Assignment 2 - Redesign a Notable Information Graphic

A redesign of Snow’s cholera map

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Introduction & Rationale

For this project, I decided to redesign John Snow's cholera map. Before making my choice, I carefully read the background information about the three historical graphics: Snow's cholera map, Minard's Russian campaign, and Nightingale's coxcomb diagram. Each of these works is important in the history of data visualization. Minard's map tells the story of Napoleon's army in Russia, showing how the number of soldiers decreased over distance and time. Nightingale's coxcomb diagram presents death causes in hospitals in a new and striking way.

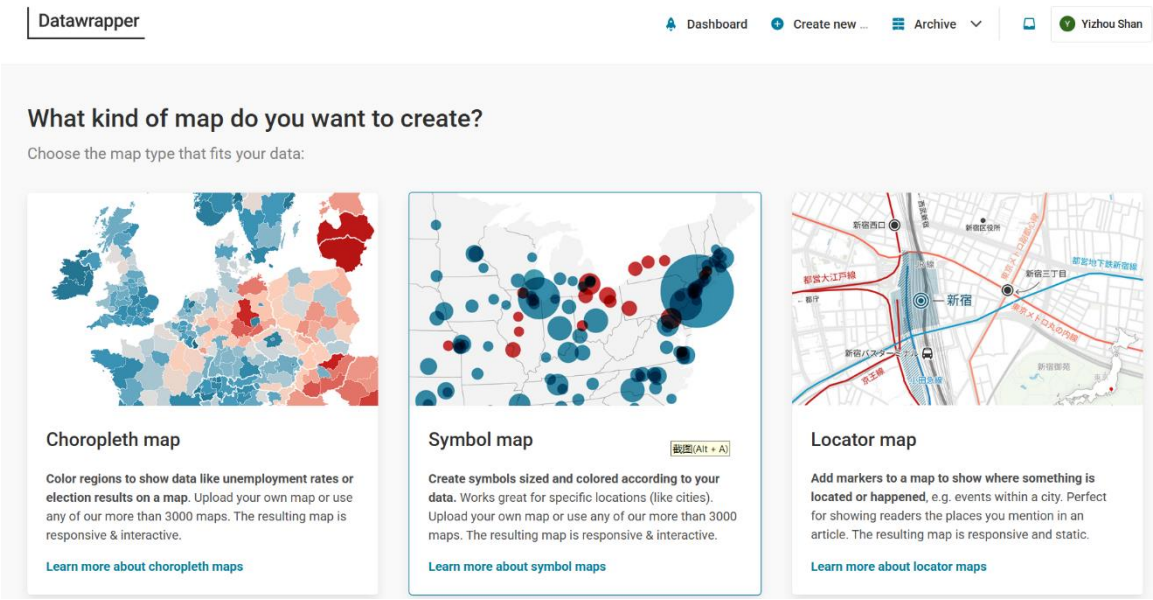
After reviewing all three, I chose Snow's cholera map because it is the one I understood the most easily. It clearly shows the relationship between where cholera deaths happened and the locations of water pumps. The structure of the map also feels very familiar to me because it looks similar to modern navigation maps such as Google Maps, which we use in daily life. This sense of familiarity makes it easier for me to imagine new ways to present the data.

John Snow was a British physician who, during the 1854 cholera outbreak in London, collected data on cholera deaths and plotted them on a street map of Soho. His map revealed a strong cluster of deaths near the Broad Street water pump. This finding helped him prove that cholera spread through contaminated water, not through air. His work is considered one of the first examples of using data visualization to support public health action.

