

UNIVERSITY OF TWENTE.

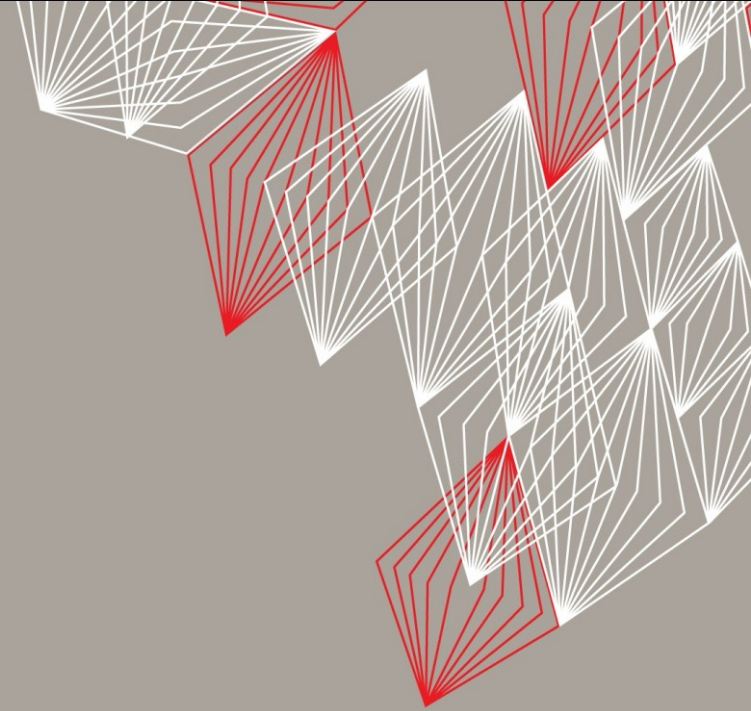
# MAPPING IN GIS

Workshop @ AGILE Glasgow

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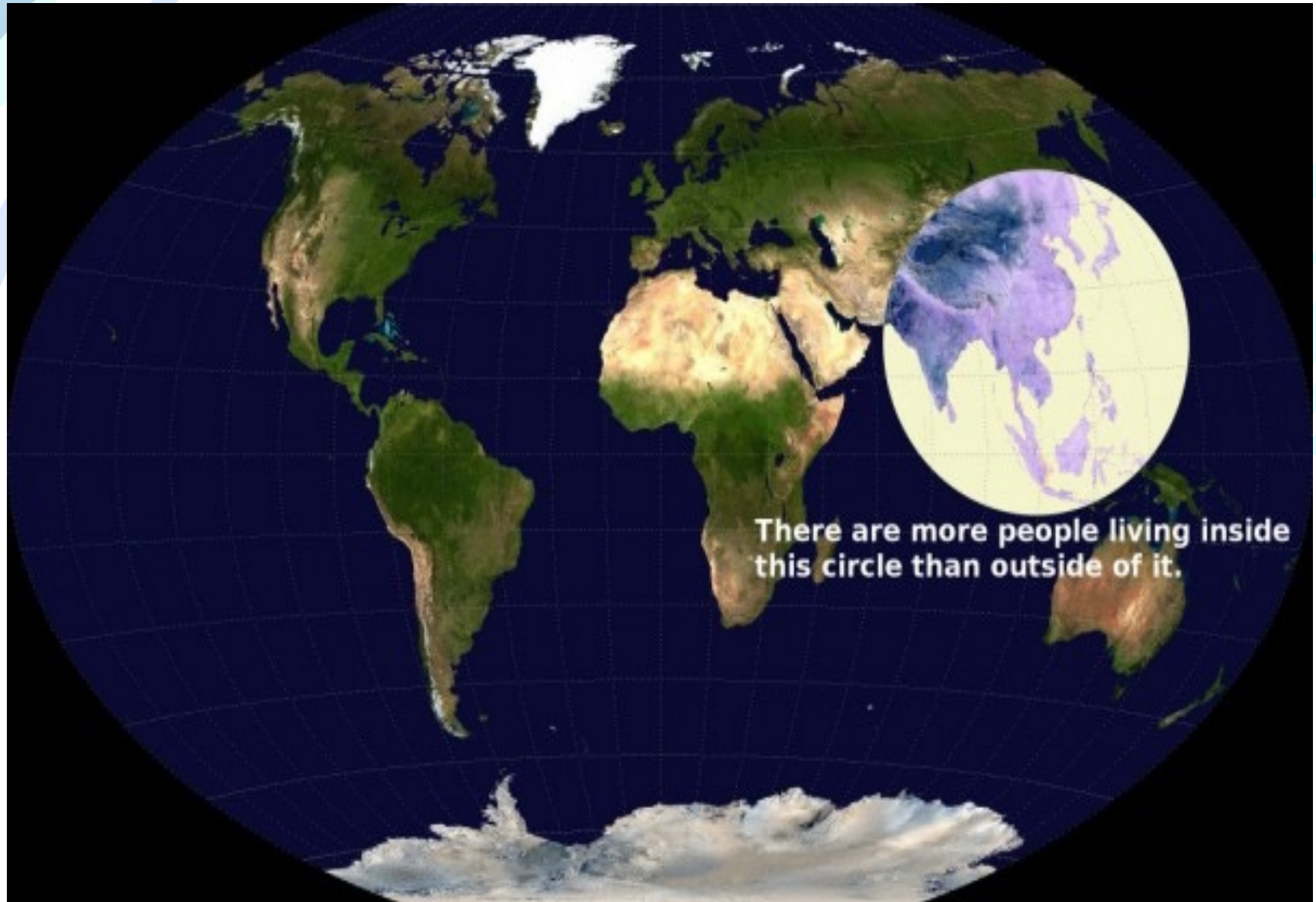


