

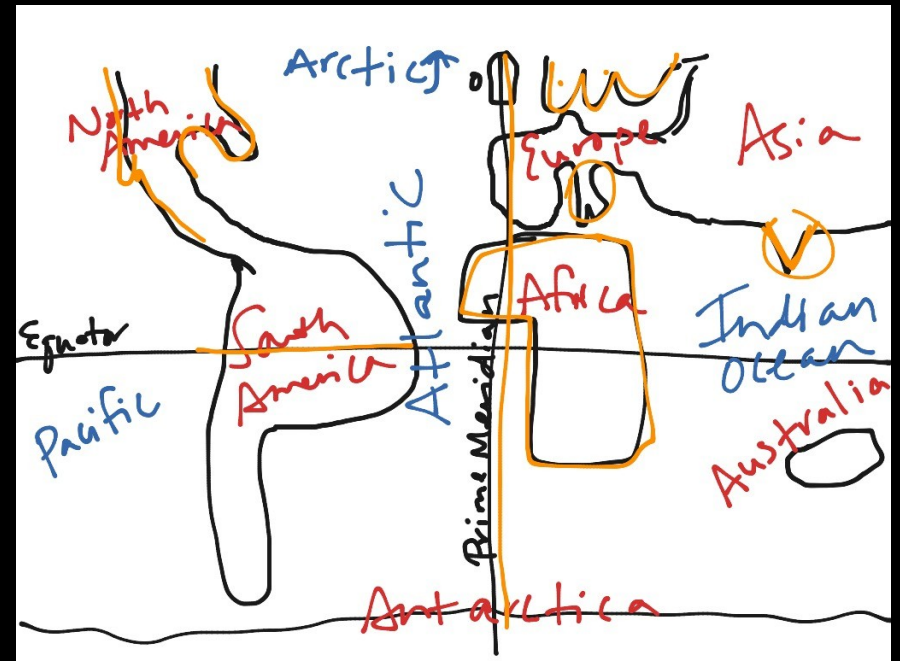
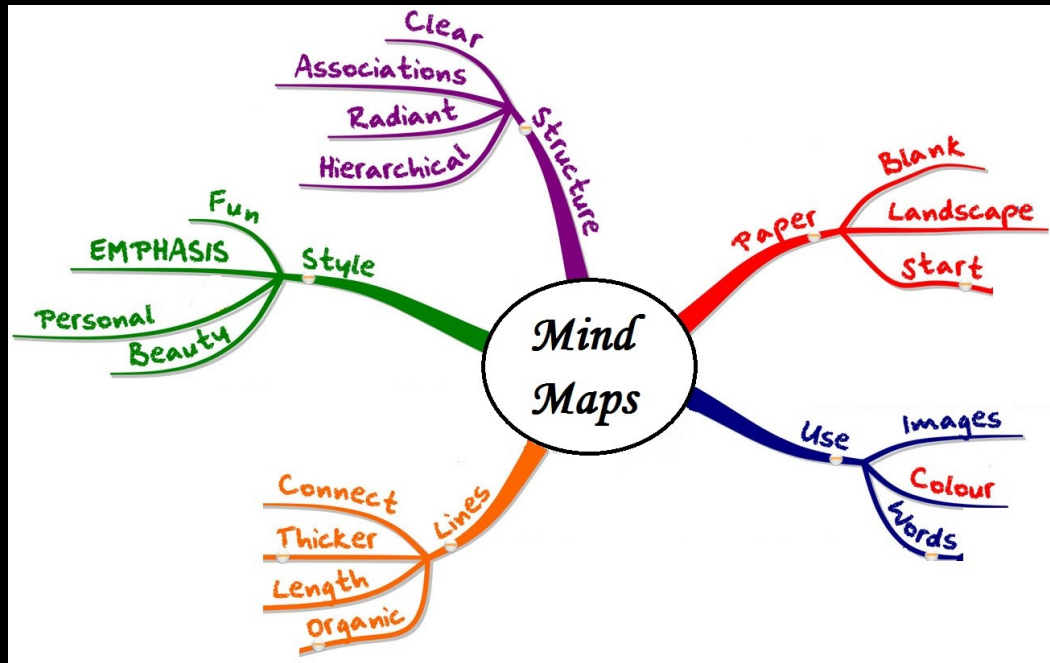
GEO 309 – Intro to GIS

