CS7DS4 / CSU44065 Data Visualization 2019-20

Assignment 1.2

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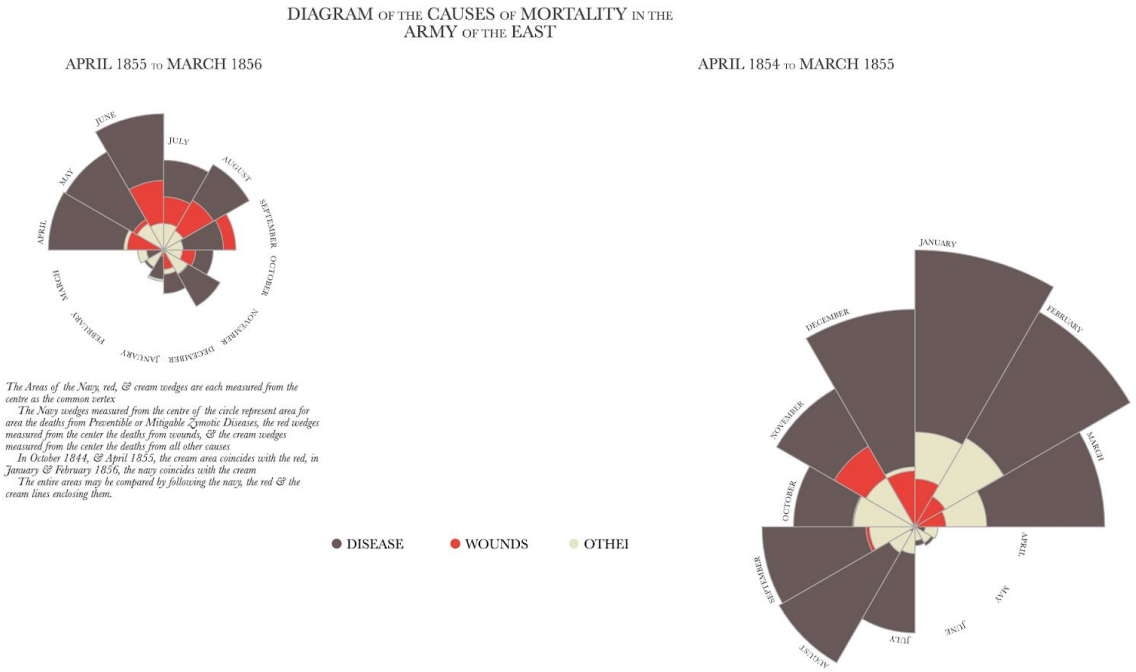
Declaration

"I have read and I understand the plagiarism provisions in the General Regulations of the University Calendar for the current year, found at http://www.tcd.ie/calendar.

I have also completed the Online Tutorial on avoiding plagiarism ‘Ready Steady Write’, located at http://tcd-ie.libguides.com/plagiarism/ready-steady-write."

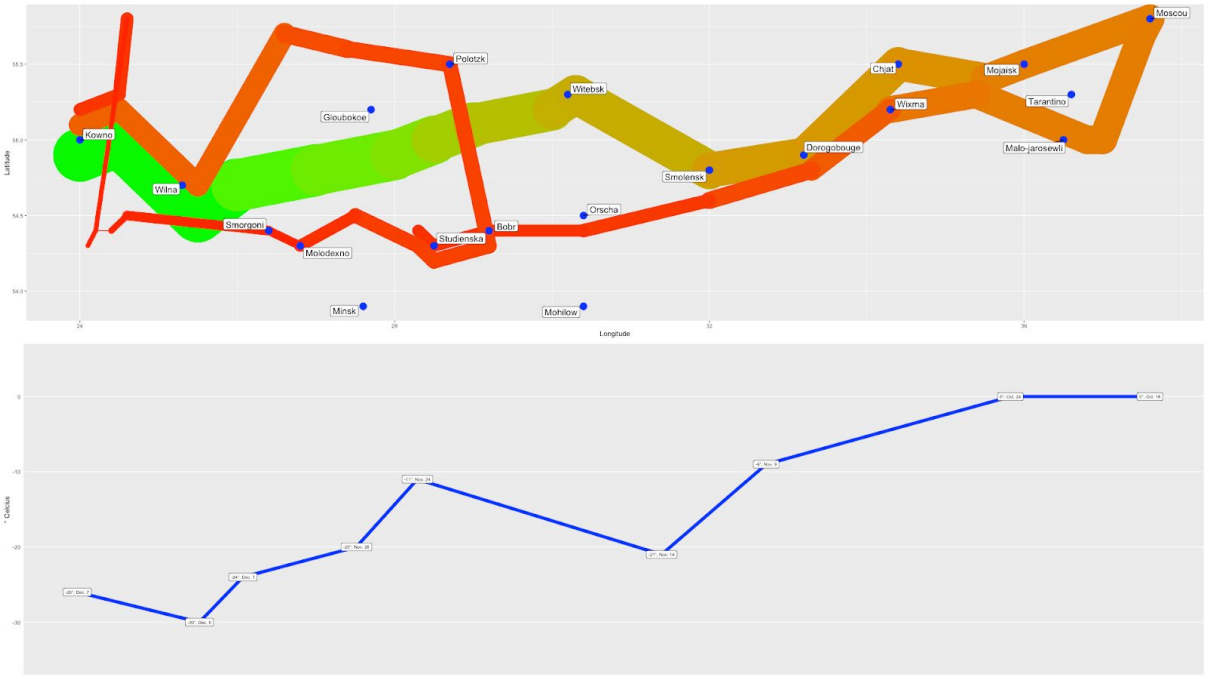
Nightingale’s Rose



Language: Javascript, Library: d3.js

Description: The above visualisation, an altered version of the work done by Kristofer Gryte [1] using the d3 library, accurately recreates Nightingale’s Rose. The text has been altered to more accurately reflect the original illustration, except where text referencing the charts colours has been updated to accurately reflect the colours used in the chart. Since the data is nominal, a categorical mapping between type of casualty and colour has been done. The legend at the bottom maps the colours to their category. A zoomed transformation has been performed or the right hand side, displaying ability to vary scale and perform transformations.

Minard



Language: R, Libraries: ggplot, ggrepel, readxl

Top Portion: The size of the army is represented both by the thickness of the line and gradient colour, utilizing the strong interaction between size and colour channels. The cities are represented as blue points on the spatial plane. Labels for the cities are utilized to increase legibility. The overlaying of cities on top of the path taken by the troops indicated the plane is geometric but Longitude and Latitude are added on the x and y axis respectively to minimize the opportunity for confusion.

Bottom Portion: The temperature of the retreat taken by the army is represented as a line plot since the data is ordinal. Again labels are used at each measurement to ensure clarity. The thickness of the line is increased the blue is used to increase comprehensibility. The Y axis makes clear the measurement, Degrees celsius, no x-axis is required as there is a direct mapping up to the top portion.

Bibliography

[1] http://bl.ocks.org/kgryte/5926740