Session 12

Fall 2018

Topics

Visualization Exercise

John Snow

Edward Tufte (Charles Minard)

Data-Ink Ratio

Color

Q&A

Whiteboard Exercise

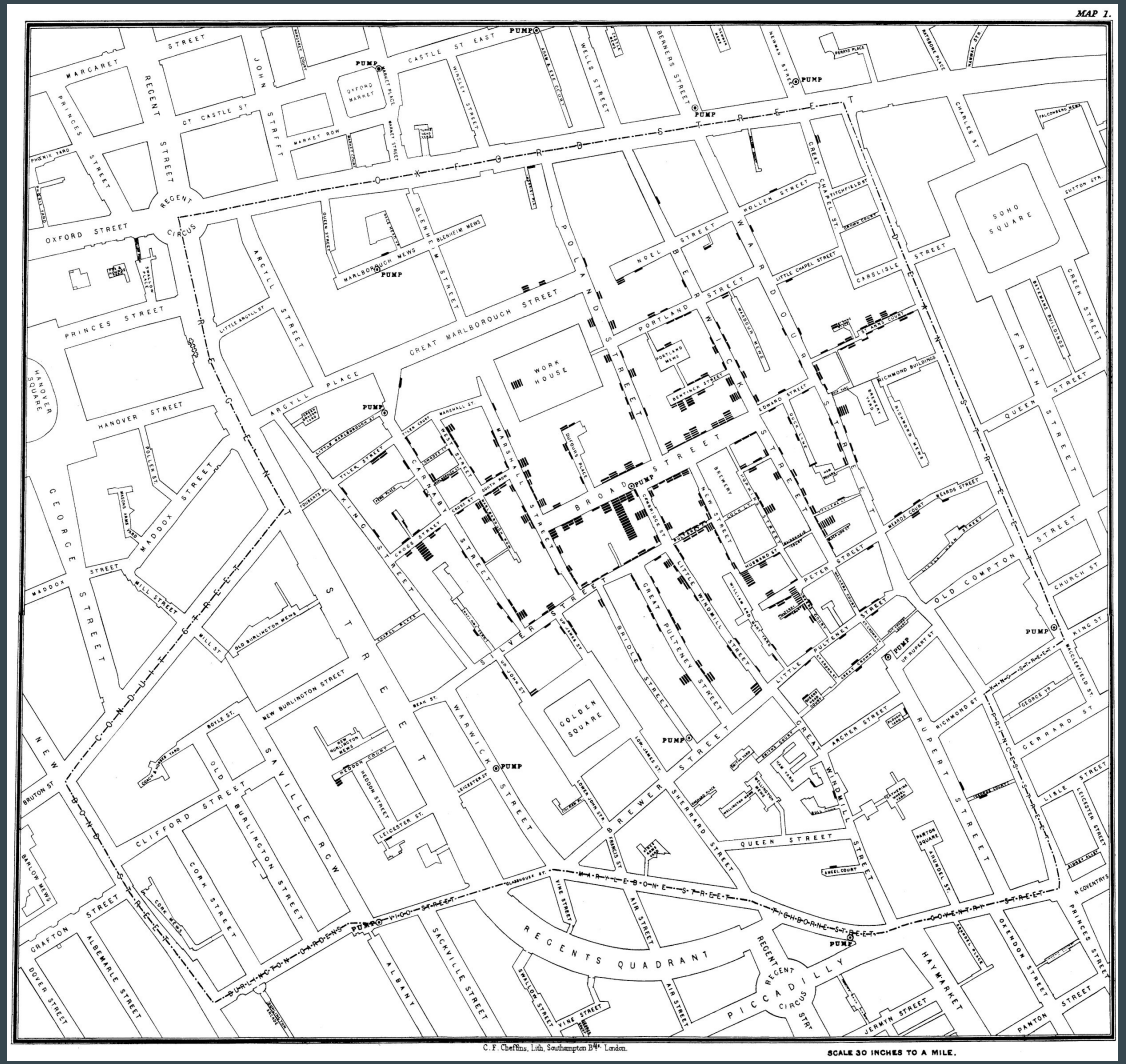
Break into groups and create a chart(s) best depicting the following data structures. Use color, chart choice, and labels to best explicate the data.

```
[ [ Paul, 3, 5 ],
  [ Sarah, 5, 12 ],
  [ Jan, 2, 6 ],
  [ Sebby, 6, 9 ],
  [ Frankie, 4, 18 ] ]
```

```
[ [ F, 5, 5 ],
  [ M,  10, 10 ],
  [ M, 15, 15 ],
  [ J, 19, 20 ],
  [J,  21, 15],
  [A, 25, 10] ]
```

