QGIS Basics
Lab_01: Reproducing John Snow's Mapping Method

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5' Recap

How GIS applies to everyday questions

Folder structure

GitHub discussions field

File naming best practices in QGIS

AI is not magic!

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Our main tool

Over 90k commits (= updates to the code of the software) and more than 500 contributors
https://github.com/qgis/QGIS.git

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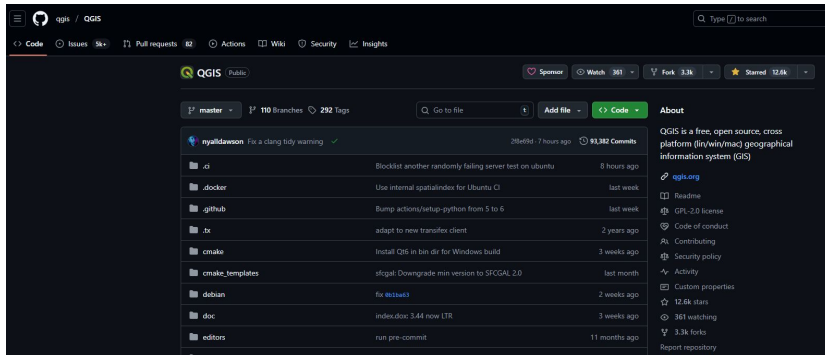
Other GIS softwares

GIS landscape

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GIS elements in a snap

Layers
-points
-polygons

Attribute table

Scale

CRS

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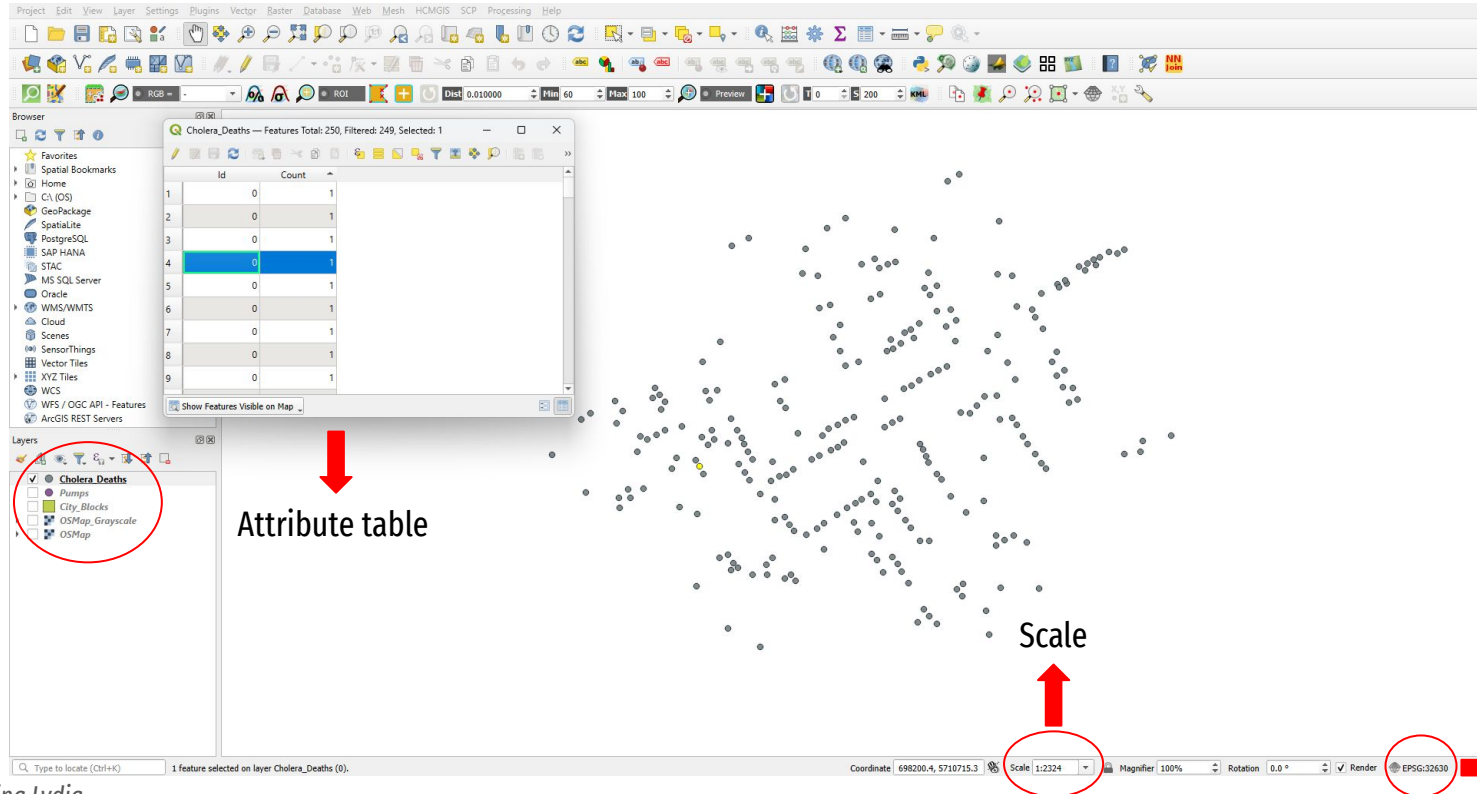
CRS common pitfall

