

Unit 1 Review

Why what is
where.

Why what is where.



tallest buildings

fast food restaurants

slums

volcanoes

hurricanes



center of city

grouped together

close to downtown

edge of plates

Caribbean region

Space –

- No, not the final frontier...
- describes a two-dimensional location on a map

Place

- on the other hand is a less dry term, one that is used to describe a location that has meaning.

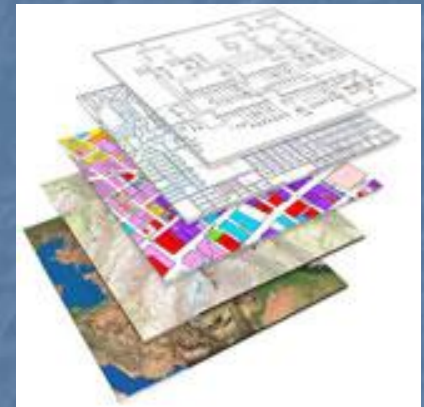


Human Geography: Five Themes

- **Location** – the space that is occupied in the universe (absolute/relative).
- **Place** – physical and human characteristics: space after humans.
- **Human/Environment Interactions** – how humans depend, modify, and adapt to their environments.
- **Movement** – how humans interact on earth, the diffusion of religion or trade patterns through connections of peoples.
- **Regions** – an area with one or more shared characteristics.

maps

- Cartography – the science of mapmaking.
- Contemporary Mapping –
 - Remote Sensing Satellites
 - GIS (geographic information systems)
 - GPS (global positioning system)
- Any useful map is selective in what is put in and left out. Example: road or subway map.



Three sources of map distortion

- Map scale – most maps are smaller than the reality they represent. Map scales tell us how much smaller.
- Map projection – this occurs because you must transform the curved surface of the earth on a flat plan.
- Map type – you can display the same information on different types of maps.

Map scale – tells us relationship between distance on map and distance on earth's surface

- Ratio scale = ratio of map distance to earth distance.
 - 1:10,000 means that one inch on the map equals 10,000 inches earth's surface; one centimeter represents 10,000 centimeters; or one foot equals 10,000 feet.
 - A **large-scale** map depicts a small area with **great detail**.
 - A **small-scale** map depicts a larger area with **little detail**. **Distortion is especially severe here.**

Which is the large-scale map?

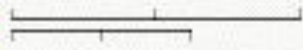
A.



Verbal Scale
1 in. = 1,485 mi
1 cm = 940 km

Representative fraction

$$\frac{1}{94,000,000}$$

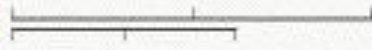


B.



1 in. = 585 mi
1 cm = 370 km

$$\frac{1}{37,000,000}$$

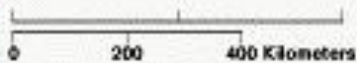


C.



1 in. = 250 mi
1 cm = 160 km

$$\frac{1}{16,000,000}$$

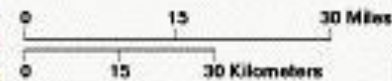


D.



1 in. = 20 mi
1 cm = 13 km

$$\frac{1}{1,300,000}$$



A.



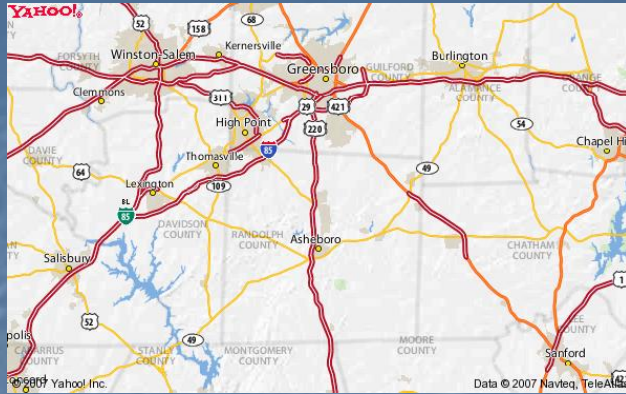
B.



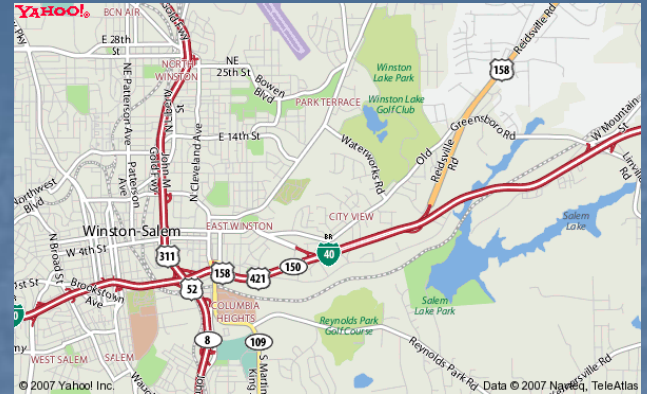
C.



a.



b.



c.

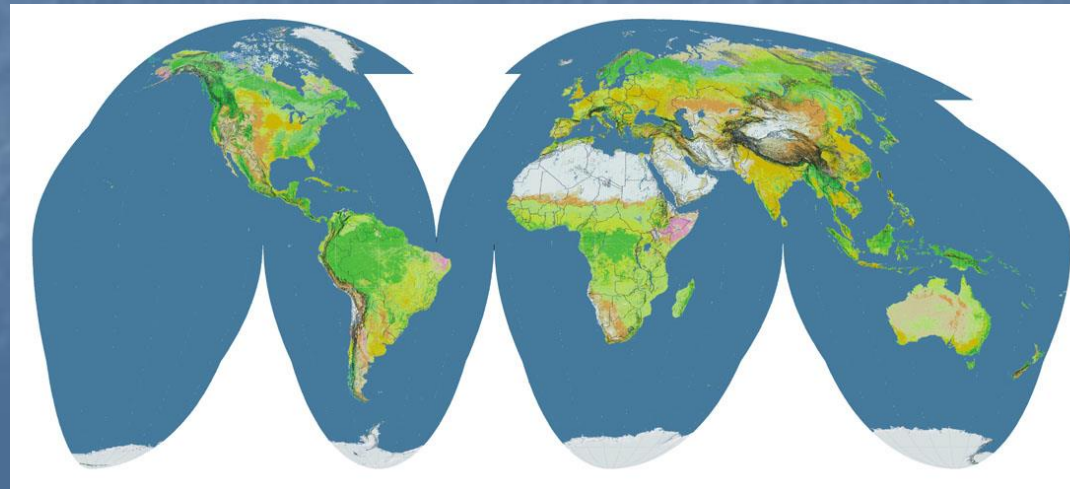


d.



