

# Key people, laws, map projections, regions and development measures explained

Important terms: Many of which are not  
included in the Rubenstein text

# Early Geographers

- Eratosthenes- Early cartographer (map-maker)
  - computed the earth's circumference.
- Ptolemy- Wrote *Guide to Geography*
  - Created the global grid, longitude and latitude
- George Perkins Marsh- Wrote *Man and Nature, or Physical Geography as modified by Human Action*,
  - states that humans effect the earth.

# Important Geographers

- Carl Sauer- Argued culture should be added into the study of geography
  - Expanded on Marsh's theory of the human alteration of the earth (cultural Landscape)
- Kevin Lynch- *Image of a City*,
  - described how you should plan a city
- Paul Ehrlich- *The Population Bomb*:
  - starts the Neo-Malthusism movement, just restates Malthus's ideas
- W.D. Pattison- He had his own way of labeling geography, using 4 traditions:
  - Earth-science tradition, physical geography
  - Culture-environment, environmental geography
  - Location, cartography
  - Area-analysis, regional geography

# Geographic Concepts

- Anthropogenic- Human induced changes into the environment
- Idiographic- Pertaining to the unique facts or characteristics of a place
- Nomothetic- Concepts or rules that can be applied universally
- Sustainability – To use the earth without abusing its resources for the benefit of future generations.

# Maps, Scale, Space, Place

- Breaking point- The point where the cities influence ends.
- Cognitive Map – Image of a place that exists in your mind.
- Friction of Distance – Measure of how much absolute distance effects interaction of two places.
- Isoline- a map line that connects points of equal/similar values.
- Time space convergence – As communication increases efficiency the distance between two places is effectively diminished.
- Geoid – Actual shape of the Earth (earth is longer around the equator)
- Intervening Opportunity - states that the amount of migration over a given distance is directly proportional to the number of opportunities at the place of destination.
- Transferability – Cost of moving goods from one place to another.

# Gravity Model

- Based on Isaac Newton's Law of Gravitation - Formula based on population and distance and how it effects interaction between two places.
- The relative strength of a bond between two places is determined by multiplying the population of city A by the population of city B and then dividing the product by the distance between the two cities squared.

## The Gravity Model

$$\frac{\text{population}_1 \times \text{population}_2}{\text{distance}^2}$$

- Thus, if we compare the bond between the New York and Los Angeles metropolitan areas, we first multiply their 1998 populations (20,124,377 and 15,781,273, respectively) to get 317,588,287,391,921 and then we divide that number by the distance (2462 miles) squared (6,061,444). The result is 52,394,823. We can shorten our math by reducing the numbers to the millions place - 20.12 times 15.78 equals 317.5 and then divide by 6 with a result of 52.9.
- Now, let's try two metropolitan areas a bit closer - El Paso (Texas) and Tucson (Arizona). We multiply their populations (703,127 and 790,755) to get 556,001,190,885 and then we divide that number by the distance (263 miles) squared (69,169) and the result is 8,038,300. Therefore, the bond between New York and Los Angeles is greater than that of El Paso and Tucson!

# Population Geography

- Baby Boom- 1950's to early 60's After WWII a time of peace and prosperity in which the birth rate increased substantially.
- Generation X- the generation after the baby boom 1965-1980

# Cultural Geography

- Acculturation- The adoption of a different cultural practices by a group.
- Cultural Complex- The group of traits that define a culture
- Caste System- Hereditary social groups commonly linked to India
- Custom- Practices followed by a group of people.
- Diaspora- People who live in different places than their ethnicity.
- Esperanto – Creation of a universal language by combining a regions spoken languages.
- Isoglosses – Geographic boundary line between languages.
- Polyglot – Multi-Lingual state.
- Syncretic – Traditions that borrow from past and present.
- Transculturation – expansion of traits through both diffusion and adoption.

# Language

- Mixing of languages to create new forms of communication.
  - **Dialect** – regional variation of a language.
    - Same language spoken differently in different areas
  - **Lingua Franca** – A language of international communication, such as English.
  - A **Pidgin** language is a simplified version of a **Lingua Franca**.
    - Mixes the lingua franca with the native language.
  - A **Creolized Language** is completely separate language derived from the mixing of a colonizers language with that of the indigenous population (i.e. French Creole) spoken in Haiti.