FACULTY OF GEO-INFORMATION SCIENCE AND EARTH OBSERVATION



# Maps tell the story of the data

...even if the graphics are simple...



# Choice of map type is almost endless

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## ■ Topographic maps:

- accurate representation of Earth's topography

## ■ Thematic maps:

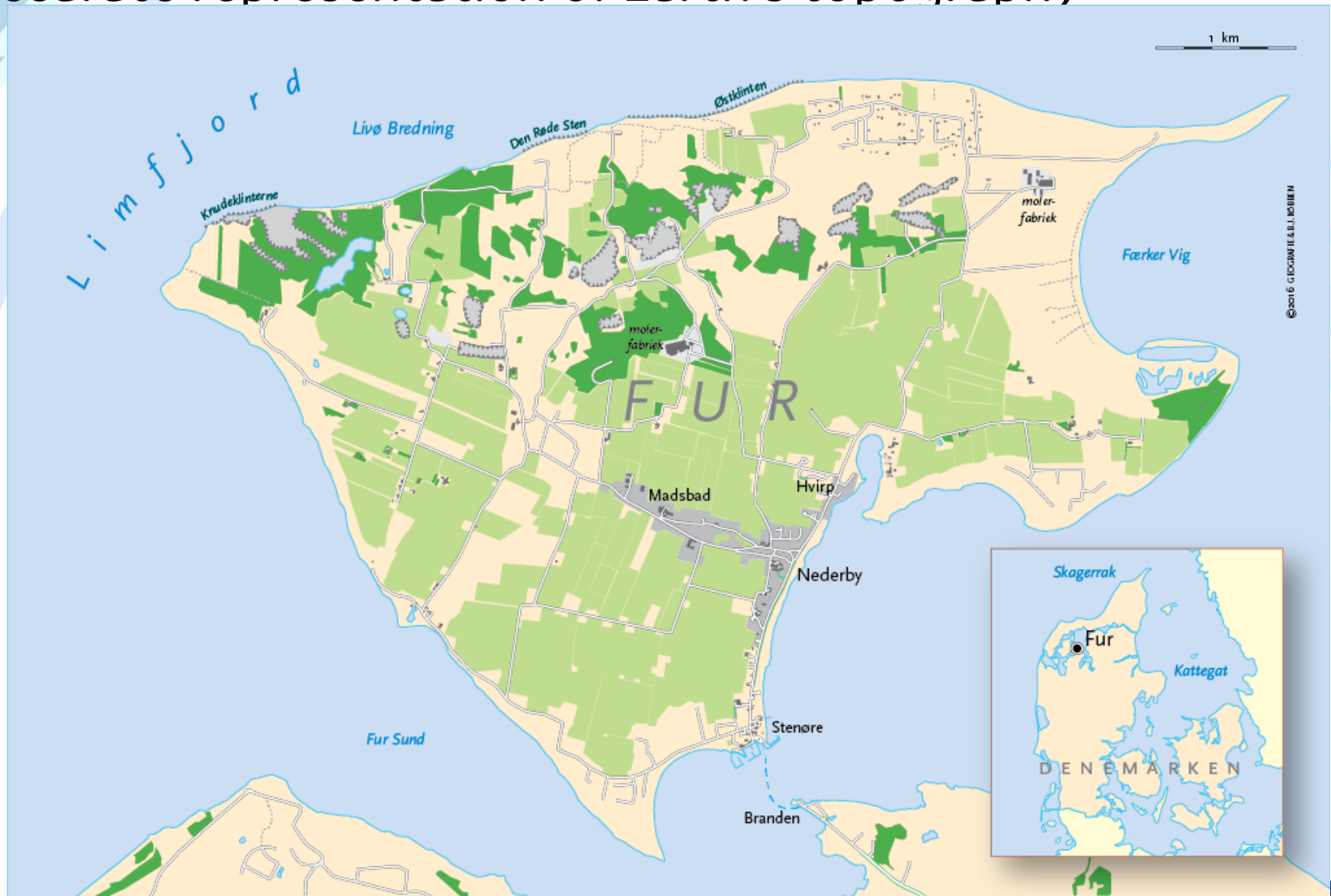
- one or more particular themes are emphasized
  - Nominal maps
  - Proportional Point maps
  - Flow Maps
  - Choropleth maps
  - 3D-maps
  - isoline maps
  - cartograms
  - schematic maps
  - ...