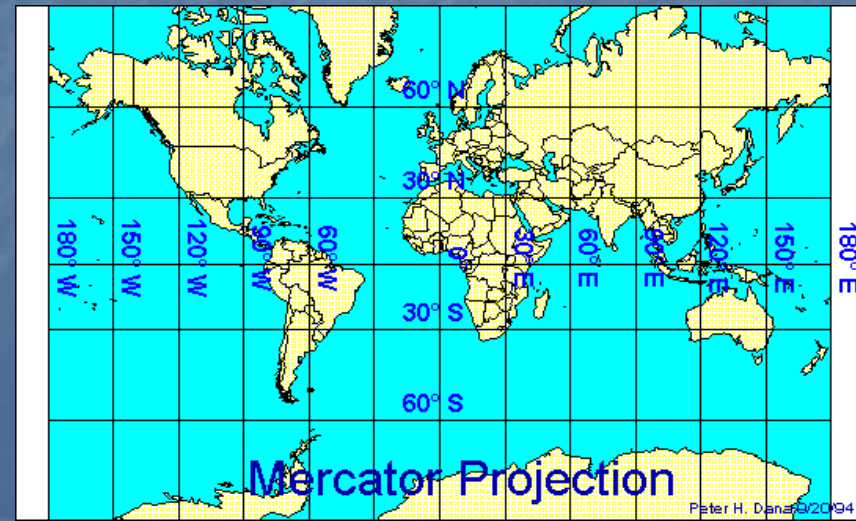
Goode's Projection

- Goode's projection interrupts the oceans and tucks Australia and New Zealand farther west than in reality. Minimized distortion in the shape of the various land masses and the size of one land mass compared to other land masses.



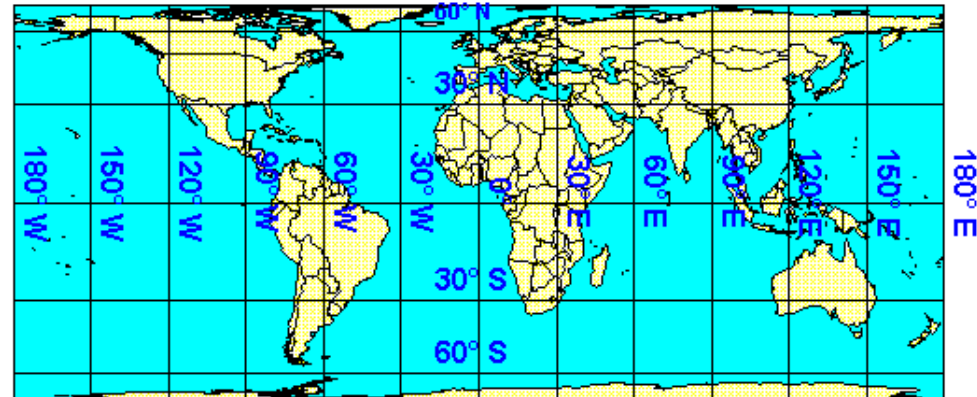
Mercator Projection

- Stretches the poles from one length to the size of the equator. Shapes are correct for all areas, and map has correct directional relationships.
- Look at the size of Greenland and Antarctica.
- Map exaggerates the distance between Chicago and Stockholm, both in northern latitudes.



Equal Area Projection

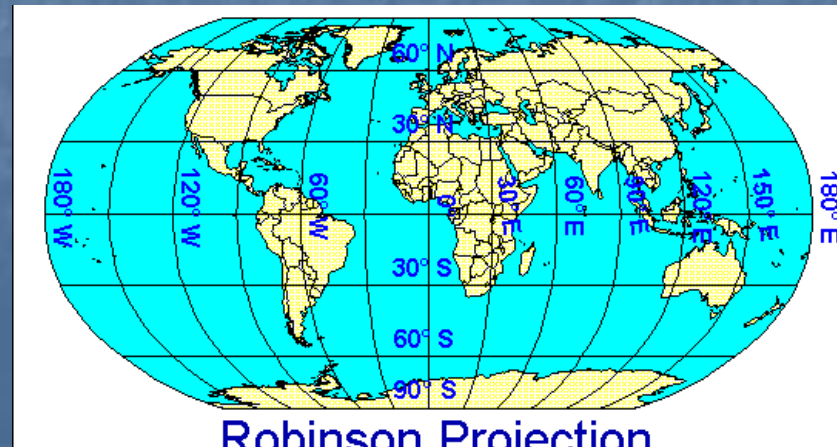
- Represents areas correctly, but distorts shapes.
- If South America is 8 times larger than Greenland on the globe, it will be 8 times bigger on the map.

