The Trouble with Maps

Lying with Maps, Data Distortion, Using Maps for Oppression

Problematic History: Maps and Colonialism

- Maps are not just simple tools used for getting from place to place.
- They are tools used to wield power, creating visual ownership of a place
- During colonial times, the idea of "Terra Nullius" was used appropriate land from Indigenous Peoples

How Can Maps Deceive Us?

- False implication that they are "neutral" and always represent the truth
  - Association with property and ownership
- Projections and scale
- The concept of "north"
- Data classification choices
- Cartographic choices (color, for example)

Projections

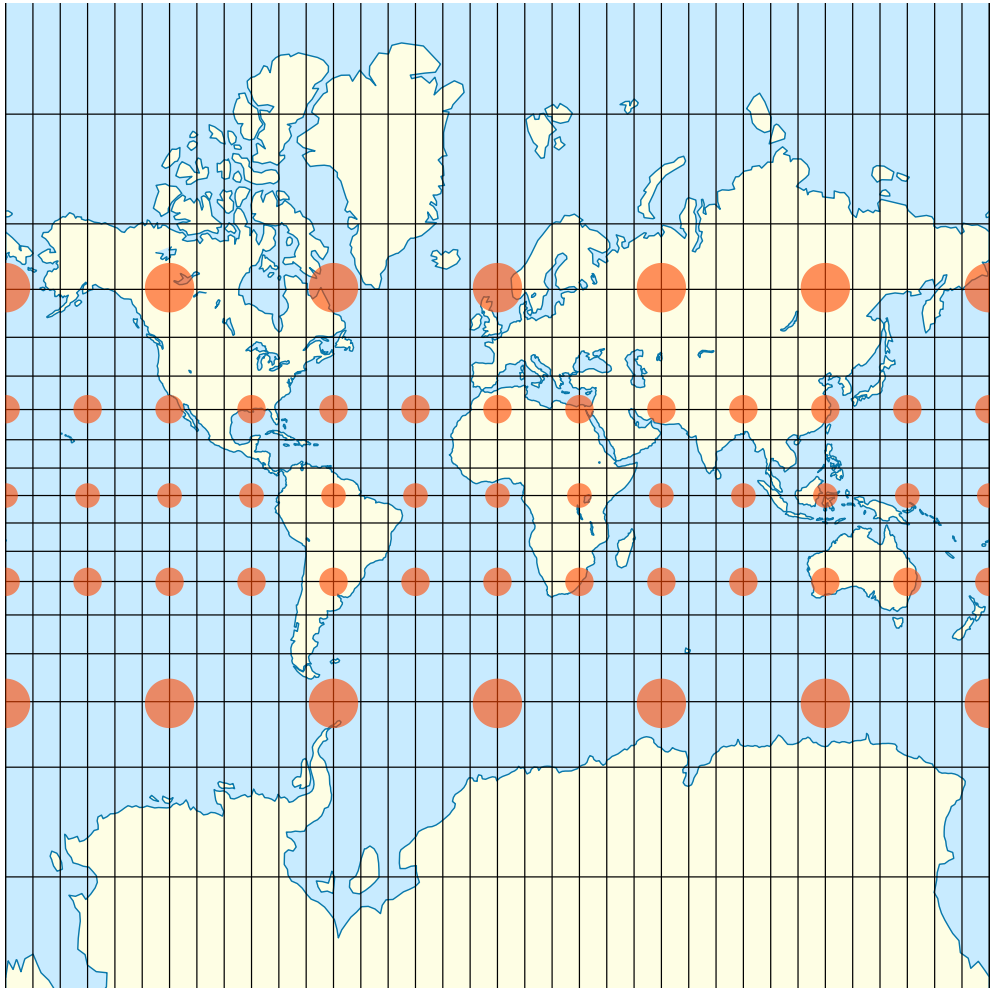
Making the round flat

The “Orange Peel Problem”

