

Lab: Campus Critical Cartography

PURPOSE

- Spatial data quality
- Using text-based spatial data in GIS
- Practice critical cartography
- Qualitative thematic map design

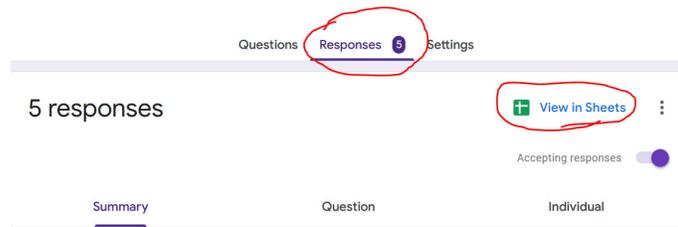
OUTCOMES

- High-quality spatial data collected from the field
- Qualitative thematic map of campus
- Integration of map into a visual essay illustrative of critical cartography

IN-CLASS DATA QUALITY CHECK

Check Field Data Quality

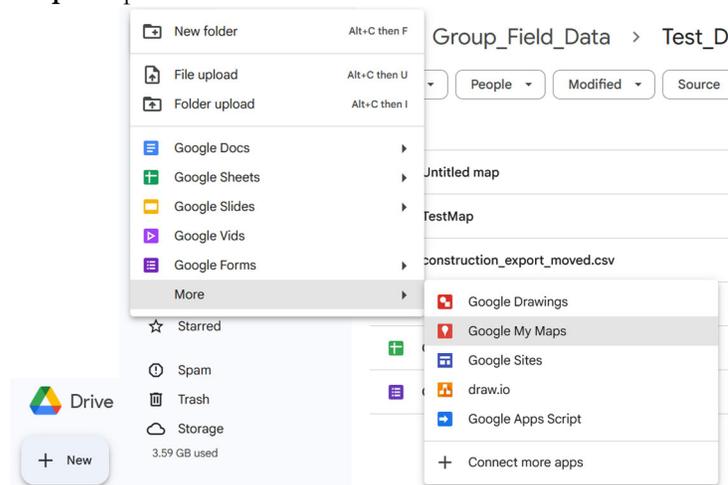
- Go to your group's field data **Google Drive** folder
- Open the **Google Form**
- Go to **Responses** and **View in Sheets**



- Edit all columns headers to short names starting with a letter and without special characters or spaces
- **Latitudes** should all be positive numbers, starting with **44**
- **Longitudes** should all be negative numbers, starting with **-73**
- Hopefully you have at least six decimal points of precision for latitudes and longitudes. If not, you'll need to adjust the location precision on the map later.

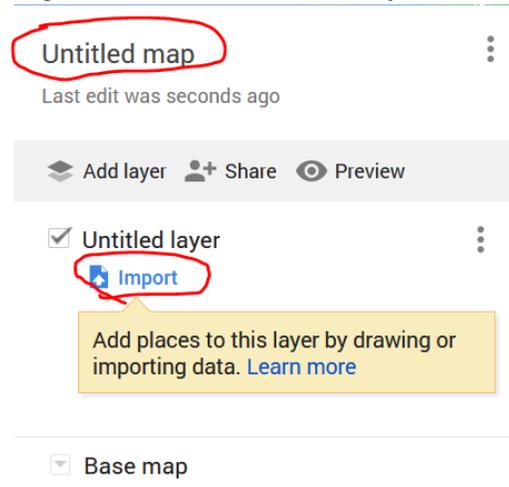
Create a Google My Maps Map

- In your group's field data **Google Drive** folder, create a new **Google My Maps** map



Import Your Data

- Edit map title
- Import data into the **Untitled layer**



- In the **Google Drive** import menu, search for the **Google Sheet** that you just made from your data collection **Google Form**.
- Google should recognize your **latitude** and **longitude** columns as the columns to position your placemarks

Choose columns to position your placemarks

Select the columns from your file that tell us where to put placemarks on the map, such as addresses or latitude-longitude pairs. All columns will be imported.

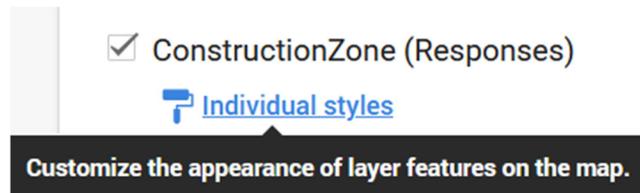
<input type="checkbox"/>	Timestamp ?
<input type="checkbox"/>	email ?
<input checked="" type="checkbox"/>	Latitude (latitude) ?
<input checked="" type="checkbox"/>	Longitude (longitude) ?
<input type="checkbox"/>	Normative ?
<input type="checkbox"/>	Type ?

[Continue](#) [Back](#) [Cancel](#)

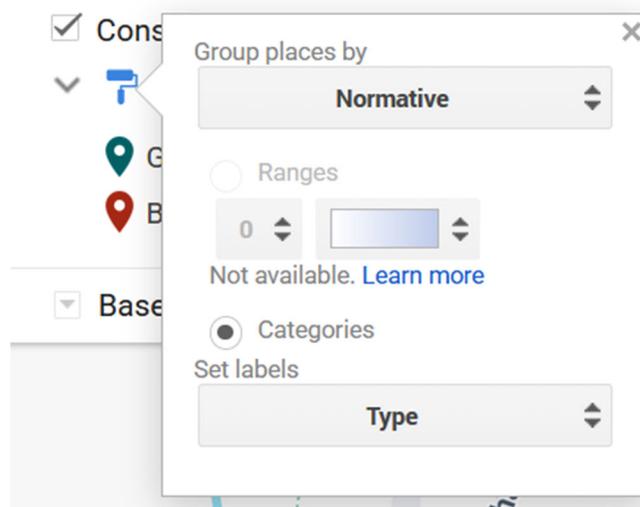
- Choose your more detailed **category** or **type** column to **title your markers** (i.e. the column that you intend to use to control *shape* on the final map).
-