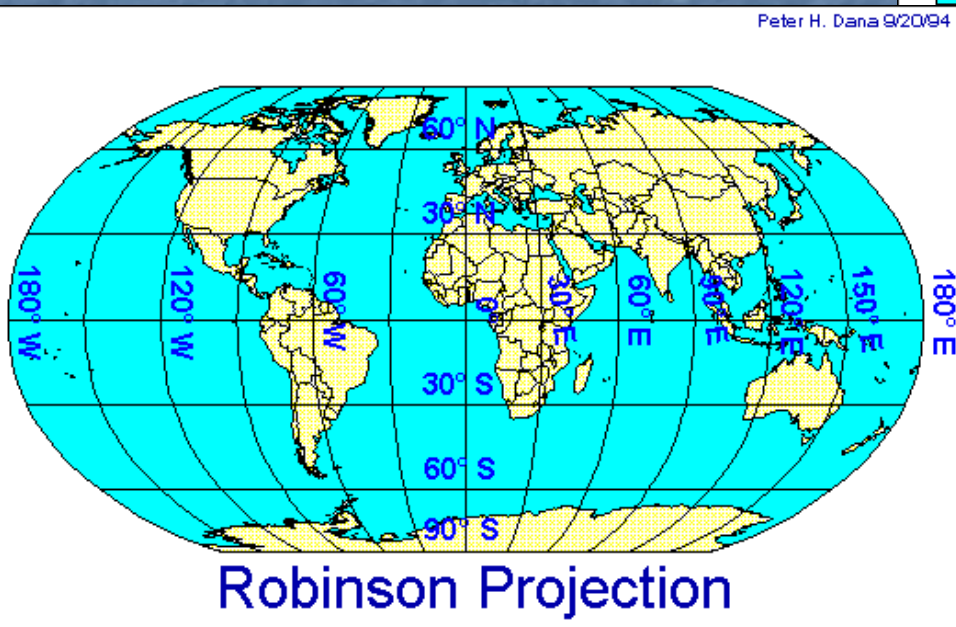
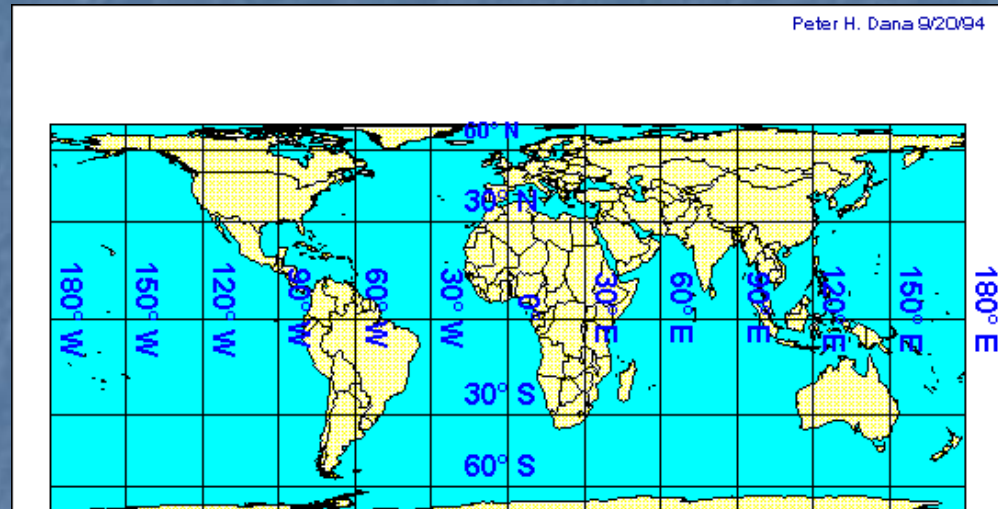
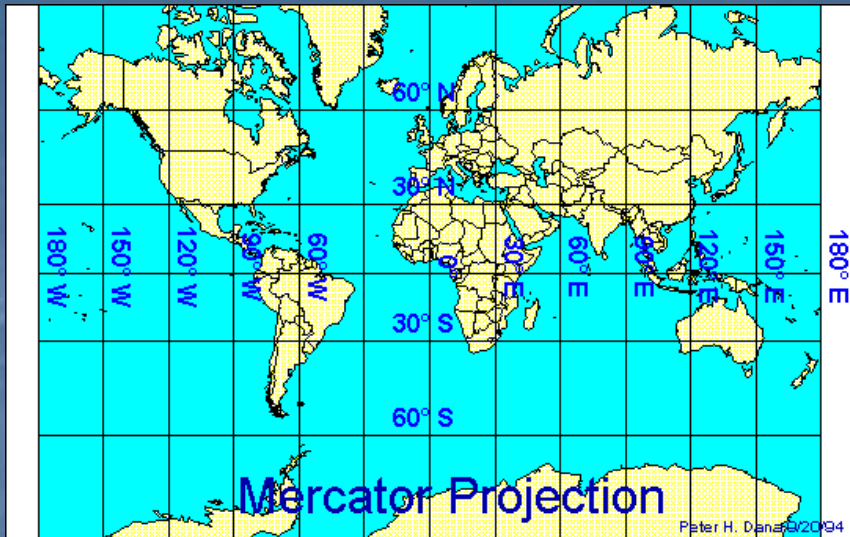