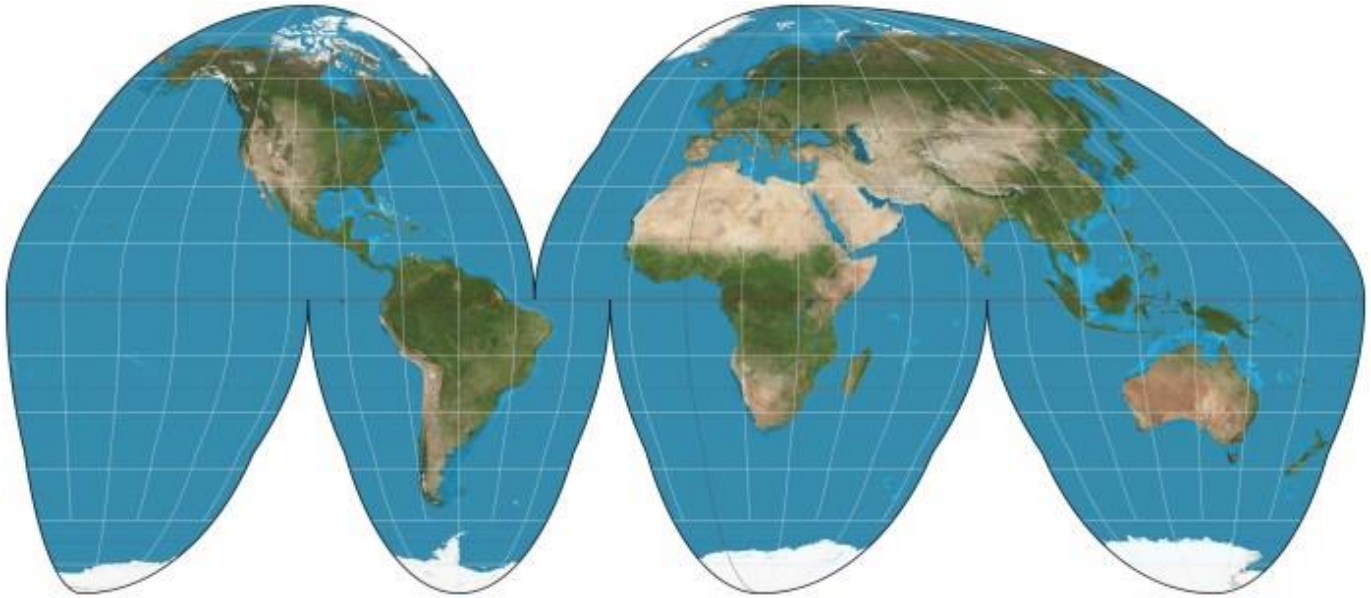
Distortion:

- Shape
- Distance
- Land Area
- Direction

Mercator



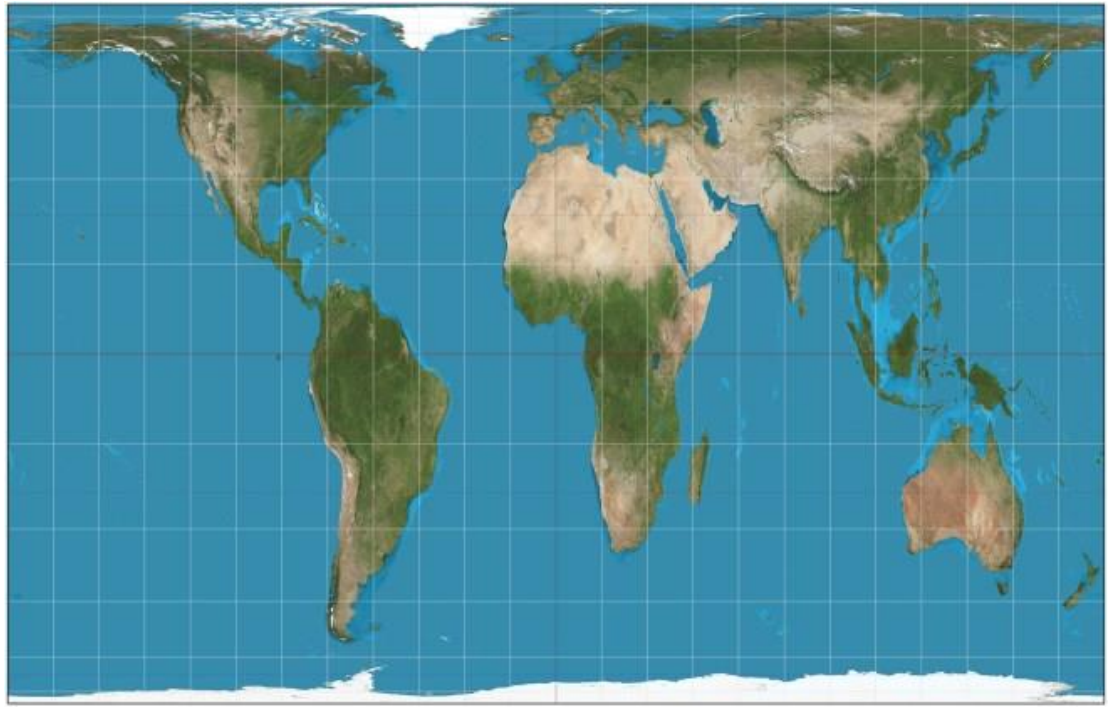
Good Homolosine



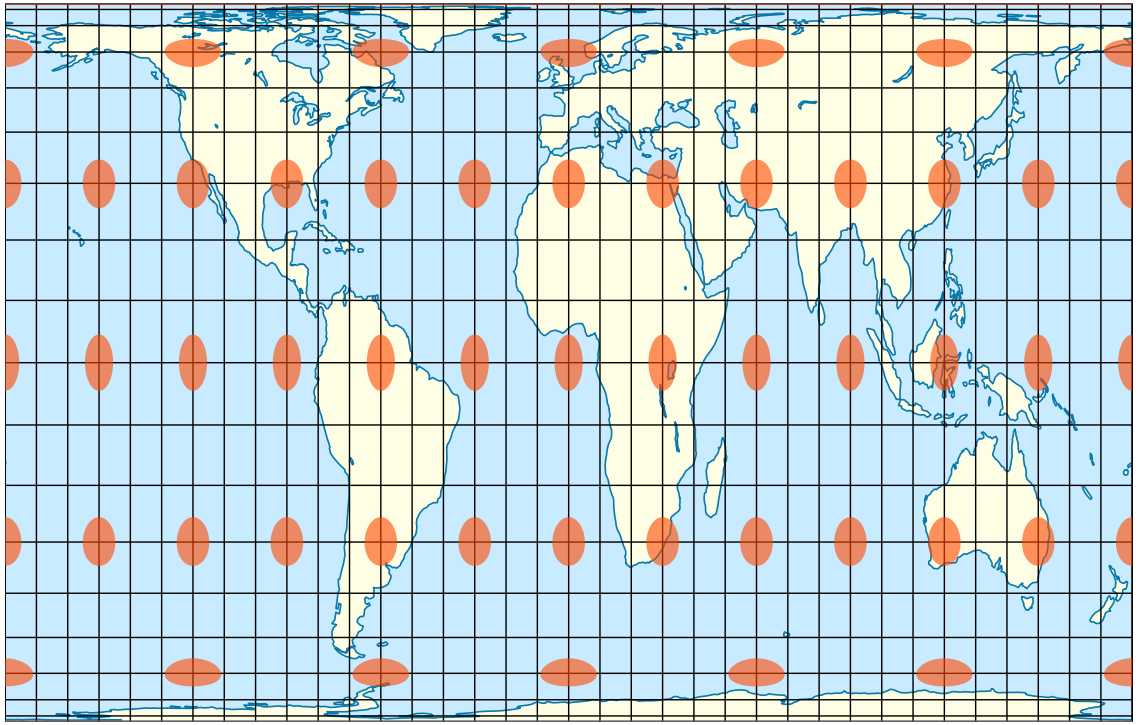
The Goode homolosine projection is a pseudocylindrical, equal-area, composite map projection used for world maps.

