GLOSSARY

The key terms are highlighted in bold within each module. The definition given here is referring to the module number of each term's first occurrence.

А

absolute distance (1F) A method of distance measurement using the straight line mileage between two places.

absolute location (1B) Dictates where each place exists on a reference system. **accent** (7B) A way a language sounds or is pronounced in a particular location.

- access (14C) The ability to travel between locations, such as workplaces, stores, and factories; is defined by an individual's situation.
- accessibility (1F) Indicates ease of movement between places.

acculturation (9B) The process of learning how to operate within a new culture. **acid rain** (12E) Precipitation that has elevated levels of sulfuric or nitric acid. **activity space** (1G) A functional region in which individual activities occur.

African Traditional Religion (81) Various, mostly animistic religions practiced in Africa.

- Afro-Asiatic (7C) A large language family found primarily in North Africa and Southwest Asia.
- **agency** (2G) Within social theory, the human capacity to make free, independent choices; often contrasted with **structure**.
- **agent** (4C) An organism that causes a disease, such as bacteria, viruses, protozoa, or flukes.
- **agglomeration economies** (13G) Different economic activities tend to locate next to each other and act as a powerful magnet, attracting other activities.

aggregate characteristics (1D) The dominant characteristics found within a place. **agribusiness** (15E) A large company that owns the land and hires individuals to cultivate crops or raise livestock.

air pollution (12E) The introduction of chemicals, biological matter, or particulates into the atmosphere.

- **al-Idrisi** (2B) A Muslim geographer and cartographer (1100–1165) educated in Spain who improved geographic knowledge by merging ancient knowledge with firsthand accounts by Muslim and European traders of his time.
- American Manufacturing Belt (16C) In the late nineteenth century, the region that included Ohio, Indiana, Michigan, Illinois, and Wisconsin and represented different major industries located in these areas.
- **American Sign Language** (7A) A language using hand gestures, primarily used by the deaf in the United States and Canada.

animism (8A) The belief that deities or souls inhabit everyday objects.

antecedent boundary (10H) A boundary created before an area is known or populated, often drawn with no recognition of the populations living there.

- **aquifer** (12D) An underground area of permeable rock that can contain water or allow water to pass through.
- arable (15E) Conducive to farming.
- **arithmetic density** (3B) A statistic of population density calculated by dividing a country's population by its total land area. In other words, it is the number of people per square kilometer or square mile.
- artifact (6C) Any physical object that a culture produces.
- **artisans** (15B) Craftspeople who manufactured their own products and were involved in profit-seeking, but their costs were more bound to the expense of materials and labor.
- **assimilation** (9B) The adoption of a new culture by a migrant and the abandonment of most aspects of an original culture.
- **asylum seeker** (5D) A migrant hoping to be declared a refugee in a foreign country. **authoritarian states** (11C) Also known as autocratic states; they concentrate political power in a single individual or clique.

auto-centered city (14D) With the rapid growth of vehicle use, cities developed automobile access. Effects include shopping centers near highways, decline in the central business district, and fewer downtown areas.

autocratic states (11C) Also known as authoritarian states, they concentrate political power in a single individual or clique.

autonomous regions (11G) Areas of some countries that feel they ought to have a special status partly because of their cultural distinctiveness and are given more autonomy by their government.

В

- **backward linkages** (16C) The inputs required for production, such as machinery, machine tools, metal working, and iron casting.
- Baha'i (81) A universalizing religion founded in the nineteenth century and practiced in nearly every country today.
- **barriers to diffusion** (6D) Things that slow or stop the spread of an idea, innovation, people, or other things.

barter (17A) The form of trade in which a good or service is traded for another good or service, as agreed upon by the people doing the trading.

- **base employment** (16D) Employment that supports jobs in the service sector and other manufacturing industries.
- **basic demographic equation** (3E) A simple equation that holds that a country's population in a future time period will equal births minus deaths plus immigration minus emigration.
- **bedroom communities** (14D) Commuter towns inhabited by people who drive or take public transport to another city for work.
- **behavior** (4B) In the triangle of human ecology, the effects of cultural norms or societal organizations on human health.
- **behavioral assimilation** (9B) The situation in which a migrant or new ethnic group maintains a strong self-identity and much of the original culture but has adopted enough of the cultural traits of a host society to be a functioning member of it; also known as **cultural assimilation**.
- **behavioral geography** (2F) A branch of human geography that focuses on the psychological processes that underlie human geographic decisions.
- **binary rank-size distributions** (13H) The population of the top cities overwhelm the rest in terms of population.
- **border** (10H) The region where a boundary exists, unlike a boundary, which is simply a line.
- **borderland** (10H) A region centered around the boundary between places, often containing a lot of cultural diversity.
- **Boserup, Ester** (31) The Danish economist (1910–1999) who argued that rising populations will stimulate human societies to produce more food through innovation and technology.
- **boundary** (1G) A line that distinguishes the area within the region from the area outside the region.
- **break-in-bulk point** (16B) The point at which cargo is broken into smaller units to be transported.
- **Buddhism** (8D) A religion founded in the sixth century BC and practiced today by over 400 million people. It emphasizes that life is suffering, but by living a proper life a human can achieve enlightenment and break free from the cycle of births and deaths.
- built environment (13A) Human-made environmental elements, including buildings, monuments, and streets.