# Choice of map type

- Topographic maps:

accurate representation of Earth's topography



# CARTOGRAPHY CHANGES ALWAYS

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- new types of map use
- new types of maps
- new digital dissemination
- new, more and easier data
- new mapmaking tools



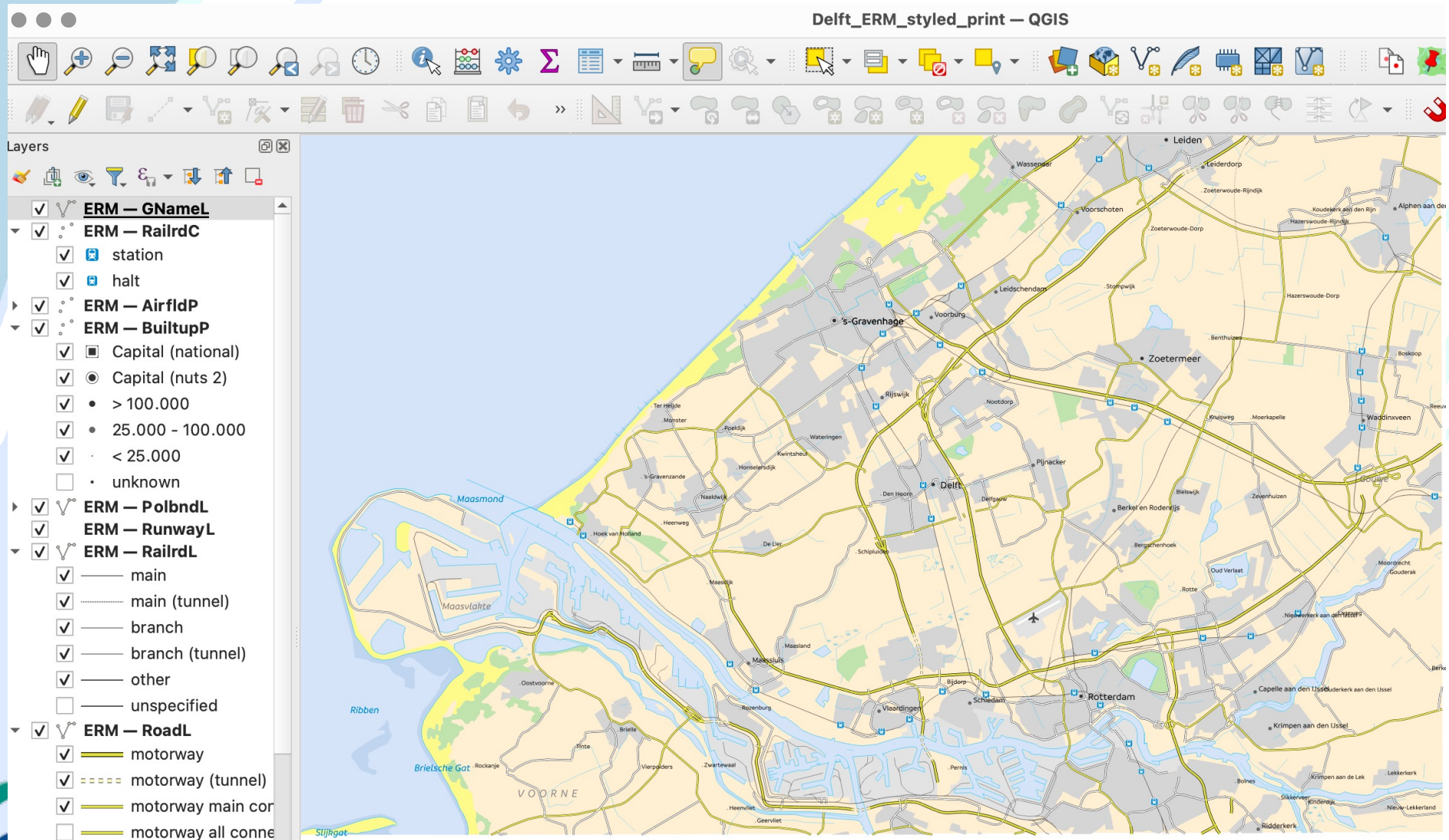
# NEW MAPMAKING TOOLS

- My tools once were these....



# NEW MAPMAKING TOOLS

...but now look like this:



# NEW MAPMAKING TOOLS

...or even like this:

The image shows a web browser window displaying a D3.js visualization of a timeline. The browser address bar shows the URL `localhost/D3tests/tracksViewer/napoleon.html`. The code editor shows the following JavaScript code:

```
54 d3.selectAll("#Timeline").append("chart");
55
56 // define variables
57 var margin = {top: 0, right: 0, bottom: 0, left: 0};
58 width = 510;
59 height = 330;
60
61
62 var centered;
63
64 // define projection parameters
65 var projection = d3.geo.mercator()
66   .center([28.88034, 54.260112])
67   .rotate([0,0])
68   .scale(39000);
69
70 // create svg canvas to draw map on
71 var svg = d3.select("#Map").append("svg")
72   .attr("width", width)
73   .attr("height", height)
74   .attr("border", 3)
75   .attr("class", "canvas");
76
77 // create path object
78 var path = d3.geo.path().projection(projection);
79
80 // create group object g
81 var g = svg.append("g");
82
83 // create div object to use for dynamic tooltip
84 var div = d3.select("body")
85   .append("div")
86   .attr("class", "tooltip")
87   .style("opacity", 0);
```

The visualization consists of three horizontal timelines. The top timeline shows a red bar with vertical lines extending to a scale from 177.5 to 30. The middle timeline shows a blue bar with vertical lines extending to a scale from 16 to 30. The bottom timeline shows a blue bar with vertical lines extending to a scale from 16 to 30. The timelines are labeled with months: October, November, and December.





