

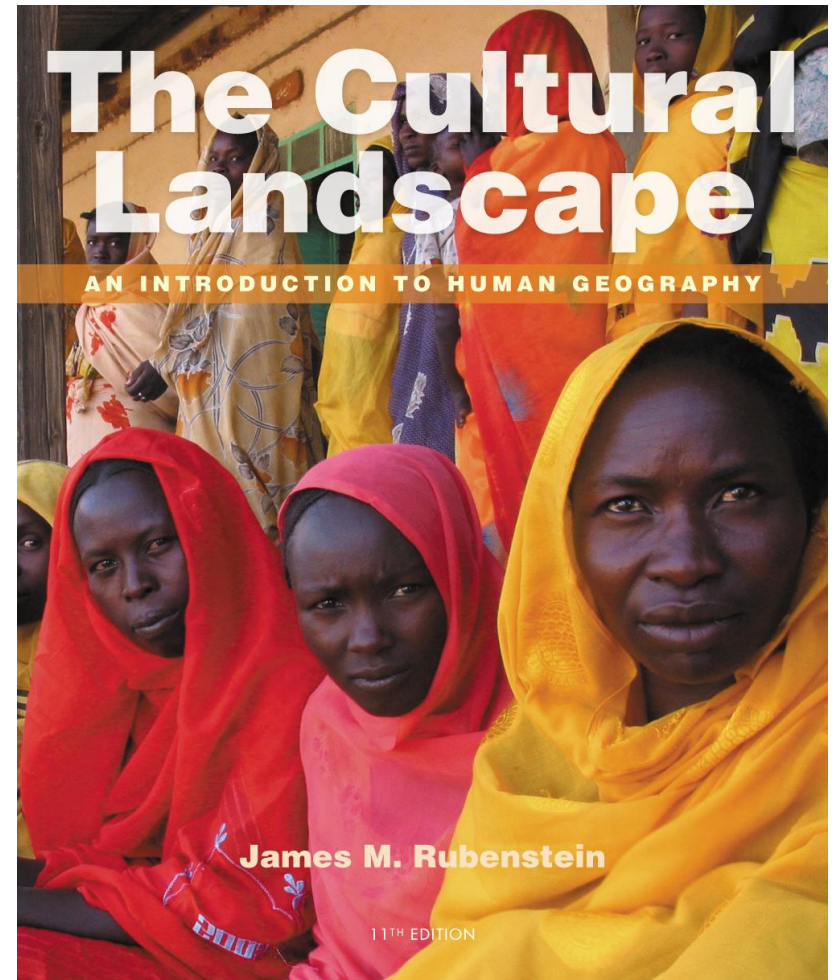
The Cultural Landscape

Eleventh Edition

Basic Concepts

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Key Issues

- How do geographers describe where things are?
- Why is each point on Earth unique?
- Why are different places similar?
- Why are some human actions not sustainable?

Learning Outcomes

- 1.1.1: Explain differences between early maps and contemporary maps.
- 1.1.2: Describe the role of map scale and projections and making maps.
- 1.1.3: Explain how latitude and longitude are used to locate points on Earth's surface.
- 1.1.4: Identify contemporary and analytic tools, including remote sensing, GPS, and GIS.

Learning Outcomes

- 1.2.1: Identify geographic characteristics of places, including toponym, site, and situation.
- 1.2.2: Identify the three types of regions.
- 1.2.3: Describe two geographic definitions of culture.
- 1.3.1: Give examples of changes in economy and culture occurring at global and local scales.
- 1.3.2: Identify the three properties of distribution across space.

Learning Outcomes

- 1.3.3: Describe different ways in which geographers approach aspects of cultural identity, such as gender, ethnicity, and sexuality.
- 1.3.4: Describe how characteristics can spread across space over time through diffusion.
- 1.3.5: Explain how places are connected through networks and how inequality can hinder connections.

Learning Outcomes

- 1.4.1: Describe the three pillars of sustainability.
- 1.4.2: Describe the three abiotic physical systems.
- 1.4.3: Explain how the biosphere interacts with Earth's abiotic systems.
- 1.4.4: Compare ecosystems in the Netherlands and southern Louisiana.

How Do Geographers Describe Where Things Are?

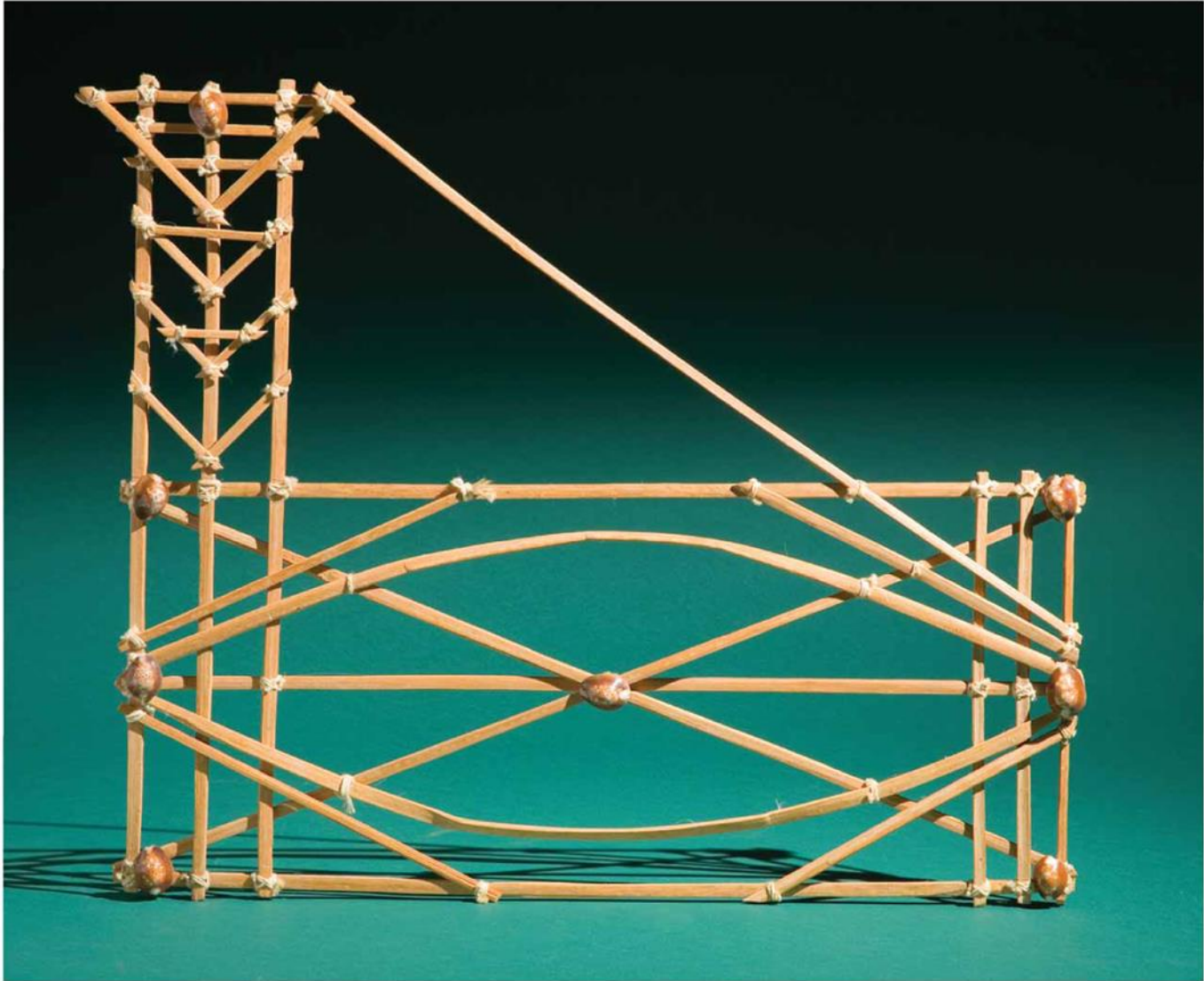
- *Geography* is the study of where things are found on Earth's surface and the reasons for the locations.
- Human geographers ask two simple questions...
 1. Where are people and activities found on Earth?
 2. Why are they found there?

