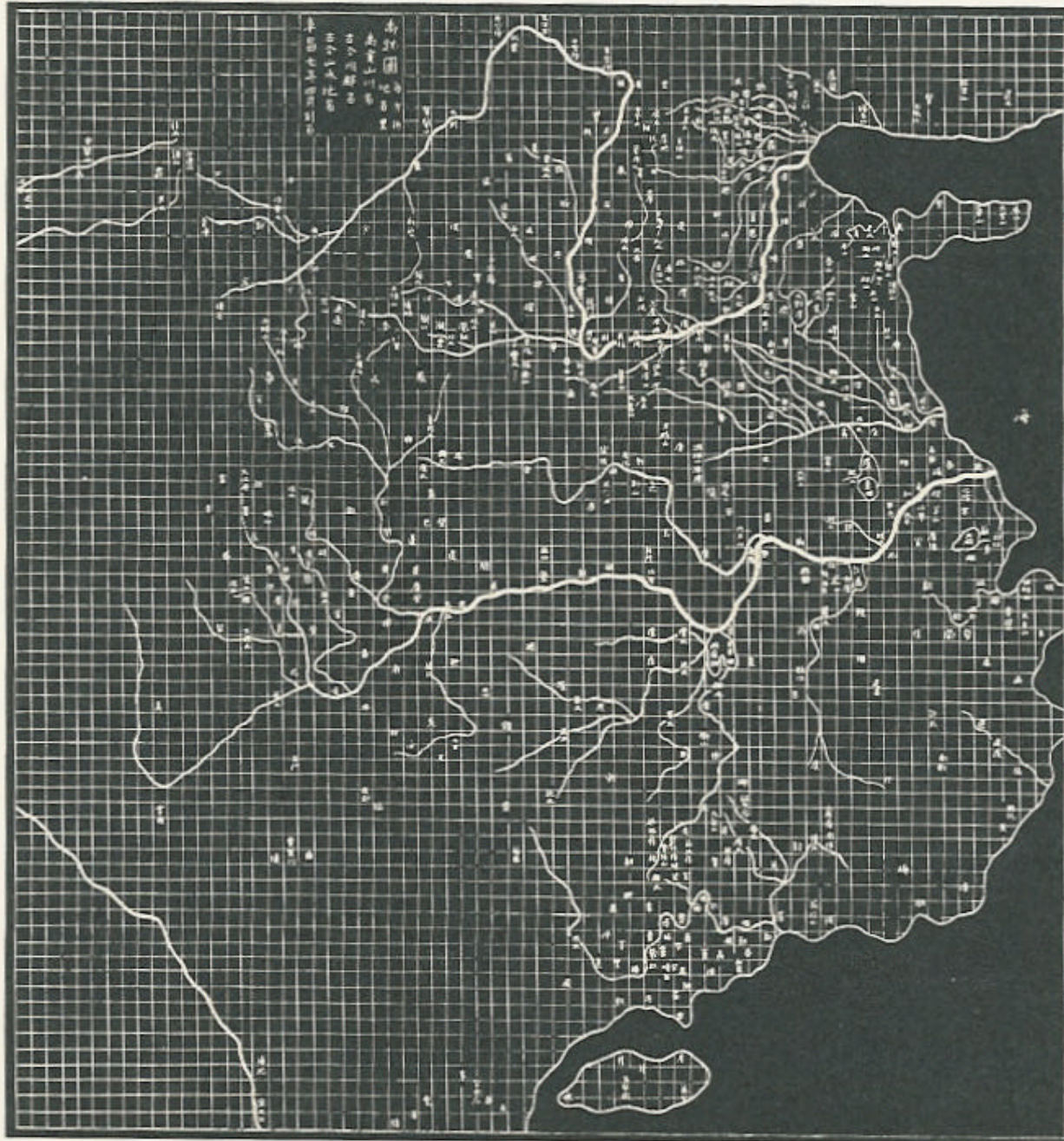


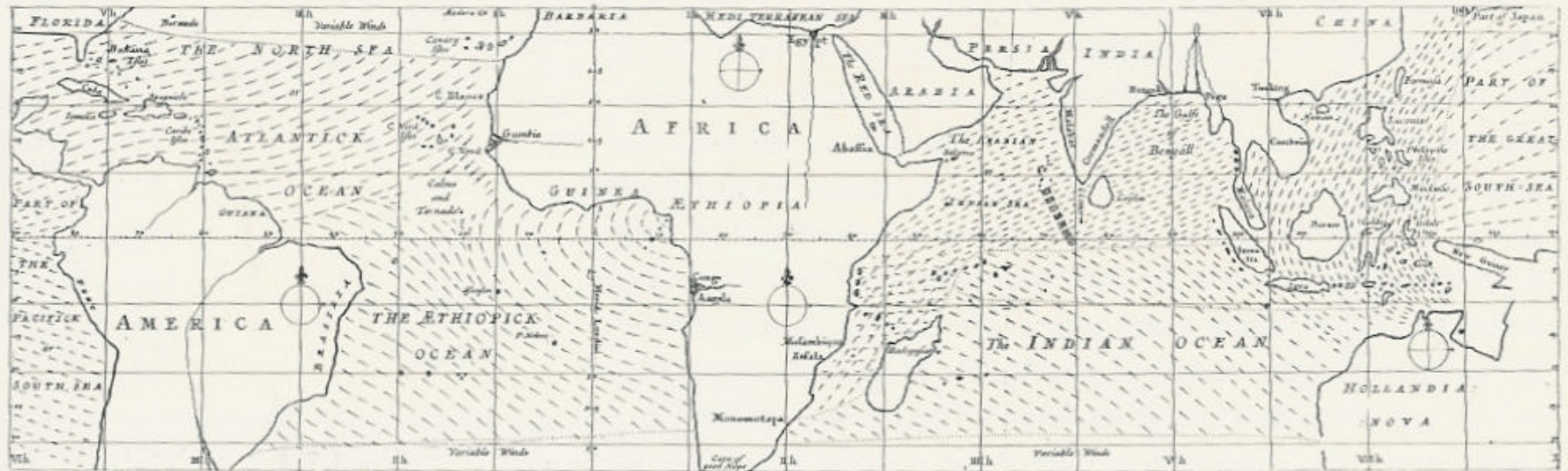
# Statistical Maps: Some Examples

John Fox

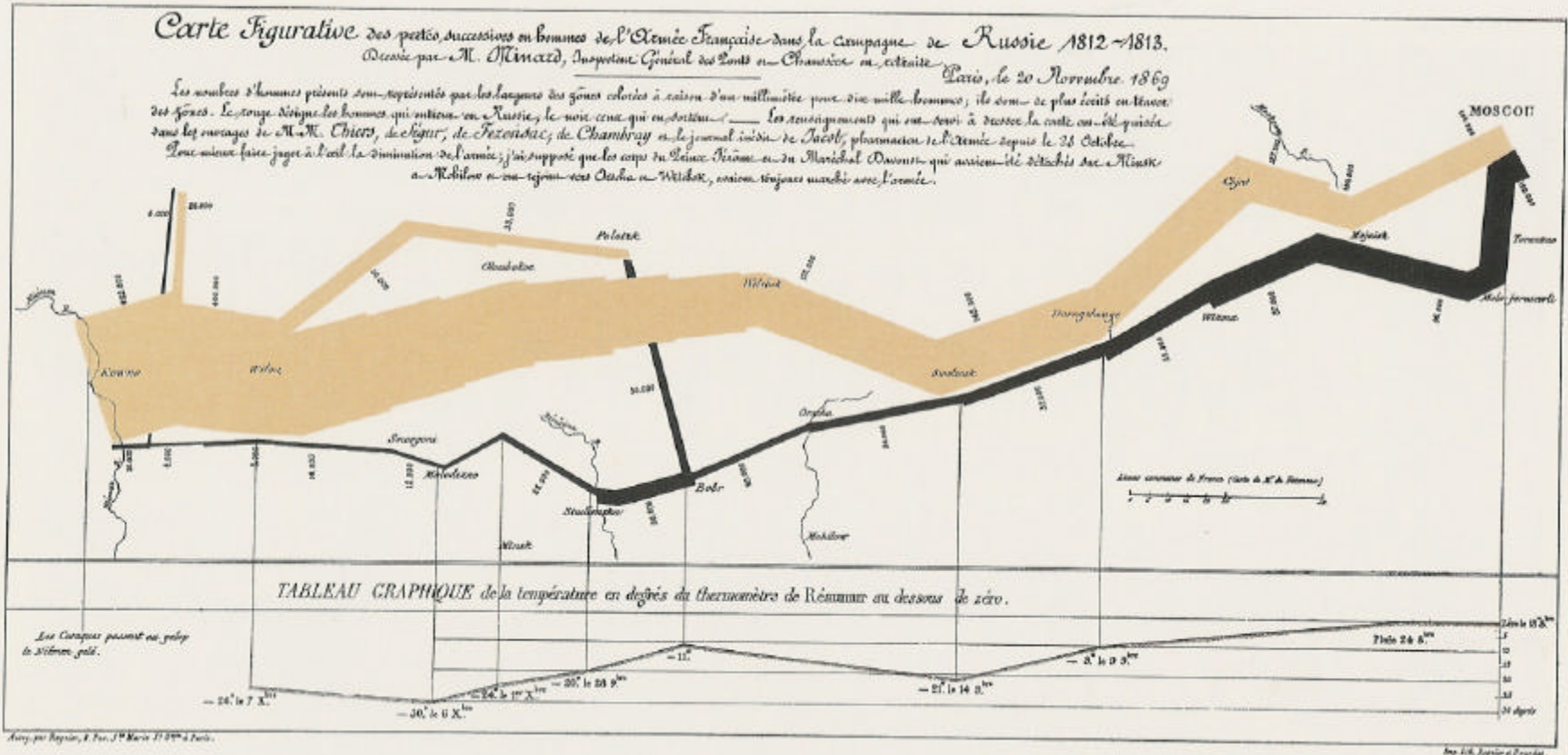
May 2001



A (non-statistical) Chinese map employing a coordinate grid, circa AD 1100. (Source: Tufte, *Visual Explanations*, p. 14)