# THE RIGHT TOOL FOR THE JOB...!



hand-drawn manuscript

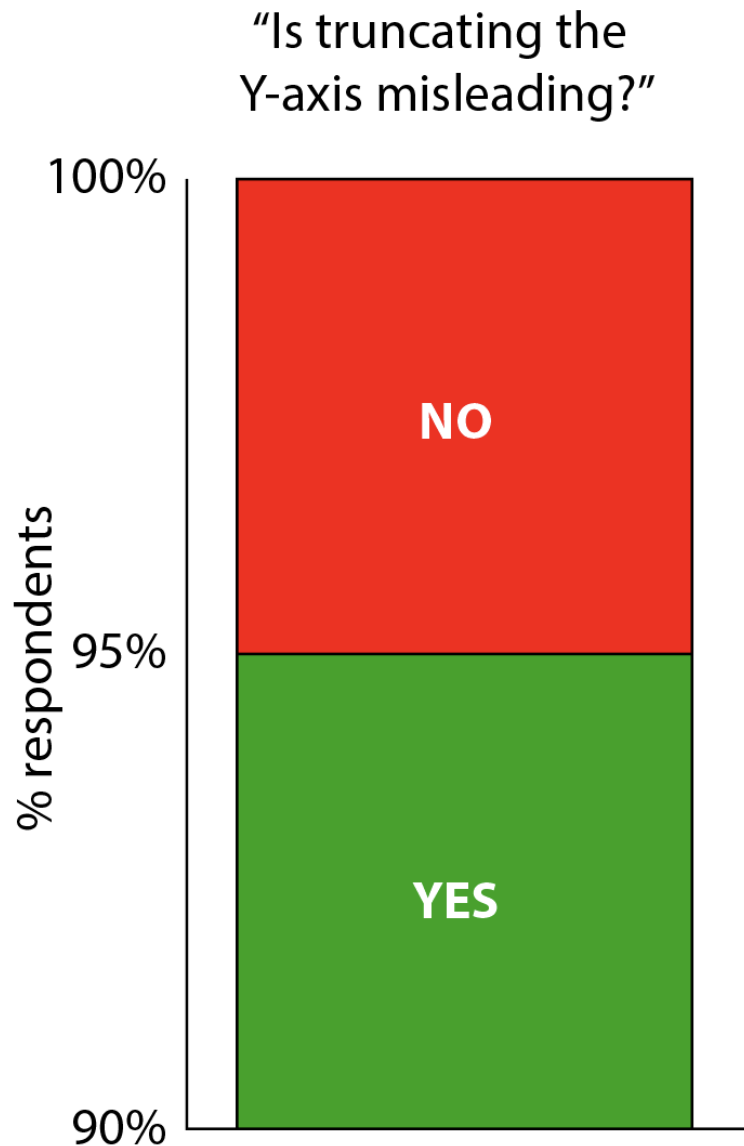


GIS map



