



# SPATIAL DATA: TYPES OF MAPS

Dr Alexandra Anderson



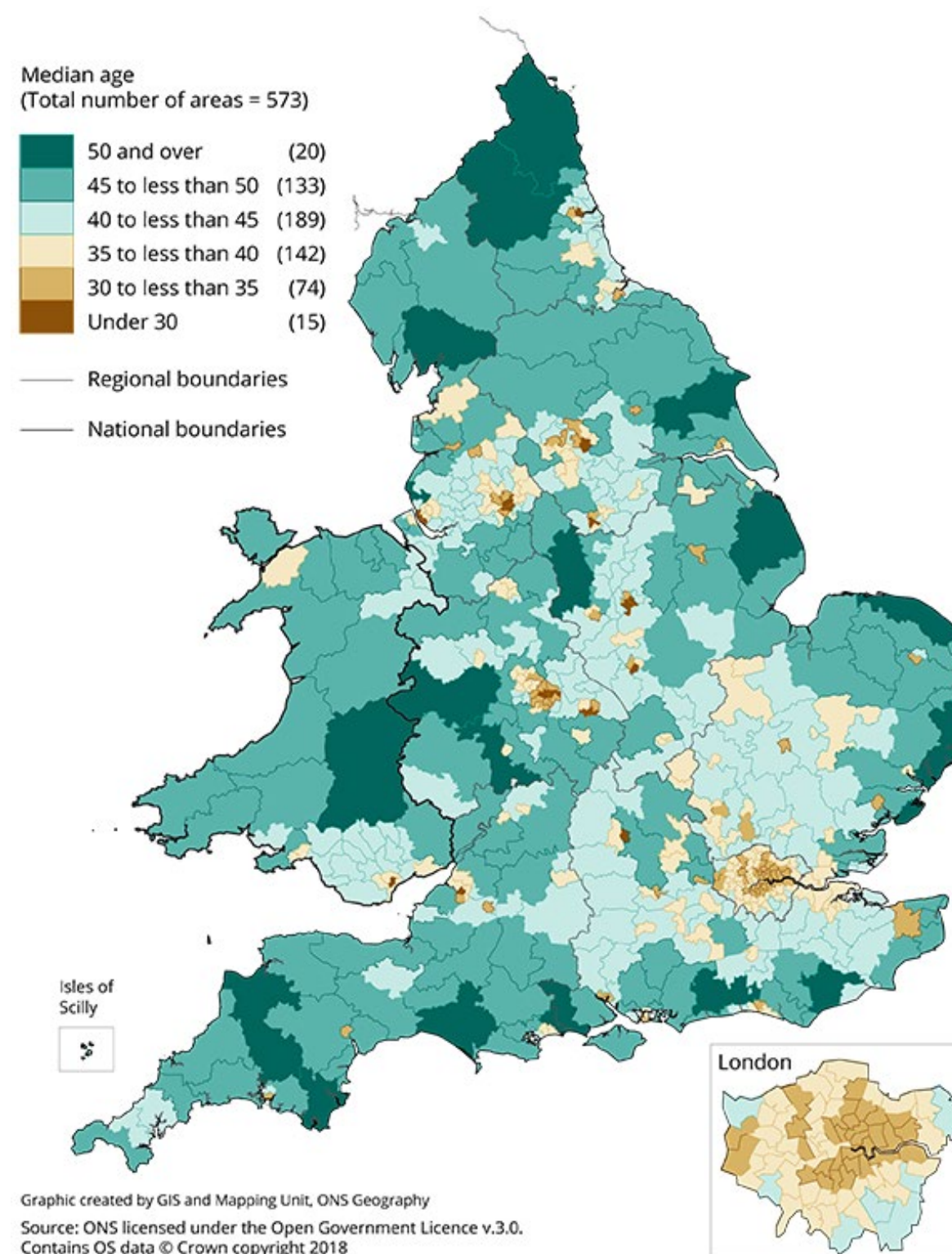
A step-change in  
quantitative social  
science skills  
Funded by the  
Nuffield Foundation,  
ESRC and HEFCE



# CHOROPLETH MAPS

## THE CHOROPLETH MAP

Distinguishes predefined areas by using different types of shading, colouring or symbols that represent a data variable.