Pumps layer EPSG:2100
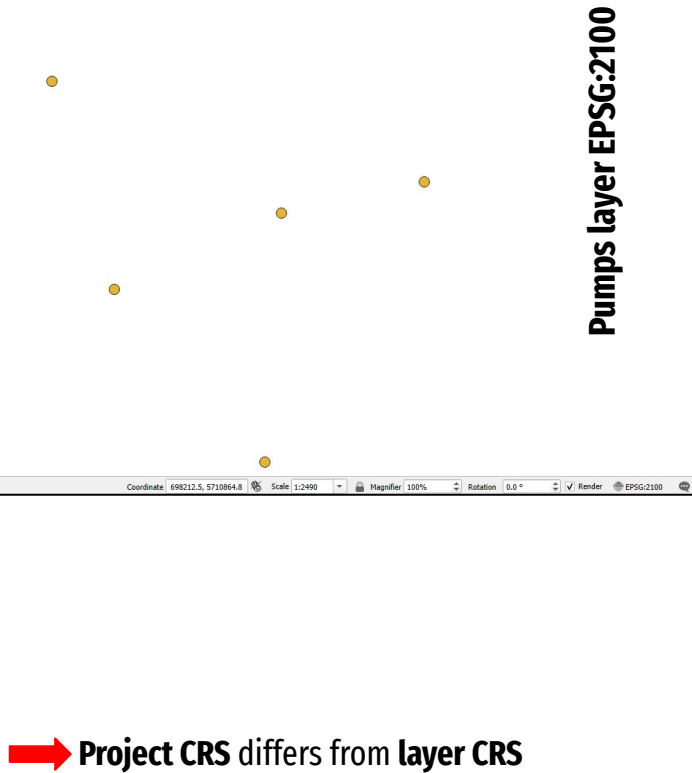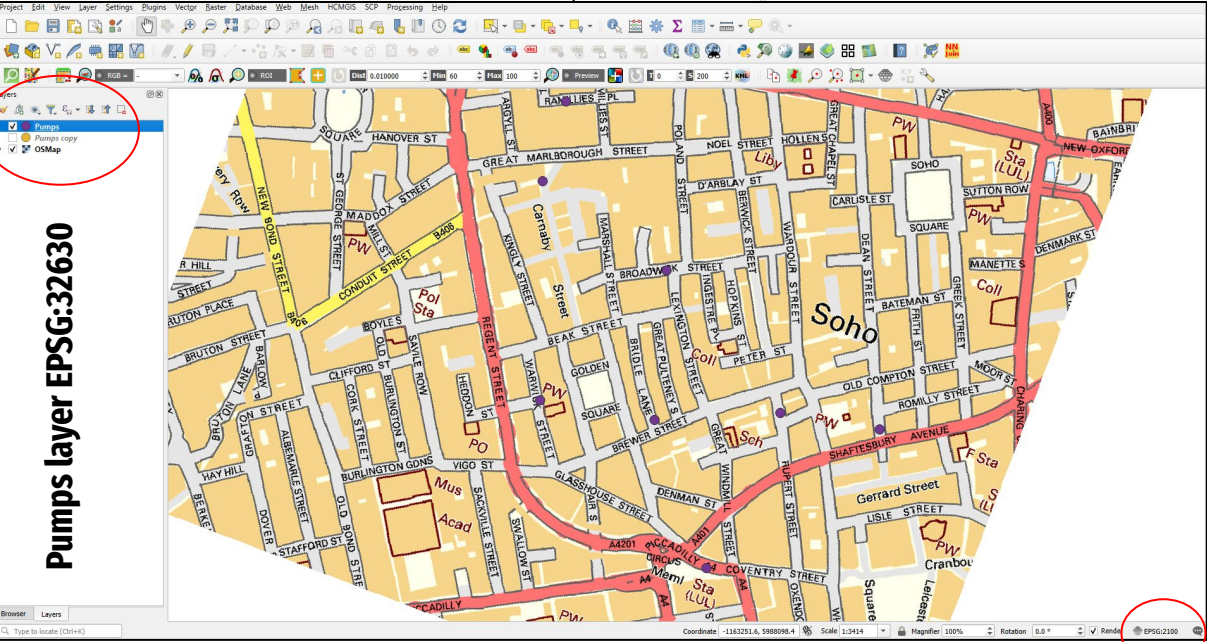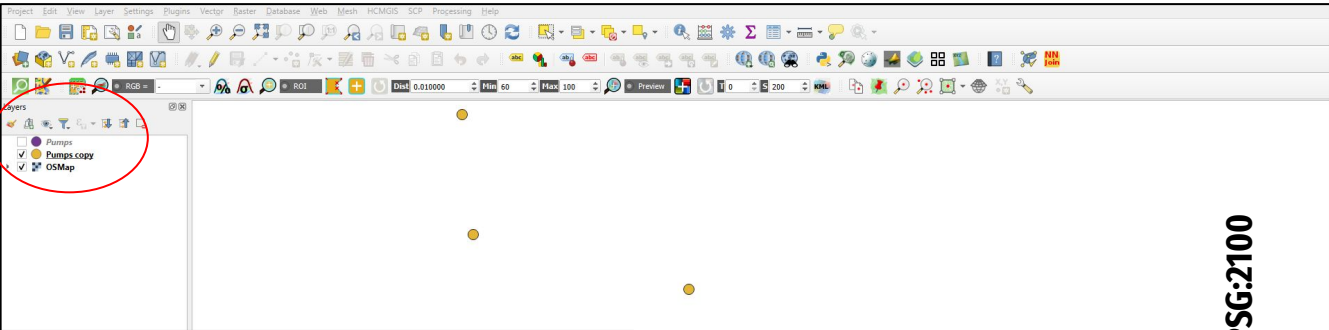
Pumps layer EPSG:32630

