

Paul Rosen

paul.rosen@utah.edu  
@paulrosenphd  
<https://cspaul.com>



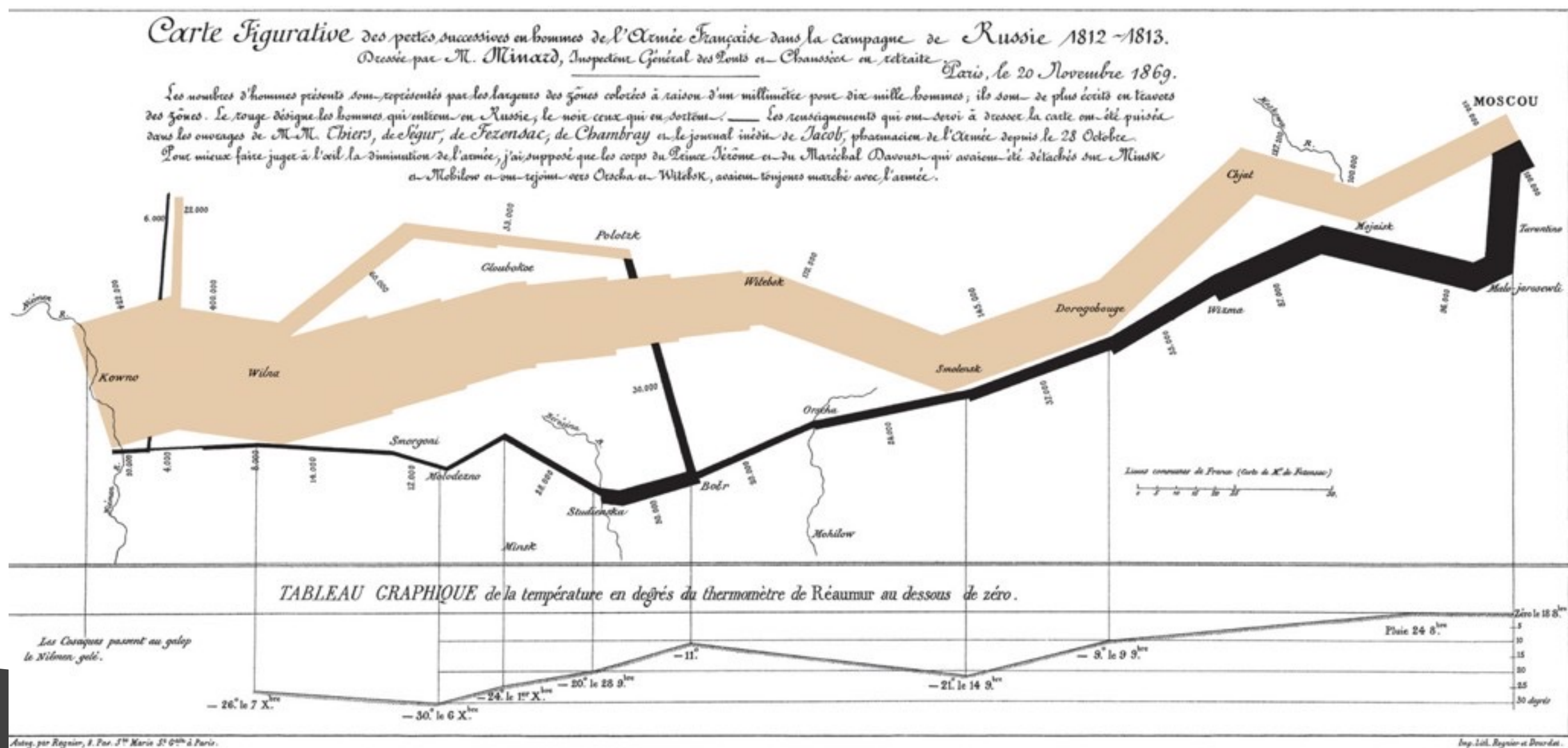
# Visualization for Data Science

## DS-4630 / CS-5630 / CS-6630

Group Activity: “Greatest Infographic Ever”

# The “Greatest Infographic Ever”

- Created by Charles Joseph Minard in 1861, the infographic depicts the losses suffered during Napoleon's Russian campaign of 1812.