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Topics

- Mental Maps
- Map Neutrality
- Map Literacy
- Resistance vs. Security
- Scale
- Map generalization
- Demo

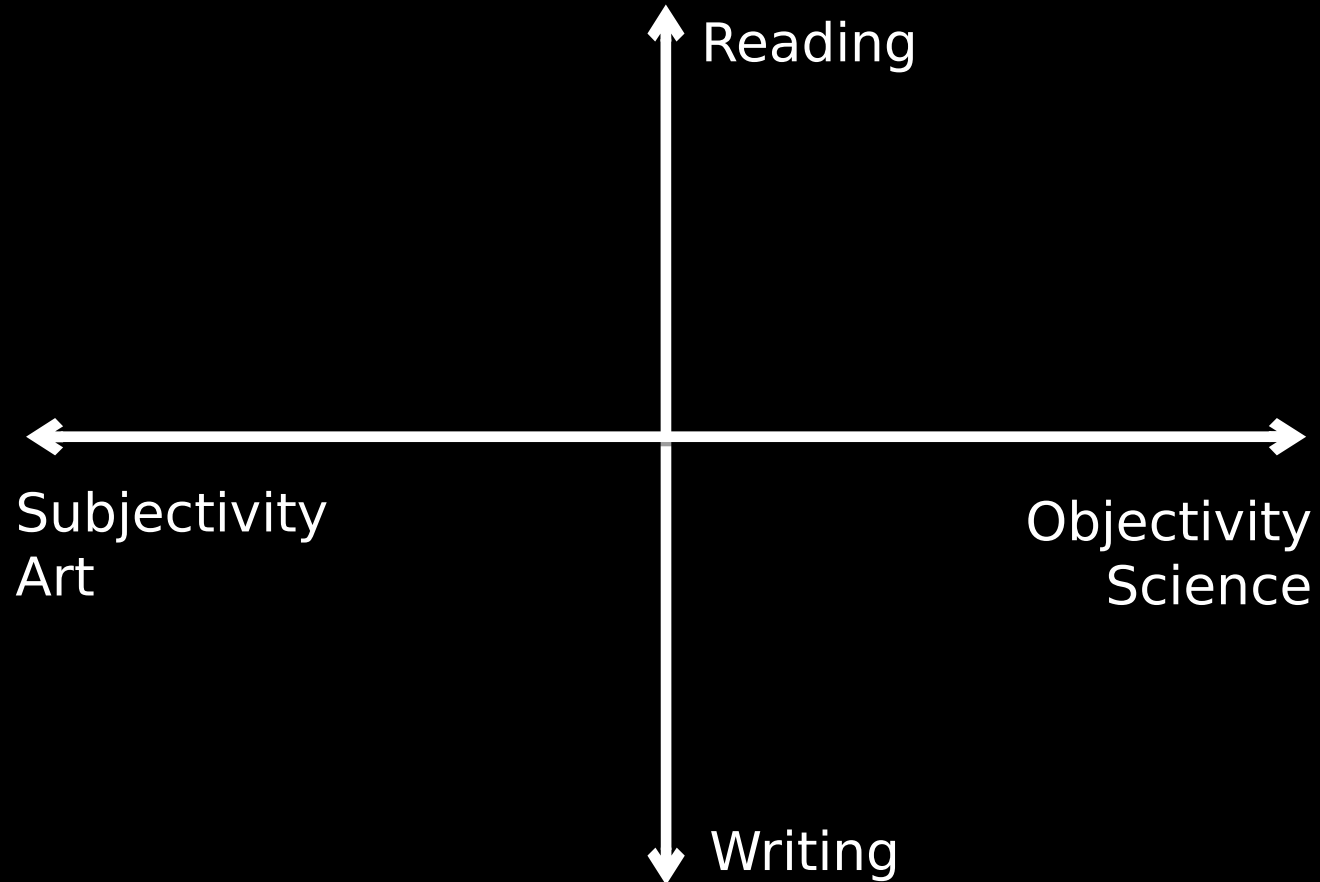
Mental Maps



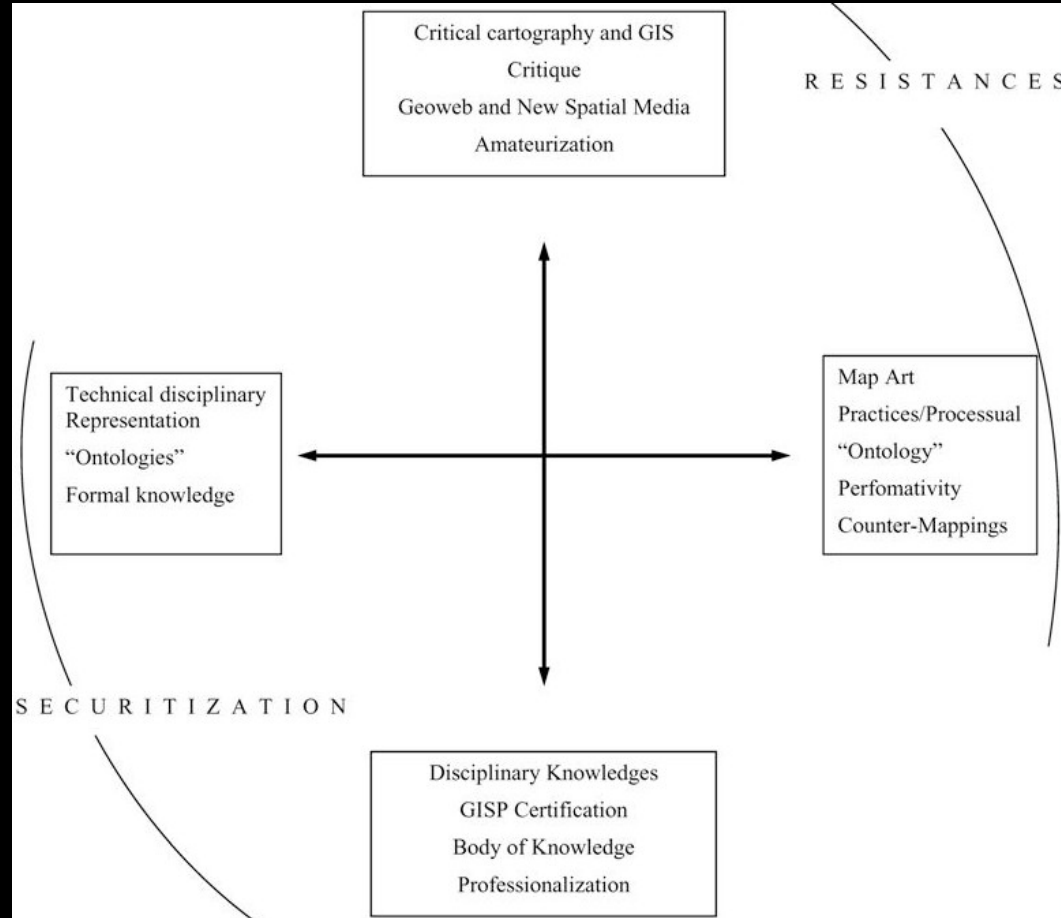
Map Neutrality

Maps can't be neutral

Map Literacy



Resistance vs. Security



Scale