# Ethnicity

- Race- A group of people distinguished by physical traits (skin color, height, blood types)
- Ethnicity- Similar to race except that it also includes the idea that these people share a common social and cultural identity.
- While ethnicity and race are related concepts, the concept of ethnicity is rooted more in the idea of social grouping, marked especially by shared nationality, tribal affiliation, shared genealogy/kinship and descent, religious identification, language use, or specific cultural and traditional origins, whereas race is rooted in the idea of a biological classification.

# Political Geography

- Balkanization – When a single state breaks up into multiple smaller states.
- Centrifugal forces- forces that divide a country
- Centripetal forces- forces that bind a country together
- Antecedent boundaries- a boundary line established before it is populated
- Exclave- Territory that is part of a state but is separated, example Alaska
- Frontier- An area of weak shifting borders
- Gerrymandering- designation of voting districts for political gain
- Lebensraum- Living space for people – used by Hitler to promote German unity
- Superimposed boundaries- boundaries drawn that ignore cultural boundaries
- Subsequent boundaries- drawn according to cultural boundaries
- Supranational Organization- 3 or more states that promote shared objectives, example the European Union or EU
- Microstate – small population and land area.
- Organic Theory – The view that states resemble living organisms with cycles of youth, maturity, and old age.
- Relic Boundaries – old political boundaries that no longer exist but may have influence on the inhabitants.

# Economics

- Agglomeration- Grouping together of many firms of the same industry.
- Ancillary activities- economic activities that include shipping, distribution, and food service.
- Anthropocentric- human centered, said sustainable development is more important than nature.
- Conglomerate corporation- a corporation that is composed of many smaller firms.
- Deglomeration- Dispersal of an agglomerated industry.
- Footloose Firms- location costs are not of concern (computer software).
- Export processing Zone – Area where a government limits its regulations or taxes to draw in businesses.
- Ecotourism – environmentally friendly tourism.

# Agriculture

- Salinization- The process where irrigation leaves salt causing land to be infertile
- Swidden- land prepared for agriculture by the slash-and-burn method
- Transhumance- the movements of livestock according to seasonal patterns.
- Biotechnology – Uses organisms to modify products, plants, and animals.
- Feedlots – place where livestock are highly concentrated and fed hormone heavy grains (commercial farming).
- Agribusiness – economic and political system of organizing food production including: speed, retailing, and consumption.

# Urban Systems

- Beaux arts- movement to marry older forms of architecture to newer forms, this causes the city beautiful movement (beautification of urban building design).
- Exurbanite- A person who moves from the inner city to a suburb.
- Gentrification- The trend of middle-upper class Americans to move back into the middle of the city.
- Squatter settlements- settlements that pop up around cities in areas of extreme poverty.
- Gateway city – A city that serves as an entry point to foreigners.
- Hinterland – Market area surrounding an urban center (industry and businesses on the edge of the city).