С

- Cajuns (9A) An ethnic group possessing unique linguistic, religious, and other cultural traits, located in Louisiana and surrounding areas with historical roots in Canada.
- **cancer cluster** (12G) A statistically unusual concentration of cancer in a particular area.
- **capital city** (11F) Political center and necessary component of every state. It may or may not be in the core, and there may be more than one in a country.
- capital region (11F) The area around the capital city in a country.
- **capitalism** (15B) The buying or selling of various goods in order to create profit, driven by the pursuit of profit.
- **capitalist commercial economy** (15B) An economic system primarily concerned with the buying and selling of commodities, or a product that can be exchanged for profit.
- **capitalist economy** (11B) An economy in which a wide variety of private concerns are dominant and the state is far less involved in the production of goods and services.
- **capitalist industrial economic system** (15B) The creation of finished products from raw materials, first by artisans and later by mass production, that paved the way for a truly global capitalist economy.
- **carrying capacity** (15D) The number of people an area can support, given the technology.
- **cash exchanges** (17A) A form of trade in which cash, a way to place an abstract value on a product or service that allows for relatively easy exchanges, is exchanged for a good or service.
- **caste system** (8C) In Hindu areas, a complex division of society based on hereditary classes that are distinguished by their degree of ritual purity.

centers of absorption (5E) Places that attract migrants, according to Ravenstein. central business district (CBD) (14C) In a city, the point with the greatest access

to offices, banks, stores, and other activities. It is the most distinguishing feature and functions as a central marketplace, a major transportation node, and an administrative center, and it offers high-level services and contains heavy pedestrian traffic.

- **central places** (17G) The idea by Walter Christaller in the 1930s that different types of stores tend to cluster into shopping centers.
- **centrifugal forces** (10G) Factors, often negative, that tend to pull apart and disperse a population.
- **centripetal forces** (10G) Factors, often positive, that tend to unify and bring together a population.
- chemical insults (4B) Factors, such as drugs, dangerous gases, and harmful liquids, that negatively affect human health.
- **chiefdoms** (10B) Tribal groups that inhabited particular places but at the same time were less likely to demarcate rigid boundaries.
- **child soldiers** (5C) Youth that are either forced or impelled to serve as fighters or members of a militia.
- **choropleth map** (1E) A type of map showing quantity or type of phenomena by area. It uses shades or colors to show class intervals and is often used for maps displaying density.
- **Christianity** (8F) The world's largest religion, grounded in Judaic beliefs and based on the life and teachings of Jesus Christ, who Christians believe is the son of God.
- citizenship (11D) Embodies the responsibilities and rights that some residents of a state possess.
- **city-state** (10B) A system of small, city-centered states where political organization revolved around the city itself. People not engaged with agriculture lived in the city, while farmers resided in the surrounding hinterlands.
- civic nations (10E) Nations based on shared principles, in contrast to ethnic nations, which are based more on cultural commonalities.
- class intervals (1E) On a map, groupings of data assigned different shades or colors.

cluster migration (9C) The settlement of a whole town or area en masse by a particular ethnic group.

- **clustered** (1E) A distribution in which data show distinct pockets of concentration. **coastal pollution** (12I) Destruction or contamination of ecosystems along lakes, rivers, or oceans.
- **cognate** (1A) A discipline that is in some way affiliated with a branch of human geography; for example, political science is a cognate of political geography.
- **cognitive distance** (1F) A measure of distance based on perceived distance, rather than physical distance.
- **cognitive factors** (12B) The ways in which a person's personality or attitudes toward nature, risk, or other factors might affect his or her reaction to a hazard.
- **colonial period** (5F) In US history, the period from about 1600 until the American Revolution.
- **colonies** (10B) Parts of an empire that are subordinate and have very little right to self-determination.
- **Columbian Exchange** (2C) The interaction between the Eastern and Western Hemispheres after the arrival of Europeans in the Americas, including the sharing of cultural ideas as well as plants and animals.
- **Columbus, Christopher** (2C) An Italian-born explorer (1451–1506) known for exploring the Caribbean and for erroneously believing that Asia was closer to Europe than it was.
- **commercial agriculture** (15E) Crops and livestock that are farmed for cash and are considered commodities, intended to be exchanged for payment; more likely to focus on one or two items in order to gain a maximum return on investment. **commodities** (15B) Products that can be exchanged for profit.
- **commodity chain** (16G) The series of events that leads to the sale of a commodity to a consumer; design, production, marketing, and retail.
- **commodity export economies** (18C) The export of just a few agricultural or mining commodities.
- **communist economy** (11B) State that assume nearly all economic and social functions and try to impose comprehensive control over economic activities. **commuting** (17F) Travel for the purpose of getting to and from work.
- comparative advantage (15F) Dictates that a specific region does a better job of
- producing something than another region does. **competition** (17B) When producers compete with other producers and are forced
- to upgrade the quality of their goods or risk being undercut. **competitive advantage** (17B) The concept, promoted by economist Michael Porter, that takes into account the mix of infrastructure, skilled labor, government, domestic demand, levels of domestic competition, agglomeration economies, and other items
- **compromise capital** (11F) A capital of a country that is selected as a compromise between sectional interests within the country.
- **concentration of labor** (13D) A large population of workers in close proximity to factories, which allows the factory system to function.