- Scale = Ratio

- Graphical

- Fractional

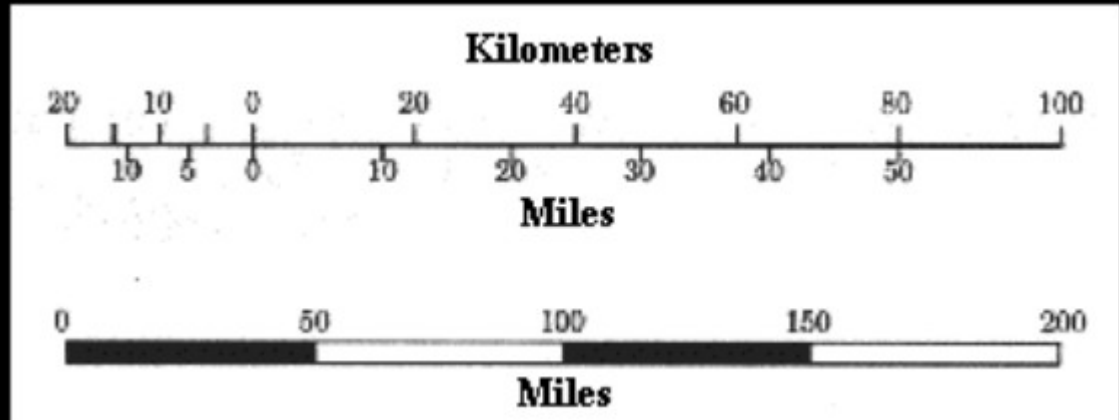
- Map ratio

- 1 : 15000

- 1 cm = 0.15 km

- Verbal

- Length measured on the map and corresponding distance on the ground



Scale

- Graphic scale
 - Advantage
 - Retain meaning with resizing
 - Disadvantage
 - Most accurate at center of map
 - Culture bound (metric vs English)