For this assignment, I will redesign Snow's cholera map using Datawrapper and Flourish. These modern tools will allow me to make the map interactive and clearer for today's

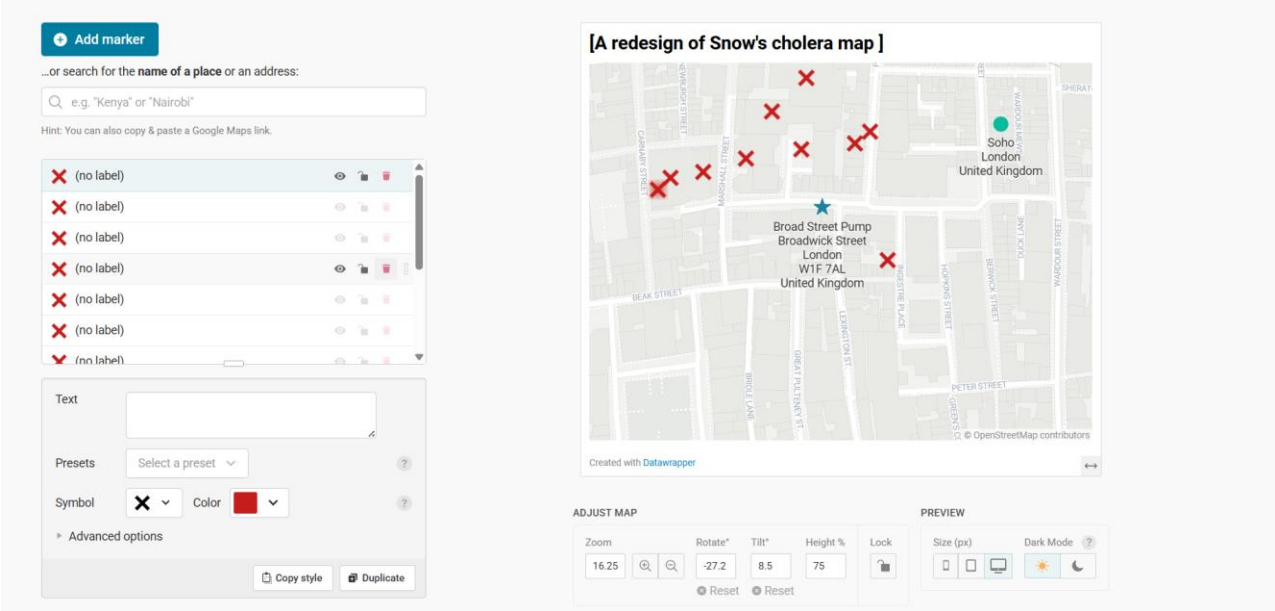
audience. By combining historical data with interactive features, I aim to make the story of this outbreak easier to explore and understand.

Iteration 1



Example Cholera Death Locations

ID	Address (1854 name)	Modern reference	Latitude	Longitude
1	40 Broad Street	Broadwick Street near Poland St	51.5135	-0.1375
2	38 Broad Street	Broadwick Street	51.5136	-0.1372
3	37 Broad Street	Broadwick Street	51.5137	-0.1370
4	25 Poland Street	Poland Street	51.5140	-0.1376
5	6 Cambridge Street (now Lexington St)	Lexington Street	51.5131	-0.1379
6	8 Cambridge Street	Lexington Street	51.5130	-0.1381
7	10 Cambridge Street	Lexington Street	51.5129	-0.1383
8	20 Broad Street	Broadwick Street	51.5138	-0.1368
9	22 Broad Street	Broadwick Street	51.5139	-0.1366
10	16 Marlborough Street	Great Marlborough Street	51.5132	-0.1357



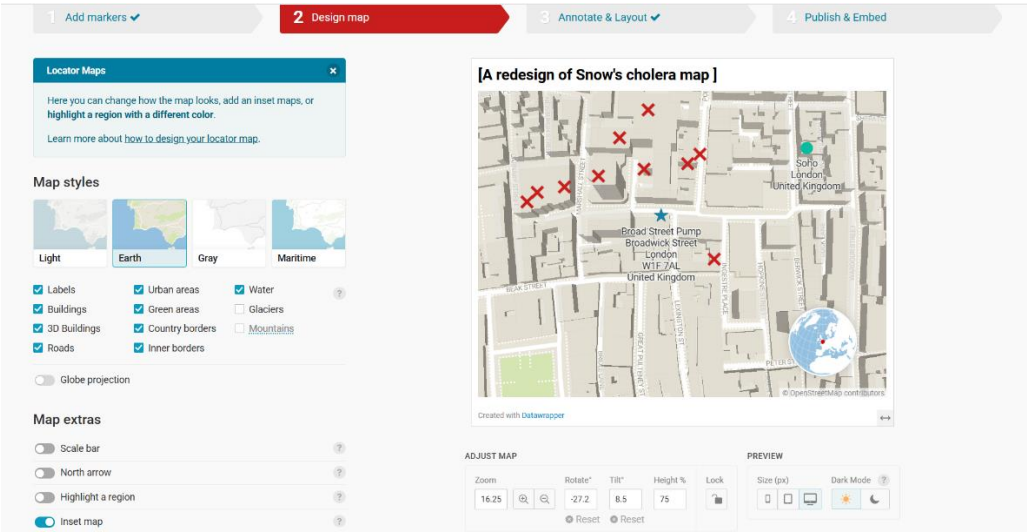
For the first iteration of my redesign of John Snow's cholera map, I chose to use Datawrapper as my main tool. In Datawrapper, I selected the Locator Map option because it allows me to clearly see the real roads and street names, which makes the visualization more accurate and easier to understand.