Behrmann Cylindrical Equal-Area

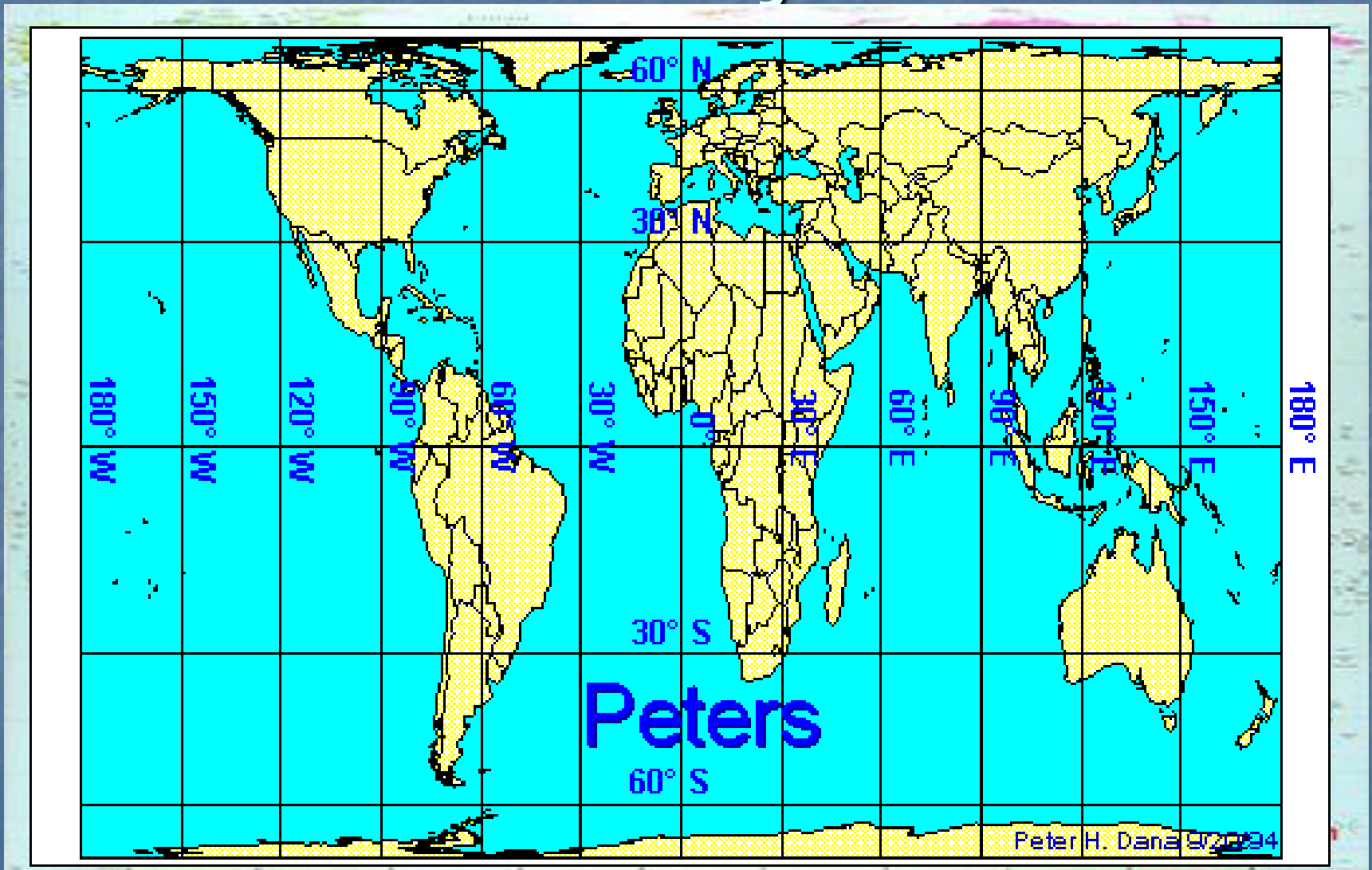
Robinson Projection

- Distorts both size and shape, but not too much.
- The major benefit of the Robinson projection is that oceans are uninterrupted. This projection is useful in depicting patterns of global interaction.

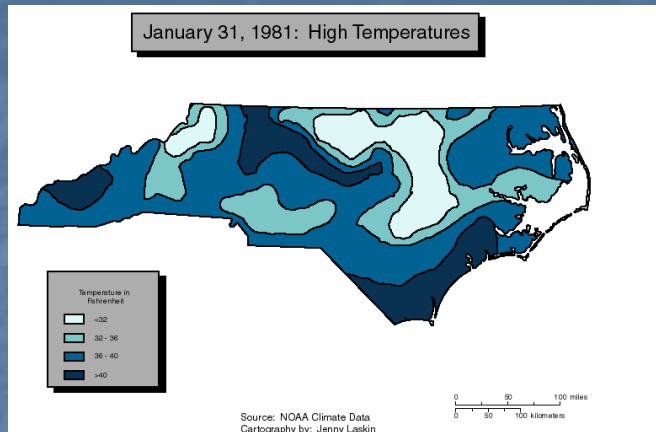




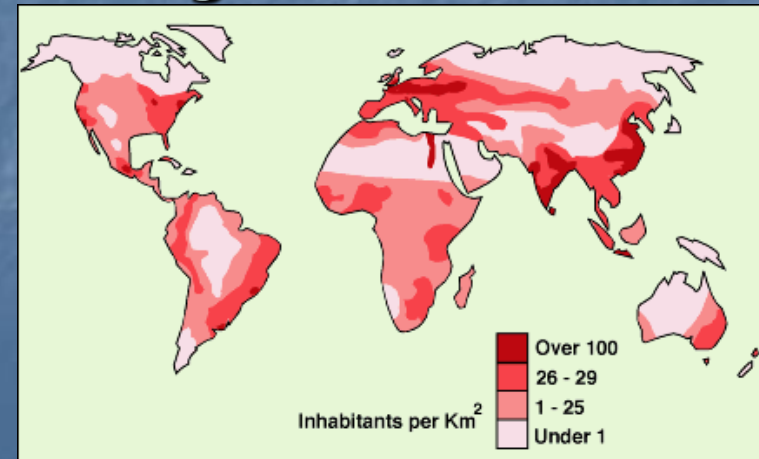
Peter's Projection



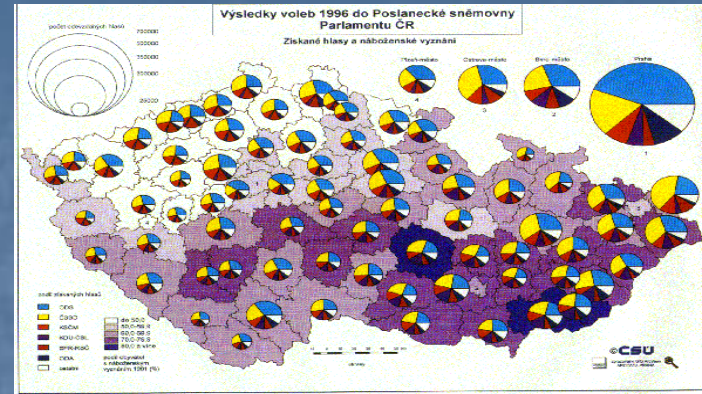
Isoline – connects points of equal value



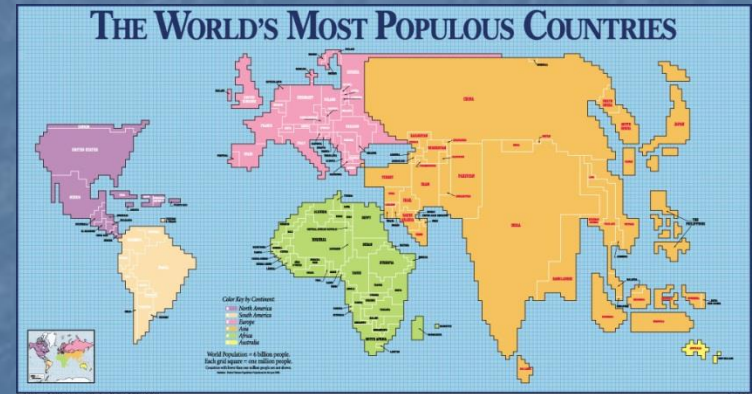
Choropleth – puts features into classes and then maps classes for each region