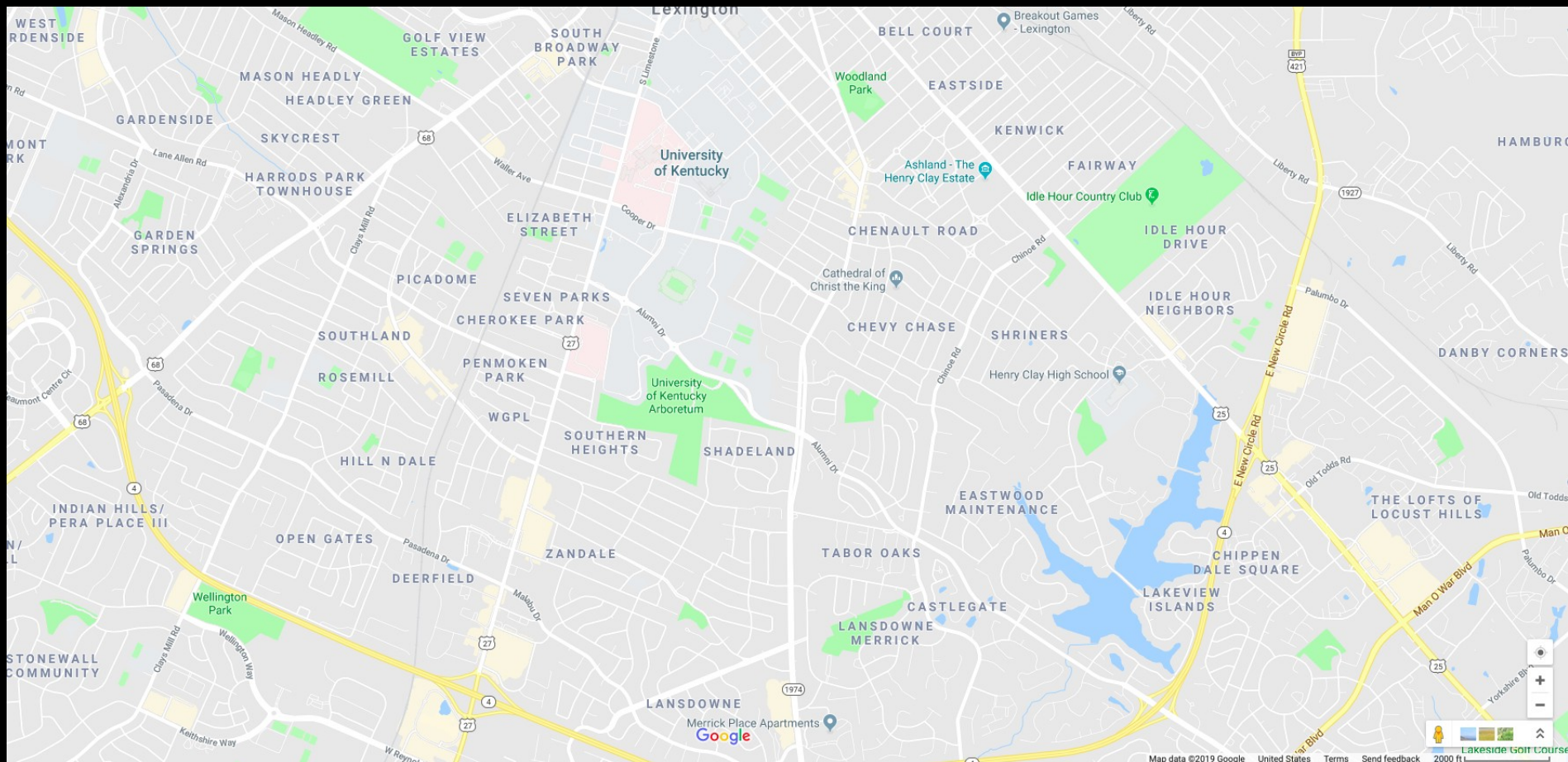
Scale

- Fractional scale
 - Advantage
 - Easier to culturally translate
 - Disadvantage
 - Recalculate when resize map
 - Tough to imagine
 - Requires a bit of math to use