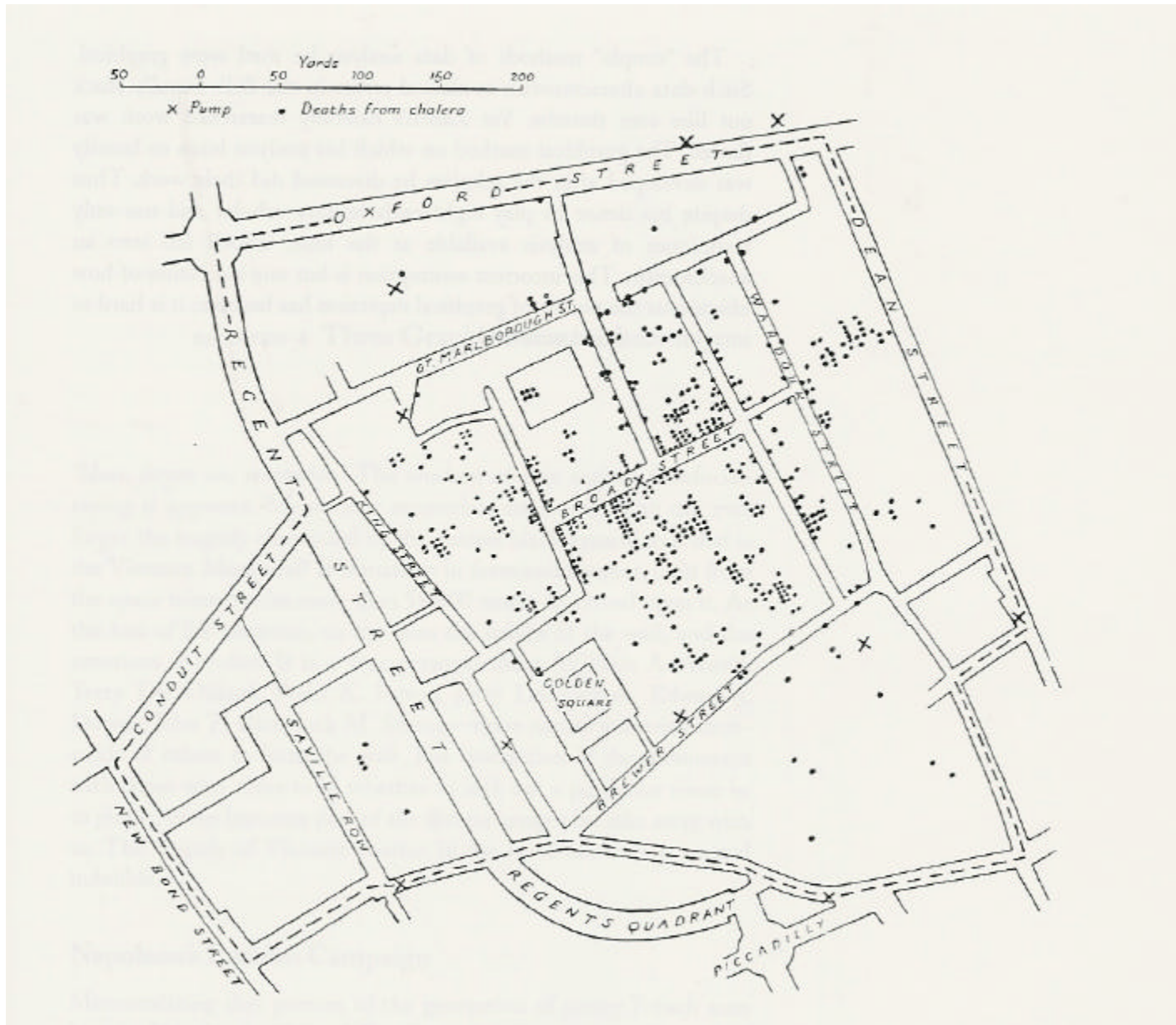


An early data map by Edmond Halley, 1686, showing trade winds and monsoons. (Source: Tufte, *The Visual Display of Quantitative Information*, p. 23)