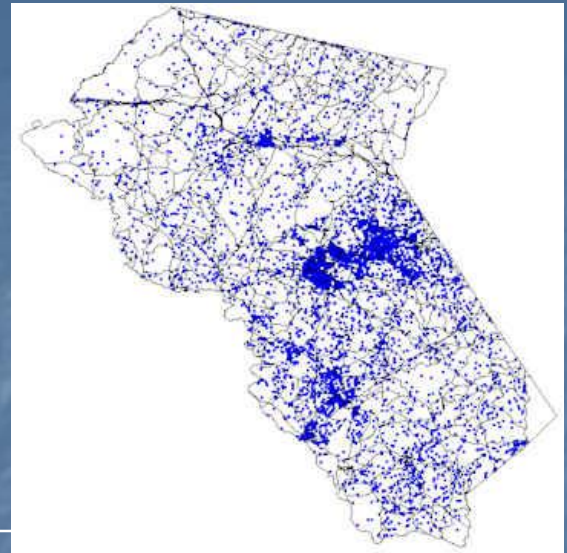
Proportional symbol – size of the symbol corresponds to the magnitude of the mapped feature



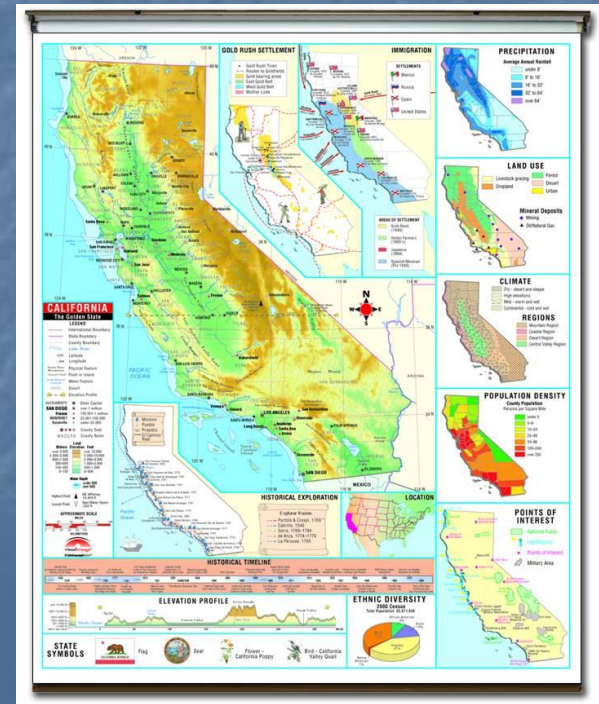
Cartogram – adjusts the size of the country corresponds to the magnitude of the mapped feature



Dot – each dot represents some frequency



Thematic- spatial distribution of one or more specific themes



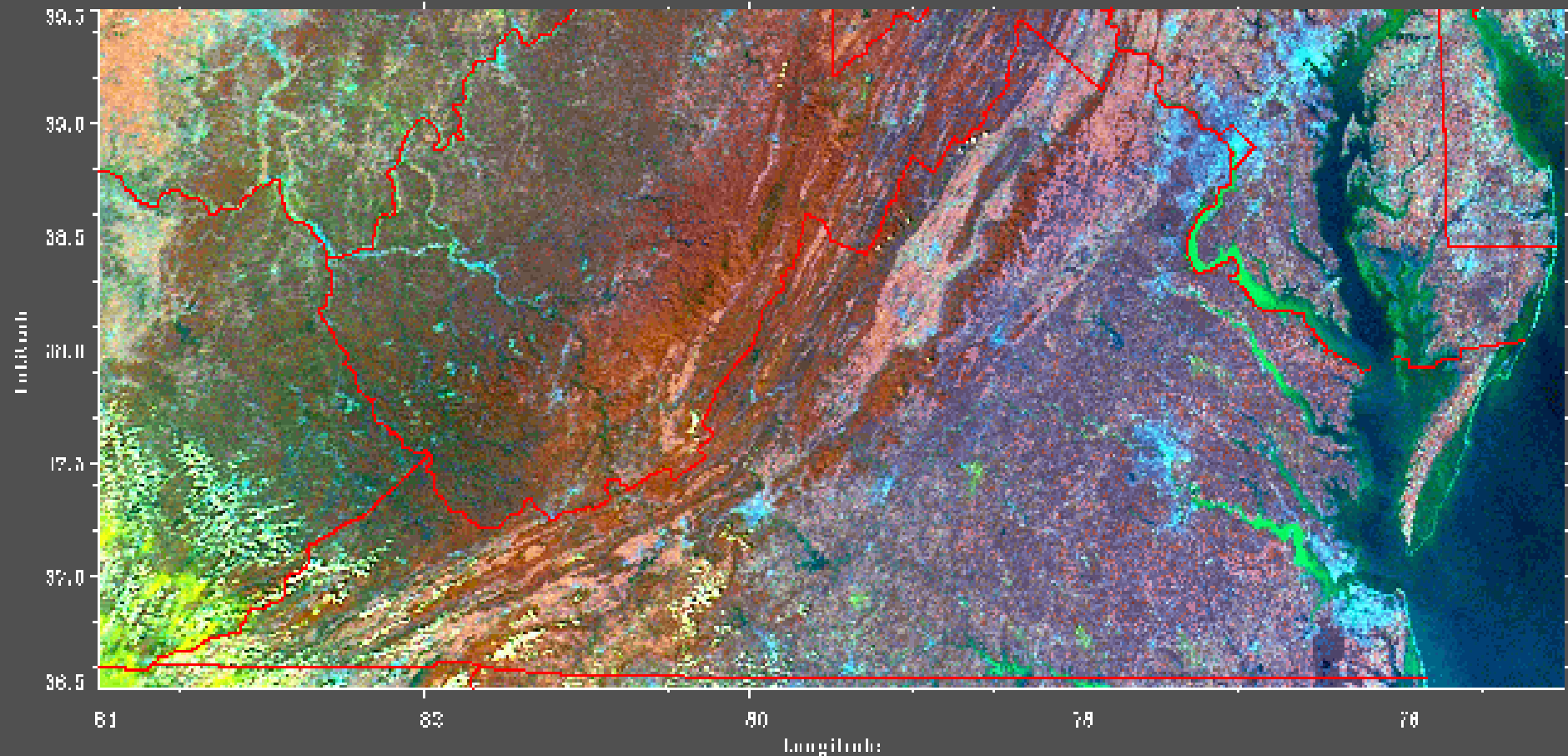
Other types of visual images:

- Mental map = map of an area in your mind



Bottom line: hundreds of decisions are made in the making of a map, including scale, projection, and type. These decisions ultimately determine the map's message.