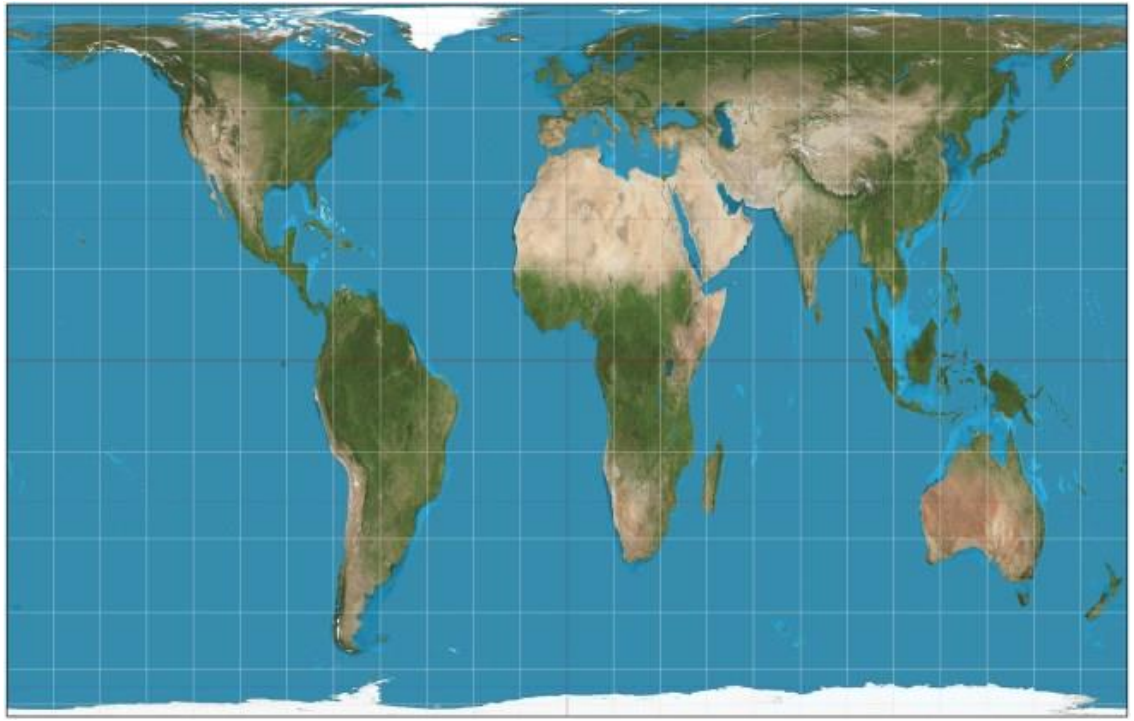
Gall-Peters

https://youtu.be/vVX-PrBRtTY

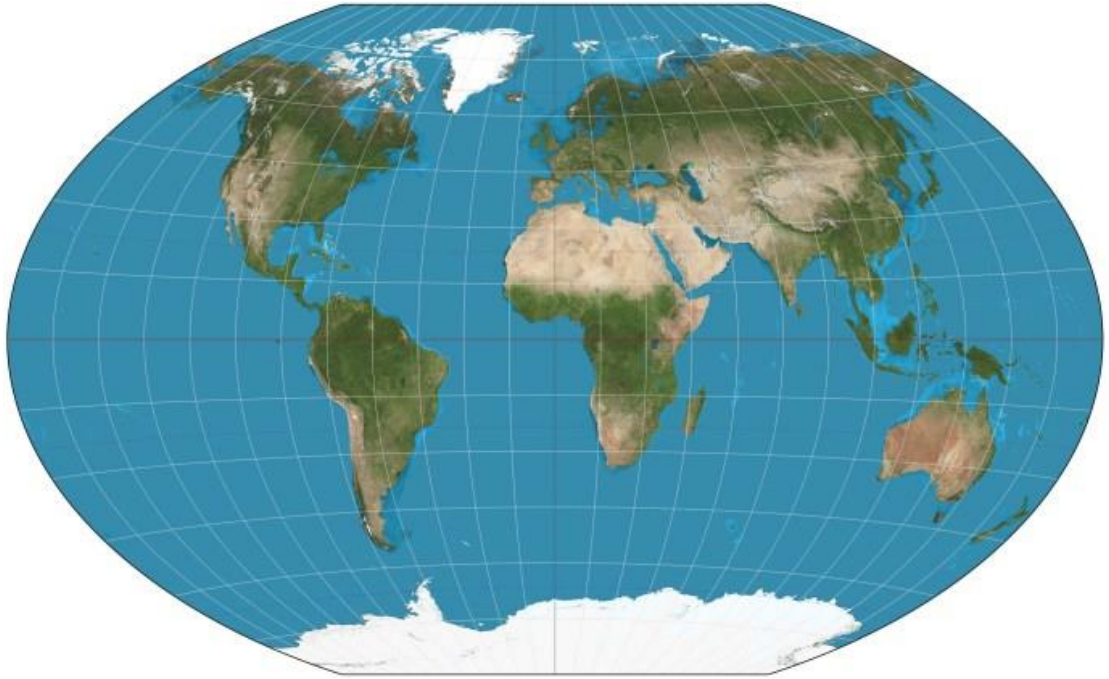


The Gall-Peters projection is a cylindrical equal area map projection used for world maps.



