Systems, Science, & Study

Scale in Space and Time, by John C. Hudson
Ch 13 Geography's Inner Worlds (1992)

Hudson, 2001. Scale in Space and Time

Simplification vs. Generalization

- Geography focuses on "real world" scales, processes that are natural or human in origin fall in a continuum of local-to-global scales
- Climate research is a good example of a field of geographic research that spans the local-to-global continuum
- Time is difficult to represent on maps
- Map generalization is necessary for making plain the components of an argument, or making a map convenient

Central Point: Pattern is linked to scale and generalization

Road maps to the average tourist vs. a geographer have different information content
- Patterns relate to physical and socioeconomic processes (form and process)
- "Bundles" of concepts are linked to patterns
- "Lumping and splitting", the conceptual process of understanding

Hudson, 2001 Scale in Space and Time

Borchert's map showing the shape of the "Prairie Peninsula"
Map of drought frequency, showing "isohyets" (lines of equal precipitation)

Hudson, 2001 Scale in Space and Time

Borchert's map vs. a vegetation map
Hudson, 2001 Scale in Space and Time

Spatial autocorrelation
Map complexity

What is the difference between Simplification and Generalization?
- Simplification = information removal
- Generalization = selective information removal

Scale – Large vs. Small

Storens in Springfield
- Not geographic information, just a list of names (data)

Placenames of Springfield
- Not geographic information, just a list of names (data)