The acquisition of data about Earth's surface from a satellite orbiting the planet is called **remote sensing**.



AVHRR Color Composite
1995-10-01 00:00:00 Sep 20 18:19:04 2005-01-20 00:00:00 1 2005-01-20

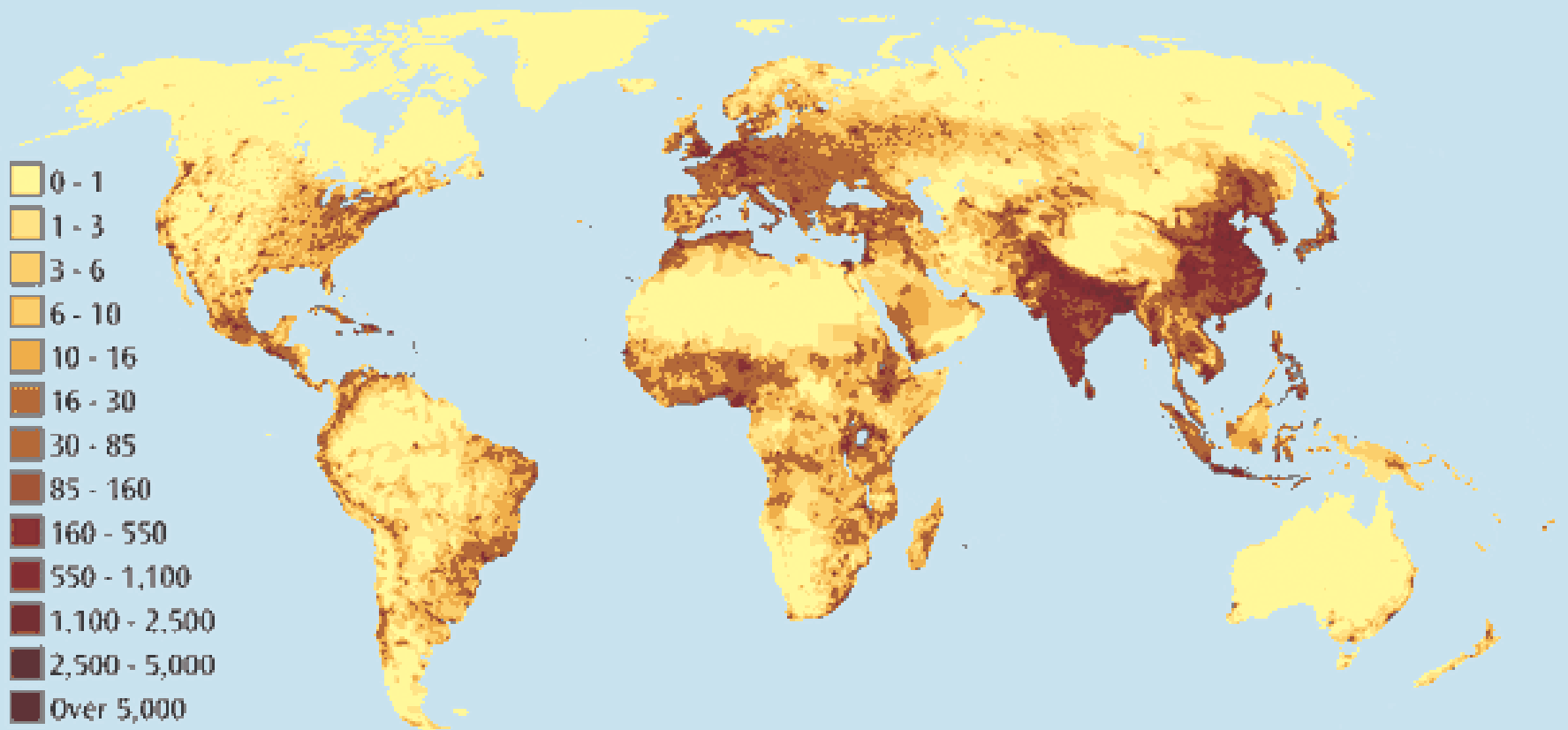
Space/Location

- Distribution – the arrangement of a feature in space.

Three properties

- Density** – the frequency with which something occurs.
- Concentration** – the extent of a feature's spread over space. Used to describe changes in distribution.
 - Clustered
 - Dispersed
- Pattern** – geometric arrangement of objects in space.