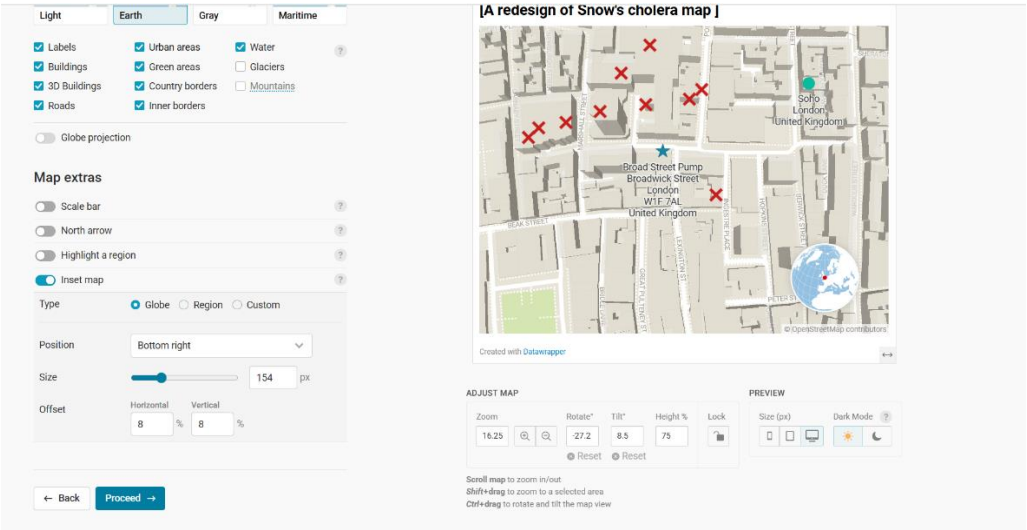
My first step was to add markers on the map. I began by finding the exact location of the 1854 outbreak area in the Soho neighbourhood of London. I marked the Broad Street pump with a blue star at its real coordinates on Broadwick Street. I also marked the Soho neighbourhood with a green circle to provide a geographic reference point and give context to the map.

Next, I used historical records to identify several real death locations from the cholera outbreak. I plotted these on the map as red "X" symbols. To keep the map clean and clear, I decided to remove labels from these death markers, since having text for each point would make the visualization look messy and crowded.

Placing the pump at the center of the map highlights the cluster of cholera deaths around it. Even at this early stage, the pattern is already visible and easy to understand. The Locator Map also gives the map a modern, familiar look, similar to Google Maps, which helps make this historical story more relatable to people today.

Iteration 2





This is the second step of my redesign process — Design Map.
In this step, I focused on improving the visual style of the map to make it more three-dimensional and visually engaging. I chose the “Earth” map style in Datawrapper because it adds soft shadows and gives the map a slight 3D appearance. To enhance this effect even more, I turned on the “3D Buildings” option, which allows me to see the shapes and heights of the buildings around the Broad Street pump area. This makes the map look more realistic and detailed.

Additionally, I inserted a small spherical inset map in the bottom-right corner of the visualization. This inset gives a global context and lets viewers quickly identify where Soho, London, is located on the world map.

After these adjustments, the map now has shadows, depth, and structure, making it more visually appealing while still staying clear and easy to read. This step is not about adding more data but about improving how the information is presented, so the map looks modern and professional.

