Basic Cartographic Design Reference

Take some time to think about your map

- O Answer these questions as you refine the elements that constitute your map:
 - O Who is your audience?
 - What is the map's intended purpose?
- Keep visual hierarchy in mind when designing your layout (i.e., the most important things in your map should be the most prominent things in your map)
- Use appropriate symbology and color. For example, cartographic convention suggests that blue fill should be reserved for water bodies.
- O Your map layout should be well balanced and make good use of space, including white (empty) space.
- Check your spelling, and include descriptive text if necessary in order to clarify what your map is trying to communicate.

Ask yourself these questions

- 1. What do you see FIRST when you look at my map?
- 2. What do you see second, third, fourth, etc.? (Think about a desired hierarchy for the map elements)
- 3. Does the map fill the layout?
- 4. Is there overall balance?
- 5. Are the basic graphic elements & lettering clear and legible?
- 6. Can I use the visual variables to enhance contrast between classes of symbols or legend categories? (*Think about using more than one visual variable together*)
 - 7. Is the map projection appropriate for this region?
 - 8. Are large polygons (or background) filled with extremely dark/saturated colors?

Map Elements to Consider

You may not need all of the following map elements for every map you create, but chances are that most of them should be included in your map. As your cartographic design experience increases, you will eventually learn what to include. For now, try and include each of these map elements to practice your skills.

TITLE

Choose a *concise*, *informative* title for your map (include subject, place, & time if appropriate). In many cases, the title acts as a gateway to accessing the map and figures prominently in the visual hierarchy.

NAME

Include your *name* on your map layout in a relatively small font size. For lab assignments, also include lab days and times. This information should almost always be near the bottom corner of the map, never at the top.

DATA SOURCES

A data source refers to who created the data, similar to citing your sources for a written paper. Always include a data source if this information is provided or known.

Example:

Source: U.S. Census, 2010

COORDINATE SYSTEM

Include the map coordinate system information. This information should also be in a small font size and in an inconspicuous location.

Example:

Coordinate System: NAD 83 UTM Zone 10

DESCRIPTIVE TEXT

Some maps are self-explanatory, and do not need descriptive text (a rarity). Descriptive text is used to communicate additional information to your map reader – information that is difficult to communicate graphically (such as the criteria used for a study).

NORTH ARROW

Since a north arrow is not the most important part of the map, it should not draw attention away from the map content. A compass rose and other elaborate symbols are fine for tourist maps, but are not appropriate for a scientific/informative map. When used, a north arrow should be small and inconspicuous.

SCALE

Include a graphic bar scale when appropriate. It should be legible, but not overly conspicuous. Scale units should be in round numbers that the map user can easily use and understand.

Poor:



In this example, the labels are running together and the units are not rounded in a way that is easy to use. This is a poor example of a scale bar.

GOOD:



In this example, the scale bar is easy to read. The numbers and divisions are easy to understand and use.

LEGEND

The word "Legend" should *NOT* appear in the legend. Your legend title should help your map reader understand what is being shown on the map; sometimes it isn't necessary to include a legend title at all. Legend titles and labels should not include underscores or layer names. Include only necessary information/layers in your legend, appropriate to your map's purpose and audience. Legend symbols should match size and color to their counterparts on the map.

Make sure your legend is easy to read. If necessary, include a background color to make the text and symbols more legible.

MAP LABELS

All map labels and text should be clear and legible. Avoid overlapping labels with other lines in the map, other map elements, or with each other. Never include underscores in ANY label.