Questions Homework Week 4

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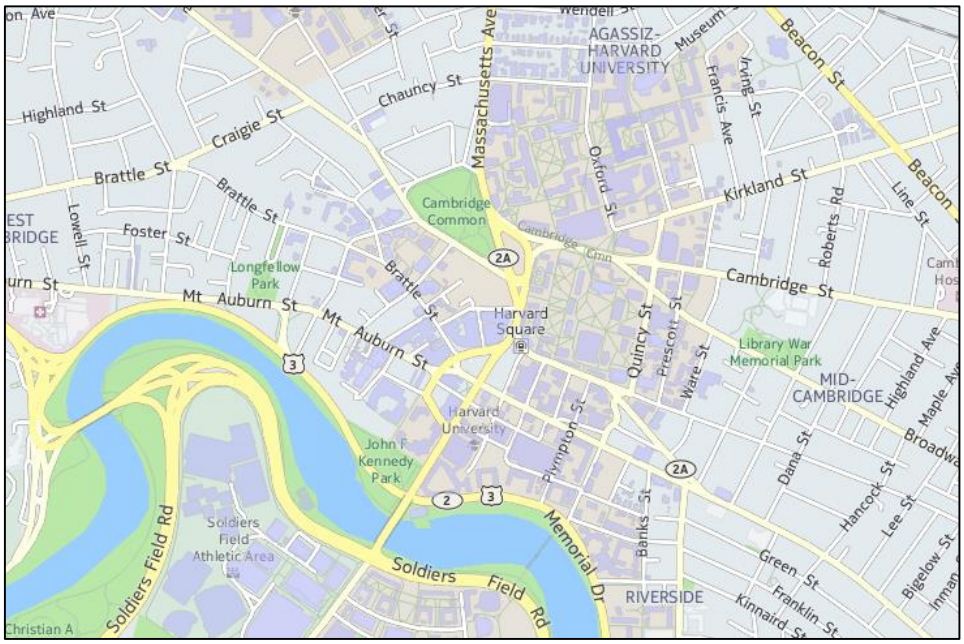
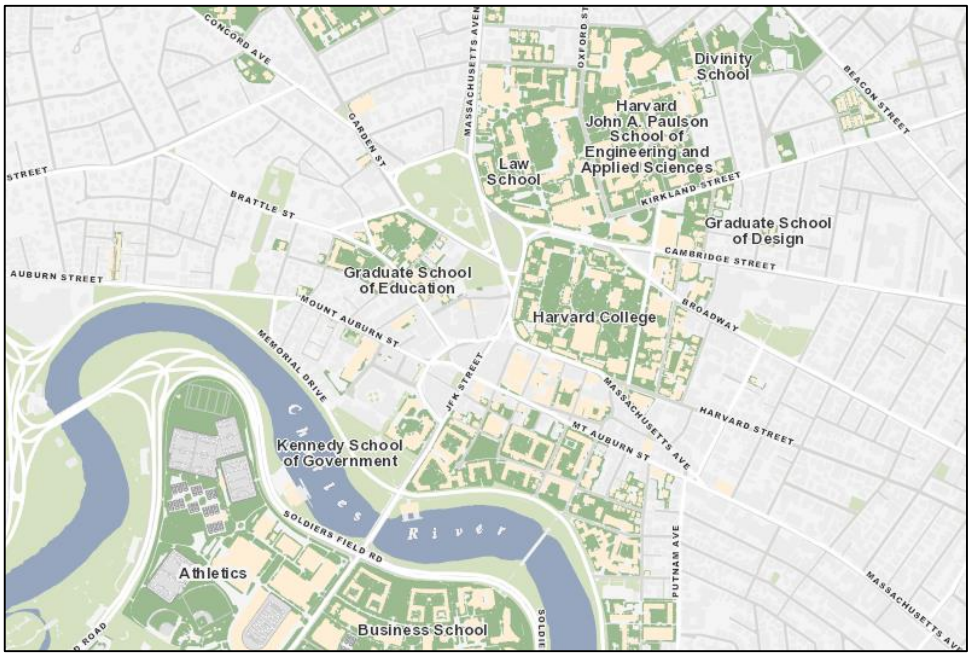
Patterns and colors are essential to maps. Compare a search for on two interactive maps (e.g., Google Maps, Bing Maps, Yahoo! Maps, Apple Maps, map.harvard.edu). Answer the following questions, making references to concepts explained in Ware such as pattern recognition and properties of color. Please include screenshots of the examples you are comparing.