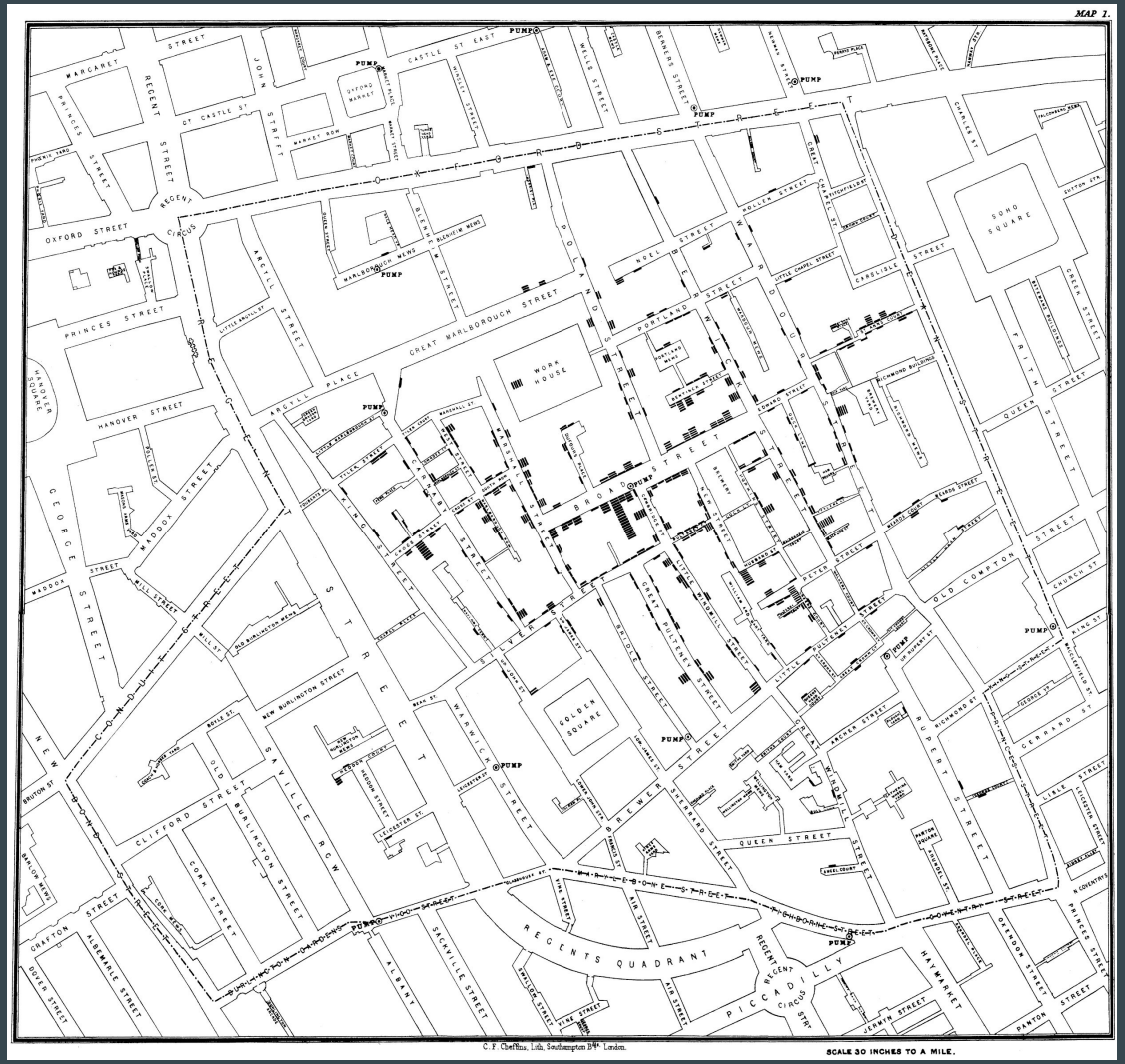
```
[ [ Pat, 10 ],
  [ Bill, 24 ],
  [ Pat,  24 ],
  [ Bill, 24 ],
  [ Pat, 34 ],
  [ Bill, 27 ]
```