Iteration 3

1 Add markers ✔ | 2 Design map ✔ | 3 Annotate & Layout | 4 Publish & Embed

Locator Maps

On this page you can **add a map key** to explain the different markers you've used in your map.

Learn more about how to add a map key.

Annotate | Layout

Output locale

Defines decimal and thousand separators as well as translation of month and weekday names.

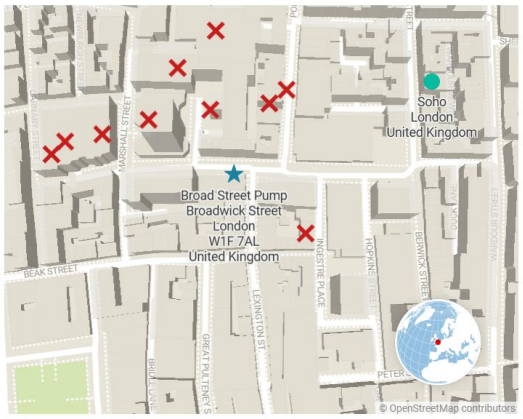
English (en-US)

Layout

Theme: Datawrapper

- Show logo
- Automatic dark mode
- Use the same colors in dark mode

[A redesign of Snow's cholera map]



Real death location

Created with Datawrapper

1 Add markers ✔ | 2 Design map ✔ | 3 Annotate & Layout ✔ | 4 Publish & Embed

Publish visualization

Congrats! Your visualization is successfully **published**. You can now share or embed it.

Republish

You can always unpublish.

Share & Embed

Link to your visualization:

https://datawrapper.dwcdn.net/hRu2i/1/

Visualization only | For sharing

Embed code for your visualization:

<iframe title="[A redesign of Snow's cholera map]" aria-label="...

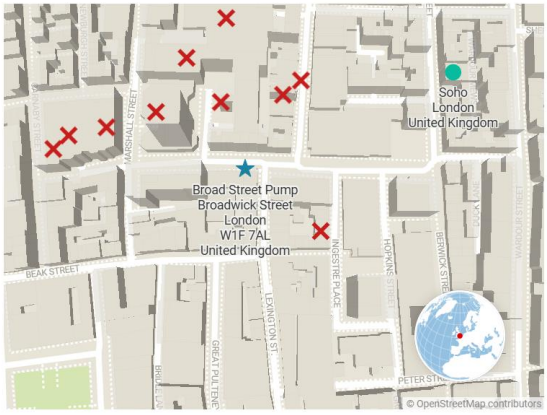
Responsive iframe | Iframe | Embed with script

For the best way to embed your visualization on a specific platform (e.g., WordPress, PowerPoint), check our documentation.

Allow reuse of this visualization

You can increase reach by allowing other users to adapt and reuse your chart. Click here to add your chart to River.

[A redesign of Snow's cholera map]