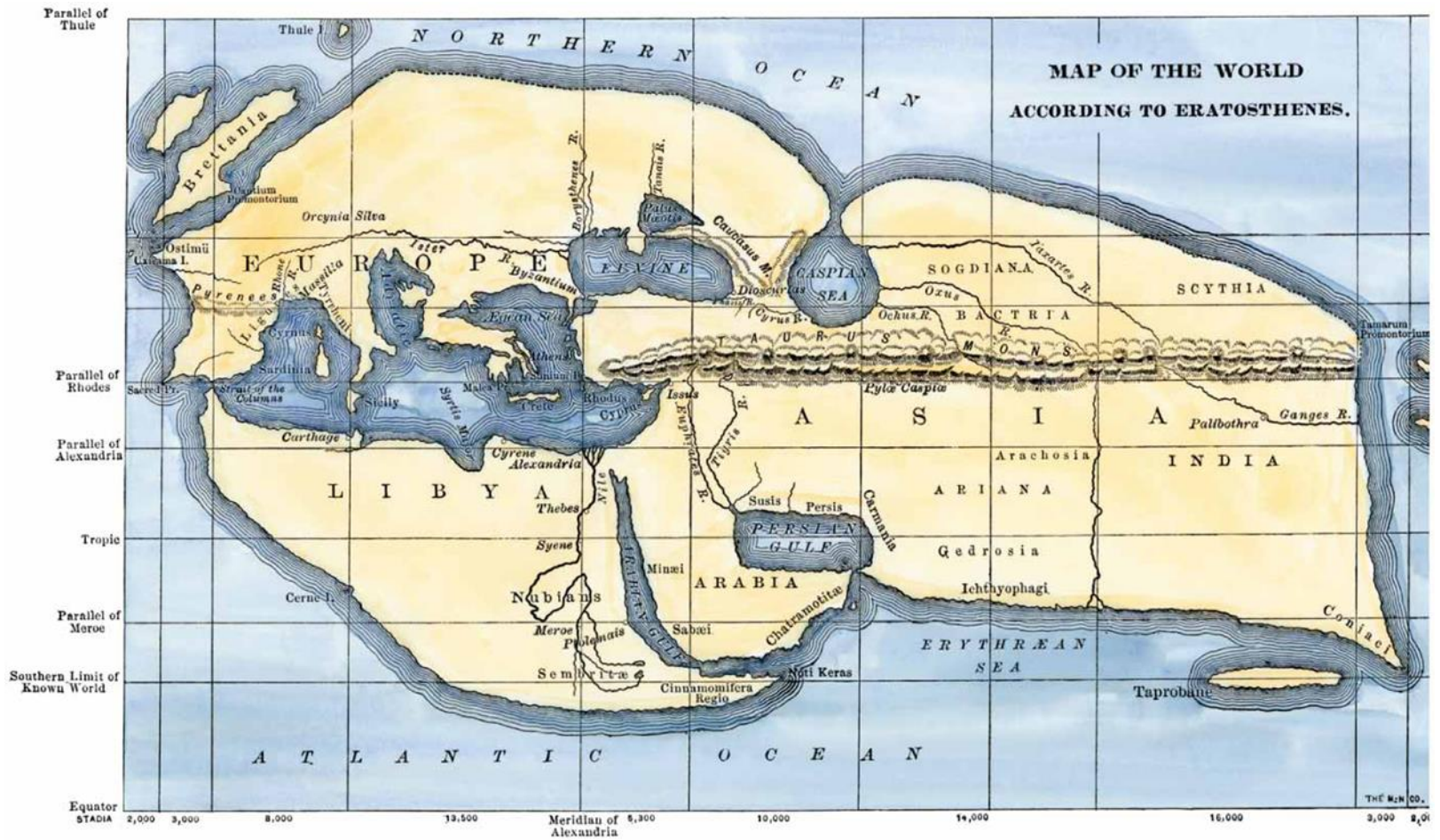
Maps

- A *map* is a two-dimensional or flat-scale model of Earth's surface, or a portion of it.
- *Cartography* is the science of mapmaking.
- Maps serve two purposes...
 1. As a reference tool to identify an object's absolute and relative location.
 2. As a communications tool to convey the distribution of human activities or physical features.

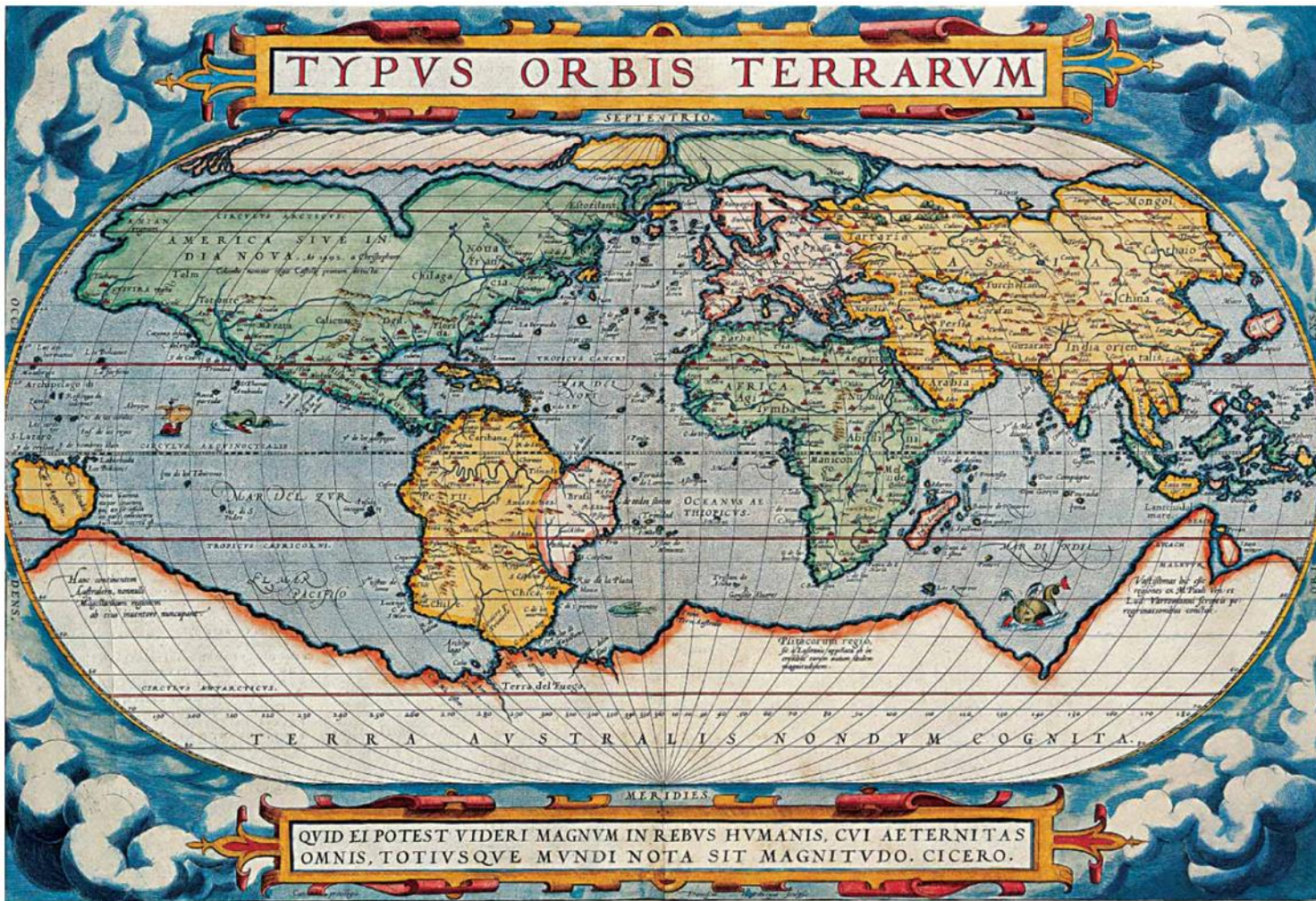
Early Mapmaking

- Earliest maps were reference tools—simple navigation devices to show a traveler how to get from Point A to Point B.
- First world map prepared by Eratosthenes(276–194 B.C.)
 - Improvements to world map later made by Ptolemy.
 - After Ptolemy, advancements in cartography primarily made outside of Europe by Chinese and Islamic world.
 - Mapmaking revived during the Age of Exploration and Discovery.









Contemporary Mapping

- Shift from simply a tool that provides location reference to a tool used by geographers to communicate complex geographic phenomena.

Map Scale

- Level of detail and the amount of area covered on the map depend on its *map scale*.
 - Relationship of a feature's size on a map to its actual size on Earth
- Map scale is presented in three ways...
 1. Ratio or Fraction Scale: Ex. 1:24,000 or $1/24,000$
 - Number on left is one unit of distance, while number on right represents same unit of distance on Earth's surface.

Map Scale

2. **Written Scale:** Ex. 1 inch equals 1 mile
 - Number on left is one unit of distance, while number on right represents a different unit of distance on Earth's surface.
3. **Graphic Scale:** Usually consists of a bar line marked to show distance on Earth's surface
 - Distance between two points can be overlaid on the scale bar to determine the distance on Earth's surface.