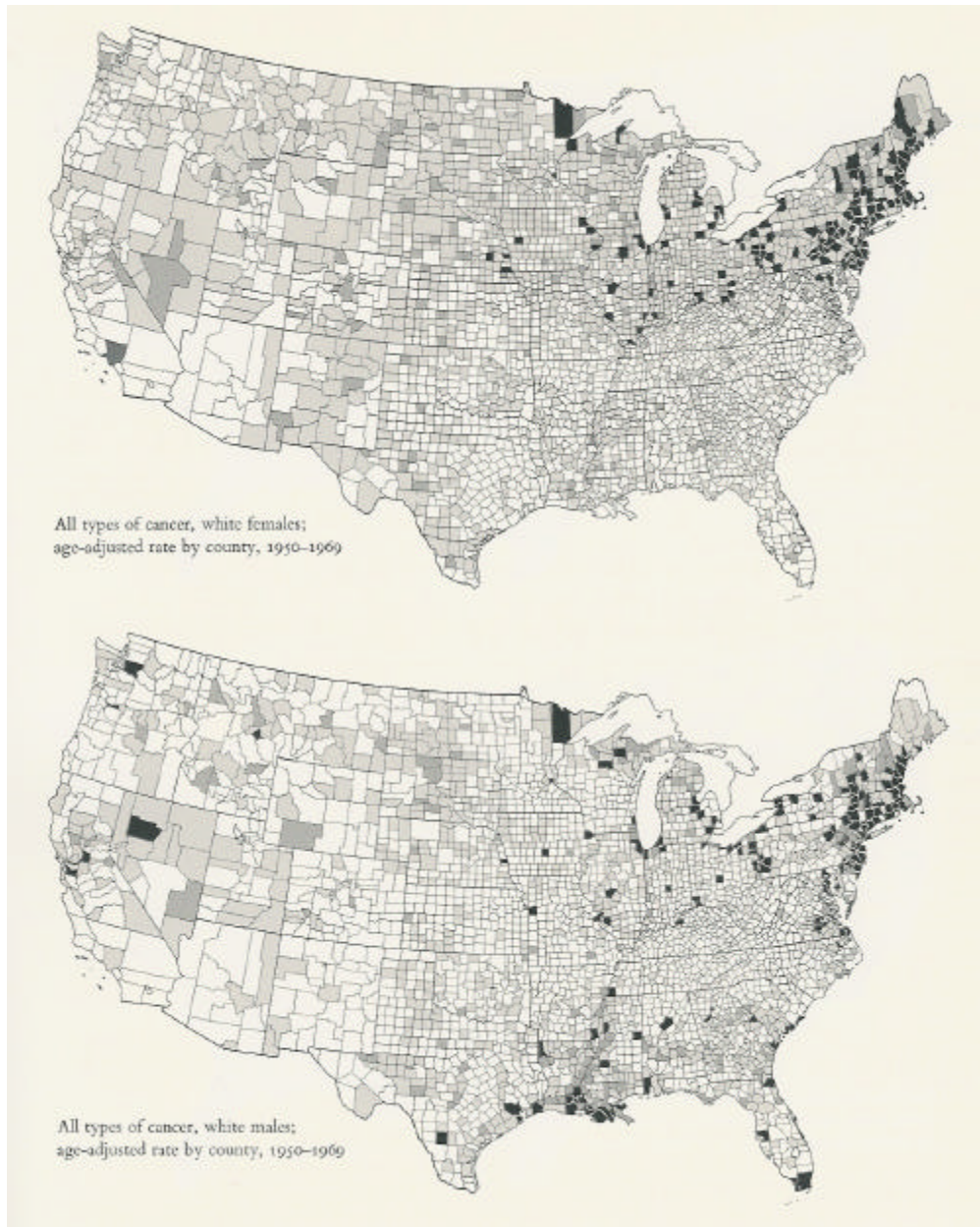


Charles Joseph Minard's celebrated 1869 map of Napoleon's Russian campaign. (Source: Wainer, *Visual Revelations*, p. 85)