# Map Projection Overview

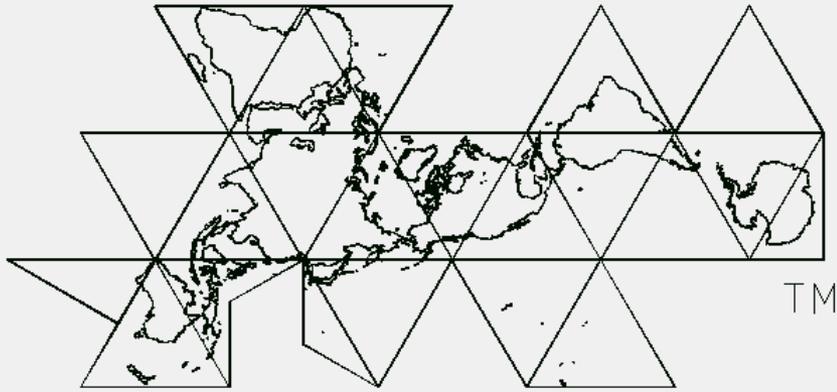
- Map projections are attempts to portray the surface of the earth or a portion of the earth on a flat surface. Some distortions of conformality, distance, direction, scale, and area always result from this process. Some projections minimize distortions in some of these properties at the expense of maximizing errors in others. Some projection are attempts to only moderately distort all of these properties.
  - **Conformality**
    - When the scale of a map at any point on the map is the same in any direction, the projection is conformal. Meridians (lines of longitude) and parallels (lines of latitude) intersect at right angles. Shape is preserved locally on conformal maps.
  - **Distance**
    - A map is equidistant when it portrays distances from the center of the projection to any other place on the map.
  - **Direction**
    - A map preserves direction when azimuths (angles from a point on a line to another point) are portrayed correctly in all directions.
  - **Scale**
    - Scale is the relationship between a distance portrayed on a map and the same distance on the Earth. Large scale more detail (Orlando), small scale less detailed (world)
  - **Area**
    - When a map portrays areas over the entire map so that all mapped areas have the same proportional relationship to the areas on the Earth that they represent, the map is an equal-area map.

# Major Shapes

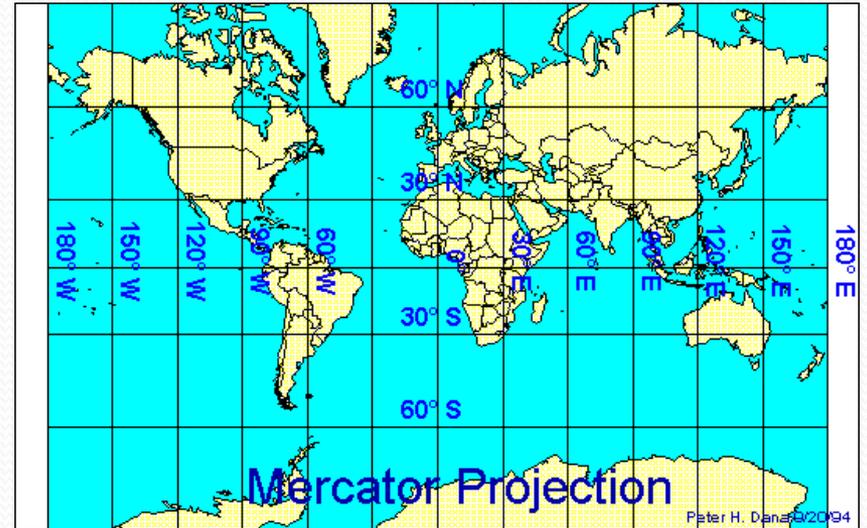
- Map projections fall into four general classes.
  1. **Cylindrical** projections result from projecting a spherical surface onto a cylinder.
    - When the cylinder is tangent to the sphere contact is along a great circle (the circle formed on the surface of the Earth by a plane passing through the center of the Earth)
  2. **Conic** projections result from projecting a spherical surface onto a cone.
    - When the cone is tangent to the sphere contact is along a small circle.
  3. **Azimuthal** projections result from projecting a spherical surface onto a plane.
    - When the plane is tangent to the sphere contact is at a single point on the surface of the Earth.
  4. **Miscellaneous** projections include un-projected ones such as rectangular latitude and longitude grids and other examples of that do not fall into the cylindrical, conic, or Azimuthal categories

# Types of Projections

- **Mercator projection-** accurate compass direction, distorted land mass, STRAIGHT LINES
  - Created by projecting a globe onto a cylinder
  - The Mercator projection has straight meridians and parallels that intersect at right angles. Scale is true at the equator or at two standard parallels equidistant from the equator. The projection is often used for marine navigation because all straight lines on the map are lines of constant azimuth.
- **Fuller Projection-** Accurate land mass, really crappy sense of direction
  - Fuller's intent was to emphasize how important it was to "find effective ways for all humanity to see total Earth, [because] nothing could be more prominent in all the trending of all humanity today than the fact that we are soon to become world humans."
- **Robinson Projection-** Rounded corners, the main type
  - The Robinson projection is based on tables of coordinates, not mathematical formulas. The projection distorts shape, area, scale, and distance in an attempt to balance the errors of projection properties.
- **Azimuthal-** Projections- paper off a globe
  - Azimuthal equidistant projections are sometimes used to show air-route distances. Distances measured from the center are true. Distortion of other properties increases away from the center point.