- **concentric zone model** (14D) A visual representation of a city that categorizes parts of the city into CBD fringe or frame, zone of transition, zone of independent workingmen's homes, residential zone, and commuters zone.
- **confederation** (11E) A system in which sovereign states agree to abridge some of their independent powers in order to work together as a group, but each state retains a great deal of sovereignty.
- **Confucianism** (8I) A Chinese folk religion or philosophy that began about 2,500 years ago and that emphasizes proper social relationships and individual morality.
- **conspicuous consumption** (16G) An idea by Thorstein Veblen that people feel the need to display their status by ostentatiously consuming goods and services.
- **Constructivism** (10G) The view that nations are artificial creations that result from modernization, elite aspirations, or a series of events that makes nation-building a much more viable approach than anything else.
- **consumption** (16G) A necessary aspect of human existence. Having evolved over time, it used to be what humans needed to survive but today includes luxury items that people desire.
- **contagious diffusion** (6D) The transmission of a phenomenon through close contact with nearby places, such as with many diseases.
- **containment** (101) The policy that sought to limit Soviet advance to any countries not allied with the United States or the Soviet Union, thereby containing Communist expansionism.
- **contextual effect** (11H) The geographical theory in which the characteristics of people in a local area help determine their political preferences; questions the overall importance of place in shaping people's attitudes or behaviors.
- continuous data (1E) Data that occur everywhere, beyond observations.
- **conveyances** (17D) Modes of travel, including boats, horses, trains, motor vehicles, streetcars, and aircraft.
- **Coptic Christians** (8G) An early sect of Christianity primarily practiced in Egypt and Ethiopia.
- **core** (18C) Countries that receive raw materials from peripheral countries to process into manufactured goods.
- **core region** (11F) A place that can represent where the state and the dominant nationality emerged.
- **covariation** (1E) The relationship between the spatial distributions of two or more phenomena that tend to vary in the same way.
- **creole** (7B) A pidgin language that has been adopted by a group of speakers as its primary tongue.
- criteria (1G) An established set of conditions that helps categorize and compare information.
- **critical geopolitics** (10I) Used to dissect the ways state boundaries are perceived, relationships between states, and the ways the world is portrayed.
- **crop complexes** (15D) Distinct crops grown in certain areas, which became the basis of regional cuisines.
- **crude birth rate (CBR)** (3E) A simple measure of fertility that represents the number of children born per 1,000 people in a population in a given year.
- **crude death rate (CDR)** (3F) A measure of mortality that represents the number of deaths per 1,000 people in a population in a given year.
- **cultural assimilation** (9B) A situation in which a migrant or new ethnic group maintains a strong self-identity and much of the original culture but has adopted enough of the cultural traits of a host society to be a functioning member of it.
- **cultural convergence** (6C) The process by which two cultures become similar. **cultural diffusion** (6D) The movement of culture traits from one place to another.
- **cultural ecology** (12A) The study of how human societies adapt to local habitats and how traditional societies engage in farming or other primary activities.
- **cultural landscape** (6F) The cultural impacts on an area, including buildings, agricultural patterns, roads, signs, and nearly everything else that humans have created.
- **culture** (6A) Shared patterns of learned behavior, attitudes, and knowledge. **culture complex** (6B) A group of interrelated culture traits.

culture hearth (6E) An area from which important culture traits, including ideas,

technology, and social structures, originated. Ancient Mesopotamia is an example. culture region (6A) An area defined by a large number of common culture traits.

- **culture trait** (6A) A single component of a culture; can be a thing, an idea, or a social convention.
- **cuneiform** (7A) An ancient Mesopotamian form of writing made by pressing a reed into a tablet of wet clay.
- **currency manipulation** (17C) A method by which a country keeps its currency artificially low in order to make the costs of imported goods high and decrease the costs of its exports.
- **cyclical movements** (5A) A pattern of migration in which migrants move back and forth between two or a small number of places, such as their home and a distant worksite.
- cyclone (12C) A hurricane in the Indian Ocean.

D

- **daytime density** (14C) The time when people are at work, which results in a high concentration of people in and around the CBD.
- **de facto area** (10H) According to the notion of effective national territory, the territory a state effectively controls and is not included in the legal area, or de jure area.
- **de jure area** (10H) According to the notion of effective national territory, the legal area of the state that effectively controls the territory, or de facto area.
- **decolonization** (10C) A trend in which colonies became independent from the states that colonized them after the United States declared its independence. **deforestation** (12I) The process of clearing a forest.
- deforestation (121) The process of clearing a forest
- **demand conditions** (17C) The products a country is likely to import based on its level of discretionary income, its preferences, and the availability of similar products at home.
- **democracy** (10A) A government that is considered to rule with the consent of its people and, so, is internally legitimate but is not necessarily a government that is legitimate to other governments.
- **demographic consequences** (5F) Changes in a society's population caused by a large influx or outflow of migrants.
- **demographic transition model (DTM)** (3G) A model of demographic change based on Europe's population in the eighteenth through twentieth centuries. It argues that, as a country modernizes, its fertility and mortality rates drop, but not at the same time. Because death rates drop before birth rates, population increase will occur.
- **density** (1E) The number of some phenomenon divided by some sort of control group.
- density gradient (14C) A change in density of people over distance.
- **density peak** (14C) The highest density an area in a city has ever experienced, which can be compared with current density to determine increase or decline.
- **depression** (15C) A severe economic downturn for a longer period of time than a recession. It is marked by unemployment, unsold goods, and often many business closings.
- **description** (2A) The recording of knowledge about the peoples and environments of the earth. In ancient times, many geographers simply described what they saw in the world without attempting to explain it.
- deterministic (1A) Always resulting in a particular pattern.
- **deterritorialization** (16F) Allows for social and economic activities to occur regardless of where people are physically located.
- **developed countries** (18A) Rich countries that have established economic and political systems and are a model and aspiration to developing countries.
- **development disparities** (18B) The inequity between developed and developing countries, which can be viewed as a function of progress or intrinsic to a global economic structure that began with colonialism and persists today.
- **development traps** (18B) According to Jeffrey Sachs, a series of obstacles that cause economies to stagnate. Examples include poverty, lack of innovation, cultural barriers, and physical geography issues.
- **devolution** (11E) A process that enables a central government to grant powers to lower administrative units.
- dharma (8C) A key concept in Hinduism, one's proper duty in life.
- **dialect** (7B) Variations of sounds and vocabulary in a language among different places.
- **diarrhea** (4E) A symptom of various viral, bacterial, and parasitic infections, killing more than 2 million people each year.
- **diaspora** (10F) A group that identifies with a particular homeland or territory but whose members are now dispersed.
- diffusion (6D) The movement of a phenomenon from one location to another.
- **digital divide** (18B) The inequity between those countries with good and growing access to the World Wide Web and the many countries where Internet use is quite low.
- **diplomatic relations** (10A) Marks of state legitimacy, which include sending out a state ambassador, establishing an embassy, and signing treaties.
- **discretionary income** (17C) Within a country's population, the amount of money available to be used to satisfy various wants.
- **dispersed** (1E) A type of distribution in which there does not seem to be any type of agglomeration and incidences are well separated from one another.
- **distance** (1F) A factor that heavily influences spatial interactions and can be measured in several ways.
- **distance decay** (1F) The idea that, all else being equal, as the distance between two places increases, the volume of interaction between these places decreases. See also **Zipf's Law**.
- distribution (1E) The spatial arrangement of a phenomenon.
- **division of labor** (13A) Workers are given specific chores to do, with some prestige or value placed on certain tasks as opposed to others; can be used in a factory system in which each worker specializes in a single, repeated task.