Population Density

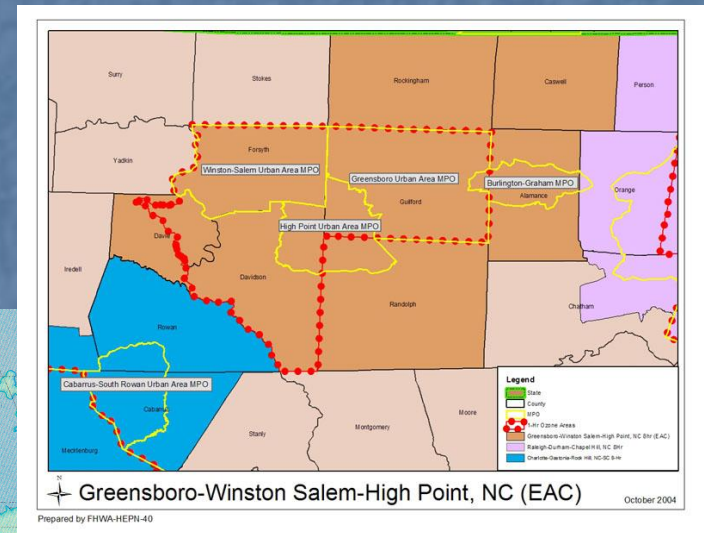
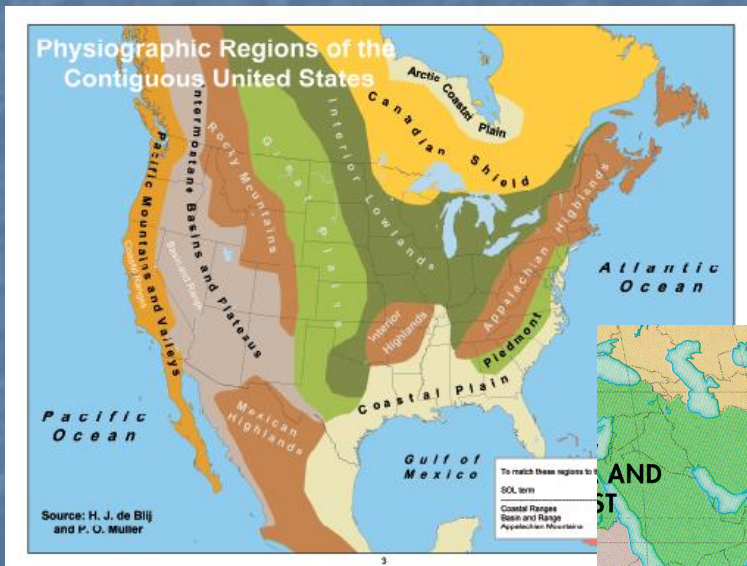


REGION defined:

A region constitutes an area that shares similar characteristics – de Blij

Formal or Uniform Region

- Can be defined by physical criteria
- Or by cultural traits

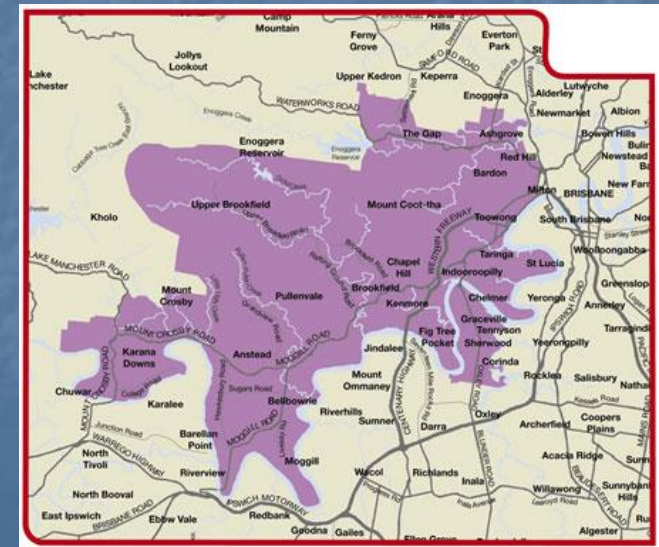


Functional or Nodal Region

- The product of interaction, of movement; not necessarily homogenous, rather the people of the region function together – politically, socially, or economically
- Will operate around a node
 - The surrounding area of a city
 - A newspaper circulation area

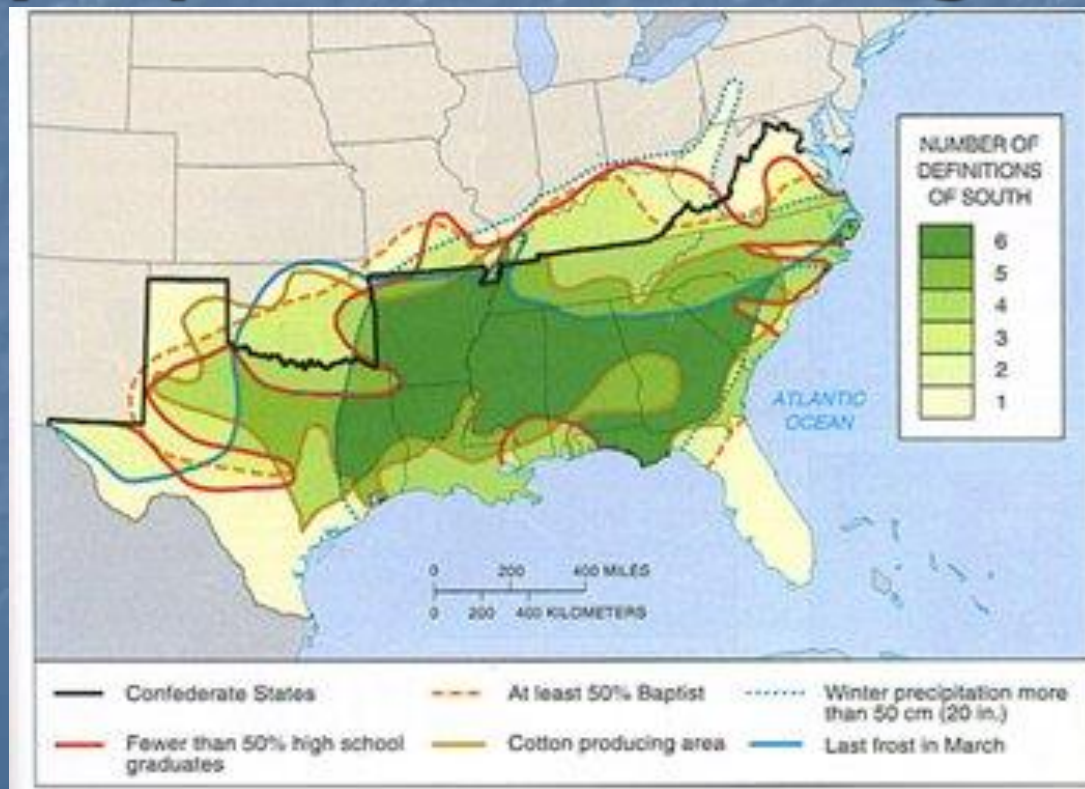
Functional Region

- Core area – its characterizing features are most clearly defined
- Periphery – characteristics become less prominent toward the region's margins