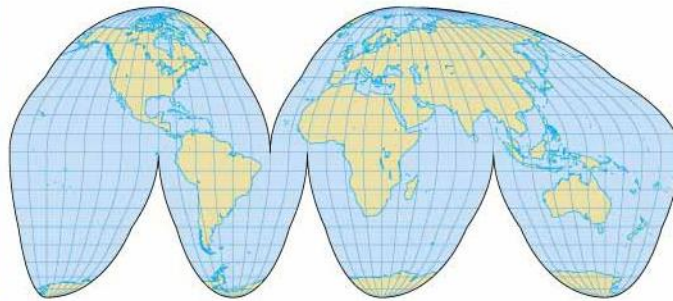


Projection

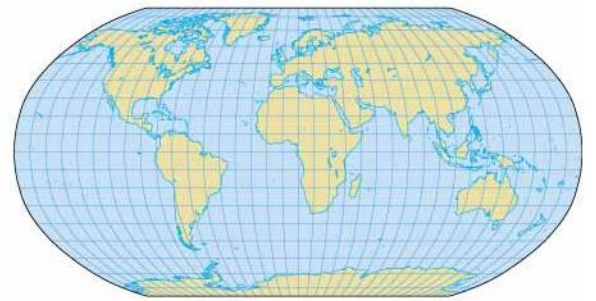
- Scientific method of transferring locations on Earth's surface to a flat map is called *projection*.
- Earth's spherical shape causes distortion when drawing it on a flat piece of paper.
 - Four types of distortion
 1. *Shape* of an area can be distorted.
 2. *Distance* between points may become increased or decreased.
 3. *Relative size* of different areas can be altered.
 4. *Direction* between points can be distorted.



Mercator Projection



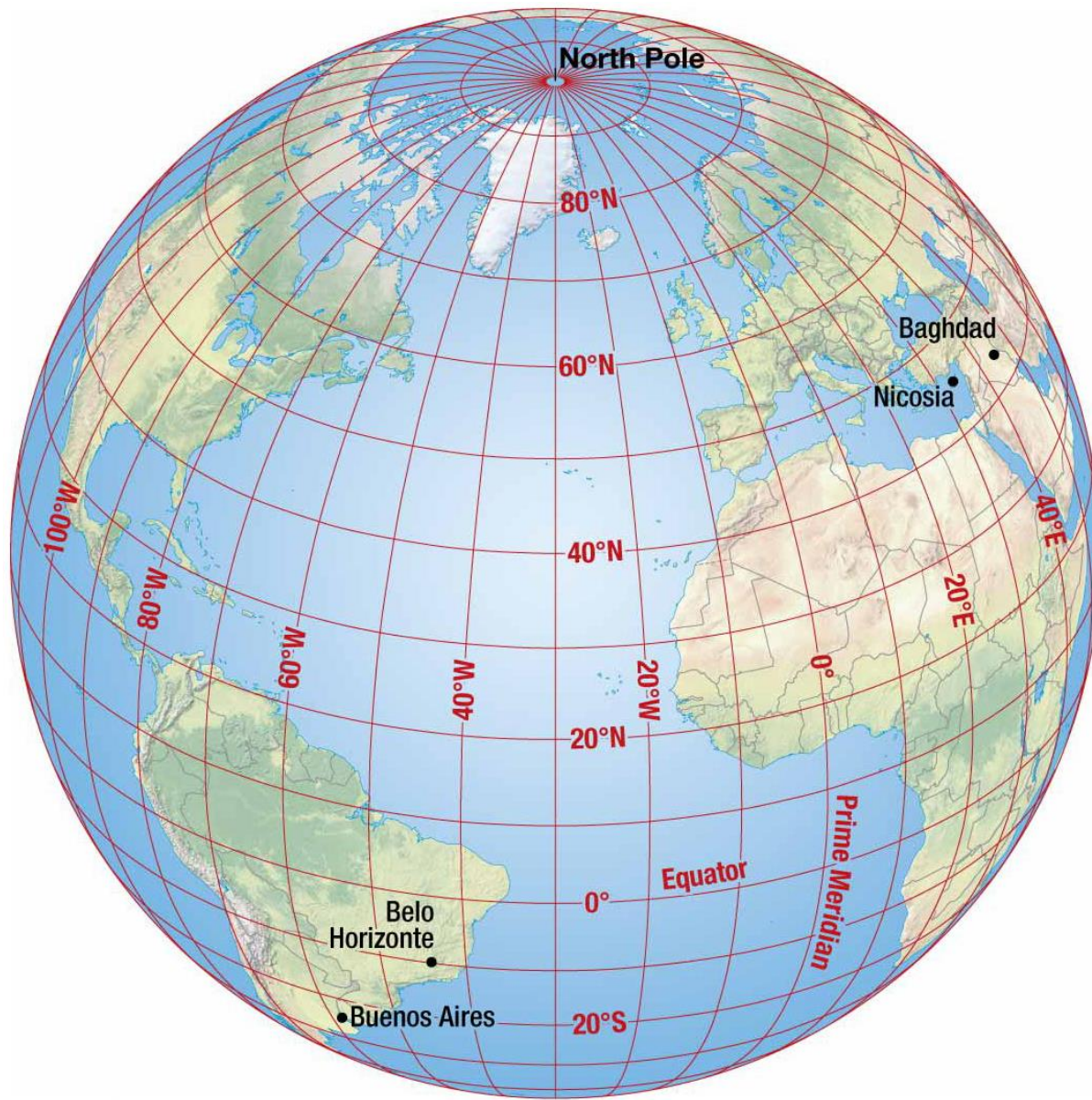
Goode Homolosine Projection



Robinson Projection

Geographic Grid

- Geographic grid is a system of imaginary arcs drawn in a grid pattern on Earth's surface.
 - *Meridians* are arcs drawn between the North and South poles. Each is numbered, according to a system known as *longitude*.
 - Values range from 0° (*prime meridian*) to 180° east or west longitude.
 - *Parallels* are arcs drawn parallel to the equator and at right angles to meridians. Each is numbered, according to a system known as *latitude*.
 - Values range from 0° (equator) to 90° north or south.



Geographic Grid

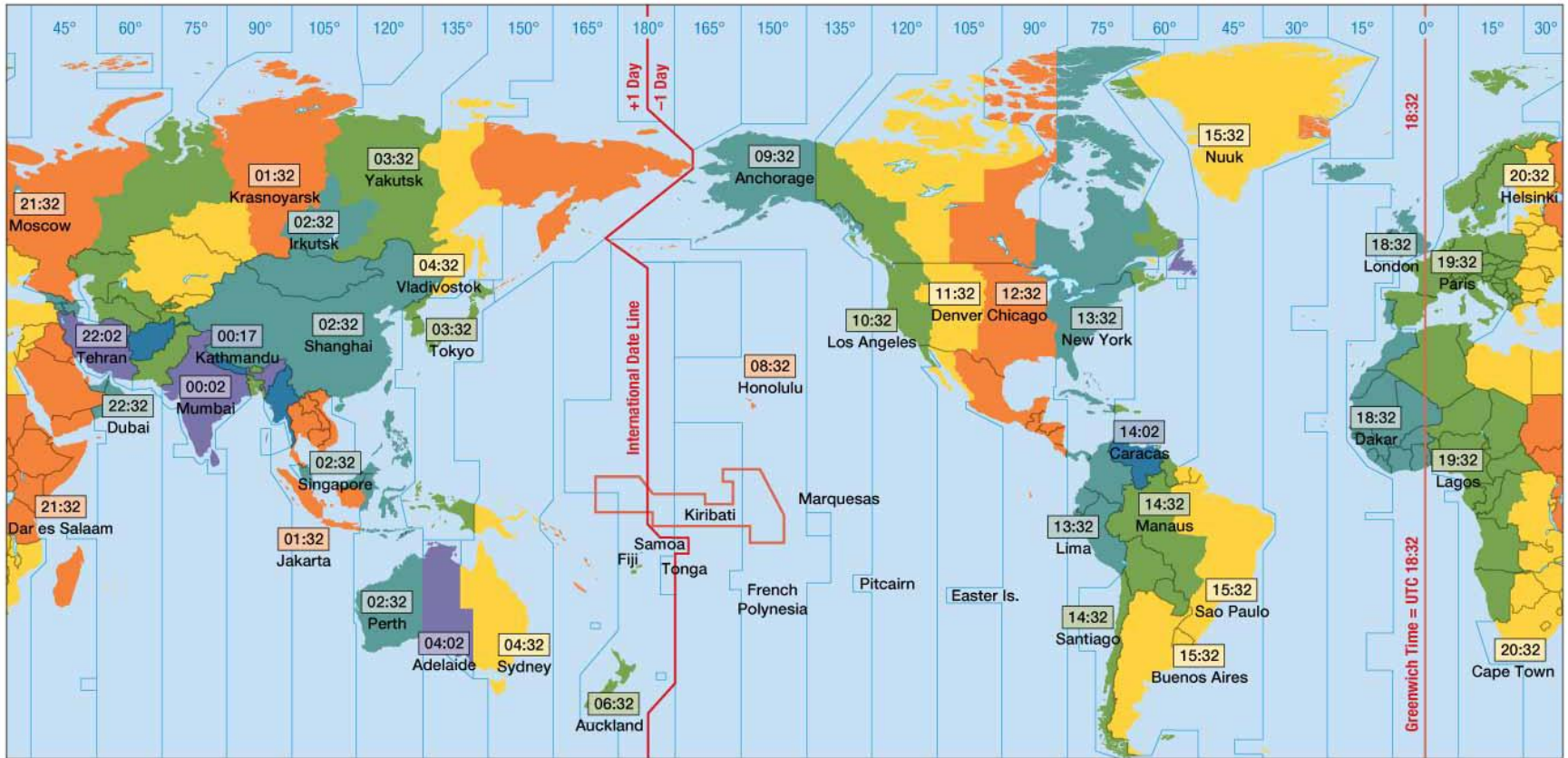
- Points on Earth's surface can be communicated by referencing points of latitude and longitude intersection.
 - Ex. Denver, Colorado's location is 40° north latitude and 105° west longitude.
- Further accuracy can be achieved by dividing each degree into 60 minutes and each minute into 60 seconds.
 - Ex. Denver, Colorado's state capital building is $39^{\circ}42'2''$ north latitude and $104^{\circ}59'04''$ west longitude.