- **domino theory** (10I) The theory that looks at every political change in a country's government as a domino that causes other dominoes to fall in a chain reaction.
- **doubling time** (3F) A statistic that shows how many years it will take for a population to double.
- dual citizenship (11D) The case in which a person can be a citizen of two countries.

Ε

- earthquake (12C) A violent shaking of the earth caused by tectonic or volcanic activity.
- ecology (4B) The relationship between plants or animals and the environment.
- **economic activity** (15A) Interaction in which a good or service is extracted, produced, consumed, or exchanged and can be found in nearly everything that people need to live.
- economic consequences (5F) The positive or negative financial effects of immigration.
- **economic development** (18A) The expansion of and improvement to a country's economy, which can mean harvesting natural resources, increasing the welfare of poorer countries, or raising per capita incomes.
- economy (15A) The extraction, production, consumption, and exchange of goods and services.
- **ecotone** (15D) A place where there existed two or more separate environments, which allowed for greater variety of foodstuffs at different times of the year and was most likely where agriculture began.
- edge cities (14D) A key new concept of a modern city, they combine all functions of a central business district but are located in the suburbs and provide more jobs than homes.
- effective national territory (10H) The notion that the legal area, or de jure area, of a state is not coincident with the territory that it effectively controls, the de facto area.
- Eightfold Path (8D) In Buddhism, the proper way to eliminate desire and achieve enlightenment.
- electoral geography (11H) Examines how people's political preferences are manifested in representation.
- elite theories of state (11C) The view that governments, no matter what their political ideology or their constitution, are likely to support an elite class of people.
- **embargo** (17B) An external source that has the ability to choke off supplies of a critical resource.
- emergent ethnicity (9B) The process in which a new ethnic group or identity appears.
- **empires** (10B) Large political entities made up of several culturally distinct regions held together by force, under the control of a single, dominant region.
- enclave (11G) Part of or an entire country surrounded by another country. endemic (4C) A disease, such as chicken pox, that is always present at some level
- in a population. entrepreneurship (17C) The ability of managers to develop new industries, seek
- out new markets, and maintain a competitive edge.

environment (12A) Most commonly, the physical or natural conditions of an area.

- **environmental determinism** (2D) The controversial idea, popular in the early twentieth century and largely discredited today, that climate or other physical qualities of an area dictate the culture of the people who live there.
- **environmental justice** (12J) The concept that environmental laws and regulations should apply to all areas, regardless of the racial or ethnic composition of a location.
- **environmental perception** (12B) How people perceive, feel about, and interact with the environment.
- **environmental racism** (12J) The deliberate placement of polluting industries or activities in minority areas because those communities are less able or likely to fight the polluters.
- epidemic (4C) An outbreak of a disease.
- **Eratosthenes** (2A) The geographer and thinker (~276–195 BC) who is best known for his remarkably accurate calculation of the circumference of the earth.
- e-tailing (17H) Online vending of goods, such as on Amazon.com.
- ethnic islands (9C) Moderately sized areas of ethnic concentration in rural, or non-urban, areas, such as Amish or Hutterite communities.
- ethnic nations (10E) Nations based on cultural commonality as opposed to civic nations, which are based on shared principles.
- **ethnic neighborhoods** (9C) In cities, areas that have concentrated populations of a particular ethnic group, such as a Chinatown.
- ethnic provinces (9E) Large areas associated with a particular ethnic group, such as French-speaking Quebec.
- ethnic religions (8A) Religions that are primarily associated with one ethnicity, such as Shinto in Japan or Hinduism.

G-4

ethnicity (9A) A group's self-identification based on cultural, historical, physical, or other characteristics.

ethnoburb (9C) A suburb with a concentration of a particular ethnic group.

ethnocentrism (9A) An attitude of ethnic or cultural superiority.

- ethnoregionalism (10G) Occurs where a minority national group is concentrated in a particular region of a country and may create small- or large-scale difficulties, including demands for autonomy.
- **Euclidean distance** (1F) A method of distance measurement using the straight line mileage between two places.
- **Euclidean space** (1C) A measure of space in which space operates as an area in which activities take place; also known as absolute space.
- exclave (11G) When a part of a state's territory is geographically separated by another country.
- exclusivity (10E) The expectation that a person is loyal to only one nation.
- **explosionists** (31) Population theorists who believe that the world will continue to see rapid population growth for decades to come.
- **export-led approach** (18F) Identifies products that can be exported to the outside world, taking advantage of a country's specific advantages.
- **extraction economy** (11B) A political economy that sought chiefly to enrich the ruler and the aristocracy and to maintain its armies; common in early modern states.

