've Covered

- Selecting features
- Exporting data
- Making Maps

Homework

- Filter for service requests in your borough
- Try and find something interesting
- Change the style of the point, either to a different shape, color, or icon
- Export your selection as a new shapefile
- Get a background map
- Make a decent Map
- Send me an exported map (png or pdf)

Any questions?



You might find the course material (including the presentations) at

https://github.com/MartinHinz/gia_hs_2020

You can see the rendered presentations at

http://martinhinz.github.io/gia_hs_2020

You can contact me at

martin.hinz@iaw.unibe.ch

Source: <https://www.instagram.com/sadtopographies>