# Your group's task

1. Identify and enumerate all the data encoded (date, location, etc.) in the image and by what means (color, position, etc.)
2. Make a list of key events of Napoleon's march
  - First, using only the chart, determine the type, location, timing, and cause of the events (you will not be able to determine all type/location/timing/cause information for every event)
  - Second, use the Google machine to fill in some of the knowledge gaps for these events
  - In your writeup, note what you found in the chart vs Google



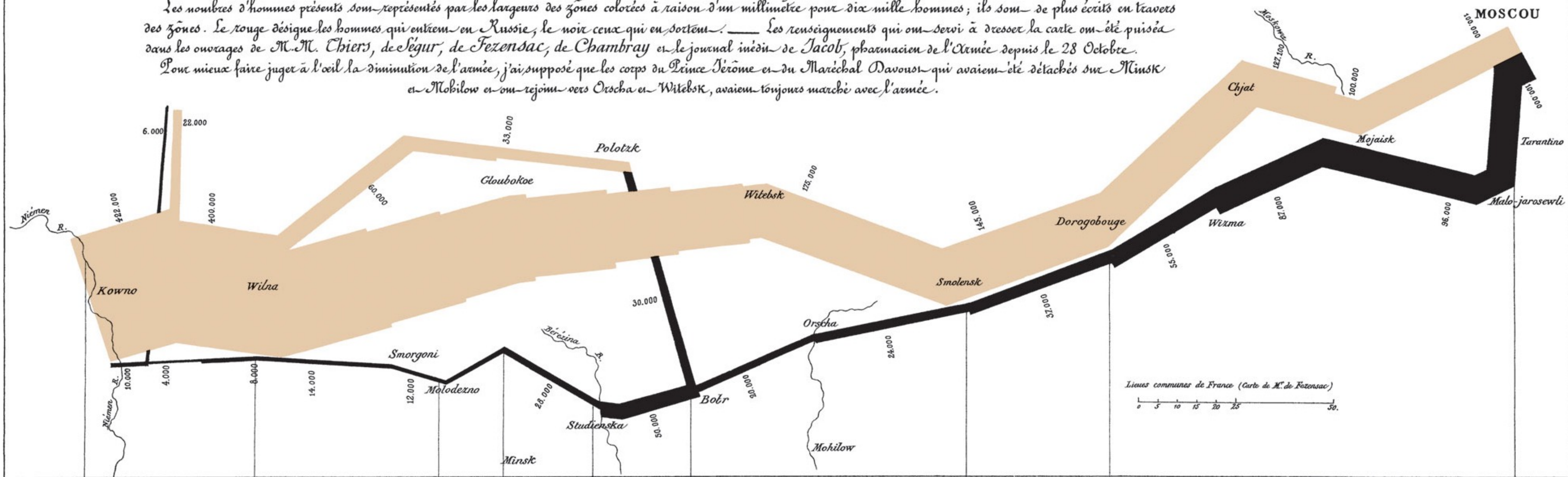
# Original

## Carte Figurative des pertes successives en hommes de l'Armée Française dans la campagne de Russie 1812-1813.

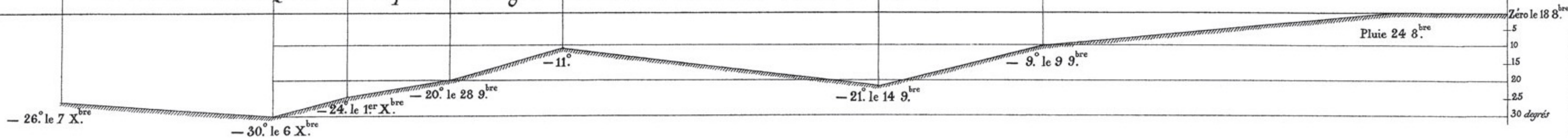
Dressée par M. Minard, Inspecteur Général des Ponts et Chaussées en retraite. Paris, le 20 Novembre 1869.

Les nombres d'hommes présents sont représentés par les largeurs des zones colorées à raison d'un millimètre pour dix mille hommes; ils sont de plus écrits en travers des zones. Le rouge désigne les hommes qui entrent en Russie, le noir ceux qui en sortent. — Les renseignements qui ont servi à dresser la carte ont été puisés dans les ouvrages de M.M. Chiers, de Ségur, de Fezensac, de Chambray et le journal inédit de Jacob, pharmacien de l'Armée depuis le 28 Octobre.

Pour mieux faire juger à l'œil la diminution de l'armée, j'ai supposé que les corps du Prince Jérôme et du Maréchal Davoust qui avaient été détachés sur Minsk et Mohilow et ont rejoint vers Orscha et Witebsk, avaient toujours marché avec l'armée.