F

factor mobility model (5E) An economic model that argues that differences in wage rates cause people to migrate from low-wage areas to high-wage areas.

factors of production (16B) The elements necessary for production, including raw materials, labor, financial capital, and markets.

- **factory system** (16A) The system in which several people worked under one roof, bringing together all the necessary machinery to be powered from belts by one steam engine, requiring very little skill.
- federal states (11E) States in which each of the subunits is granted an independent constitutional authority, which defines its level of power, with the central state retaining greater sovereignty.
- feminism (2H) In the social sciences, theories and philosophies that focus on the status, contributions, and rights of women.
- feminist geography (9F) An approach to human geography that focuses on gender relationships as being central to our understanding of how space is created and arranged.
- fertility (3E) How many people are born in a given time period.
- **feudal system** (10B) A system based on the principles of personal allegiance and vassalage that results in a political organization not necessarily tied to complete territorial control.
- **feudalism** (15A) A small-scale economic system based on self-contained estates, controlled by a lord or master.
- **filtering** (14E) The process in which more prosperous families move out of older housing and into new housing, creating a vacancy, which is filled by families that are less wealthy.
- **finance capital** (17C) The amount of money available to finance industries; includes available money as well as the capacity to obtain loans.
- financial factors (4G) Whether or not someone can afford health or medical care.
- **first wave of European immigration** (5F) The period from 1800 until 1880, when large numbers of Europeans, particularly from northern and western Europe, moved to North America.
- **First World** (18A) Rich countries that have established economic and political systems and are a model and aspiration to developing countries.
- **Five Pillars** (8H) Basic acts that Muslims are supposed to carry out, including a confession of faith, prayer, charity, observance of Ramadan, and participation in a pilgrimage to Mecca.
- **fixed capital** (17C) The buildings, machines, transportation, and other structural items needed to produce goods.
- flow map (1F) A type of map that is often used to depict the interaction between places.
- **folk culture** (6G) Culture traits that are traditional, no longer widely practiced by a large number of people, and generally isolated in small, often rural areas. **foodways** (6G) How a culture prepares and consumes food.
- forced migration (5B) The situation in which migrants have no choice but to move or else face death or other severe penalty.
- foreclosure (14E) A situation in which a mortgage holder loses all claims to his or her property due to nonpayment.
- formal regions (1G) Places that have one or more characteristics in common.
- **formal sector** (14G) Jobs in industry, established services, and government that are limited to a privileged few.
- **forward capitals** (11E) Capitals that are intended to help move a population toward less populous areas.

- **forward linkages** (16C) Items that can be produced from the output of an industry. For example, garments such as shirts, pants, and other cotton goods can be produced from cotton textiles.
- **fossil fuels** (12H) Fuels that are formed when organic matter deposited on the earth's surface is changed by pressure and time over thousands of years to form coal, oil, or natural gas.
- Four Noble Truths (8D) In Buddhism, principles that the Buddha taught concerning the nature of existence.
- free migration (5B) The decision to relocate permanently to another location without coercion, support, or compulsion by any group.
- friction of distance (1F) The amount of time it takes to get from one place to another.
- **frontier** (10H) An area at the edge of any type of effective political control or at the edge of settlement with edges that shift frequently with settlement advances or increasing military control.
- **functional assimilation** (9B) The nearly complete fusion of a minority ethnic group with its larger host society.
- **functional factors** (4G) In regard to access to health care, the presence or absence of health care resources.
- **functional linkages** (13C) Meaningful ties between cities that were historically political and administrative.
- functional regions (1G) Regions constructed out of places that interact.

G

- **Gallatin Plan** (17E) A plan, devised by Secretary of the Treasury Albert Gallatin in 1808, that attempted to parallel land and water trafficways along the Atlantic seaboard, establish connections between Atlantic streams and western waters, connect the Great Lakes system, and create a system of westward roads to the frontiers.
- gender (9F) The societal norms and behaviors that are expected of males or females.
- genocide (3H) The mass destruction of a population.
- **gentrification** (14E) Occurs when the housing stock of a neighborhood is improved generally through the introduction of high-priced, more luxurious housing.
- geographic information systems (2H) Computer systems that can capture, store, analyze, and output geographic data; commonly referred to as a GIS.
- **geographical coordinate system** (1B) A type of reference system in which each place is given a unique value based on its latitude and longitude.
- geographical factors (4G) In regard to access to health care, how close or accessible facilities are to users.
- **geographical grid** (1D) A geographical spreadsheet in which places are represented in rows and have a specific geographical location.
- geographical location (1D) Where a place is located. See also absolute location and relative location.
- geometric boundaries (10H) Lines drawn on a map without much interest in whatever natural or cultural features are present.
- **geopolitical regions** (10I) Regions that are formed by spatial contiguity and by political, military, cultural, and economic interactions between them.
- **geopolitics** (10I) The study of how geographical space—including the types of interrelationships between states, the different functions of states, and the different patterns of states—affects global politics.
- **gerrymandering** (11F) Manipulation that concentrates the support of one party or one group of people in one district and dilutes their support throughout a number of other districts.
- **ghettos** (9C) Originally, an Italian term for areas of cities where Jews were forced to live; more broadly, poor urban neighborhoods where minorities are concentrated.
- **global assembly line** (16F) The modern reality that production chains are no longer completed all in one place. Various components are produced in and transported to sites all around the world.
- **global production line** (16F) A method of worldwide production in which the product is moved from one place to another in order to take advantage of favorable costs or specific expertise.
- **globalization** (1D) The elimination of national boundaries through ever greater integration of people, companies, and governments across the world.
- **Grameen Bank** (18B) The bank, established by Professor Muhammad Yunus, that provides microloans to primarily women in developing countries, who are more likely to use the money for productive uses, despite no credit history.
- **gravity model** (5E) A model that defines the interaction between two cities in terms of each city's population and the distance between the two locations.
- **Great Schism** (8G) The breakup, in 1054, of the major sect of Christianity into the Catholic Church and the Eastern Orthodox Church.
- green belts (14F) Areas around cities where suburban land uses are restricted.
- **Green Revolution** (15G) An attempt to import Western agricultural practices to subsistence farms in Asia, Latin America, and Africa between the 1950s and 1960s.