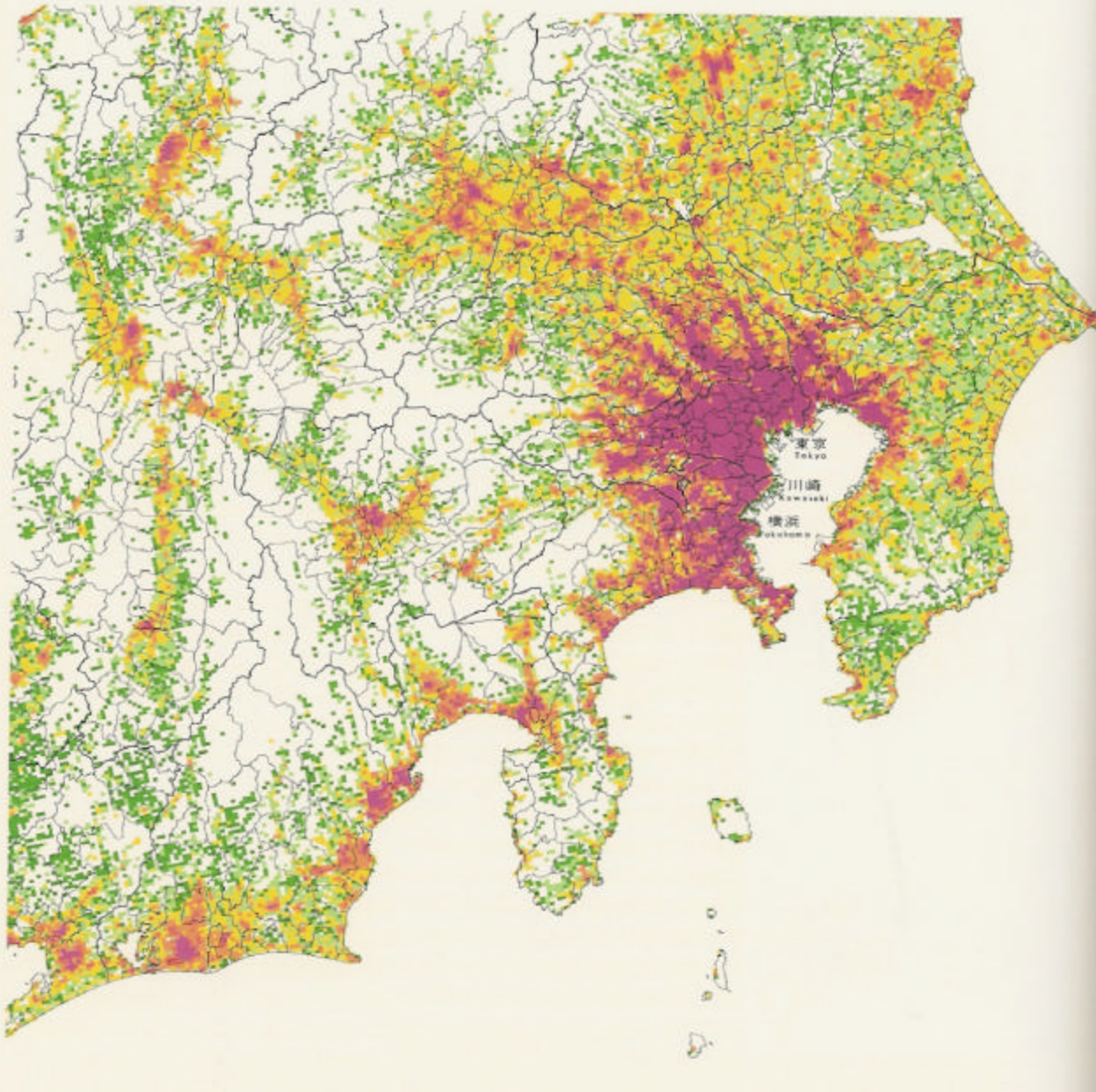




John Snow's 1854 event map of London cholera deaths around the Broad Street water pump. (Source: Wainer, *Visual Revelations*, p. 61)

