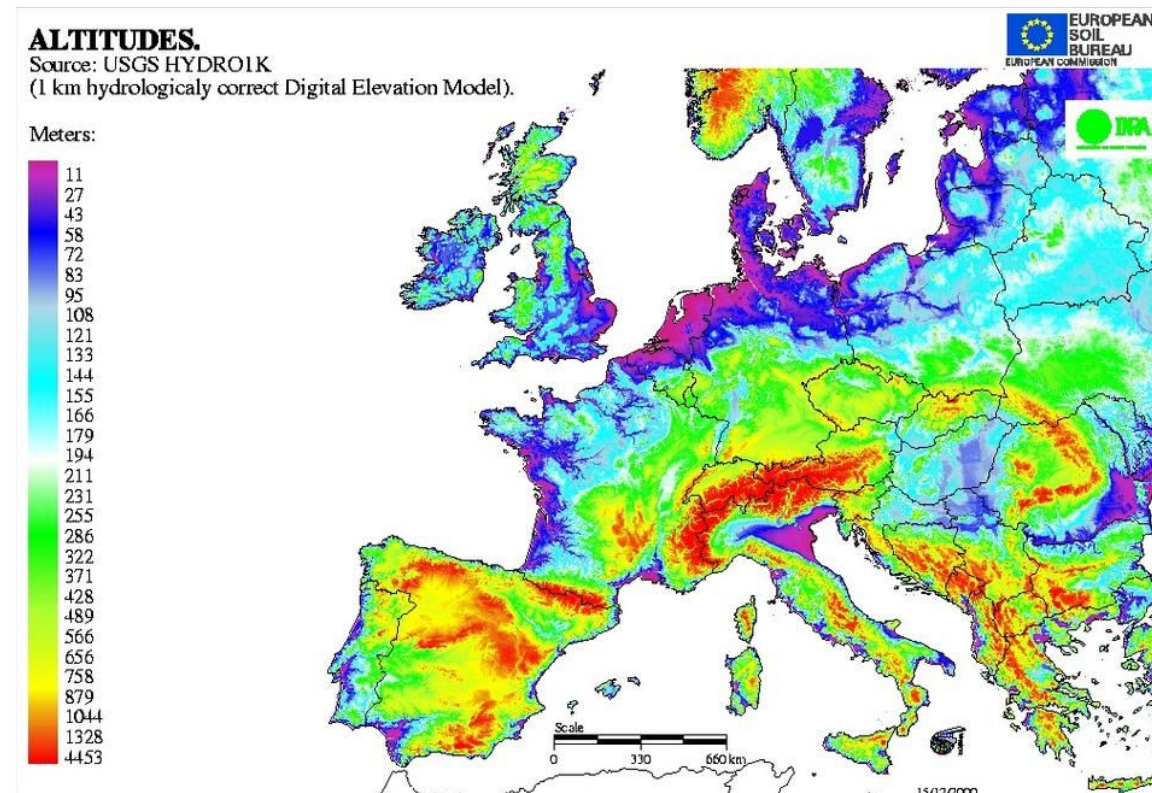


## Data Processing: Design 4

### Problem 1: Rainbow color map

Find a rainbow color map visualization on the web (see [Reading 4](#) for reference). Please include a screenshot and link of the visualization. Briefly summarize its intended objective and audience.



The visualization above uses a rainbow color map. Its intended objective is to show the different altitudes throughout Europe. The audience includes people who are interested in a quick overview of altitudes in this region.

### Does it fail to successfully convey information? If so, why?

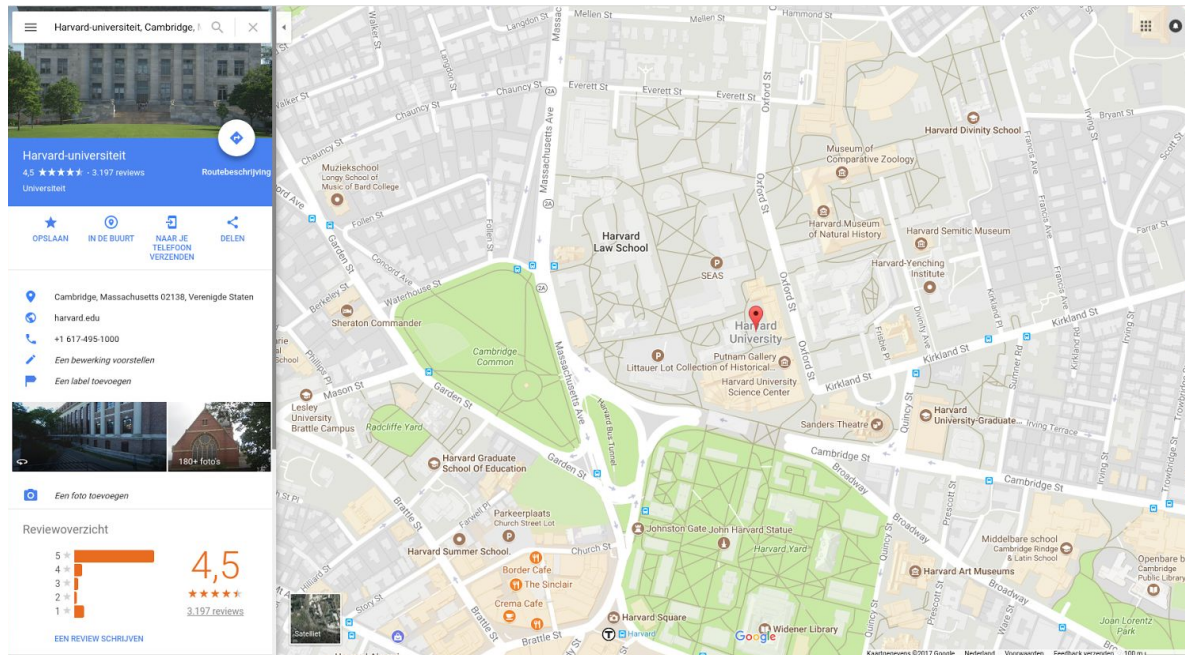
The rainbow color map does not successfully convey the intended information. At first sight, it looks like the visualisation indicates temperatures, where red parts are the hottest (which does not make sense). Also, for some reason, this rainbow map includes the color white in the middle of the range of colors, which is confusing. The highest and lowest values are indicated by red and purple, but because of the white in the middle, it looks like both red and purple indicate peaks in the map because they are both intense colors. It is very misleading.