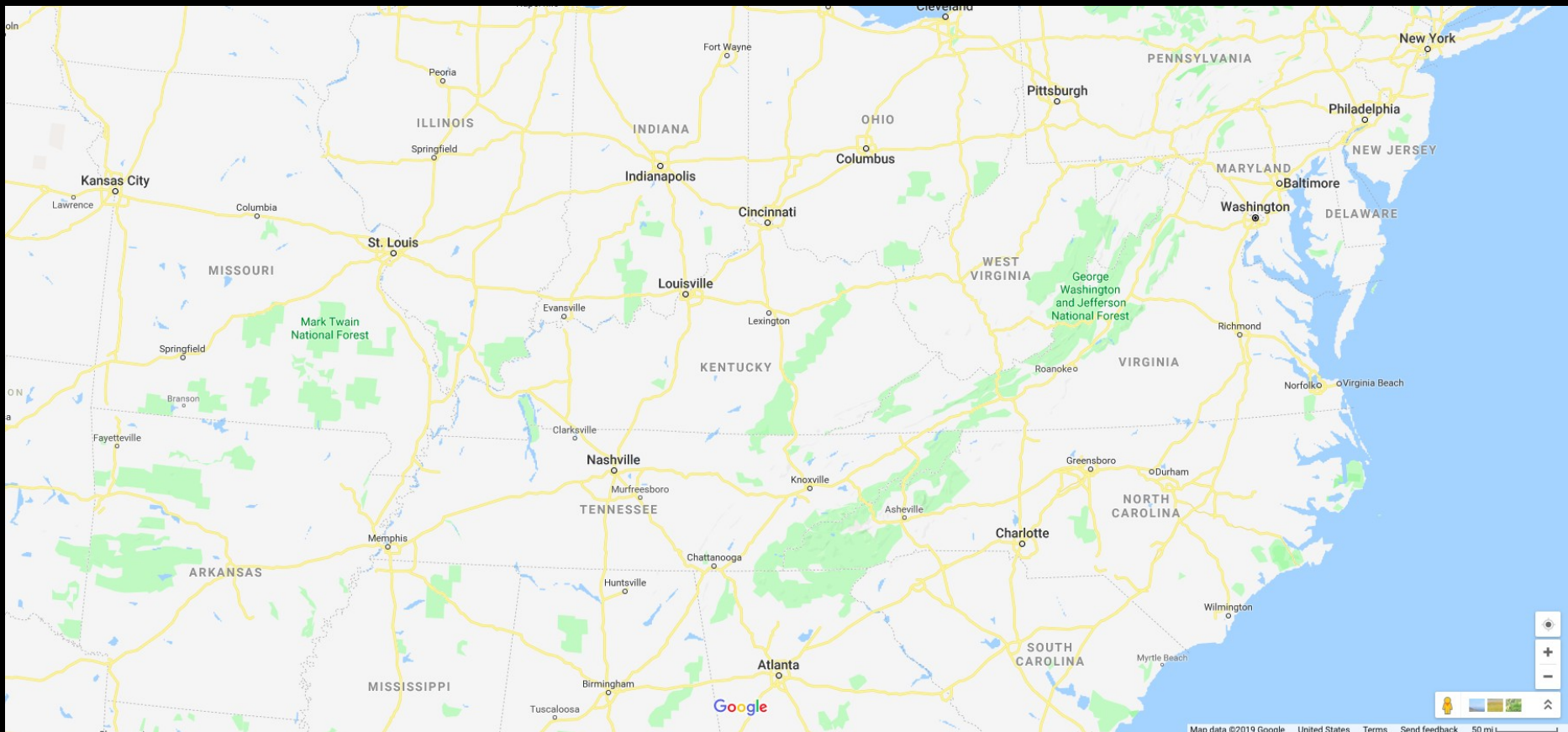
Scale

- Large scale
 - Large representational fraction
 - Denominator is small
 - Objects represented are large and detailed
- Small scale
 - Small representational fraction
 - Denominator is large