Customize placemark colors

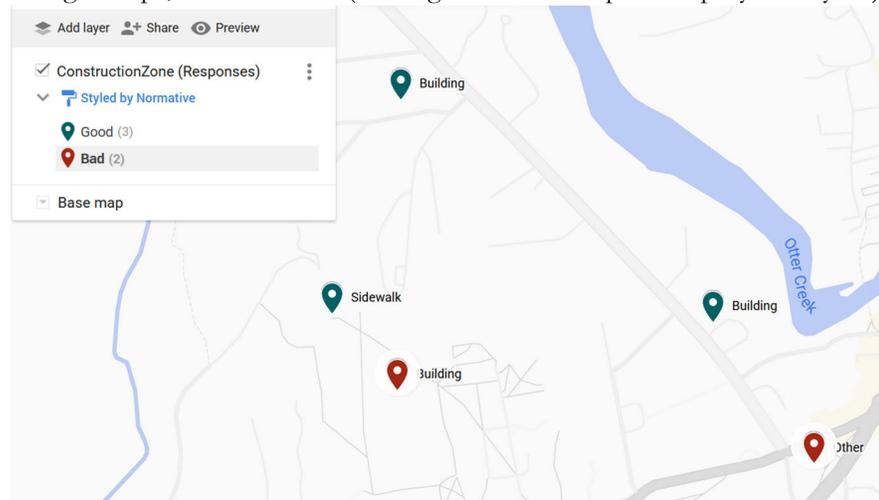
- Once data is imported, you can use different colors for good/bad or different symbols for categories by switching **Individual styles** to **style data by column**:



- Change the **group places by** option to your equivalent of the normative column, which will be used to control *color* on the final map.
- Change the **set labels** option to your equivalent of the **category / type** column, which will be used to control *shape* on the final map.



- You should now see color-coded place makers with category/type labels in Google Maps, similar to this (I changed the basemap to simplify the layout):



Check Data Quality

- If any of the placemark positions or attribute values imported incorrectly, now is your change to edit them interactively as a group using Google Maps!

LAB PROCEDURE

Please find the course website page for this lab, which will contain a link to a video tutorial playlist.

1. Re-starting a GIS Project
2. CSV File
3. Add Delimited Text File
4. Export Data
5. Select and Export
6. Style Panel
7. Symbolize Points
8. Edit Locations
9. Labels
10. Edit Attributes
11. Edit Groups of Attributes
12. Copy Attributes
13. Legend and Map Frame Updating
14. Rotating and Scaling
15. Microsoft Word
16. Back up to Network Drive W

Reminder:

1. We have covered fundamental principles of cartography in conceptual lectures, and there is a wonderful and concise guide on Axis Maps: <https://www.axismaps.com/guide>

AM I DONE?

- Map layout with two or three critical cartography layers
- Critical cartography data saved in a geopackage in the derived folder
- Export a *draft* map layout as an image in the results folder
- Current work backed up to network W drive
- Most students will make further revisions to their maps over the next week

FIRST VISUAL ESSAY

Honor Code	<ul style="list-style-type: none">• You must complete your own original map design and captions. Design decisions and caption content are to be independent.• You may confer with your group members about any errors in data collected.• You may talk with others, including instructors, about <i>technical</i> issues using software to edit data or design maps.• You may ask instructors or people outside of the class to view your map and share their impression of your visual hierarchy. Ask them, e.g.:<ul style="list-style-type: none">◦ Can you please look at my map and list what you see, from what you notice first to what you notice last?◦ Do you find anything about my map layout distracting?◦ Can you tell what the main purpose of the map is? If so, what is it?
Rubric	<ul style="list-style-type: none">❑ 5pts: cover page with title, author, date and an original photograph with basic caption (title, credit and date)❑ 40pts: map contains complete design elements and appropriate element content: reference features, labels, thematic features (your field data), title, legend, north arrow, scale bar, and credits❑ 16pts: overall map design balance❑ 16pts: overall visual hierarchy❑ 12pts: caption interpreting the map and demonstrating how it is an example of critical cartography, in 150 words or less❑ 6pts: data sources section at the end of the essay should credit all of your data sources and where they appear in the visual essay, e.g. in which figures and in which layers of which figures. Include any formal citations or statements required by the data provider(s) and pertinent information about when the data was created.❑ 5pts: overall excellence in the presentation, coherence, and aesthetics of the visual essay
Guidance	<ul style="list-style-type: none">• Design for an audience: the college community of administrators, staff, professors, and fellow students.• Use <i>either</i> landscape <i>or</i> portrait layouts• Titles should be more like thesis statements or story headlines than topics.• Every figure (photo, map, graph, or table) needs a title. For maps, the title may be on the map itself.• Begin captions with a sequentially numbered label, e.g.<ul style="list-style-type: none">◦ Map 1: caption ...◦ Figure 2: Title. Caption content.◦ Table 4: Title. Caption content.• Keep captions adjacent to figures• Do not write about design decisions in captions. All of the content should be interpretive. Browse a good textbook for inspiration: the books' captions reinforce the main concepts/theories <i>and</i> demonstrate how they apply in the data visualization.