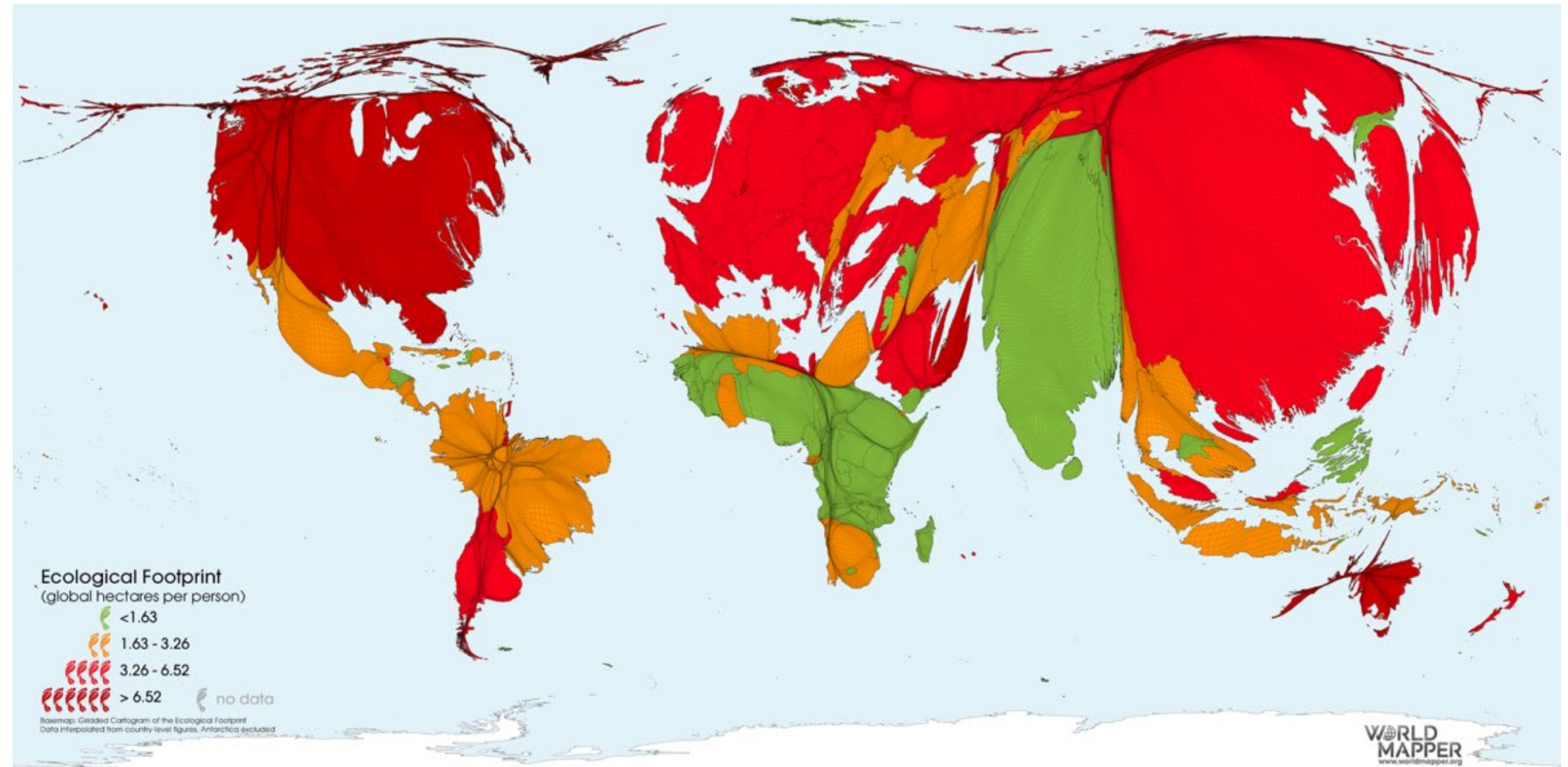


# CARTOGRAMS

## CARTOGRAMS

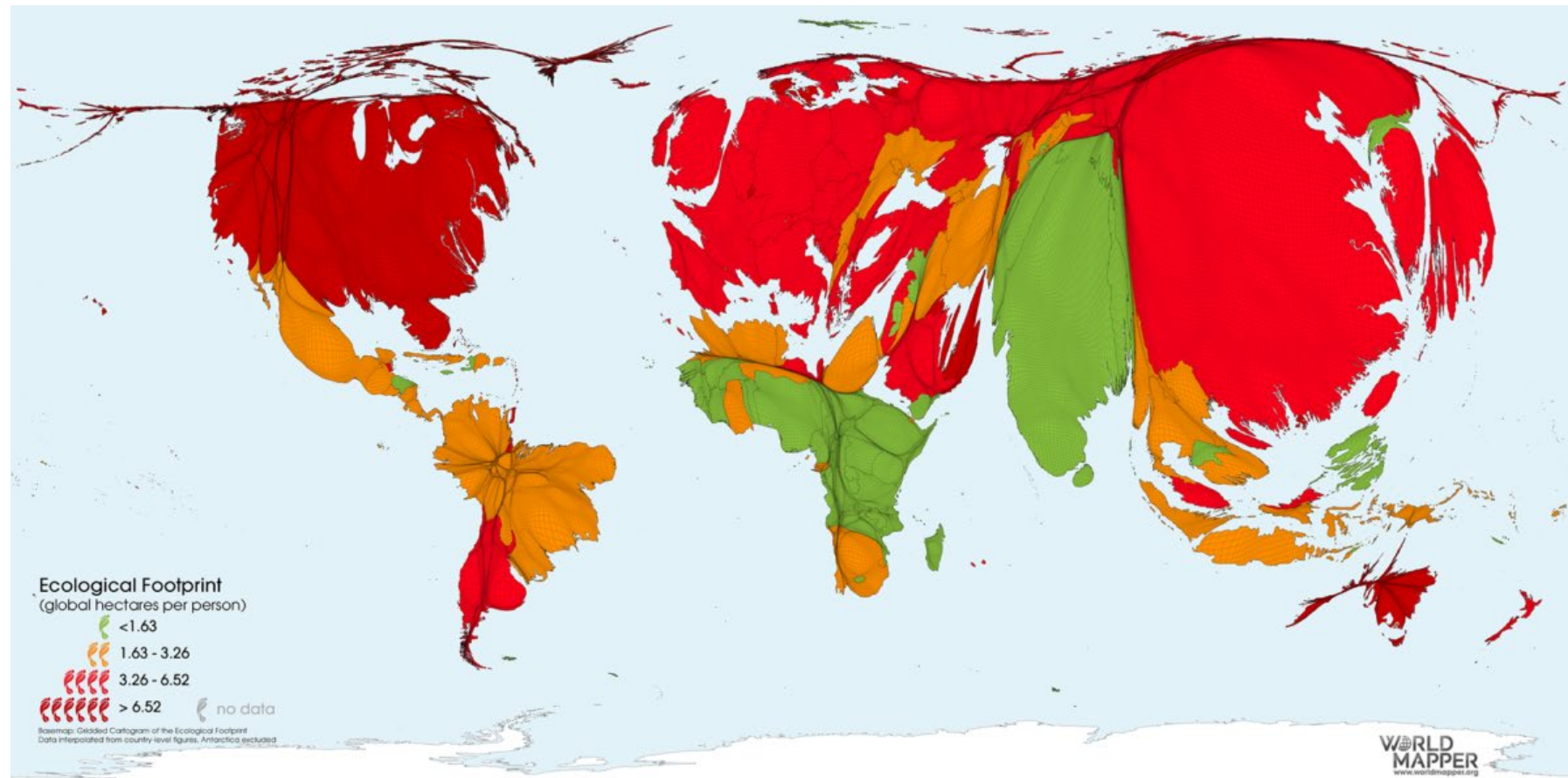
A type of map which distorts the area in order to manipulate a place's area to be sized accordingly to a data variable.