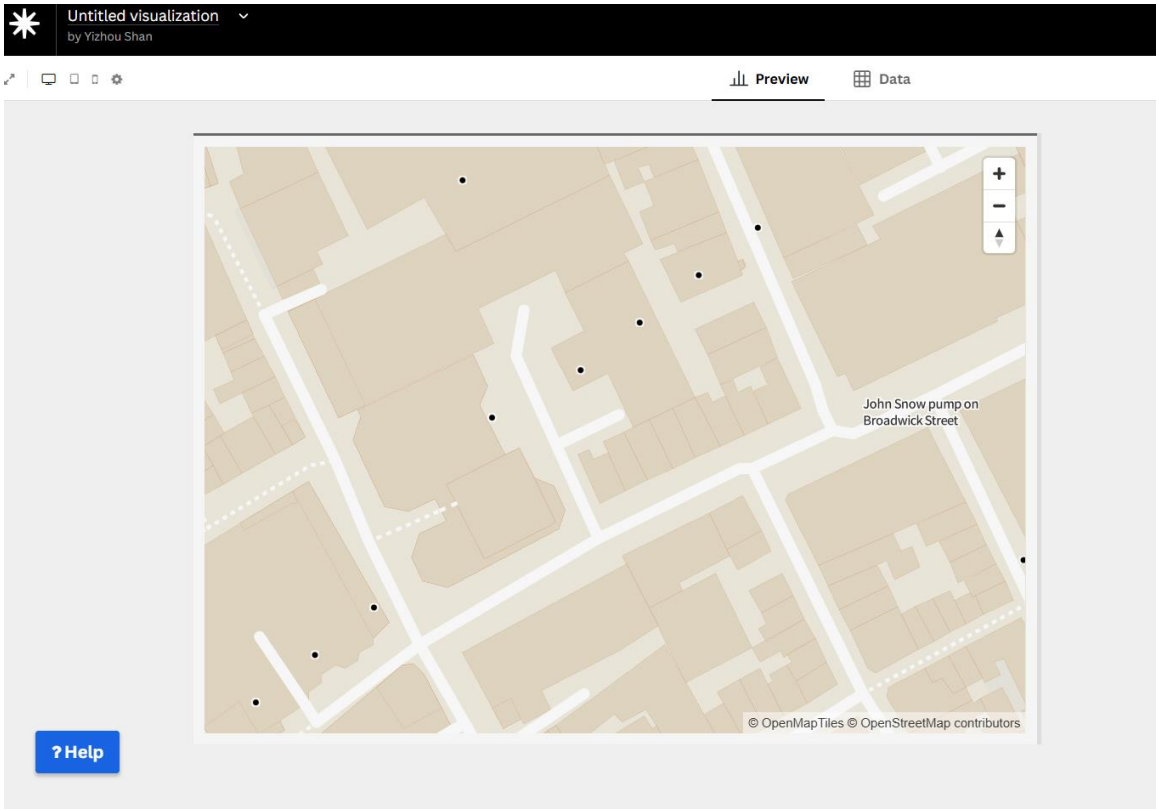
Real death location

Created with Datawrapper

https://www.datawrapper.de/_/hRu2i/

In this stage, I completed both Step 3 – Annotate & Layout and Step 4 – Publish & Embed in Datawrapper. For the annotation step, I added a legend to explain the red “X” symbols used on my map. The legend clearly states that these red crosses represent real death locations from the 1854 Soho cholera outbreak. Adding this element makes the visualization easier to interpret, especially for people who may not be familiar with the map. It also gives the project a more polished and professional look.

Then I moved on to publishing the visualization. Datawrapper generated a shareable link and an embed code, which makes the map easy to share or integrate into other platforms. This step completed my map in Datawrapper. I was satisfied with the result because the map is clear, modern, and shows the clustering pattern of cholera deaths around the Broad Street pump very well.



Besides Datawrapper, I also tried to use Flourish to redesign the map. I uploaded the same coordinates into Flourish and used small black dots to represent the deaths and a label for the Broad Street pump. However, I found Flourish much more difficult and confusing to use. It has many complex settings and options, which made it harder to control the appearance of the map. The markers were too small and not visually clear, and the overall map looked quite empty compared to the one I made in Datawrapper.

Because of these reasons, I decided to use the Datawrapper version as my final design. It is cleaner, more structured, easier to build, and more effective in showing the pattern of the outbreak.

Thus, here is my final work, the redesign of Snow's cholera map:

Final reflection

By redesigning John Snow's cholera map with modern tools, the graphical structure shifts from a static, black-and-white historical document to a more interactive and exploratory map. The original map was created to persuade people that the Broad Street pump was the source of the cholera outbreak. It served as strong evidence for Snow's argument. In contrast, my redesign using Datawrapper makes the visualization easier to explore — viewers can see the real streets**,** zoom in and out, and clearly recognize how death locations cluster around the pump.

I also added a "share to the public" function in the third step. By clicking the share icon in the top right corner, users can share the map directly to social media or send it to friends. This feature allows the visualization to reach more people and encourages interaction beyond the original page.

Modern interaction techniques, such as zooming, layering, legend annotations, and social sharing, help transform the map from something meant to prove a single point into a tool for exploration, communication, and learning. It also makes the visualization feel familiar to today's users, similar to using Google Maps or other digital mapping platforms. This shift turns a persuasive, rhetorical artifact into an accessible and shareable exploratory object**.**