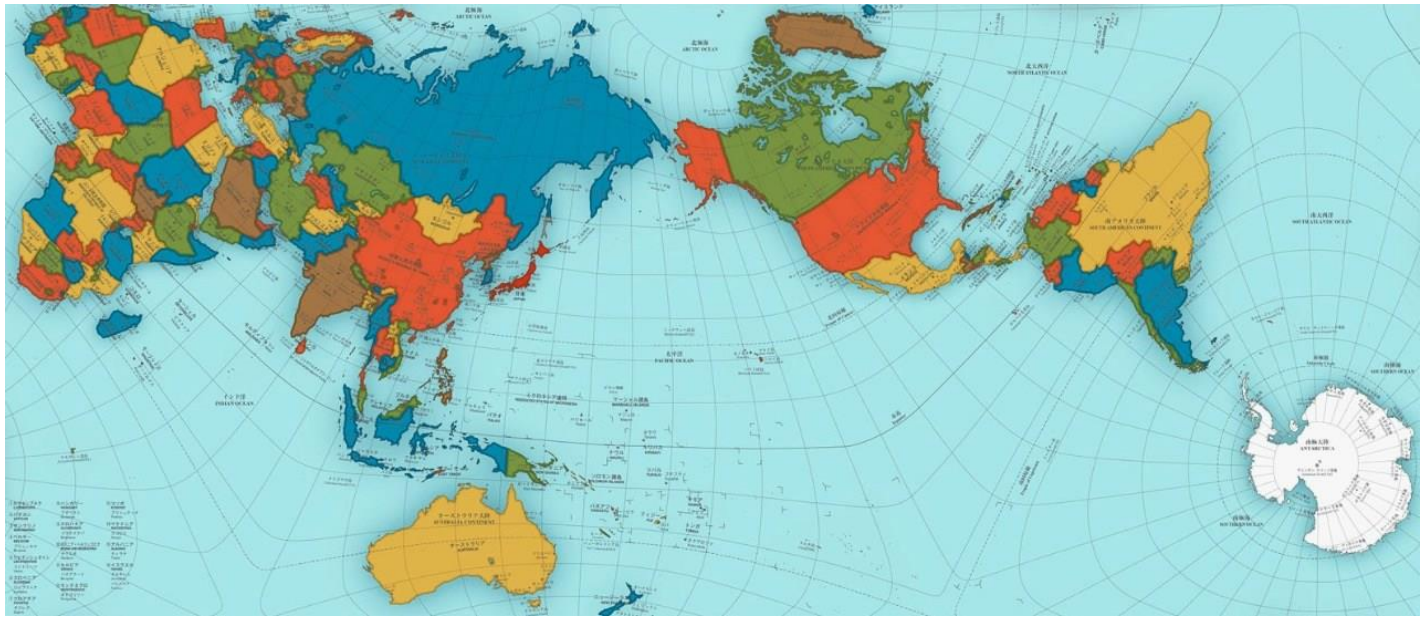


Winkel-Tripel

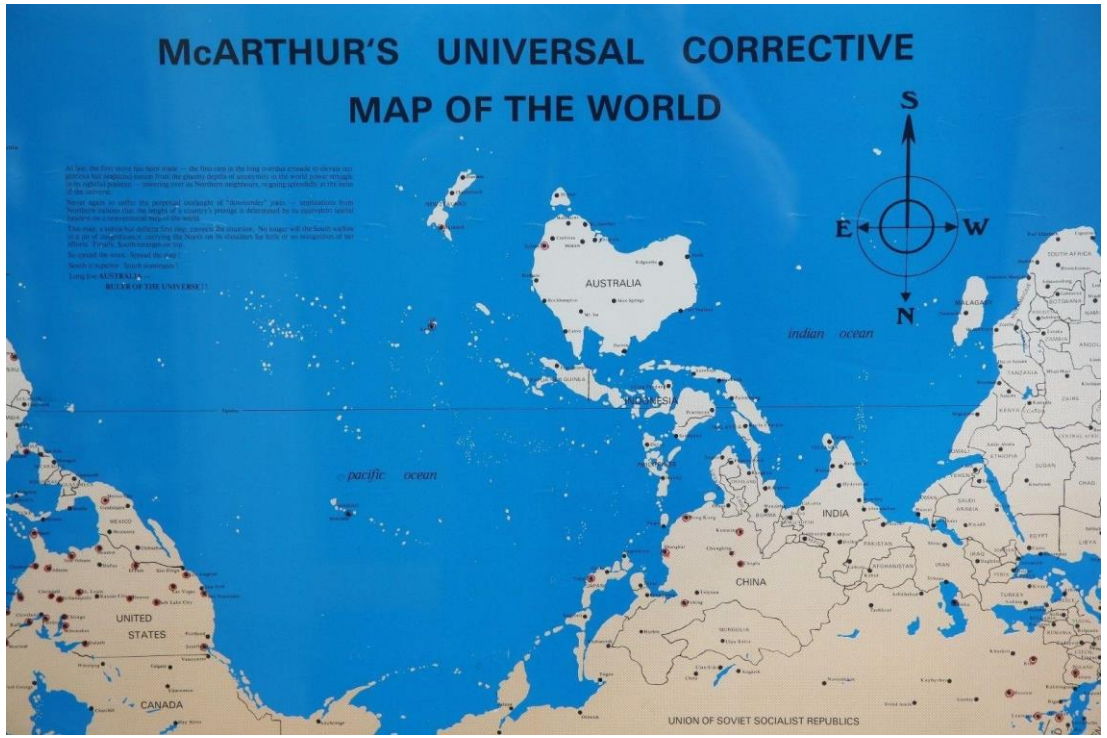


The Winkel- Tripel is a modified azimuthal projection that preserves direction, distance, and some area. Land masses and poles are still enlarged.