### ECOLOGICAL FOOTPRINT OF CONSUMPTION 2019

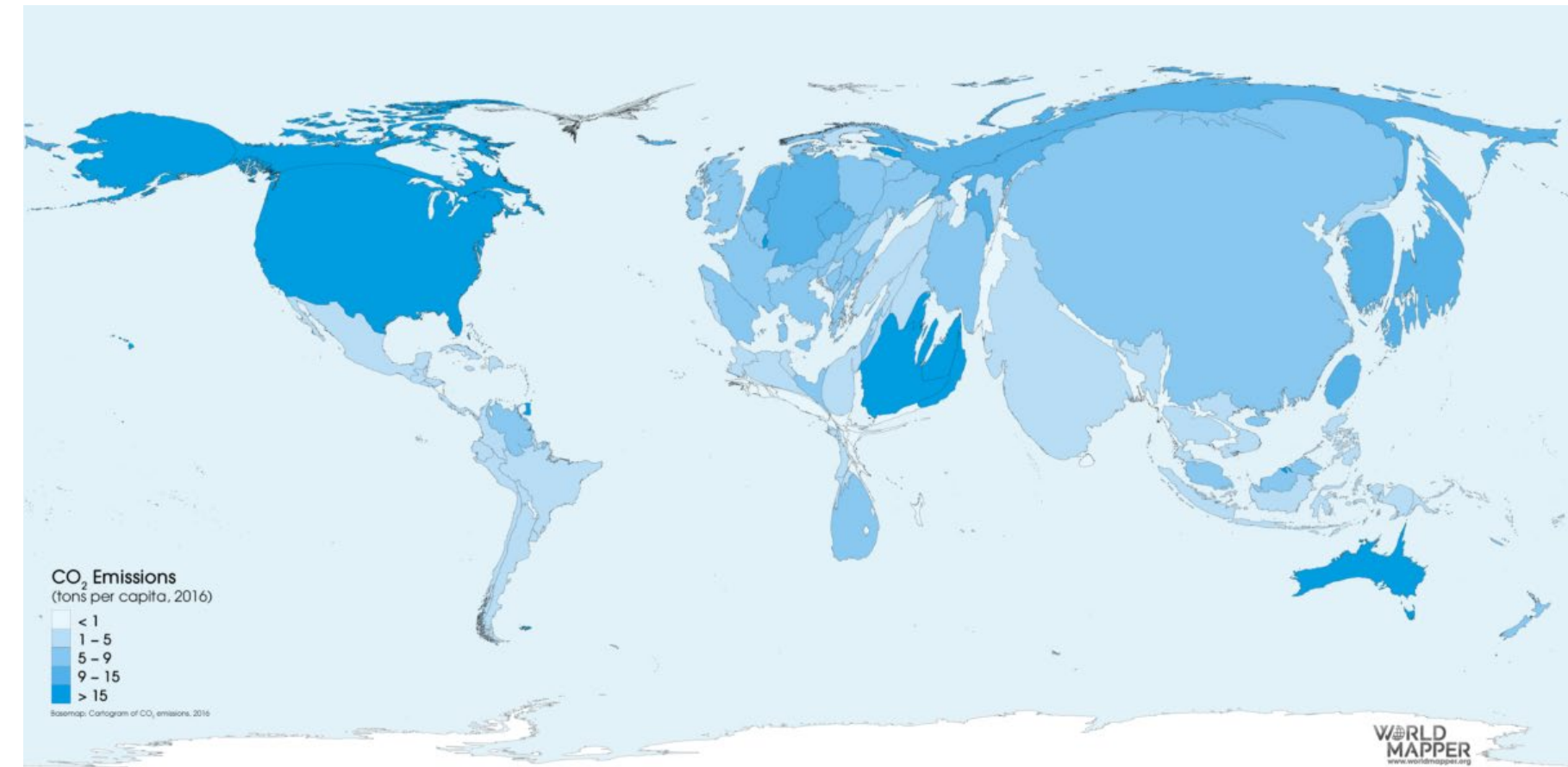


# CARTOGRAMS

## ECOLOGICAL FOOTPRINT OF CONSUMPTION 2019



## CO<sub>2</sub> EMISSIONS PER CAPITA 2016





Source: Benjamin Hennig (2019). 'Cartographic perspectives of the 2019 General Election', in UK Election Analysis 2019: Media, Voters and the Campaign.

## Mapping the 2019 General Election

A cartographic look at voter turnout

WORLD MAPPER  
Maps by Benjamin Hennig

Turnout (%)

- >75
- 70 to 75
- 65 to 70
- 60 to 65
- <60



Geographic view  
Map showing land area

**CHOROPLETH**



Constituency view  
Map showing seats in parliament

**HEXAGON**



Population view  
Map showing population distribution

**CARTOGRAPH**

Cartographic analysis created for <http://www.electionanalysisuk.com> & <http://http://geographical.co.uk>

# POINT MAP

## POINT MAP

Also known as a Dot Map, presents data or information as individual dots on a map.