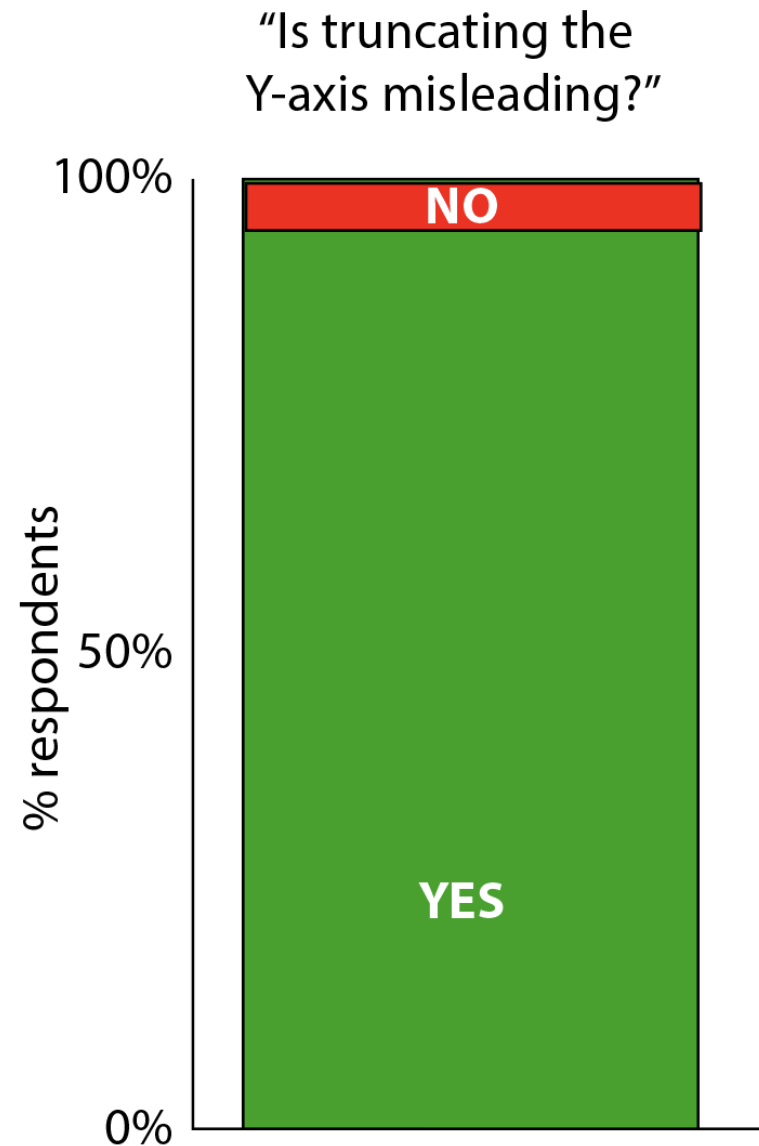
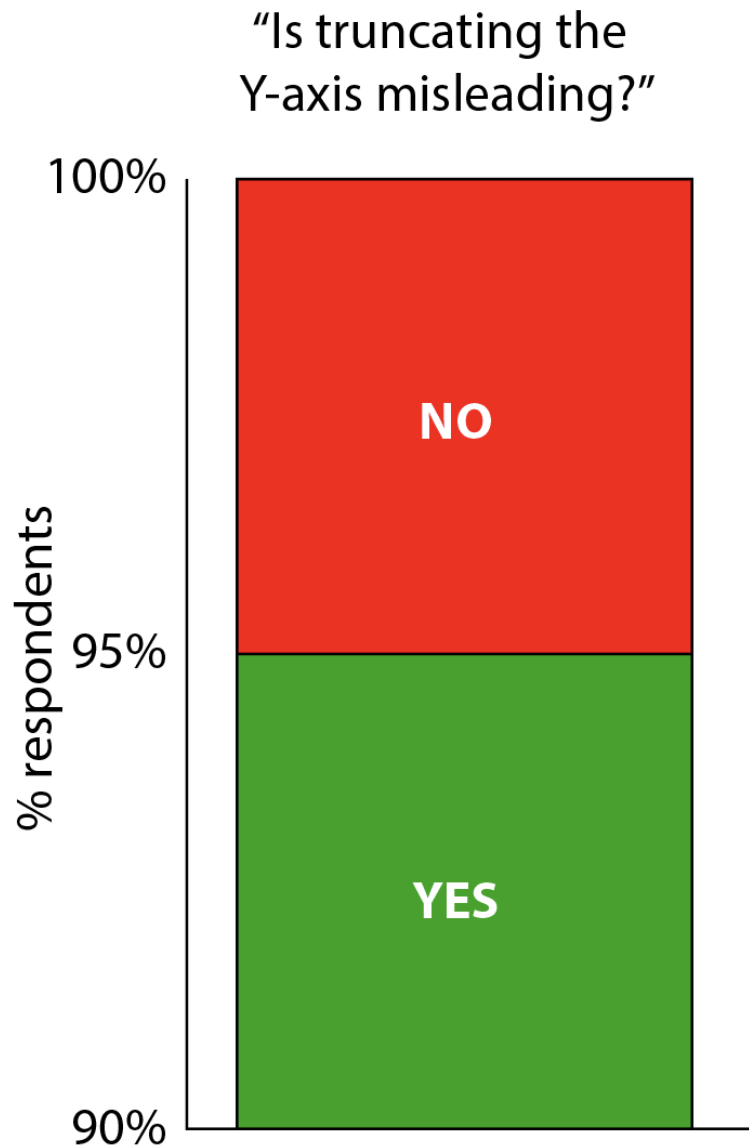
# Graphics tell the story of the data