John Snow

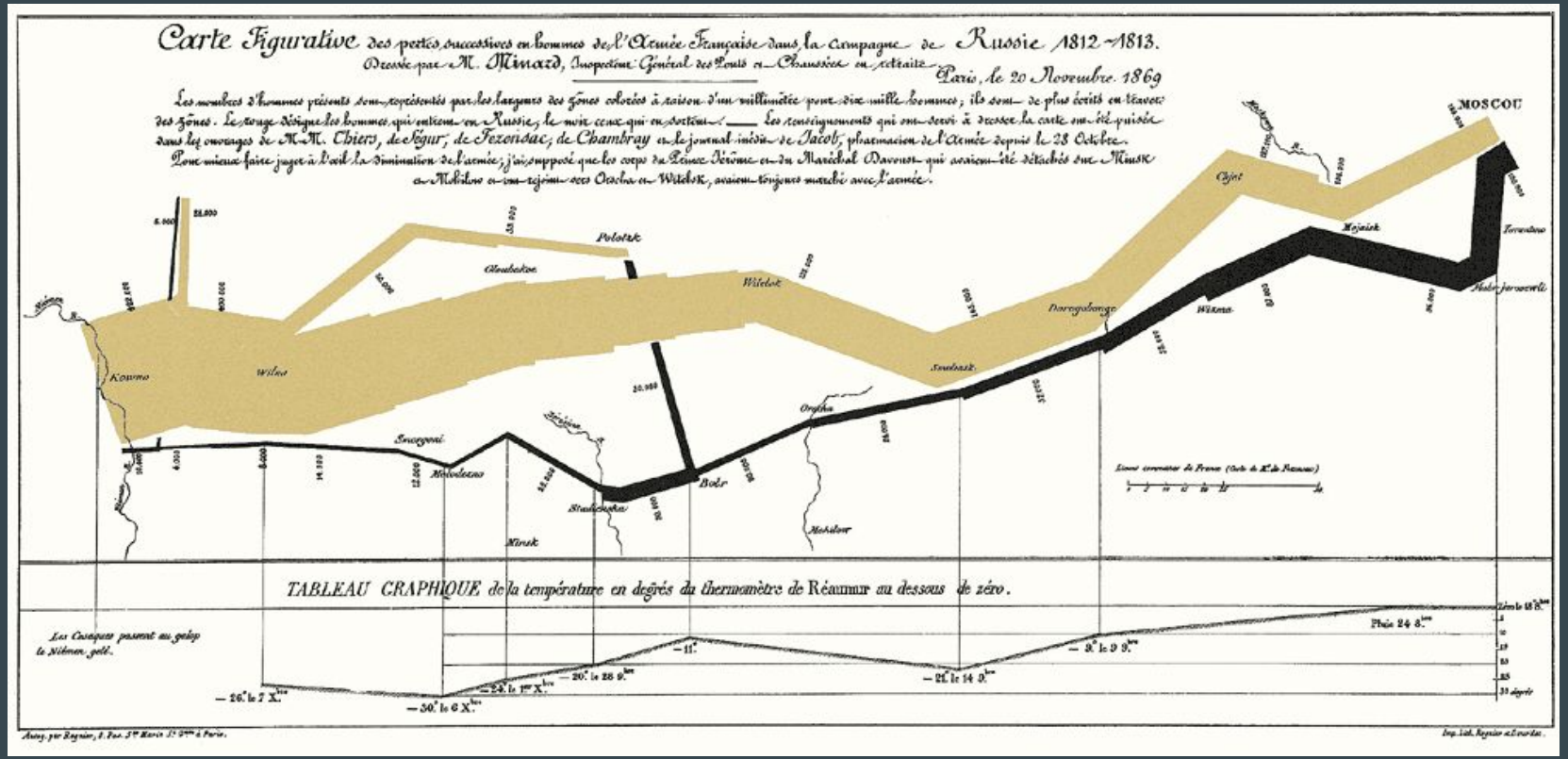

MAP 1.
PUMP
OXFORD STREET
REGENT STREET
GREAT MARLBOROUGH STREET
PRINCES STREET
HANOVER STREET
HANOVER SQUARE
ARGYLL PLACE
ARGYLL STREET
WORK HOUSE
BROAD STREET
GEORGE STREET
MADDOX STREET
NEW BURLINGTON STREET
SAVILLE ROW
CLIFFORD STREET
OLD BURLINGTON STREET
GOLDEN SQUARE