Authagraph



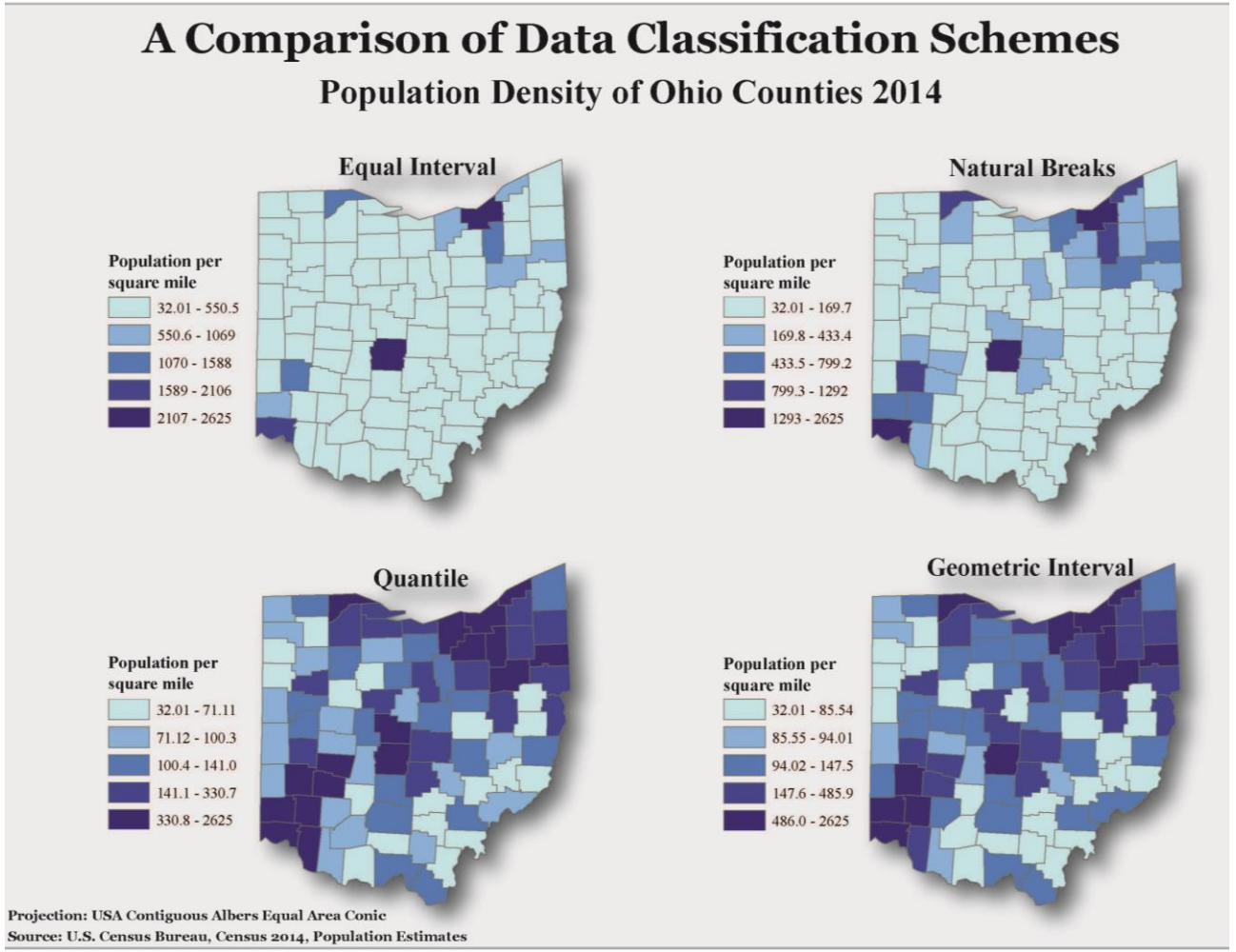
The Authagraph the most accurate map projection in existence. In fact, it is so proportionally perfect, it magically folds it into a three-dimensional globe.