*...but the way they tell it matters!*



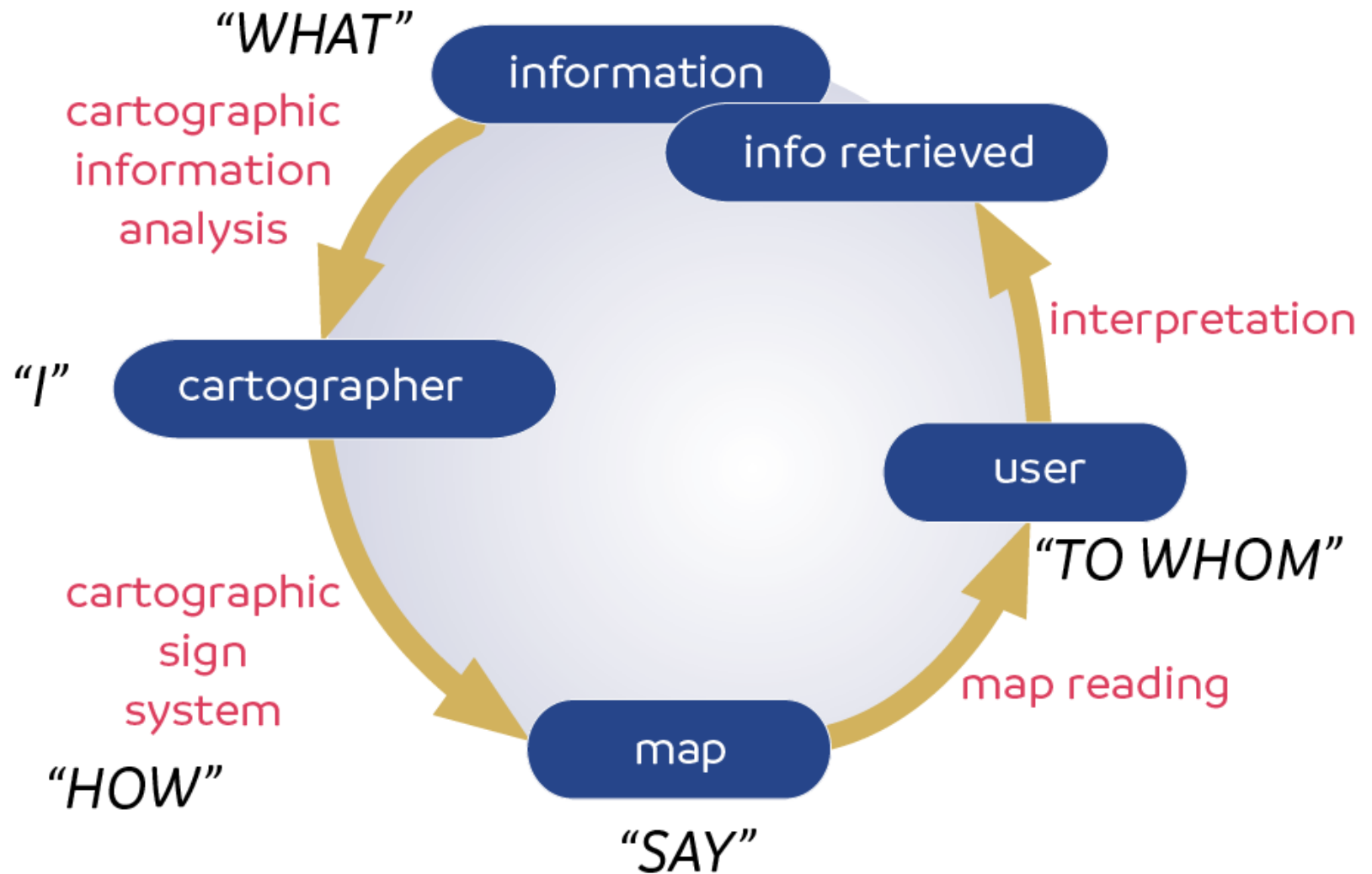
# Graphics tell the story of the data

*...but the way they tell it matters!*



# Cartographic COMMUNICATION process

*“HOW DO I SAY WHAT TO WHOM?”*



Prof Koeman (1969)