WARWICK STREET
REGENTS QUADRANT
PICCADILLY
GRAFTON STREET
ALBEMARLE STREET
SACKVILLE STREET
HAYMARKET
SOHO SQUARE
OLD COMPTON STREET
QUEEN STREET
C. F. Cheffins, Lith, Southampton Bldgs. London.
SCALE 30 INCHES TO A MILE.

John Snow

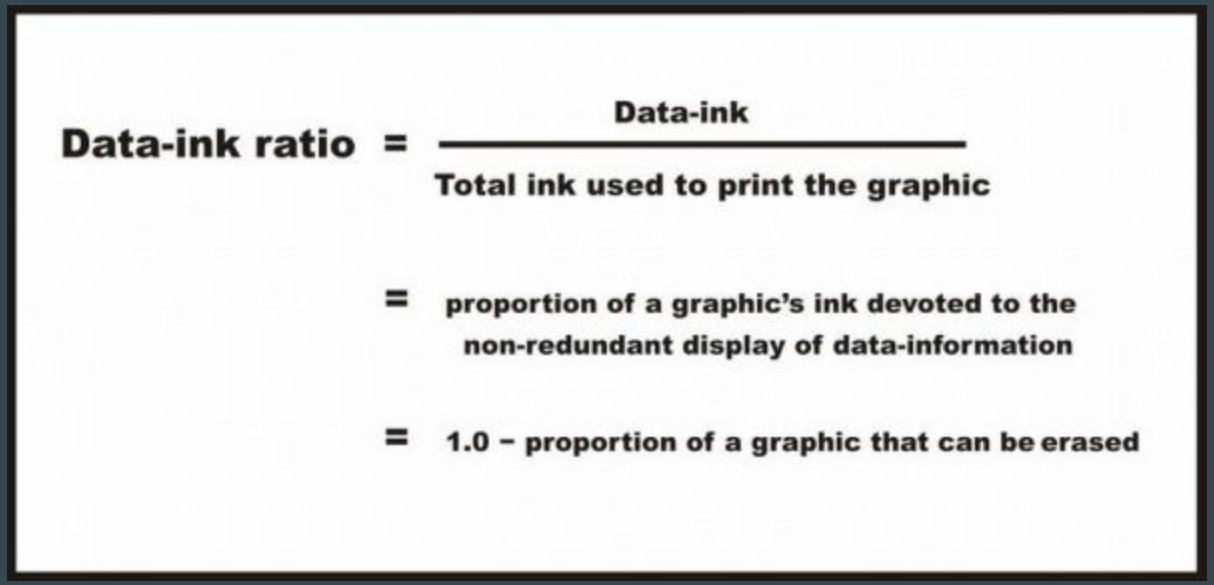
Mapping the 1854 London Cholera Outbreak