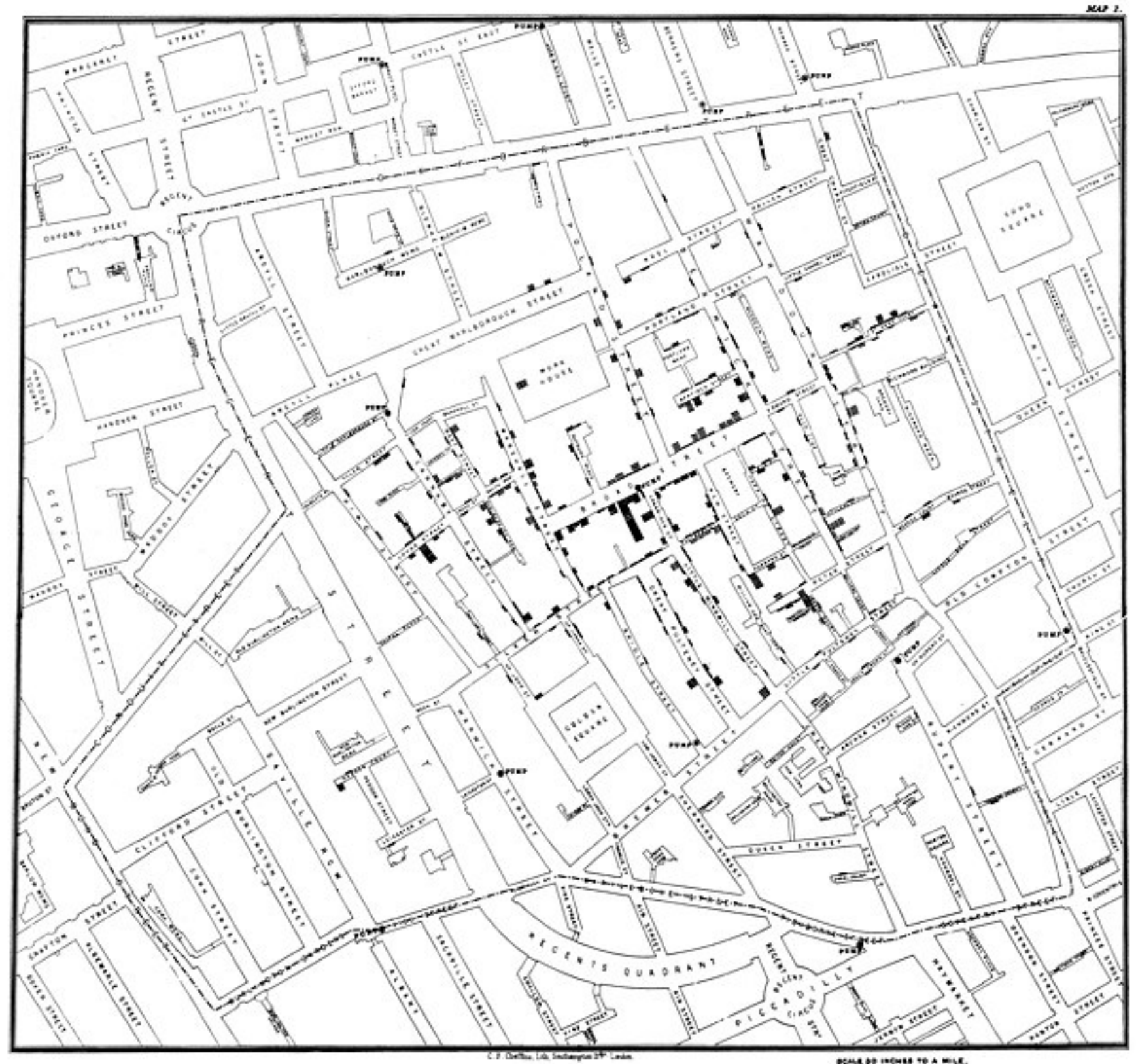
Source: <http://www.puffpuffproject.com/languages.html>