Telling Time

- Earth as a sphere is divided into 360° of longitude.
 - Divide 360° by 24 time zones (one for each hour of day) equals 15° .
 - Each 15° band of longitude is assigned to a standard time zone.
- *Greenwich Mean Time (GMT)* is...
 - Located at the prime meridian (0° longitude).
 - Passes through Royal Observatory at Greenwich, England
 - Master reference time for all points on Earth.

Telling Time

- The *International Date Line* is...
 - Located at 180° longitude.
 - Position deviates from 180° longitude at times to accommodate various nearby nation-states.
 - Point you move the clock back 24 hours (one day), if you are heading eastward toward America.
 - Point you move the clock ahead 24 hours (one day), if you are heading westward toward Asia.



Contemporary Tools

- Geographic *Information Science* (*G/Science*) involves the development and analysis of data about Earth acquired through satellite and other electronic information technologies.
- Collecting Data: Remote Sensing
 - Acquisition of data about Earth's surface from a satellite orbiting Earth or from other long distance methods is known as remote-sensing.

Contemporary Tools

- Collecting Data: Remote Sensing Cont'd.
 - After sensors scan Earth's surface, the individual pixels are transmitted to a receiving station on Earth where a computer assembles each of them into an image.
 - Map created using remotely sensed data is essentially a grid of rows and columns of pixels; each representing the radiation being reflected on Earth's surface at a specific point.

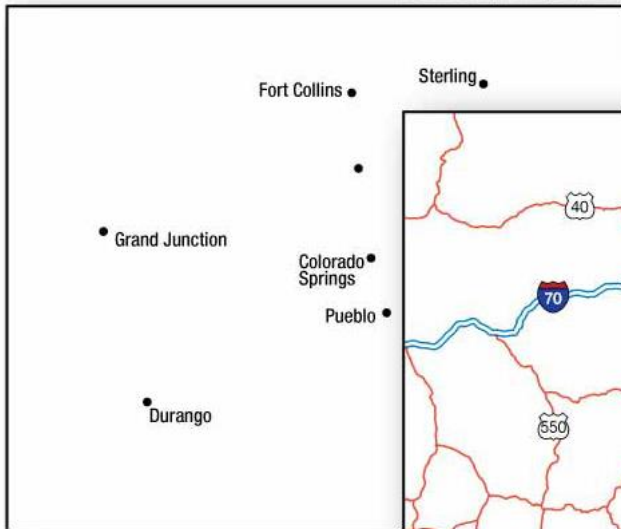
Contemporary Tools

- Pinpointing Locations: GPS
 - *Global Positioning System (GPS)*
 - System that accurately determines the precise position of something on Earth
 - GPS in the U.S. includes three elements
 1. Satellites placed in predetermined orbits
 2. Tracking stations to monitor and control satellites
 3. Receiver that can locate at least four satellites, figure out its distance from each, and use the information to calculate its precise location
 - Applications
 - Turn-By-Turn directions in vehicles
 - Navigational aid to pilots and ship captains
 - Provide location for social media applications in a smartphone

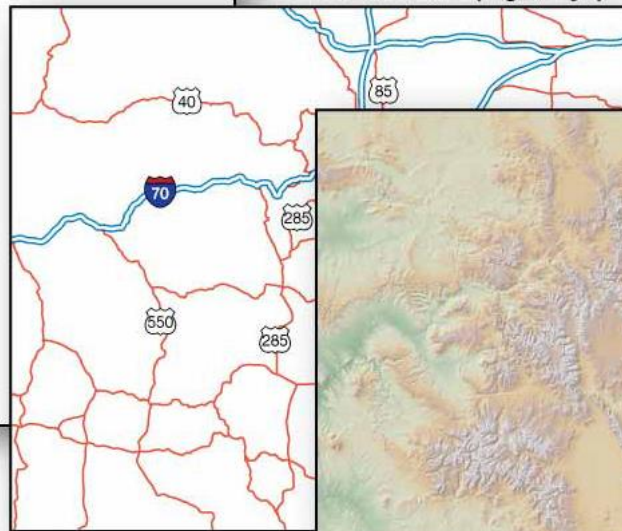
Contemporary Tools

- Layering Data: GIS
 - A *geographic information system* (GIS) is a computer system that captures, stores, queries, analyzes, and displays geographic data.
 - Data are stored in layers.
 - Layers can be compared to show relationships among different kinds of information.
 - Data can be overlaid in one GIS from a variety of different sources through a process known as a *mashup*.

Vector data (cities)



Vector data (highways)



Raster data (landforms)



Vector and raster combined



Why Is Each Point on Earth Unique?

- A *place* is a specific point on Earth distinguished by a particular characteristic.
- Describing the features of a place is an essential building block for geographers to explain similarities, differences, and changes across Earth.
- Geographers describe a feature's place on Earth by identifying its *location*, the position that something occupies on Earth's surface.

Why Is Each Point on Earth Unique?

- Location can be identified in three ways.
 1. Place Names
 - A *toponym* is the name given to a place on Earth.
 - Names derived from people of prominence, religious affiliation, physical features, or origins of its settlers
 2. Site
 - *Site* is the physical character of a place.
 - Characteristics include climate, water sources, topography, soil, vegetation, latitude, and elevation.
 3. Situation
 - *Situation* is the location of a place relative to other places.

Why Is Each Point on Earth Unique?

- Region: A Unique Area
 - An area on Earth defined by one or more distinctive characteristics is a *region*.
 - Most often applied at two scales
 1. Spanning political states
 2. Constrained within one political state.
 - A region derives its unified character through the *cultural landscape*—a combination of cultural, religious, and physical features.
 - “Culture is the agent, the natural area the medium, the cultural landscape is the result.” – Carl O. Sauer, American Geographer

Why Is Each Point on Earth Unique?

- Region: A Unique Area
 - Geographers identify three types of regions.
 1. Formal Region (aka uniform region or homogeneous region)
 - An area in which everyone shares in common one or more distinctive characteristics
 - » Ex. Common language, economic activity, or climate
 - » Characteristic may be predominant rather than universal.



Why Is Each Point on Earth Unique?

- Region: A Unique Area

- Geographers identify three types of regions.