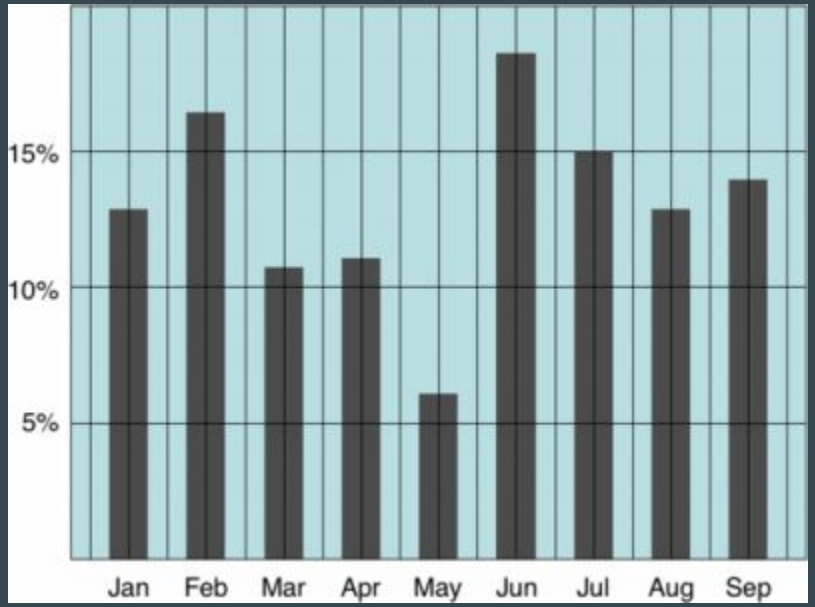
Charles Minard



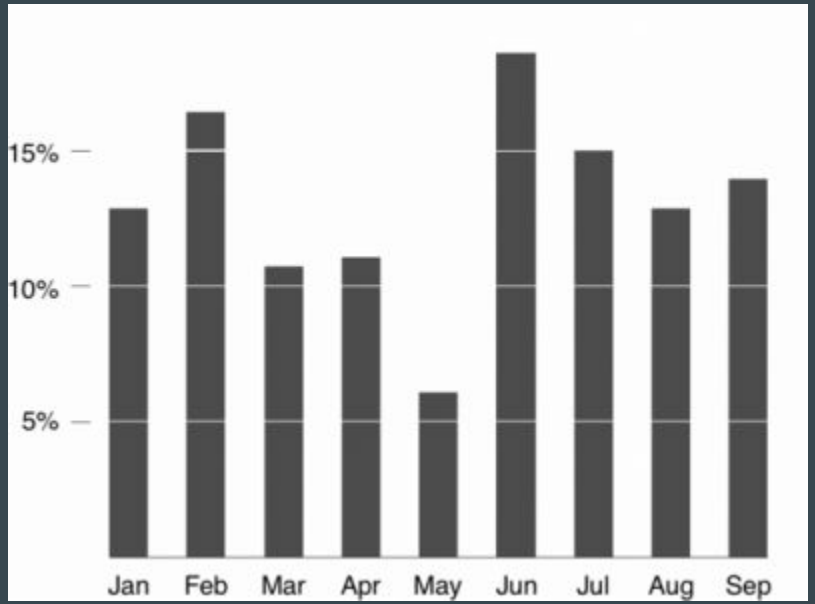
Data-Ink Ratio



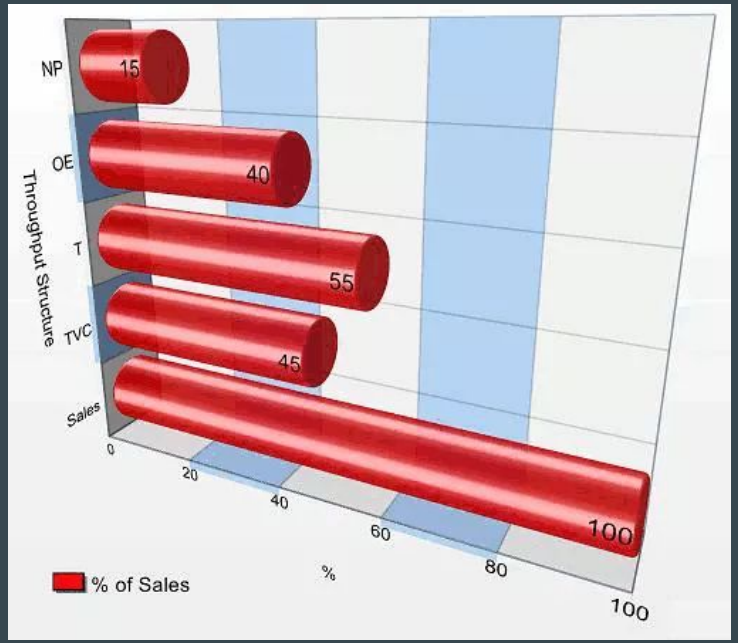
Low Data-Ink Ratio

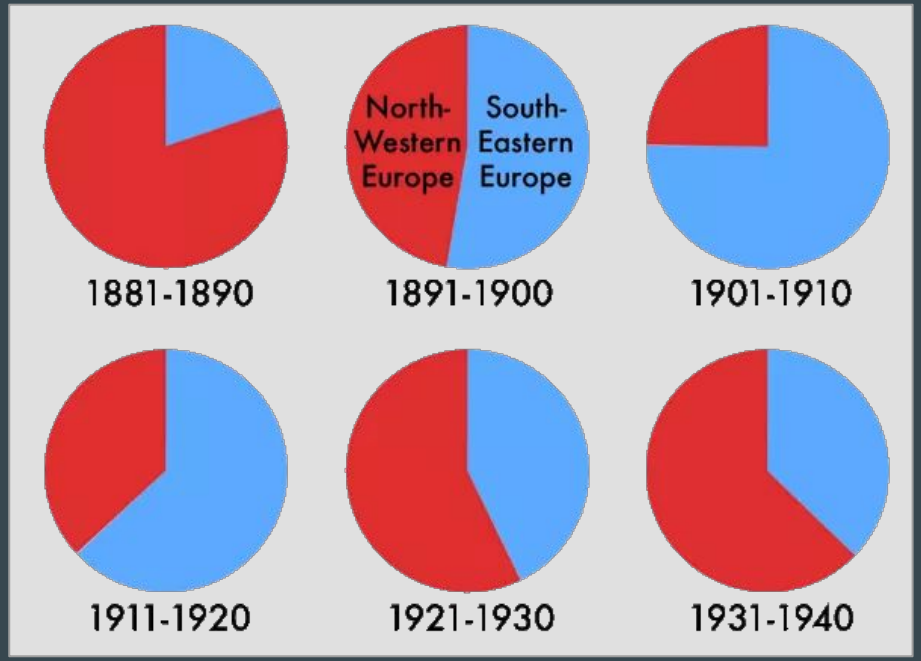


High Data-Ink Ratio

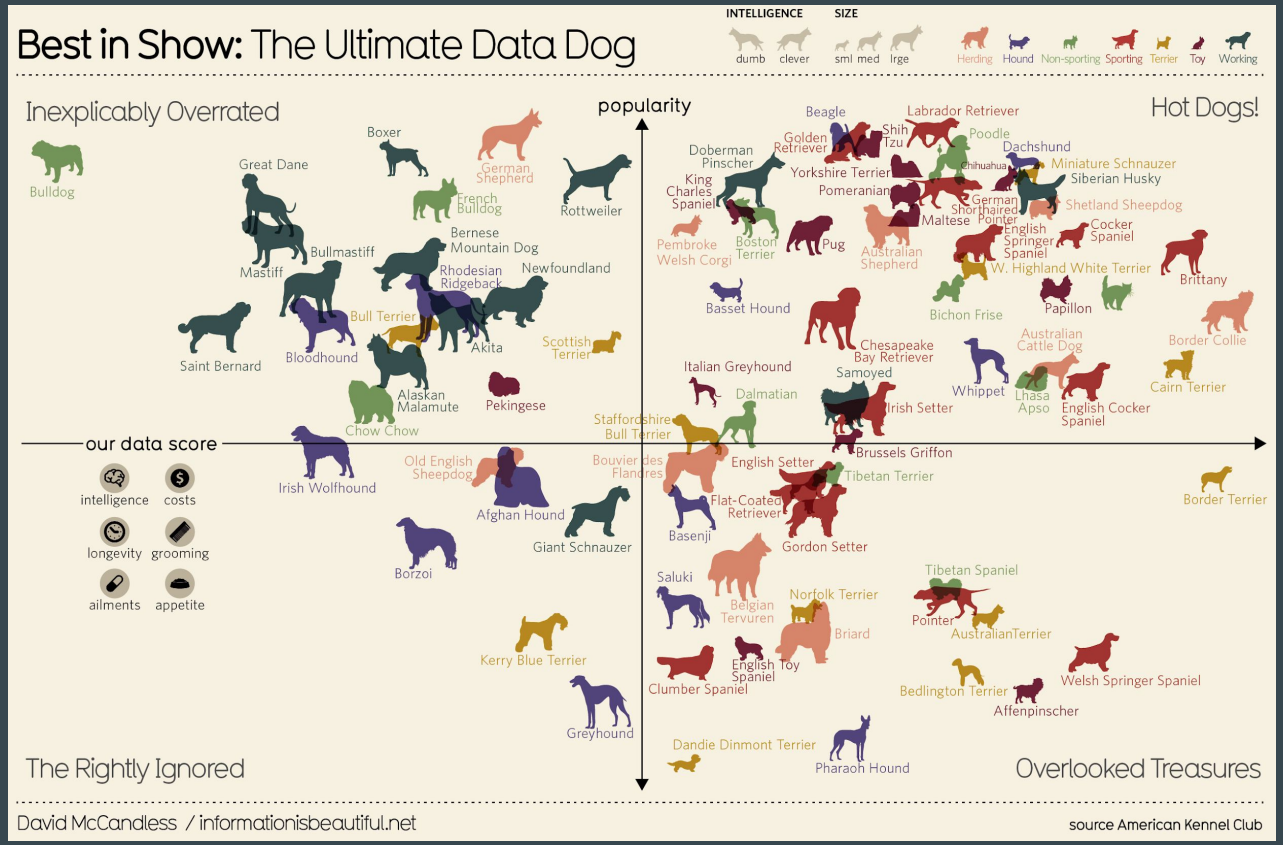


Rich Vis, Poor Vis

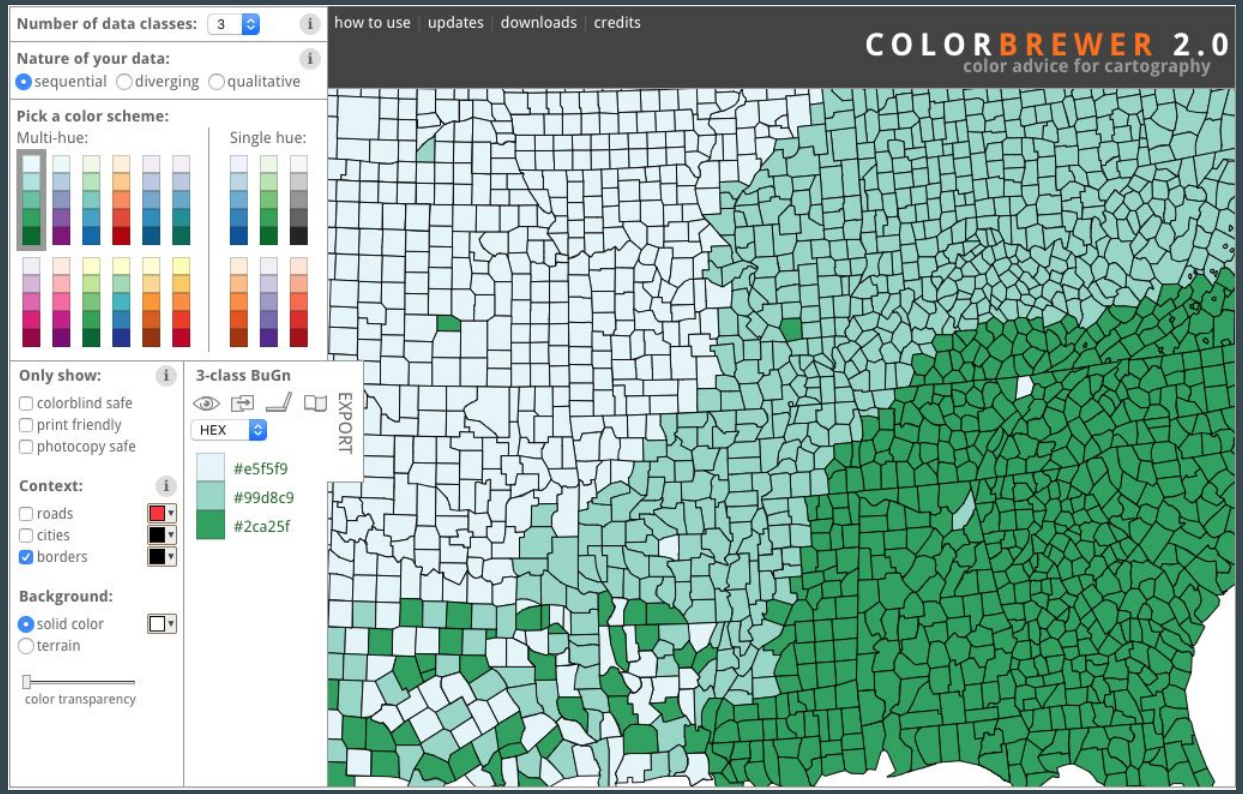




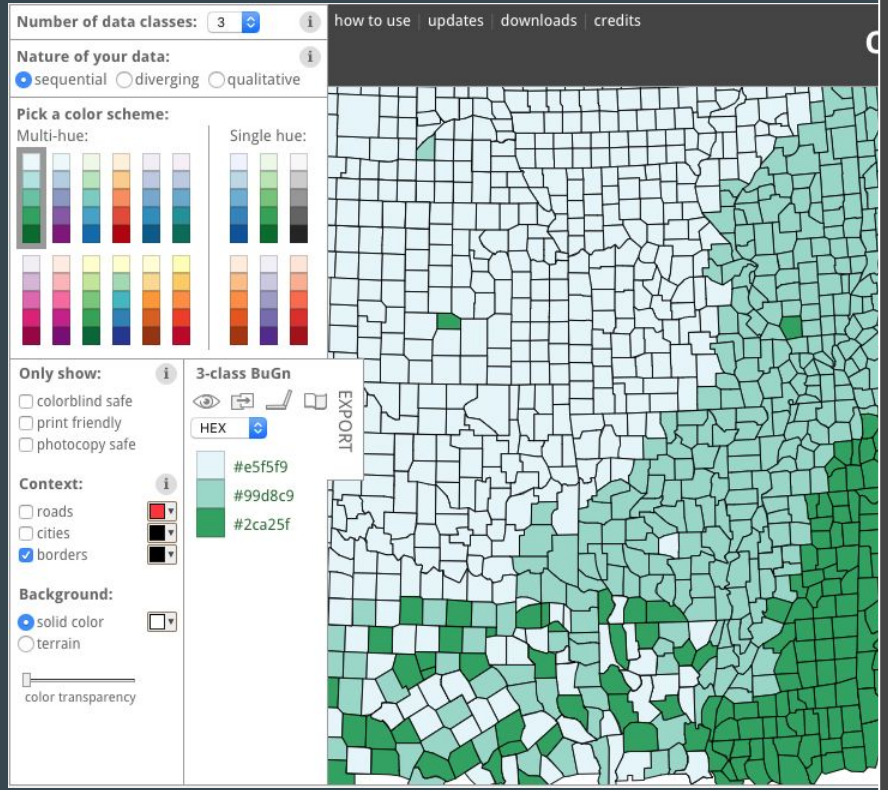
Rich Vis, Poor Vis



ColorBrewer



ColorBrewer



This map does not depict actual data. Instead, it has been carefully designed to be a diagnostic tool for evaluating the robustness of individual color schemes. Full use of this tool will benefit your map designs because colors (even very similar colors) are easy to differentiate when they appear in a nicely ordered sequence (such as a legend). The task of differentiating the colors, however, becomes much harder when the patterns on the map are complex, such as in the lower left corner of the diagnostic map.

TEST #1: Can you easily distinguish every color in the random section of the map (the lower left)? If you have a ten-class map, you should be able to see clearly ten unique colors.

TEST #2: Within each large band of color on the map, we placed several polygons filled with each map color ('outliers'). For example, if you have a seven-class map, there will be six outlier colors per band, demonstrating the appearance of all map colors with each as a surrounding color. Can you see each outlier clearly? Do all pairs of outliers in the band look different? If not, perhaps you should choose a different scheme or fewer classes.

Q&A