➡️ **Project CRS** differs from **layer CRS**

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Data structure

SHP

🤔 **What is a shapefile & what are its components?**

|	Extension	Description
Required	.shp	The geometry of vector features are stored in this file
	.dbf	The attributes of vector features are stored in this file
	.shx	This file is an index that helps the GIS application to find features more quickly
Optional	.prj	Contains coordinate system & projection information
	.cpg	Specifies character encoding used in the .dbf file
	.sbn	Spatial index for speeding up spatial queries
	.sbx	Companion to .sbn, also for spatial indexing

https://docs.qgis.org/3.40/en/docs/gentle_gis_introduction/data_capture.html#table-shapefile

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Symbology

- Symbology is the selection of colors, shapes & sizes on a map

- Good symbology makes maps easy to read & understand

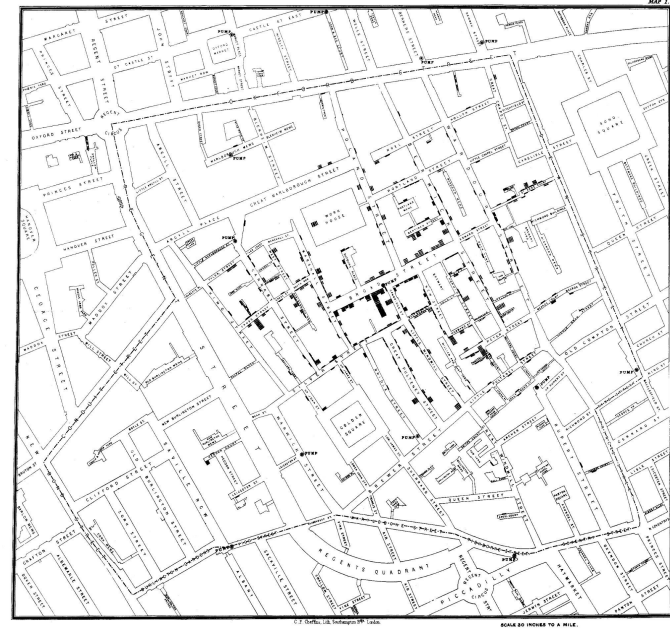- It helps us quickly see patterns & differences