2. Functional Region (aka nodal region)

- An area organized around a node or focal point

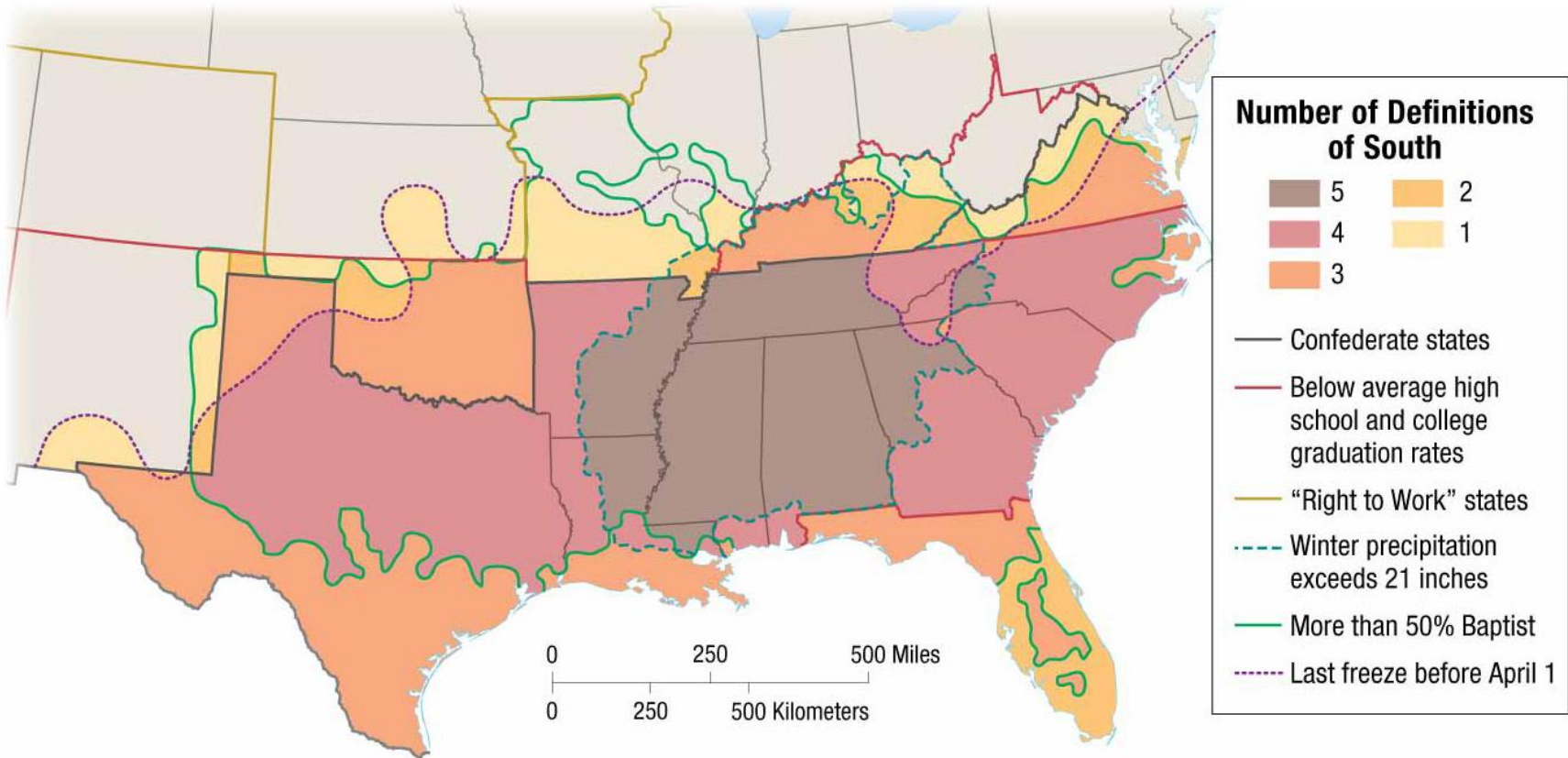
- » The characteristic chosen to define a functional region dominates at a central focus or node and diminishes in importance outward.

- » Ex. Circulation of a newspaper, such as *The New York Times*

3. Vernacular Region (aka perceptual region)

- An area that people believe exists as part of their cultural identity.

- » Ex. The American South is a region individuals recognize as having distinct environmental, cultural, and economic preferences.



Why Is Each Point on Earth Unique?

- Regions of Culture

- *Culture* is the body of customary beliefs, material traits, and social forms that together constitute the distinct tradition of a group of people.
- Origin of word, culture, is the Latin *cultus*, which means “to care for.”
 - Two meanings
 1. To care *about*
 2. To care *of*

Why Is Each Point on Earth Unique?

- Regions of Culture

- Geographers study both definitions of culture.

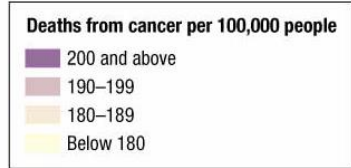
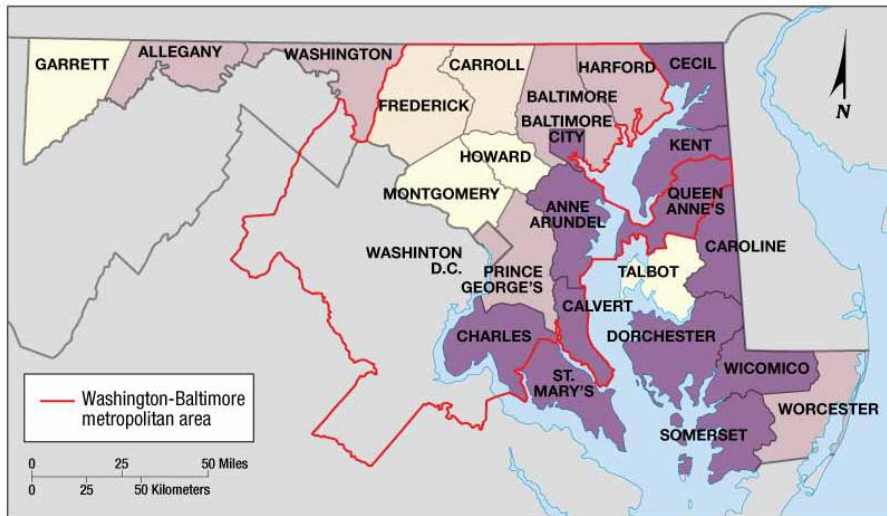
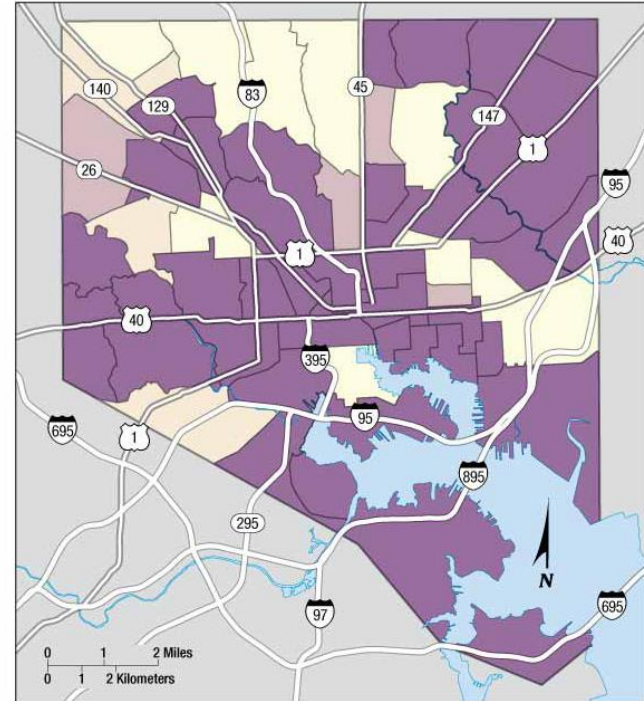
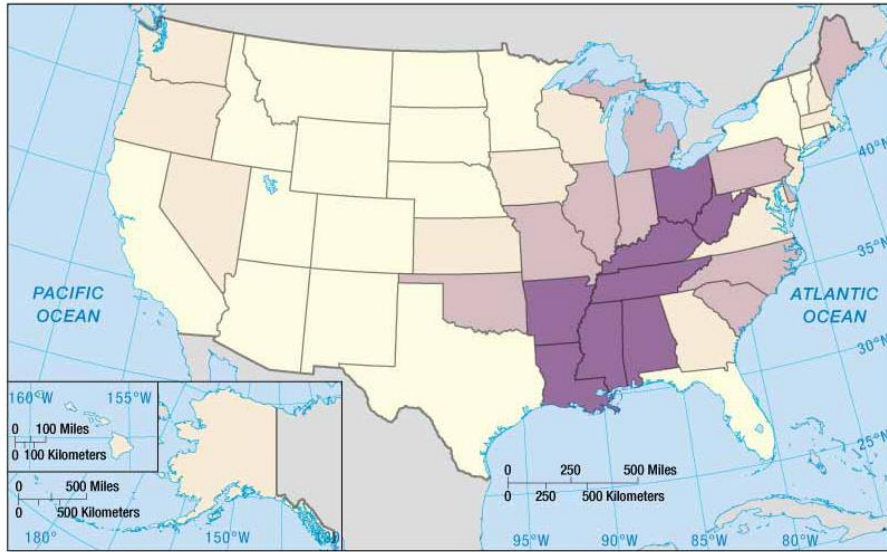
- Culture: What People Care About

- » Geographers study why the customary ideas, beliefs, and values of a people produce a distinctive culture in a particular place.

- » Especially important cultural values derive from a group's language, religion, and ethnicity.

- Culture: What People Take Care Of

- » The second element of culture of interest is production of material wealth, such as food, clothing, and shelter that humans need in order to survive and thrive.