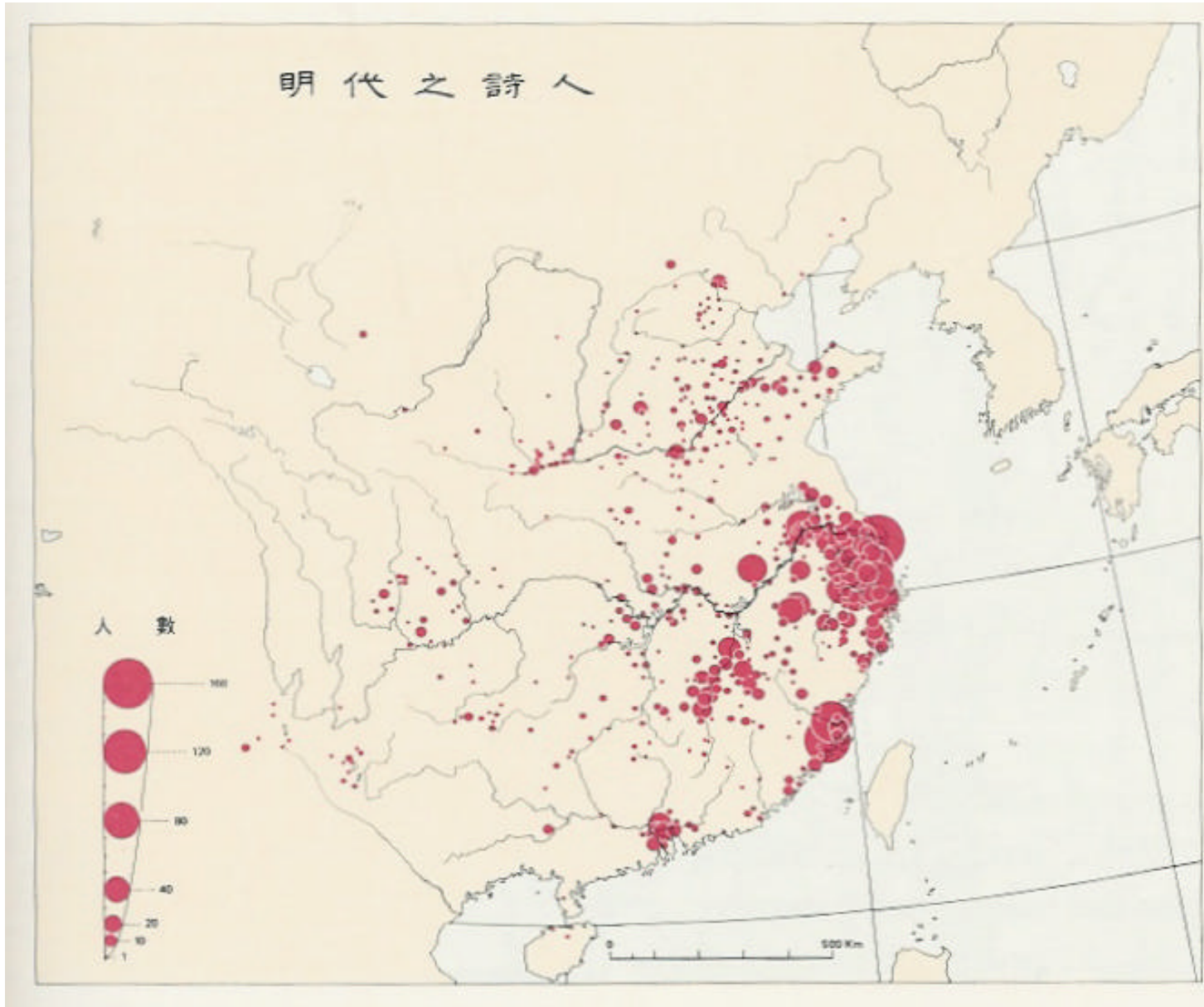


Standard choropleth maps of U. S. age-adjusted cancer death rates, by country. (Source: Tufte, *The Visual Display of Quantitative Information*, p. 17)