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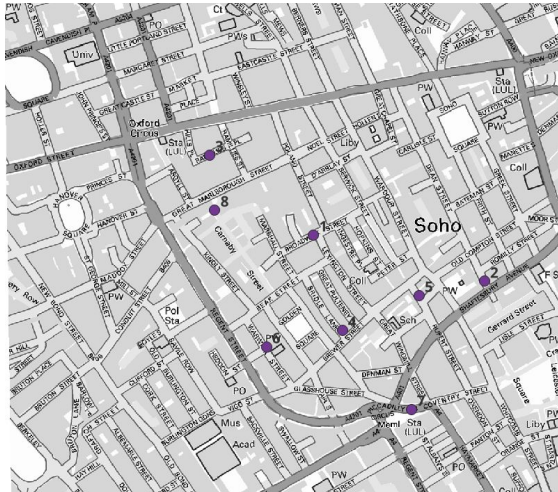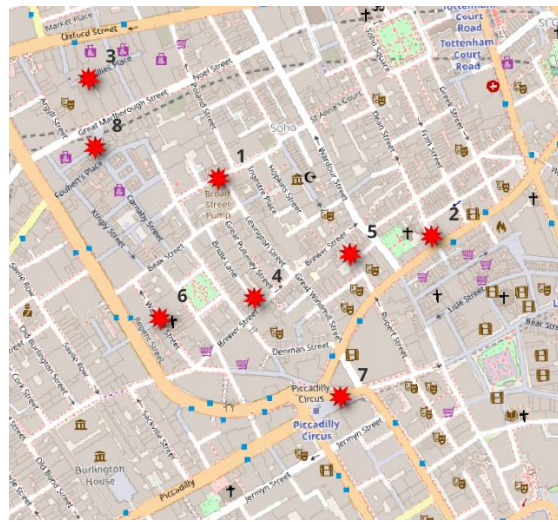
John Snow
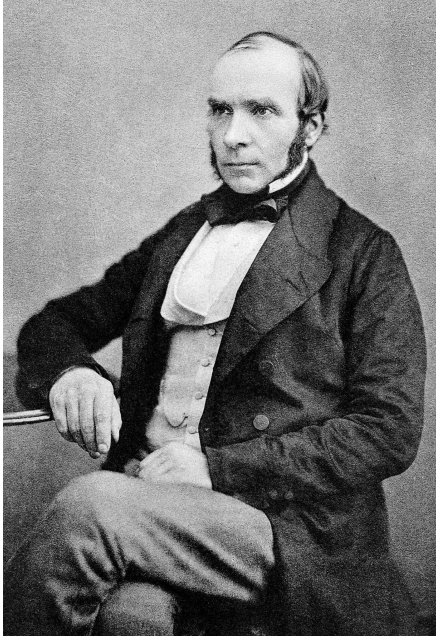
In the 1850s he used a primitive form of GIS analysis to identify source of cholera outbreak in Central London. He mapped the water pumps & cholera deaths

402.467 / Applied GIS Fundamentals

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Key takeaways

- Which GIS questions have we answered with today's exercise?
- Project CRS vs layer CRS
- Which was the contaminated pump?
- Keywords to remember: geocoding, thematic mapping, choropleth map, spatial analysis

Upcoming talks

1. **Inventing Burgenland: Geography, Geopolitics and the Making of a Region**

📅 **DO. 09.10.2025,** ⏲ **18:00,** 📍 **HS 11.03**

2. **Quo vadis urban climatology – prospects, developments and projects in Linz**

📅 **06.11.2025,** ⏲ **12:00,** 📍 **HS 11.03**