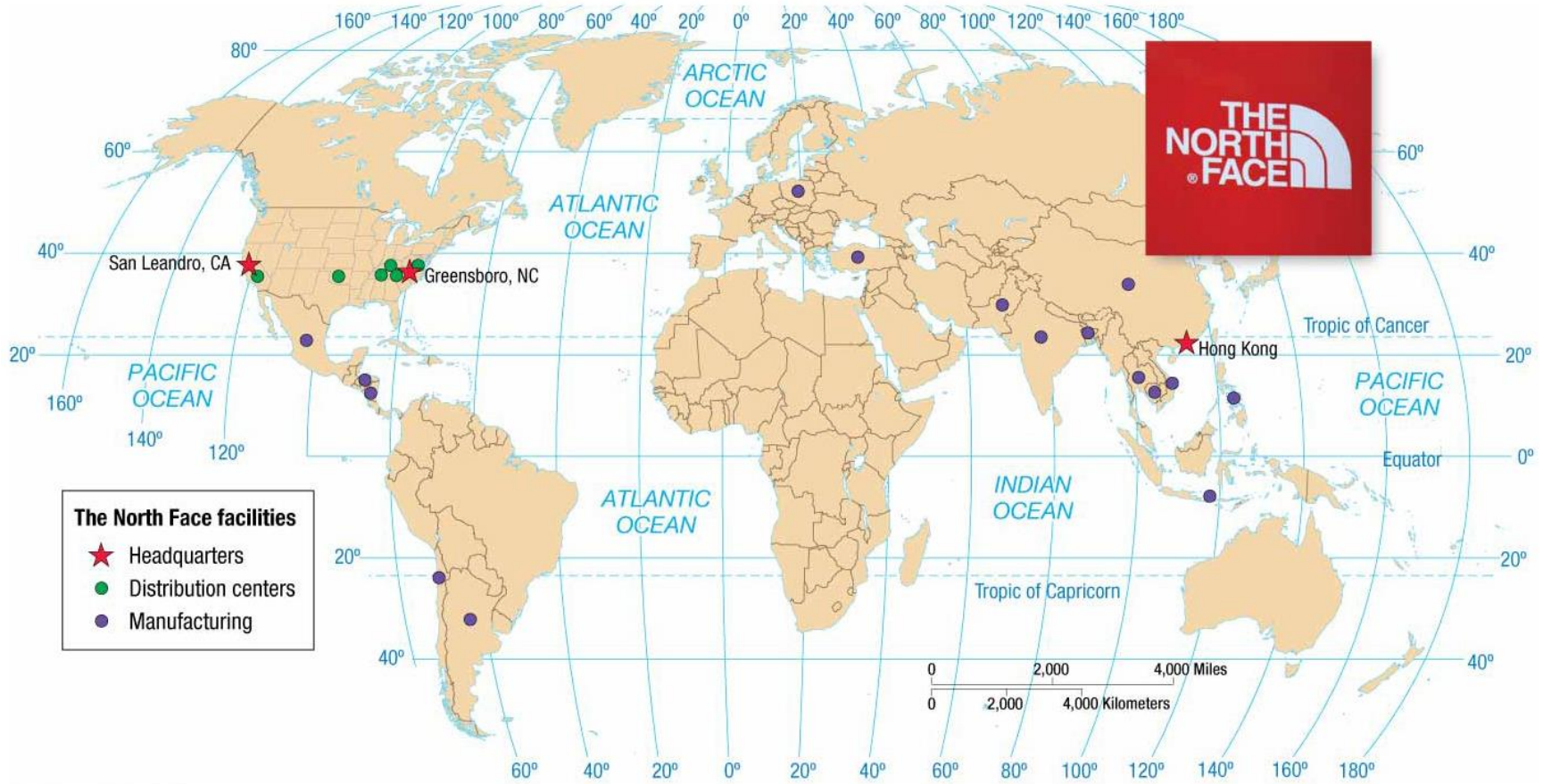


Why Are Different Places Similar?

- Scale, space, and connections help geographers explain why similarities among places and regions do not result from coincidence.
- *Scale* is the relationship between the portion of the Earth being studied and Earth as a whole.
 - *Globalization* is a force or process that involves the entire world and results in making something worldwide in scope.

Why Are Different Places Similar?

- Globalization of Economy
 - Globalization of the economy has been created primarily by transnational corporations, sometimes called multinational corporations.
 - A *transnational corporation* conducts research, operates factories, and sells products in many countries, not just where its headquarters and principal shareholders are located.
 - Recession that began in 2008 has been called the first global recession.
 - Home buyers in the U.S. to sales clerks in Japan were all caught in a web of falling demand and lack of credit.



Why Are Different Places Similar?

- Globalization of Culture
 - Geographers observe that increasingly uniform cultural preferences produce uniform “global” landscapes of material artifacts and of cultural values.
 - Fast-food restaurants, service stations, and retail chains deliberately create a visual appearance that locations differ as little as possible.
 - Produces a sense of familiarity for the consumer in what may be an unfamiliar place overall, such as when traveling away from one’s hometown



CHINA



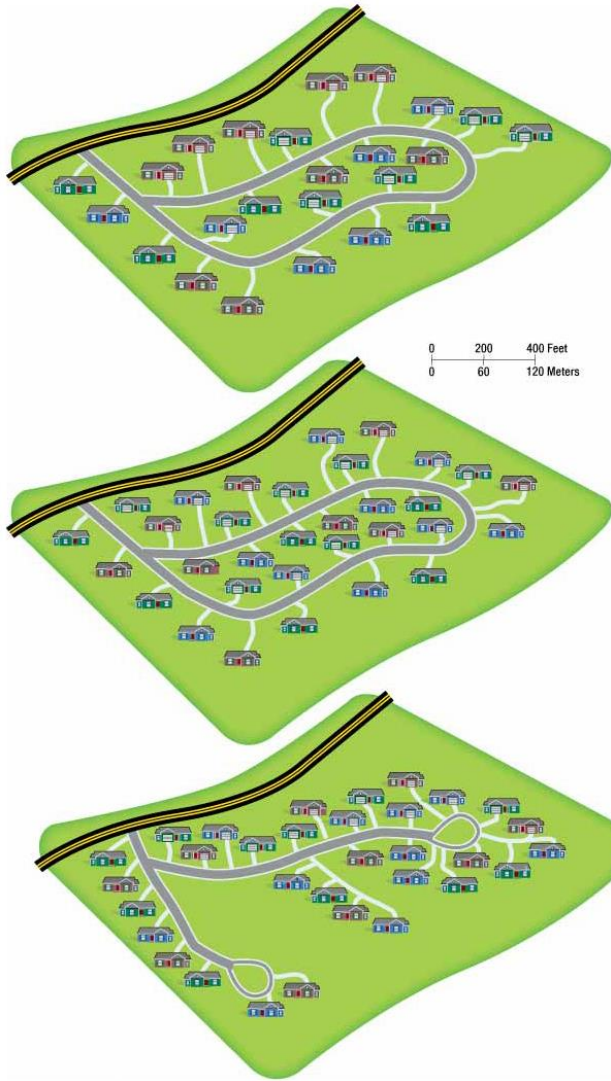
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Why Are Different Places Similar?

- Space: Distribution of Features
 - *Space* refers to the physical gap or interval between two objects.
 - Geographers think about the arrangement of people and activities in an attempt to try to understand why they are in such a distribution.
 - The arrangement of a feature in space as long as its *distribution*

Why Are Different Places Similar?

- **Space: Distribution of Features**
 - Geographers identify three main properties of distribution across Earth.
 - 1. Density-** frequency with which something occurs in space
 - Involves the number of a feature and the land area
 - 2. Concentration-** extent of a feature's spread over space
 - Closely spaced together is known as *clustered*.
 - Relatively far apart is known as *dispersed*.
 - 3. Pattern-** geometric arrangement of objects in space