# POINT MAP

“The big problem is that dot maps fail to take into account the number of people living in an area and at risk to get a disease”

-Edward Tufte



Original map made by John Snow in 1854. Source: Wikimedia Commons



# LINE MAP

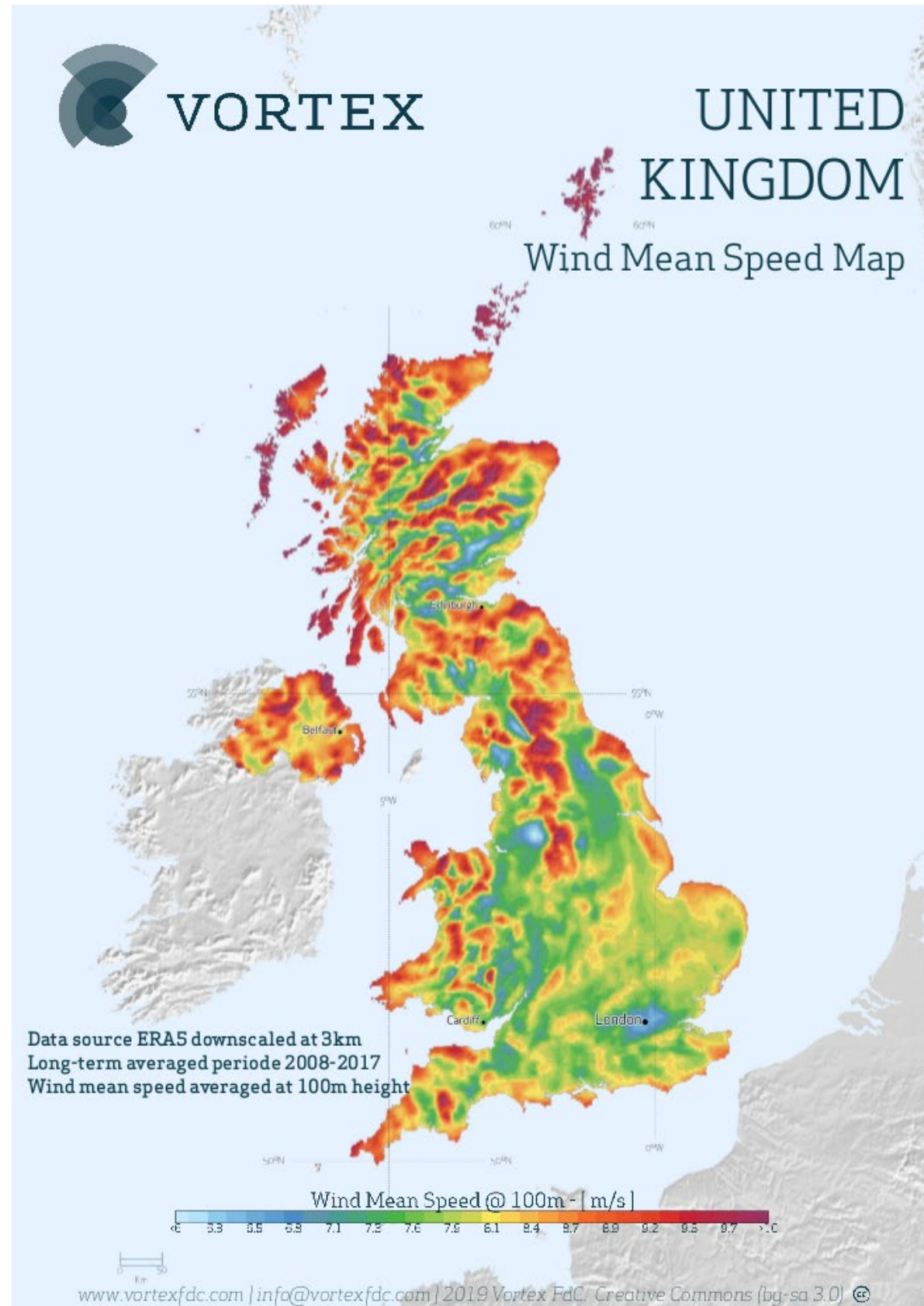
## LINE MAP

Maps that show movements from one place to another



Source: Ordnance Survey

# HEAT MAP



## HEAT MAP

Maps that show the weight of each point in a geographical range.