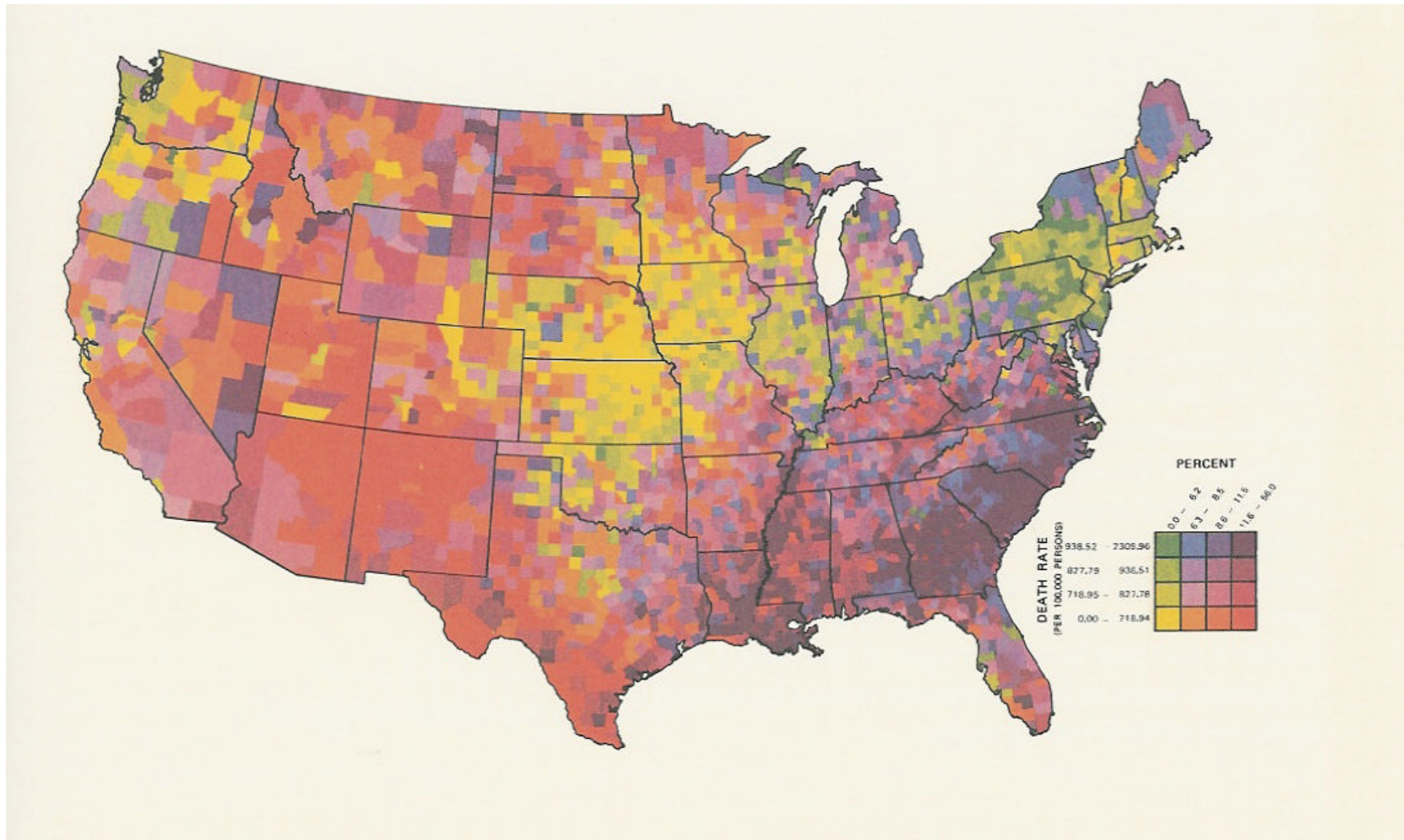


An alternative to the standard choropleth map: 1980 population density of Tokyo, employing a grid of equal-size squares. (Source: Tufte, *Envisioning Information*, p. 40)



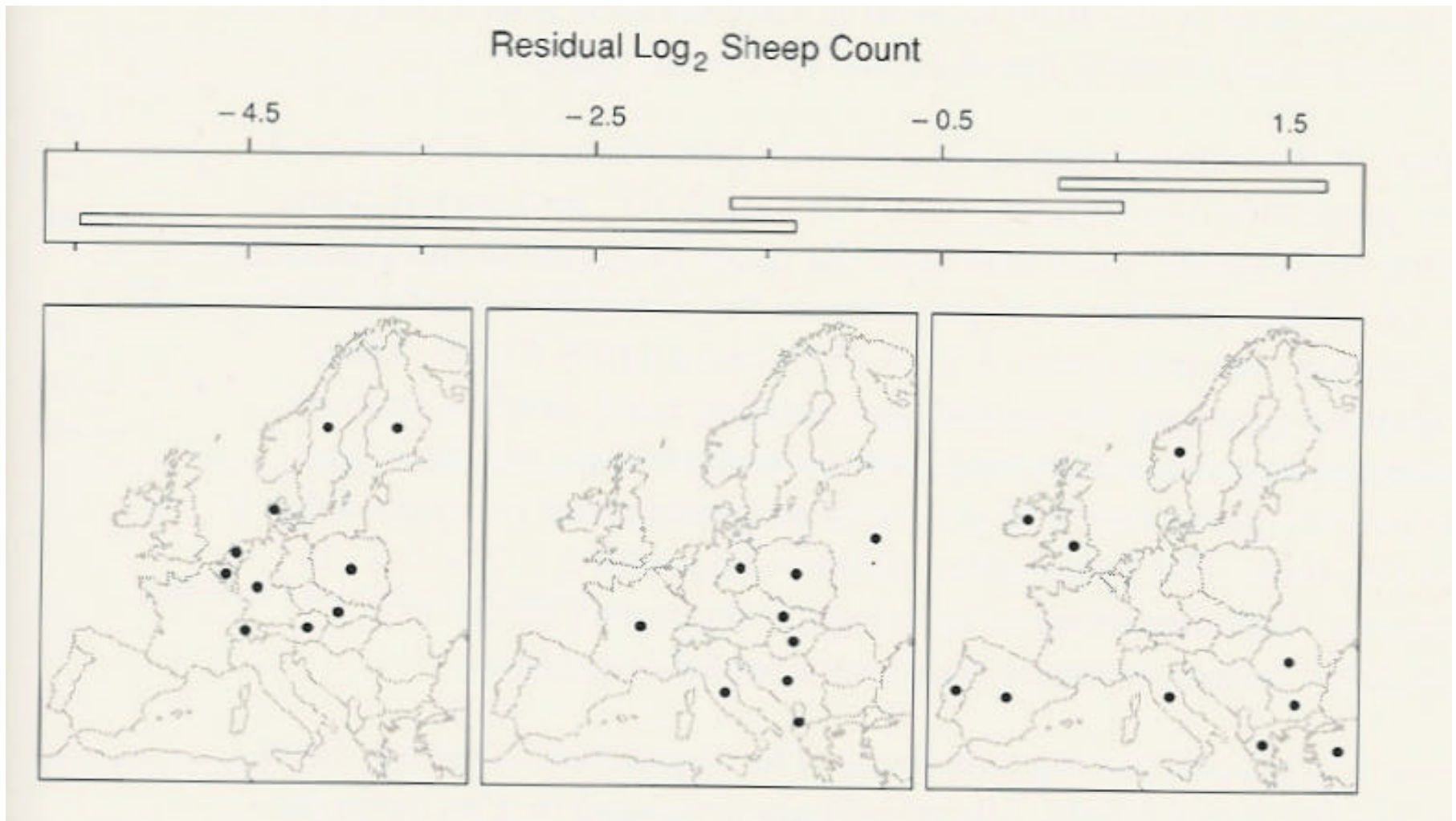


Another alternative to the choropleth map: Birthplaces of 3005 Ming poets, 1368—1644. (Source: Tufte, *Envisioning Information*, p. 75)