- The concept of north being "up" or "above" is a construct.
- Maps can be oriented different ways depending on cartographer's preference
- Religion, politics, navigational needs, and other social and cultural preferences influence how maps are oriented

What even like IS north, man?

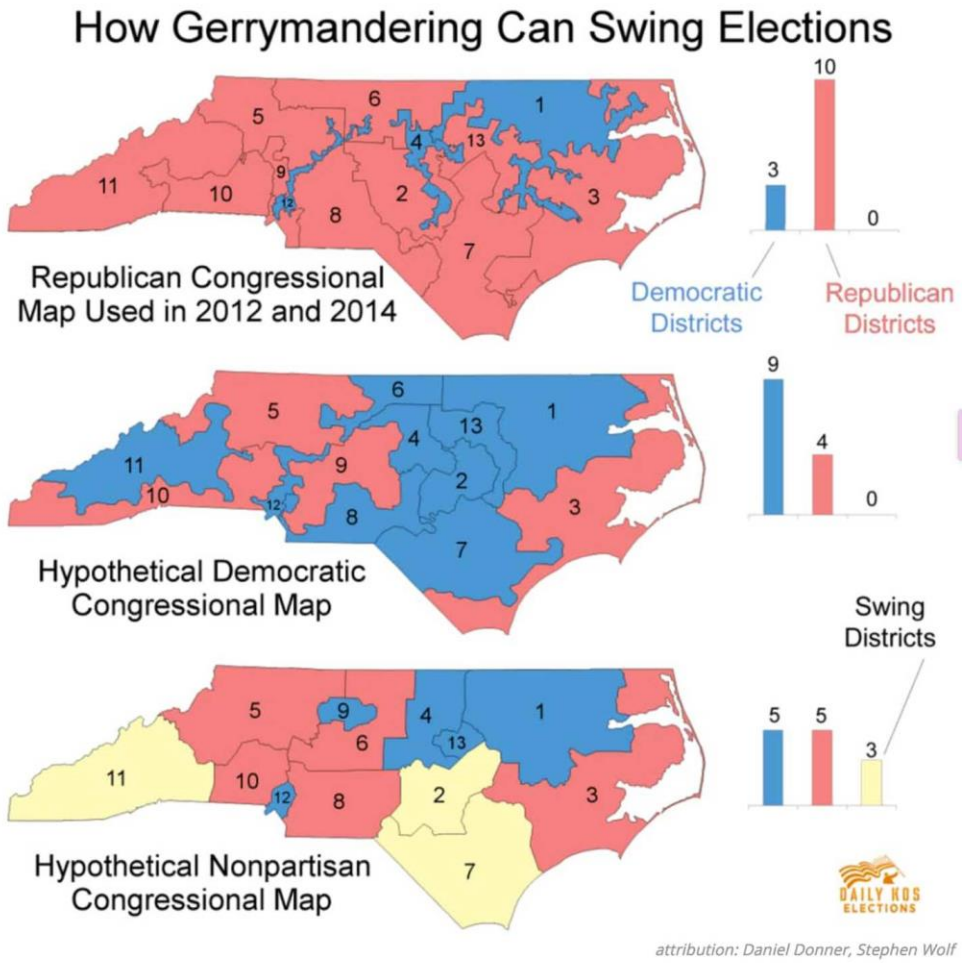