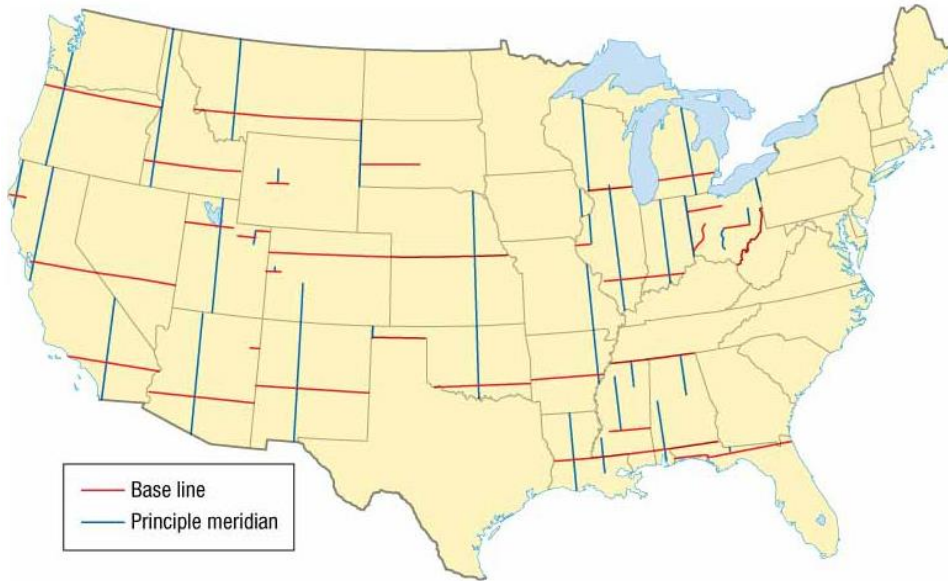
♥ American League
♥ National League



1952



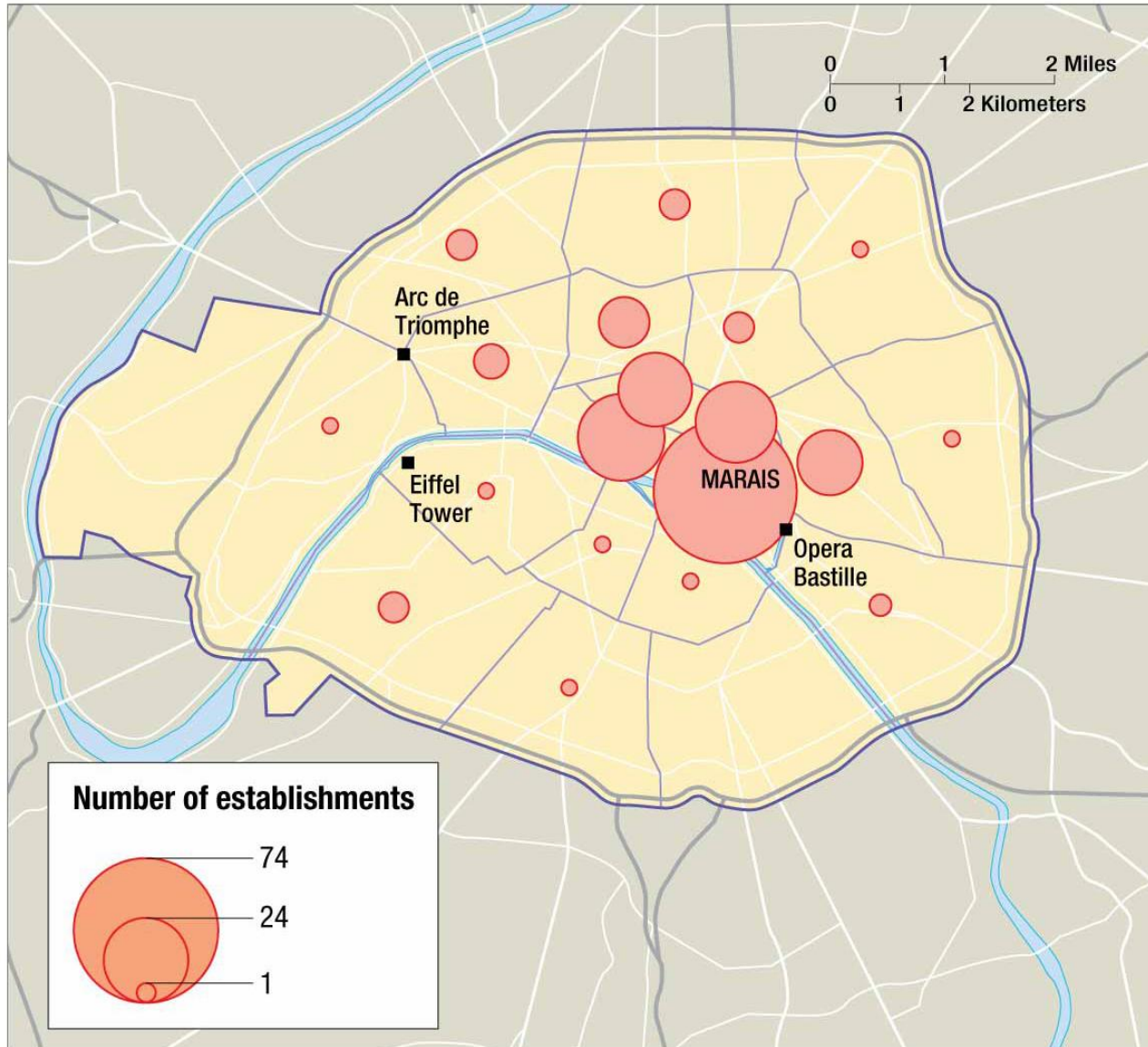
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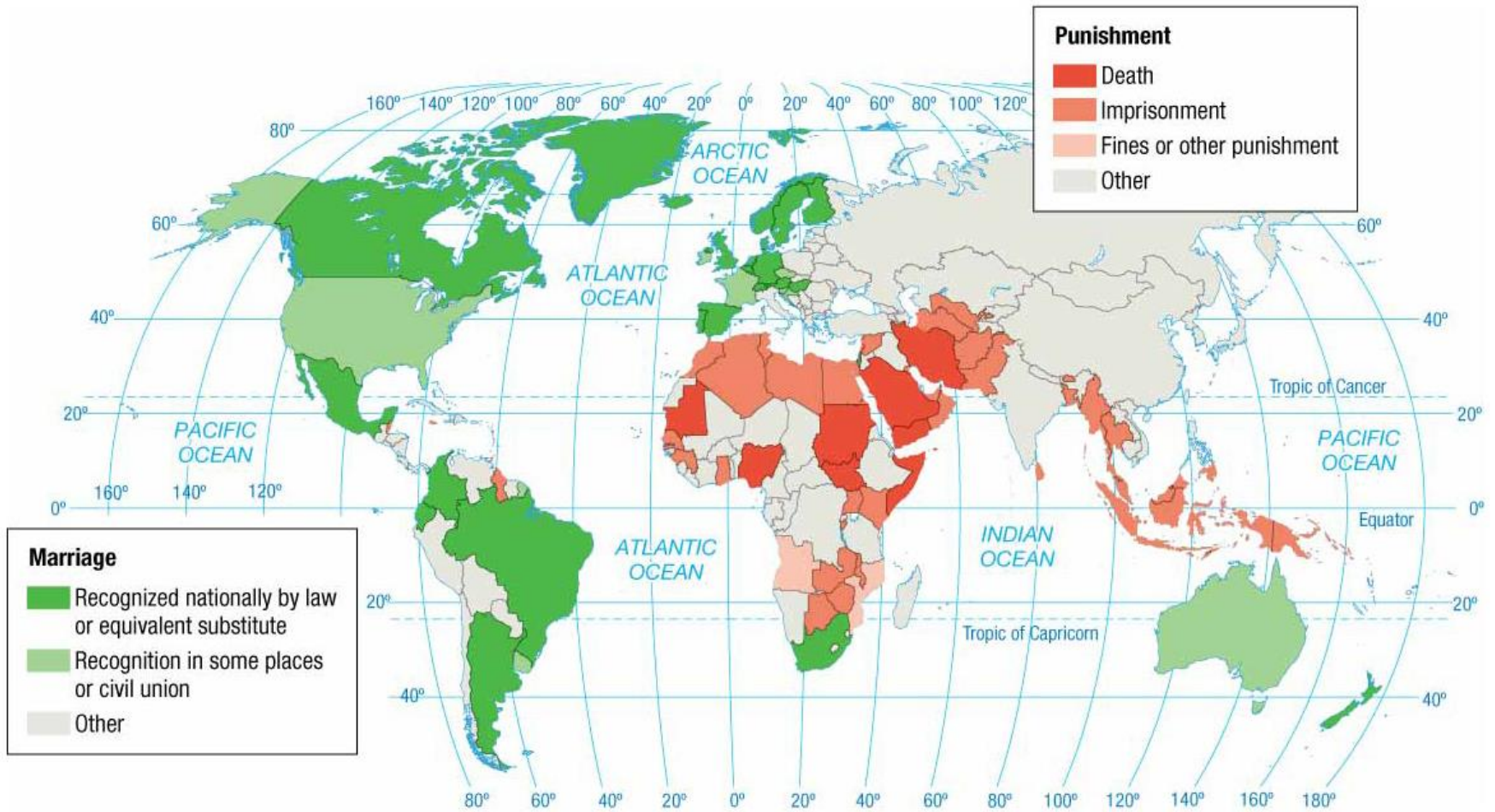
Why Are Different Places Similar?

- Cultural Identity in Space
 - Patterns in space vary according to gender, ethnicity, sexuality.
 - The cultural landscape has the ability to communicate to people what the accepted norm is within a place.
 - Ex. A bar or park that makes whites feel welcomed and people of color unwelcomed (or vice versa)
 - Ex. An inviting shopping district to people practicing alternative lifestyles located in close proximity to where many same-sex couples live



Why Are Different Places Similar?

- Cultural Identity in Space
 - Branches of geography seek to better understand the dynamics of gender, ethnicity, and sexuality by looking at the matter through different lenses.
 - *Behavioral geography* is a branch of human geography that attempts to understand the psychological basis for individual human actions.
 - *Humanistic geography* is a branch of human geography that emphasizes the different ways that individuals perceive their surrounding environment.
 - *Poststructuralist geography* emphasizes the need to understand multiple perspectives regarding space.



Why Are Different Places Similar?