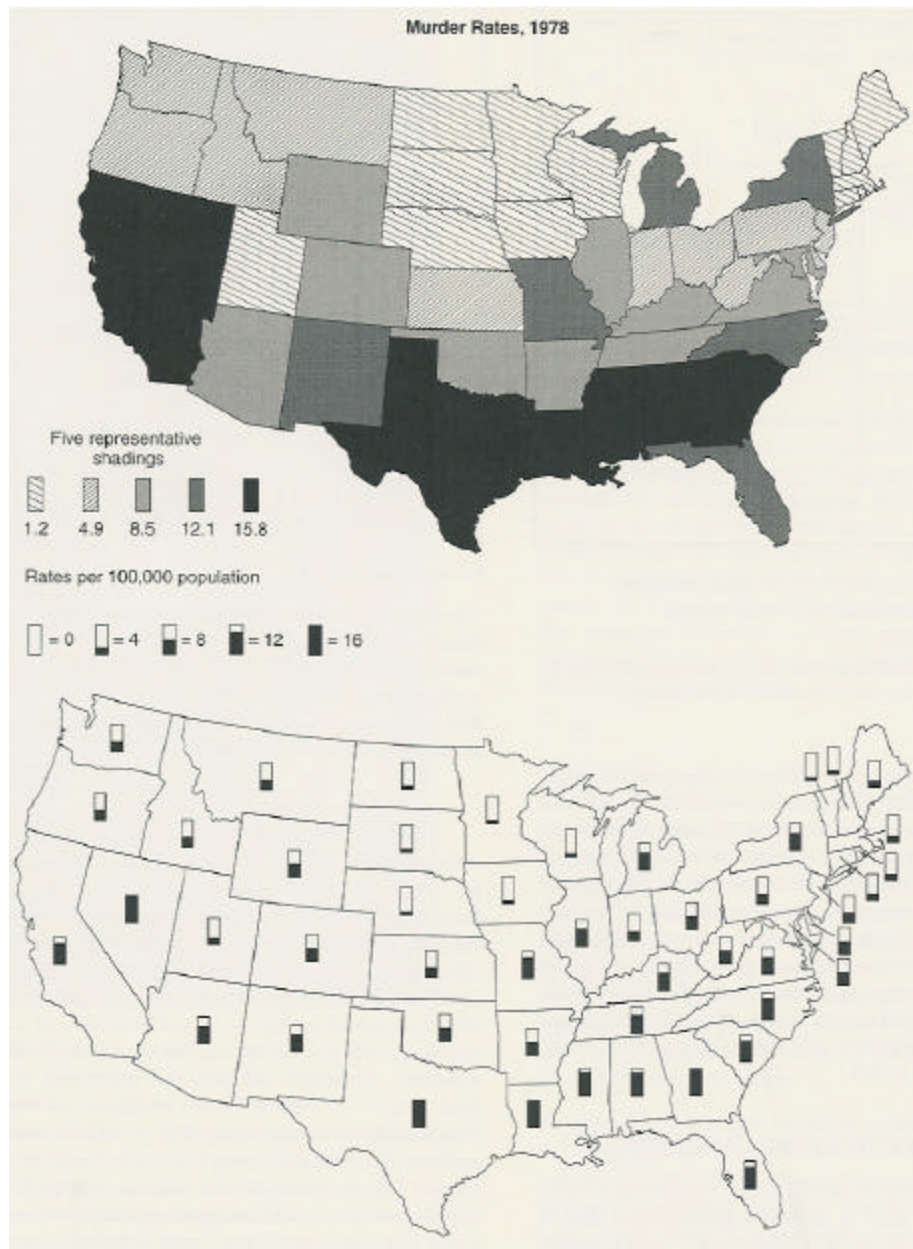


Abortive alternatives to the standard choropleth map:

A bivariate choropleth map – male cardiovascular-disease death rates and percentage of households with more than one person per room, by U. S. counties. (Source: Tufte, *The Visual Display of Quantitative Information*, p. 153)



Level plot of residuals from a model fit to numbers of different kinds of livestock in European countries. (Source: Cleveland, *Visualizing Data*, p. 319)



Chloropleth and framed-rectangle maps of U. S. murder rates by states. (Source: Cleveland and McGill, "Graphical Perception," *JASA*, 1984)