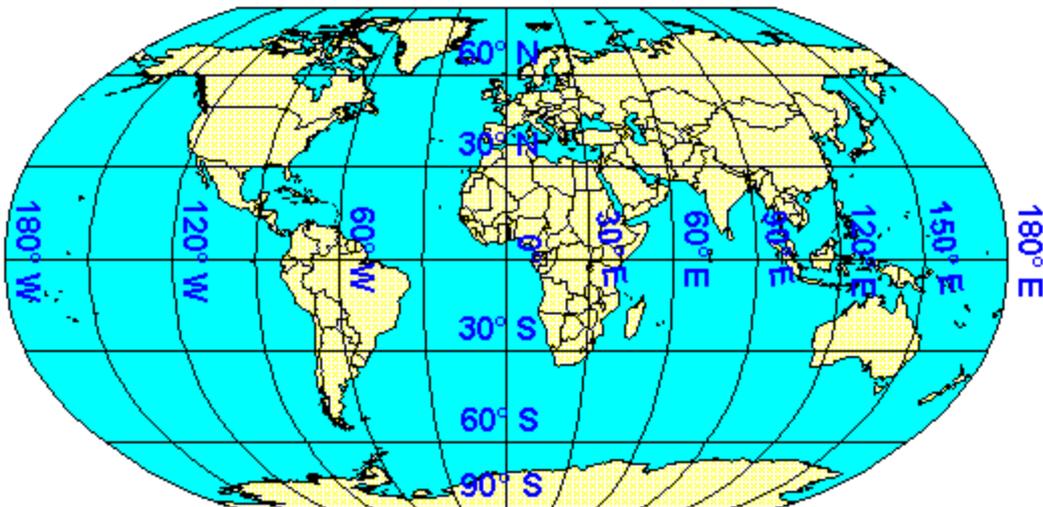
**Fuller**



**Mercator Projection**

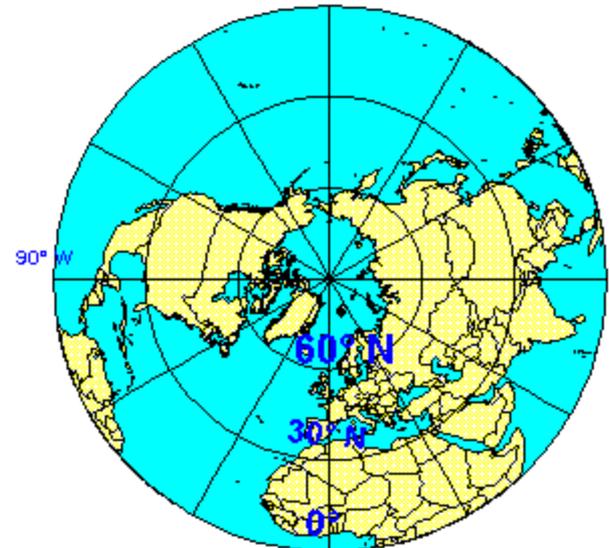
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**Robinson Projection**

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**Azimuthal Equidistant**

# The Belts

Belts you need to know:

- Rust Belt- Great Lakes, Pittsburg “Steelers”, no more industry where it used to be huge.
- Cotton Belt- AKA Sun Belt- South USA (early manufacturing region based on plantation systems).

# PPP n GDP + NNT y HDI

- Purchasing Power Parity - An economic theory that estimates the amount of adjustment needed on the exchange rate between countries in order for the exchange to be equivalent to each currency's purchasing power.
- GDP- accounts for capital lost through exploitation of natural resources not seen in GNP
- NNT- The **number needed to treat (NNT)** is an epidemiological measure used in assessing the effectiveness of a health-care intervention typically a treatment with medication
- HDI- Measure human welfare- life expectancy, education, and income
- Gender Equity/GDI- gender equality