### Is there a good reason for this specific visualization to use a rainbow color scheme?

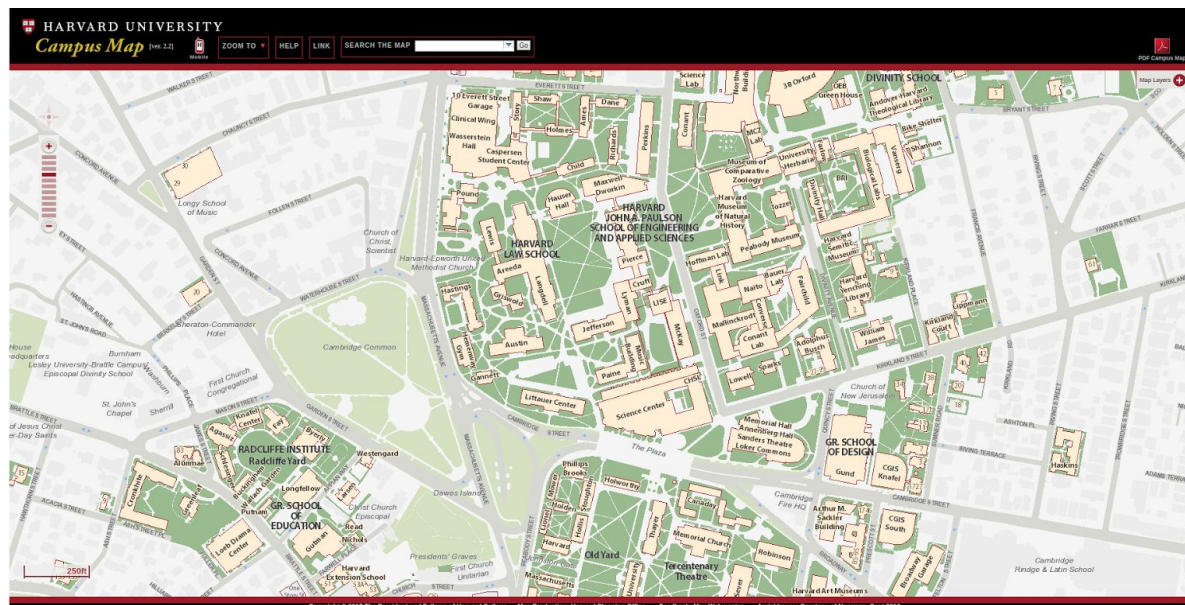
It is understandable that a rainbow color scheme was chosen for this visualization as there is a broad range of colors, but it does not work. The visualization would work better with a different color scheme.

## Problem 2: Patterns and colors in maps

Patterns and colors are essential to maps. Compare a search for Harvard University 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.



(Google maps)



(Harvard maps)

**Which map promotes an easier visual search for buildings?**

At first glance, the Harvard map does a better job at this. The Harvard map immediately shows the names on each building on the campus. Google maps only shows a few names of buildings, it requires more zooming in or clicking on the buildings to show the names of the buildings.

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

Zooming in on the Google map makes more routes visible and in this way gives a clearer picture of a route from random point A to B. Also, the Google map distinguishes different types of roads, which makes it also easier to figure out the best route. The Harvard map does neither of those things and is thus more difficult to read when it comes to figuring out a route.

**Which map is an overall better visualization, and why?**

The Google map is clearer and shows more useful information at the same time. If you want more or less information, like names of buildings, you can zoom, so that the visualization does not become uncluttered and shows just the information that you would like to see. So that makes the Google map a better visualization.