 - Objects represented are small and less detailed

Scale



Scale



Scale

- Selecting a scale
 - Ability to communicate
 - Symbolization
 - Accuracy
 - Appearance

Map generalization

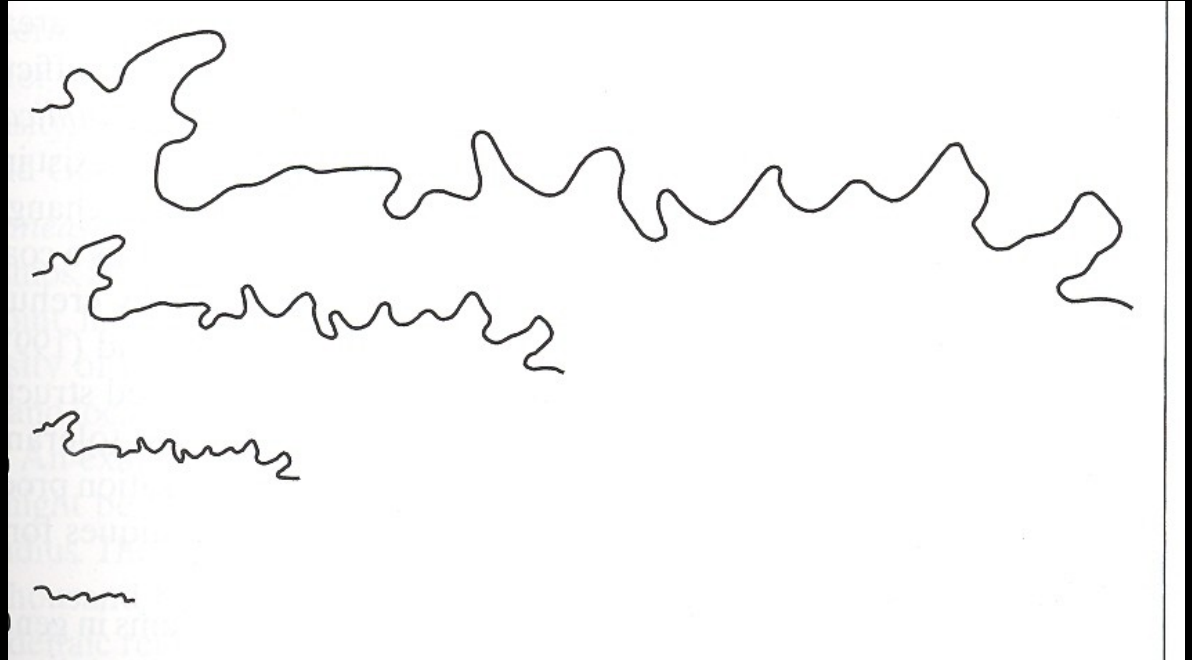
- Selection
- Simplification
- Smoothing
- Displacement