Yahoo! Maps



map.harvard.edu



Which map promotes an easier visual search for buildings?

Based on the graphical maps alone I would say Harvard's version promotes an easier visual search. Harvard's map buildings are more differentiated by the contrast in color lightness and saturation when compared to colors used in Yahoo maps. This contrast provides easier visual search because buildings stand out from the background. Additionally, you can use built-in functions (switching to a 3d view and adding color coded map layers) to help your search for a particular building.

Which map more effectively visualizes routes from a random point A to point B?

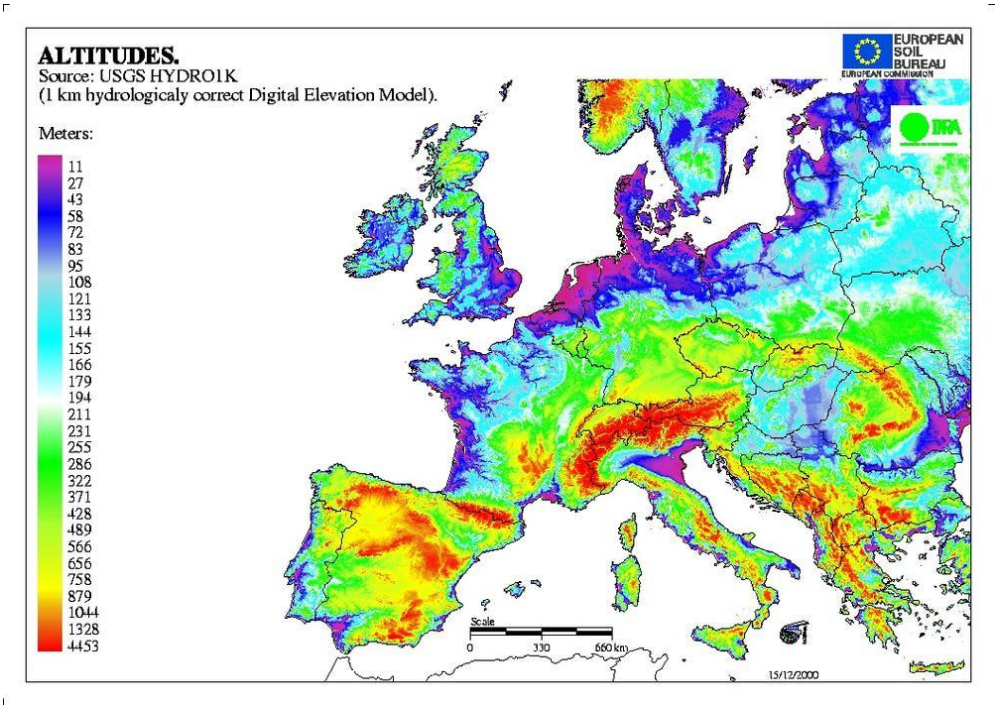
Unlike Yahoo's "direction" function, Harvard maps does not include any function which calculates routes from point A to point B. Thus, Yahoo has the better visualization of routes; a single thin blue line is drawn over the map to show the path between two locations. However, the color of blue used to depict the route is the same color used to code for water in the map. An improvement would be to change one of the colors its saturation or lightness.

Which map is an overall better visualization, and why?

In my opinion Yahoo's map has a better visualization. The color scheme is more diverse; more distinct colors are used which results in a higher contrast between different terrain such as roads, parks, buildings and waters. Additionally, you are able to see the main roads and altogether these features help the user to navigate throughout the map. On top of that, Yahoo offers the "direction" function which can calculate routes for you.

Find a rainbow color map visualization on the web. Please include a screenshot and link of the visualization.

Source: Designing Data Visualization, https://www.safaribooksonline.com/library/view/designing-data-visualizations/9781449314774/ch04.html



Briefly summarize its intended objective and audience. Does it fail to successfully convey information? If so, why? Is there a good reason for this specific visualization to use a rainbow color scheme?

The audience are those interested in European geographics and its intended objective shows the altitudes throughout Europe. The rainbow map does convey information but it not as easy to understand because the full color spectrum is used to convey altitude in meters. However, the color spectrum does not have a natural ordering system and it's not self-evident that red areas have higher values than the areas in blue.

Propose an alternative color scheme to replace the rainbow color map

Elevation is often represented by using different tints of brown with increasing saturation and/or brightness. Color scheme's like these have natural ordering systems and will thus result in more intuitive mapping.