- **grid** (14A) A street pattern with the greatest impact, first developed by the ancient Greek Hippodamus. Its advantages are that it is regular, simple, and repeatable for as far as the city expands.
- **Grimm's law** (7C) A theory attributed to Jakob Grimm that modern German and English experienced consonant shifts since ancient times.
- **gross domestic product (GDP)** (15C) The total of all goods and services produced within a country.
- **gross migration** (5B) The total number of people who leave and enter a country in a given time period.
- **gross national income (GNI)** (15C) Similar to GNP, except it does not include costs of indirect taxes, depreciation, and subsidies.
- **gross national product (GNP)** (15C) The total of goods and services produced by the citizens of a country, whether the actual production takes place inside or outside a country's boundaries.
- **guest workers** (5A) Laborers allowed to enter a country for a specific job and for a specified period of time.
- **guinea worm** (4E) Also known as *Dracunculiasis*, this disease causes an infection by a roundworm that gets into humans when they drink water containing water fleas carrying the worm's larvae.
- **Gullah** (7D) A creole language spoken on islands off the coast of South Carolina and Georgia.

Н

- habitat (4B) The natural characteristics and cultural aspects of an environment.Hajj (8H) The annual pilgrimage to Mecca that all capable Muslims are expected to undertake at least once in their lifetime.
- Hanification (9E) The Chinese government practice of moving Han Chinese citizens into minority ethnic areas to dilute the importance of the minority culture.
- **Harrison, John** (2C) The British clockmaker (1693–1776) who invented a chronometer that worked while at sea, thus allowing accurate measurements of longitude to be determined.
- **hazardous waste** (12G) Refuse that poses a risk either to the environment or to humans.
- hearth (6D) The place where something begins.
- **Hecataeus** (2A) The Greek historian (~550–476 BC) credited with writing the book *Ges Periodus*, a descriptive account of the ancient world.
- **Herodotus** (2A) The historian (~484–425 C) who included geographic descriptions in his writings.
- **hierarchical diffusion** (6D) A pattern whereby things move from one place to other places that have some similarities or are otherwise going to be more receptive, such as from a large city to smaller cities or from a boss to a subordinate.
- high seas (10A) The parts of the ocean in which no government has sovereignty.
- **high-technology clusters** (16E) Areas that have a high concentration of specialized labor, specialized inputs, knowledge spillovers, and market/user accessibility that benefits the high-technology industry.
- **high-technology industries** (16E) Companies that support the growth and development of sophisticated technologies. It is a very new industry that has rapidly transformed many cities and countries.
- **Hijra** (8H) The movement of Muhammad and his followers from Mecca to what is now Medina in 622 AD, an event regarded as the start of the Islamic calendar.
- **Hinduism** (8C) The ancient and complex ethnic religion practiced primarily in India. It emphasizes reincarnation, the worship of any one of many gods, and the consequences of one's actions.
- hinterland (13B) The area surrounding a city from which it obtains its food.
- **HIV/AIDS** (4D) A worldwide disease caused by a virus that can cause a progressive breakdown of the human immune system.
- **homeland** (10E) The distinct territory associated with a nation; however, unlike a state, the members of a particular nation may not be found in a territorially demarcated and contained place.
- Homer (2A) The writer often considered the father of geography.
- **horizontal loyalty** (10E) Powerful loyalty to a nation that is expressed toward all the people of that nation.
- host (4C) A life form that has a disease.
- human capital (17C) A population's level of education and skill.
- **human capital model** (5E) A theory of migration that argues that people move not just for macroeconomic reasons but also for individual reasons.
- **human development index (HDI)** (18A) A measure that incorporates indicators of health and education to provide a more comprehensive portrayal of the average welfare of a country's residents.
- **human ecology** (4B) The interconnections between human populations and the physical world.
- **human trafficking** (5C) The transportation of people against their will through the use of force, coercion, fraud, or other means.

- **humanistic geography** (2F) A sub-branch of human geography that grew out of behavioral geography but put less emphasis on explaining the world and more focus on the meaning that humans place on the environment and their surroundings, as well as how people perceive the world around them.
- **hunting and gathering** (15A) A feature of prehistoric human life, the combination of killing animals and finding edible plant life for food, which required teamwork, effective communication, and weapon construction.
- **hurricane** (12C) A strong cyclonic storm system with low pressure, strong thunderstorms, high winds, and rain; also known as a **typhoon** or **cyclone**.

