Chris Olberts, group B (Design)
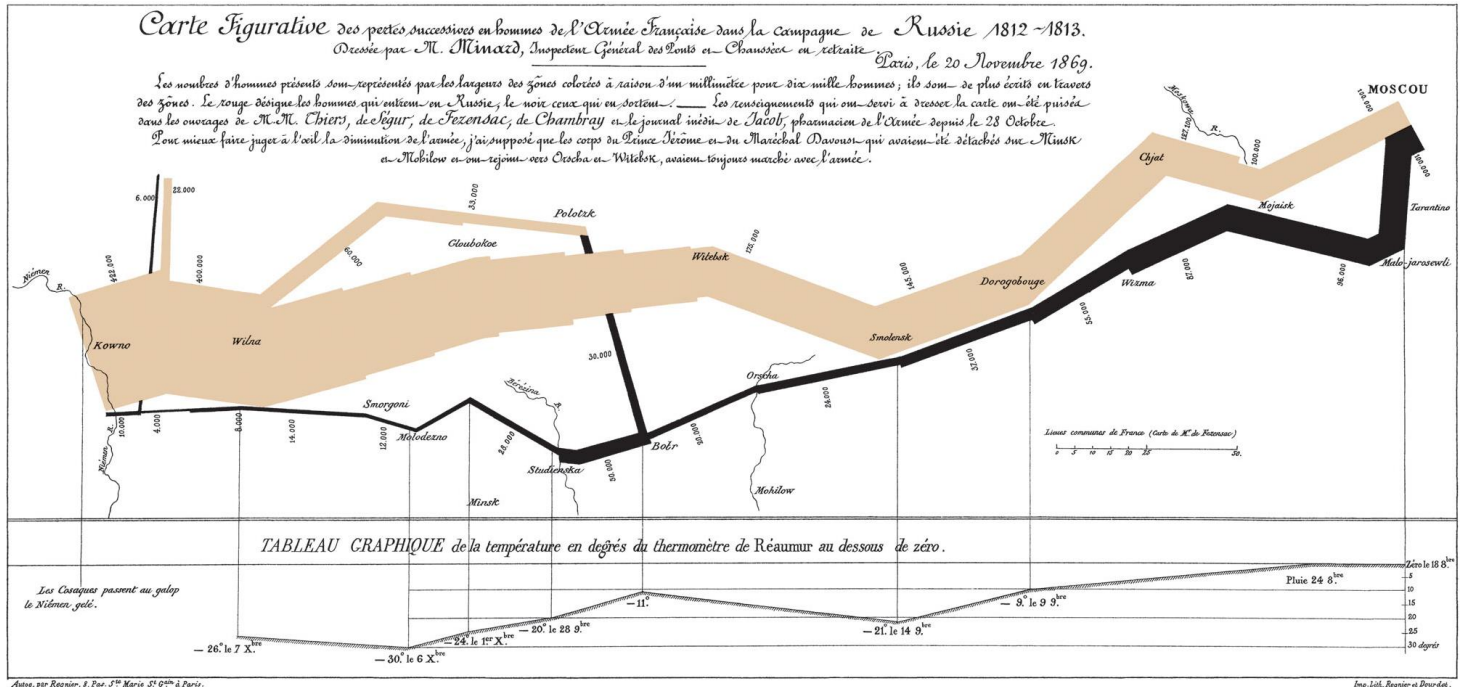Student number: 6240305
5-feb-2016

1. Find a visualization online and answer the following questions pertaining to that visualization. Attach the visualization as a screenshot in your submission.

My chosen visualization:

The (apparently) well-known visualization of Napoleon Bonaparte's infamous attempt to take Moscow during the winter of 1812 by Charles Joseph Minard from 1869.

2. Consider Bertin's characterization of visual variables (position, size, shape, value, color, orientation, and texture). Pick 2 of Bertin's visual variables, and discuss them in relation to your visualization.

The figure is a representation of the route that the Grande Armée marched through Russia on its way to Moscow and back. Shape and size are key in this figure.
It is clear to see that over the duration of the campaign the amount of soldiers heavily declined. The shape of the lines indicates the route. Most of the soldiers fell on the way to Moscow (indicated with the width of the skin-colored line). The width black line represents the way back and indicates that hardly any of the soldiers really returned (4000 of 400.000).
The visual approach is very informative. The clever combination of shape (route) and size (width) tells us even more in a beautifully visual way: it includes a chronological factor. You can see the army size for any moment on any location in the campaign.

3. Do you agree that visualization is a functional art? Explain.

I guess it does. However, it would be dependent on the definition of art and on the visualization itself. So, let's define these first.

Art could be defined as something that is created to be either beautiful, challenging, or created to convey a message, tell a story or evoke emotions.

If we would define art as such, a visualization would per definition be art for it usually tries to do these things.
The difference is that a visualization uses data as a fundament to present and/or summarize information in an understandable and comprehensible way. In addition to that it can be beautiful, challenging, conveying a message, tell a story or evoke emotions. So here we have it: Information + art = functional art.

The only thing it doesn't do is being solely beautiful -and that's already where the difference lies. An artist however could use data to, for example, create a pattern which tells us nothing and is solely beautiful. Then it would be just art for no information has been visualized to be informative.

4. Ask yourself what the designer is trying to convey and think of three to four possible tasks this visualization should help you with. Does the visualization achieve any of your tasks? (To view an example, see Albert Cairo, pages 26-28.)

What does the designer want me to do with this graphic?
To tells me a story of the dreadfulness of the campaign in Russia in just one overview.

Therefore it should
- Present data on the amount of casualties to me in a clear fashion.
- Allow me to compare the casualties from start to finish
- Allow me to imagine the course of the campaign and empathize with the soldiers

It clearly does these three things. The data is beautifully visually organized by a line that declines in width until there is almost nothing left, where start and finish even lay next to each other allowing for immediate comparison. The black is very aesthetically chosen: It depicts a grim and dark way back where the morale of the soldiers could hardly be lower, knowing the temperature would fall dramatically and death is lurking nearby. Apart from giving me information and depicting the horrible decline in soldiers, its visual representation of a map makes the whole thing so vivid that, in combination with the things I know about this infamous campaign, it really stimulates my fantasy making this visualization almost cinematographic-like. The classic lay-out also helps in creating this horrid picture but I doubt that it is chosen intentionally for that purpose considering the time this visualization was made (1869).