Perceptual or Vernacular

- Primarily in the minds of people – how people think about regions



Diffusion

The process by which an idea or innovation is transmitted from one individual or group to another across space -
Fellman

- People move to a new area and take their culture with them – examples include - crops, culture, farming techniques, building styles

Known as

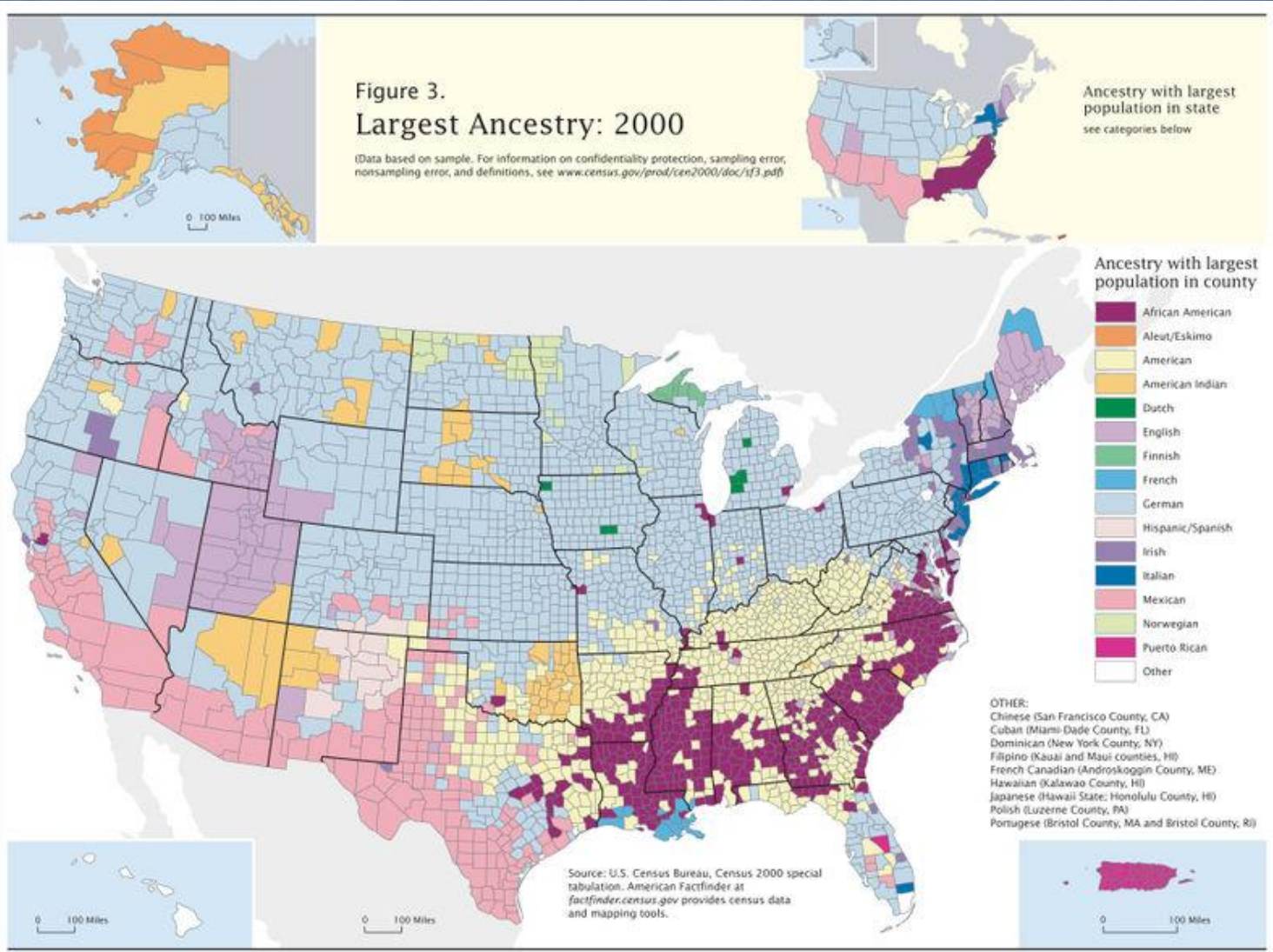
**Relocation
Diffusion**

- Information about an innovation may spread through a society – examples include - Hybrid corn, Cd's, a religious creed. Possibly through mass media advertisement—

Known as

Expansion Diffusion

Relocation Diffusion



Type of Expansion Diffusion

- Contagious Diffusion
- Hierarchical Diffusion
- Stimulus Diffusion

Contagious Diffusion

- Diffusion that spreads like a disease – but not necessarily applying only to diseases!
- Affects nearly uniformly all individuals and areas outward from the source region
- Examples – influenza, HIV/AIDS, ideas on the world wide web, Buddhism, Hinduism, agricultural improvements

Hierarchical Diffusion

- The spread of an idea from persons or nodes of authority or power to other persons or places
- Examples- Birkenstocks, Christianity, styles of clothing, music

Stimulus Diffusion

- A fundamental idea, though not the trait itself, stimulates imitative behavior
- Examples – creation of a unique Cherokee written language, Blu-ray vs. HD-DVD, Siberians domesticated reindeers (after seeing domesticated cattle)

Cultural Hearths

- An area where cultural traits develop and from which the cultural traits diffuse.
- Examples – Islam, agriculture,

Time-Distance Decay

- The farther the place is from the hearth, the less likely an innovation is to be adopted.
- The acceptance of an innovation becomes less likely the longer it takes to reach its potential adopters.
- Cultural barriers work against diffusion.

- Environmental determinism / Possibilism
- Location (absolute, relative, site, situation, place name)
- Physical attributes (natural landscape)
- Spatial (of or pertaining to space on or near Earth's surface)
- Spatial interaction (accessibility, connectivity, network, distance decay, friction of distance, time-space compression)

- **Geographic Tools**
- Distortion
- Grid (North and South Poles, latitude, parallel, equator, longitude, meridian, prime meridian, international date line)
- Remote sensing
- Time zones