I

- **ibn-Battuta** (2B) A Moroccan Muslim (1304–1368) who traveled over 75,000 miles and wrote an account of his journeys.
- iconic landscapes (1H) A class of distinctive landscape types that bring to mind images and symbols essential to identity.
- ideological subsystem (6C) The ideas, beliefs, values, and knowledge of a culture. idiom (7B) Language that is peculiar to a certain group of people or a region; often used synonymously with dialect.
- **impelled migration** (5B) Migration in which a person fears that failure to move will likely result in negative consequences or because of persecution.
- **imperial economies** (15B) Systems marked by the redistribution of surplus from peasants to large landholders, but with the imperial bureaucracy taking a substantial cut.
- **implosionists** (3I) Population theorists who believe that declining fertility rates indicate that the earth has turned the corner on population growth.
- **import substitution** (18G) Used to shelter young domestic industries from foreign competition by providing them with a secure market.
- index of dissimilarity (9C) A measure of segregation that indicates how isolated two groups are from each other in a particular area or city.
- **Indo-European** (7C) A large language family of hundreds of languages, including English.
- **Industrial Revolution** (3A) A series of agricultural and technological innovations that transferred European society beginning in the eighteenth century and eventually spread to much of the world.
- **industrialization** (16A) The process by which a greater proportion of a national economy is involved in the manufacturing of goods. This allows more goods to be produced in greater quantity and at a lower price.
- **infant mortality rate (IMR)** (3F) The number of babies who die before age one per 1,000 births.
- **infectious stimuli** (4B) The effects on a person caused by viruses, bacteria, or other physical insults.
- **influenza** (4E) Commonly known as the flu, a disease caused by a virus that affects humans, animals, and birds. Flu outbreaks can be regional or even global.
- **informal sector** (14G) Employment that is labor-intensive, absorbs the remainder of the workforce, and is open to nearly everyone but offers a very low standard of living.
- **infrastructure** (2G) In social theory, such as in structuralism, the hidden ideas and theories that help create the visible world around us. See also **superstructure**.
- **in-migration** (5B) The total number of immigrants who arrive in a country in a given time period.
- innovative diffusion (6D) See diffusion.
- **instrumentalism** (10G) A view that nations emerge for a particular purpose, which meets the demands of a situation.
- **intelligent transportation systems** (17D) A network that enhances the coordination of traffic signal lights with the overall patterns and flows of traffic.
- interior landscapes (1H) Landscapes found inside a building, house, or other structure.
- internal boundaries (10H) Boundaries within a country that separate substate units.
- internal migration (5A) The movement of people within a country.
- **internally displaced persons** (5D) People forced to leave their homes but who settle in another part of their own country.
- **international boundary** (10H) A line that separates one state from another. Both sides usually have claims as to where the boundary should be located and it is rare to find an unattended boundary between two sovereign states.
- **International Date Line** (1B) A line of longitude that is the other side of the prime meridian and is 180°.
- international migration (5A) The movement of people between countries.
- **International Monetary Fund (IMF)** (18B) An agency in the effort to promote development that represents a consortium of most of the world's countries. It acts as a credit union that provides monetary resources that can be used by all the countries in its network.

- **Interstate Highway System** (14D) Begun in the 1950s and funded largely by the federal (US) government, it created large, limited-access superhighways, connected cities, and made it easier for people to live farther away from cities.
- **intervening obstacles** (5E) Factors that a migrant must consider when weighing the pluses and minuses of a potential move, such as the cost or ease of crossing a border.
- **intervening opportunities** (5E) Places along a migrant's route that might cause that person to stop and settle before reaching his or her final destination.
- **introduced capitals** (111) The introduction of a new city that can serve as a capital or to designate an existing smaller city as the new capital city, rather than use existing cities to form a capital region.
- **irredentist movements** (10G) Ethnoregional movements that do not seek to create their own independent country but, rather, to separate from their existing state in order to join a neighboring state.
- **irrigation** (15A) The process of directing water from nearby water sources to cropland. Early technologies required that a community work together through directing, digging, and constructing.
- Islam (8H) A monotheistic religion with two major sects. It was founded in the seventh century by the prophet Muhammad and is now the second largest religion in the world. Its practitioners are known as Muslims.
- **isoline map** (1E) A map that is used to display distributions. It consists of lines that connect points of equal value.

J

- **Jainism** (8I) A small religion founded in the sixth century BC and practiced mostly in India or where Indians settle. It emphasizes the elimination of all activity that would accumulate bad karma.
- **Jesus** (8F) A Jewish prophet, whose teachings form the basis for Christianity and whom Christians believe was the Messiah.
- **Judaism** (8E) An old, monotheistic, and ethnic religion, which, despite its small size, has had a strong influence on human history and which formed a spiritual foundation for Christianity and Islam. Its practitioners are known as Jews.
- **jus sanguinis** (11F) Citizenship based on parents' citizenship, regardless of place of birth; Latin for "right of blood."
- **jus soli** (11D) Citizenship acquired through birth within a state's territory; Latin for "right of the soil."

Κ

- **karma** (8C) In religions such as Hinduism and Buddhism, the notion that every action a person takes, whether good or bad, has a consequence in the future.
- **knot** (2C) The unit of speed used by sailors; equal to 1 nautical mile per hour, which is equivalent to approximately 1.151 miles per hour, or 1.852 kilometers per hour.
- kosher (8E) Prepared according to Jewish laws and traditions and most commonly used to refer to food.

L

- **land rent** (15F) The profitability of a particular piece of land, dependent on soil quality, climate, terrain, and cultural factors.
- **land value** (14C) The worth of a plot of land, affected by function (retail, industrial, residential, etc.), location, and ability to be developed.
- landfills (12F) Places where waste material is buried and covered with soil.
- **landscape** (1H) An area that is less defined than a region and is described in an abstract manner.
- **language** (7A) A system of communication using sounds, gestures, marks, and signs.
- language convergence (7E) The process of two languages merging together.
- **language divergence** (7E) The process of a language splitting into two or more distinct languages.
- **language extinction** (7E) The point at which a language no longer has any active speakers.
- **language family** (7C) A collection of languages that have a common ancestor and is subdivided into smaller branches of related languages.
- language isolate (7E) A language that belongs to no known language family.
- **latitude** (1B) A measured distance north or south of the equator, with the North and South Poles as key reference points.
- **legitimacy** (10A) The standing or right of the government of a unit to rule a state's people or territory.
- **less developed countries** (18A) Impoverished countries that have frail or corrupt economic and political systems and that aspire to become developed countries. **life expectancies** (3A) The average life spans of persons in a particular population.