Map generalization

- Selection
 - What space to be mapped?
 - Scale
 - Projection
 - Data
 - Gathering
 - Sampling
 - Variable selection

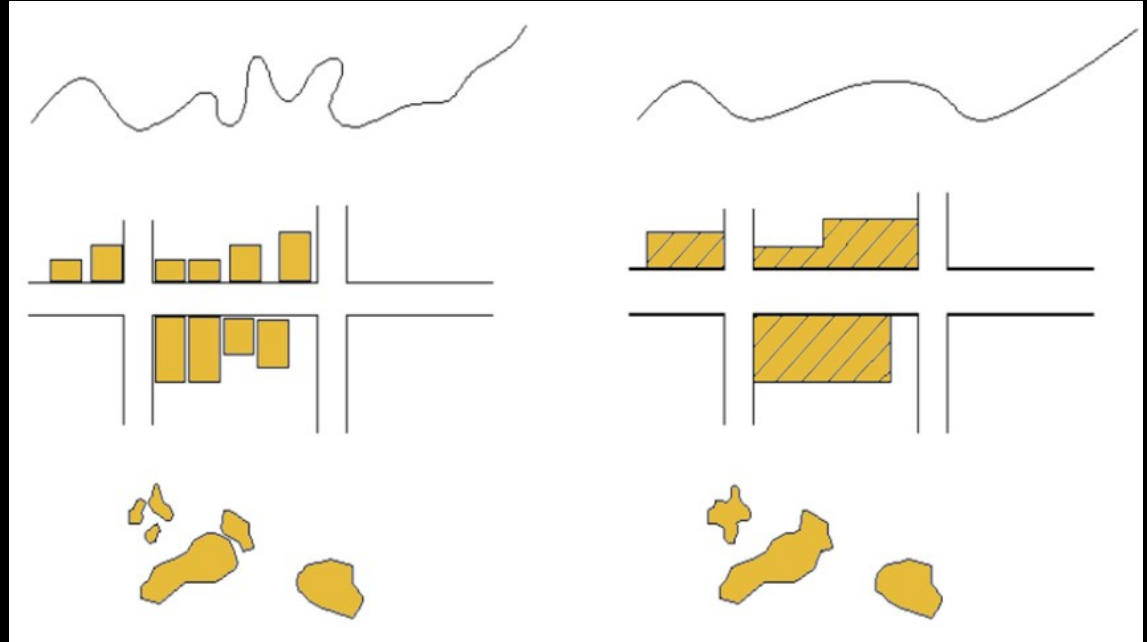
Map generalization

- Simplification
 - Selection
 - Classification
 - Smoothing



Map generalization

- Smoothing
- Displacement
 - Structural
 - Conceptual



Demo