## TABLEAU GRAPHIQUE de la température en degrés du thermomètre de Réaumur au dessous de zéro.



Les Cosaques passent au galop le Niémen gelé.



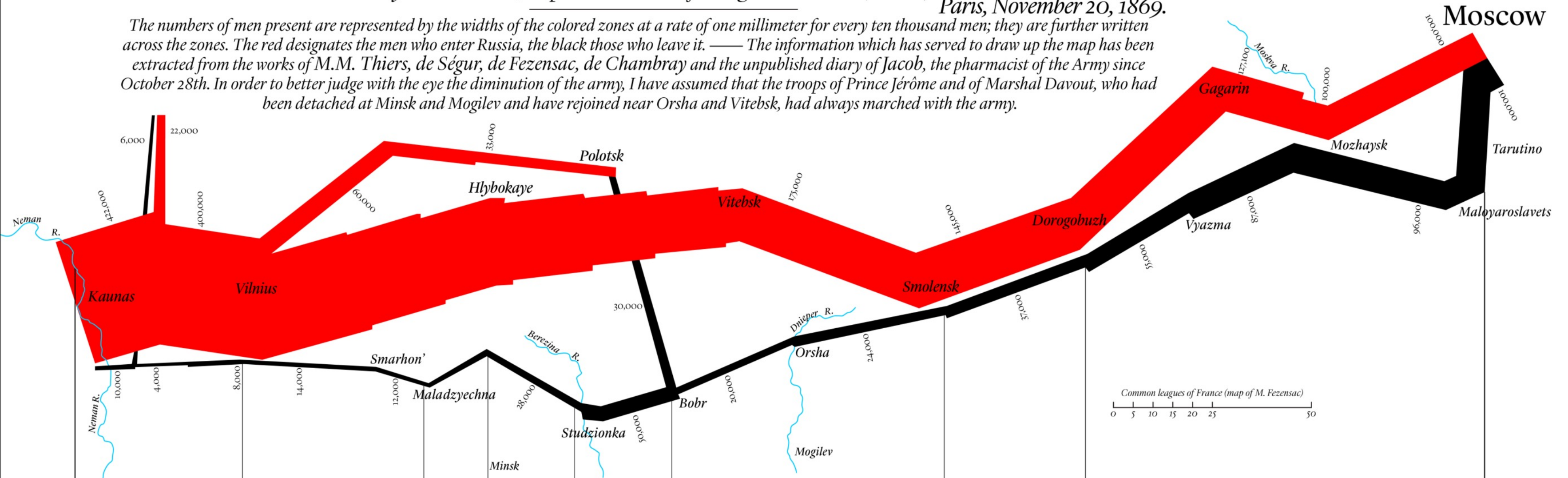
# English Translation

## Figurative Map of the successive losses in men of the French Army in the Russian campaign 1812 ~ 1813

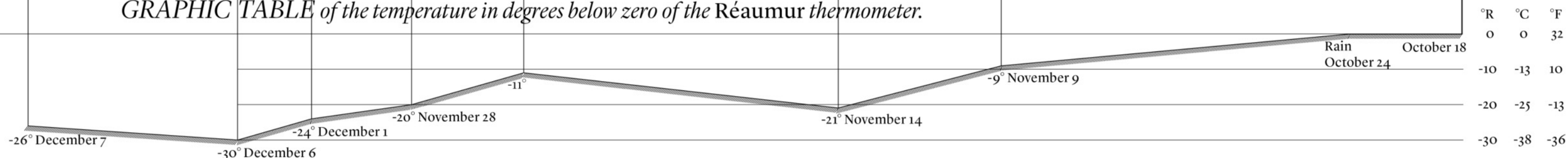
Drawn by M. Minard, Inspector General of Bridges and Roads (retired).

Paris, November 20, 1869.

The numbers of men present are represented by the widths of the colored zones at a rate of one millimeter for every ten thousand men; they are further written across the zones. The red designates the men who enter Russia, the black those who leave it. — The information which has served to draw up the map has been extracted from the works of M.M. Thiers, de Ségur, de Fezensac, de Chambray and the unpublished diary of Jacob, the pharmacist of the Army since October 28th. In order to better judge with the eye the diminution of the army, I have assumed that the troops of Prince Jérôme and of Marshal Davout, who had been detached at Minsk and Mogilev and have rejoined near Orsha and Vitebsk, had always marched with the army.



## GRAPHIC TABLE of the temperature in degrees below zero of the Réaumur thermometer.



The Cossacks pass the frozen Neman at a gallop.