Data Classification



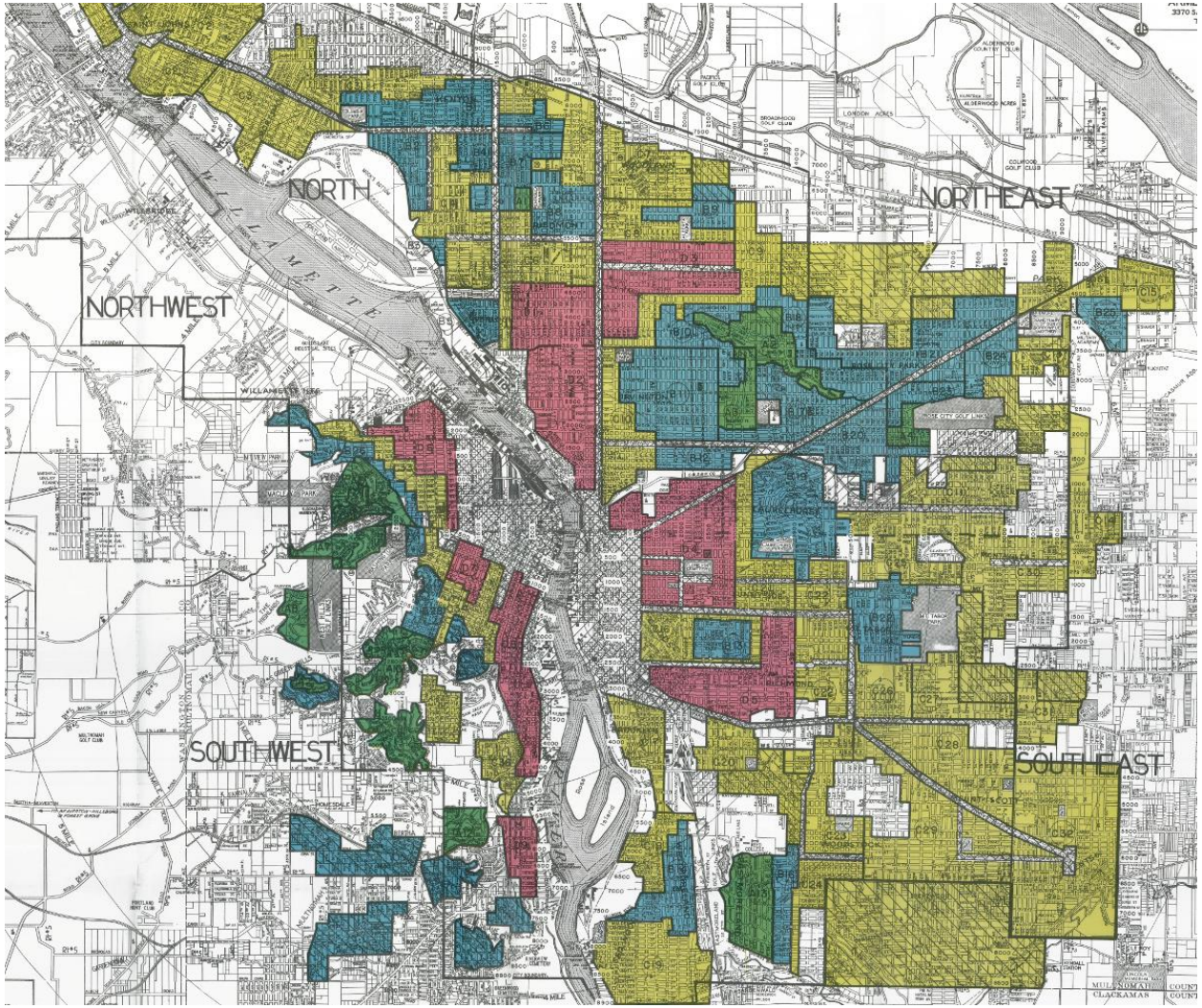
Other cartographic choices that create bias

- Color choices
- Icons (often gendered, normative)
- Place names (toponyms)
- Others…?

Gerrymandering



https://projects.fivethirtyeight.com/redistricting-maps/

Redlining

https://youtu.be/mBQE5rrWDfA