- Connections between Places
 - People, ideas, and objects move via *connections* through one of three types of *diffusion*.
 1. Relocation Diffusion
 - Spread of an idea through physical movement of people from one place to another
 - » Ex. Language brought to a new locale by a migrant
 2. Expansion Diffusion
 - Spread the feature from one place to another in an additive process
 - » *Hierarchical diffusion*: spread of an idea from persons or nodes of authority or power to other persons or places
 - » *Contagious diffusion*: rapid, widespread diffusion of a characteristic throughout the population

Why Are Different Places Similar?

- Connections between Places

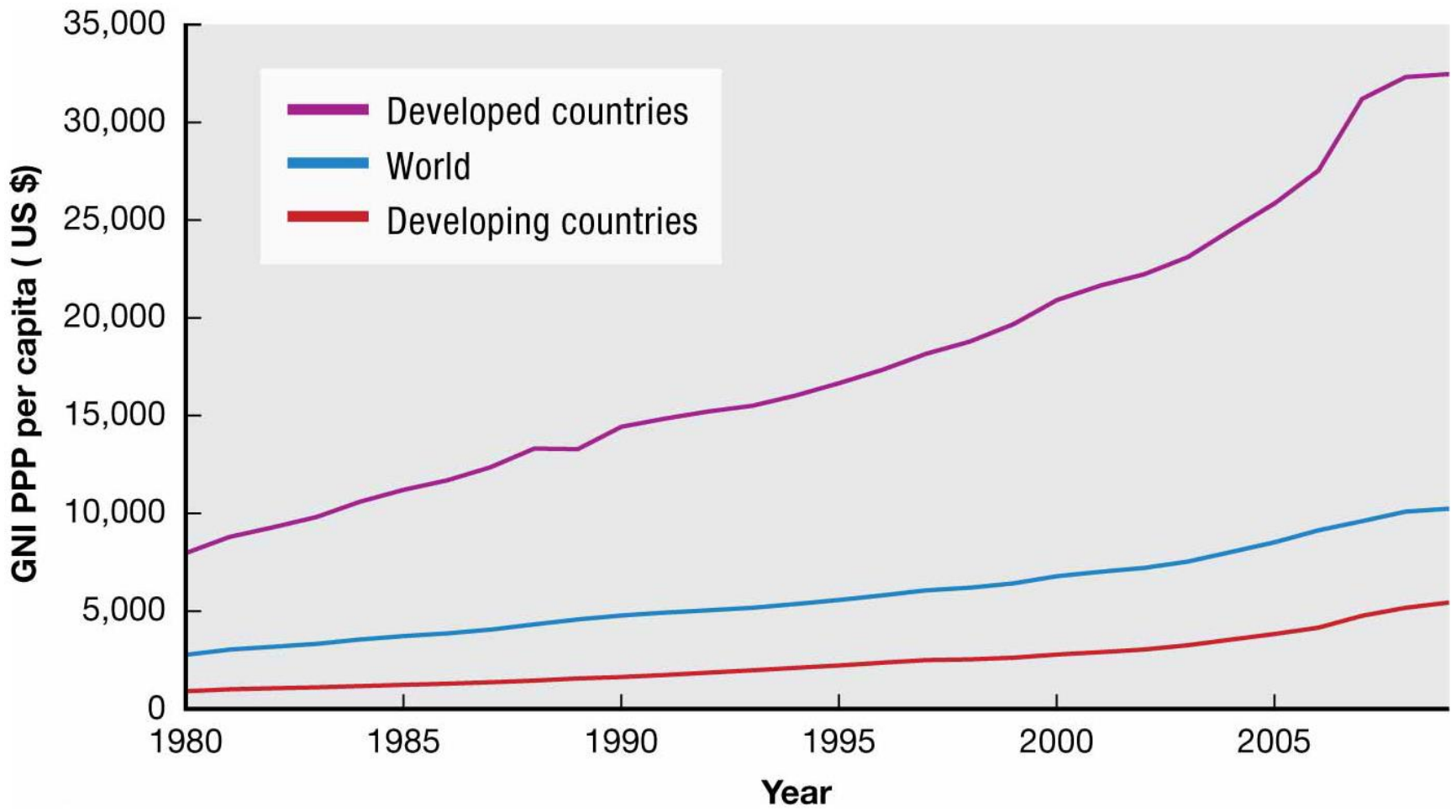
- 3. Stimulus Diffusion

- Spread of an underlying principle even though a characteristic itself apparently fails to diffuse.

- » Ex. Innovative features of Apple's iPhone and iPad have been adopted by competitors.

Why Are Different Places Similar?

- Spatial Interaction
 - The farther away someone is from you, the less likely you two are to interact.
 - Trailing-off phenomenon of diminishing contact with the increase in distance is called *distance decay*.
 - Electronic communications have almost removed barriers to interaction between people who are far apart.
 - Access to the technology is of interest to geographers.
 - Core: North America, Western Europe, and Japan
 - Periphery: Africa, Asia, and Latin America



Why Are Some Human Actions Not Sustainable?

- Sustainability and Resources
 - Geographers observe two major misuses of resources:
 - Humans deplete nonrenewable resources.
 - Humans destroyed otherwise renewable resources through pollution of air, water, and soil.
 - Three Pillars of Sustainability
 1. Environment Pillar
 - Sustainable development can only exist if conservation is embraced more fully than wasting resources or preservation of all resources.

Why Are Some Human Actions Not Sustainable?

- Sustainability and Resources

- Three Pillars of Sustainability

2. Economy Pillar

- Efforts to set prices of commodities and goods based not only on supply and demand but also on costs to the environment.

3. Society Pillar

- Modifying the wants of cultures in regards to shelter, food, and clothing to objects that are sustainable

Why Are Some Human Actions Not Sustainable?

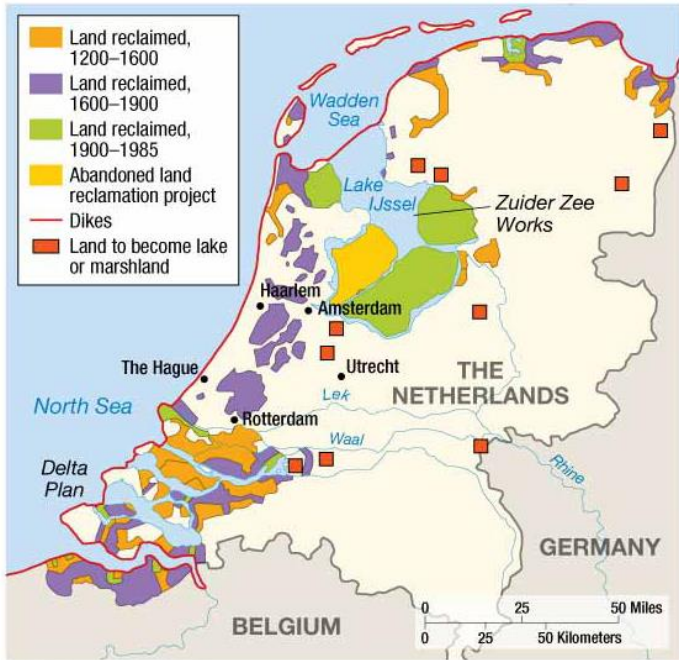
- Earth's Physical Systems
 - Geographers classify natural resources as part of four interrelated symptoms.
 - *Abiotic* system is one composed of nonliving or inorganic matter.
 - Atmosphere: thin layer of gas surrounding Earth
 - Hydrosphere: all water on and near Earth's surface
 - Lithosphere: Earth's crust and layer just below the crust
 - *Biotic* system is one composed of living organisms.
 - Biosphere: all living organisms on Earth

Why Are Some Human Actions Not Sustainable?

- Interactions in the Biosphere
 - People are now the most important agents of change on Earth.
 - Human modification of the abiotic systems has ongoing ramifications.
 - Examples
 - Atmosphere contains pollutants, humans have trouble breathing.
 - Without water, humans waste away and die.
 - Excessive extraction of resources from lithosphere limits availability of materials for building and fuel for energy.
 - Excessive erosion or depletion of nutrients limits biosphere's ability to provide food for humans.

Why Are Some Human Actions Not Sustainable?

- Modifying the Environment
 - Few ecosystems have been as thoroughly modified as those of the Netherlands and Florida.
 - Netherlands
 - Much of the Netherlands would be underwater, if it weren't for *polders*- a piece of land that is created by draining water from an area.
 - Dutch have become world leaders in reducing the causes of global warming and industrial pollution.
 - Florida
 - Unsustainable modifications made to ecosystem, as a result of draining portions of the Everglades and water pollution from cattle grazing



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Summary

- Geography is most fundamentally a spatial science exhibited by its emphasis on mapping.
- Every place on Earth is in some respects unique, although regions of likeness can be drawn because of the diffusion of people, objects, and ideas.
- A substance is merely part of nature until a society has a use for it. If its price disregards its costs to the environment, then it is often an unsustainable practice.