- **lingua franca** (7B) A language used in cross-cultural communication or trade. **links** (17D) The routes that connect nodes. In transportation, these can be roads, railroads, rivers, canals, footpaths, or sea or air routes.
- **list system of proportional representation** (111) A system in which each party draws up a list of candidates in each electoral district, and people tend to vote for the parties rather than for the candidates themselves.
- **living standards** (18A) Factors that affect the quality of life in a country, such as access to safe food and water, employment, and security.
- **loan words** (7G) Terms used in one language that have an origin in another language. **locales** (2G) Places where societal structures intersect with human decisions, according to structuralists.
- **locational advantages** (16F) Reductions in production costs by locating in areas where wages are lower or some other factor makes it cheaper to produce in that area.
- longitude (1B) A measured distance east and west of the prime meridian.
- luxury (16G) Something that provides enjoyment beyond the necessities of life.

М

- Mahayana Buddhism (8D) One of the two largest branches of Buddhism, practiced primarily in East and Southeast Asia. Generally, it has more mystical and spiritual elements than Theravada Buddhism.
- **majoritarian system** (111) A system in which elections are designed such that the winner must have a majority of the overall votes. For example, the top two candidates from the first round of voting compete directly against each other in the second round of voting.
- **malapportionment** (111) Manipulation in which some electoral districts vary in size even though they are equal in representation.
- **malaria** (4E) A disease caused by a parasite and spread to humans by mosquitoes. About 40% of the world's population is at risk of contracting this disease.
- **Malayo-Polynesian** (7C) A large language family of over 1,200 tongues spoken primarily in Southeast Asia and the South Pacific.
- **Malthus, Thomas** (3I) The Englishman (1766–1834) who wrote *An Essay on the Principle of Population* and argued that population growth would lead to famine and disease.
- **maquiladora** (16B) A factory located on the border, often to take advantage of low wage requirements in this area.
- **Marxist** (2G) Related to the work of nineteenth-century thinkers Karl Marx and Frederich Engel.
- **Marxist theories of the state** (11C) Views of the state as a vehicle promoting capitalism and the capitalist class; also those who control production.
- **mass consumption** (16G) A large number of people purchasing large quantities of goods.
- mass migration (5B) Population movements of a large number of people.
- **mass production** (13D) A large output of goods, which both drops the price of the goods and sparks demand due to affordability.
- **measurement** (2A) In geography, human understanding about the size and shape of the world as well as where things are located.
- **medical geography** (4C) The sub-branch of geography that studies the pattern of and transmission of diseases as well as the spatial pattern of health care.
- **mental map** (2F) A representation of the real world that humans have in their minds. **mentifacts** (6C) Individual culture traits of the ideological subsystem, such as an idea.
- **mercantilism** (17C) A policy that seeks to reduce barriers to trade within a country while creating a large number of external barriers, such as quotas and tariffs.
- **merchants** (15B) Buyers of large quantities of products, who then ship, store, and/or trade the product; a necessary component of capitalism, especially in the early stages.
- **metropole** (10B) The dominant part of an empire, distinguished from the subordinate colonies, which is normally the state that initiated colonization.
- **micro-states** (10D) States that are very small but are still considered to possess a certain degree of sovereignty, legitimacy, and territory.
- **migration** (5A) The permanent relocation of one's place of residence, usually implying a long-distance move.
- **militarized boundaries** (10H) Heavily fortified boundaries that discourage the crossing of traffic, people, goods, and/or information.
- Minamata disease (12J) A type of mercury poisoning that came to prominence in the 1960s after decades of industrial pollution in the city of Minamata, Japan. minority national group (10G) A group that considers itself a nation but does not
- have control of the state. **mixed agricultural economy** (15E) A system that involves a heavy reliance on both plants and animals for food, materials, and goods.
- **mixed economies** (11B) Economies in which the government controls certain economic activities it considers key or appropriate to the public trust while leaving others in the hands of the private sector.

mixed system (111) A system that combines both proportional voting (see **list system**) and a plurality system.

- modal split (17F) The percentage of travel undertaken via each transport mode.
- **modern state system** (10C) A system composed of territories that are more closely controlled and integrated than political territories had been and that eventually replaced many different types of political forms.
- **modernism** (2H) Twentieth-century trends in art, architecture, and literature that represented a break from traditions of the past.
- **modernization theory** (18B) A theory rooted in the experience of western Europe and North America. It views these as models for the rest of the world to follow.
- **moment magnitude scale** (12C) A logarithmic scale used for measuring the strength of an earthquake.
- monotheistic (8A) A type of religion that believes in one Supreme Being.
- **more developed countries** (18A) Rich countries that have established economic and political systems and are a model and aspiration to developing countries.
- **morphology** (14A) The form of a city, which varies but often includes an urban population, a center, a perimeter, and an internal transportation network.
- **mosque** (8H) A house of worship in Islam and distinguished by a tower known as a minaret.
- **Muhammad** (8H) The seventh-century prophet that Muslims believe is a messenger of God; the founder of the religion of Islam.
- **multidivisional corporation** (16F) A corporation with many divisions based on production lines or stages in the production chain.
- **multinational state** (10F) A country that contains more than one nation, which is true for many countries.
- **multiplier effect** (16D) A job in a particular industry that has a multiplier of 2.0, meaning that this one job actually results in two jobs in the economy: the original industrial job as well as an additional non-base job.
- multiscalar (1A) Taking place at different spatial scales.
- **multistate nation** (10F) A nation that encompasses more than one state in which the nations may or may not have control of the state.
- **mystico-religious sites** (8J) Places that are sacred to a religion because it is believed that a deity or other supernatural entity came into direct contact with humans at those locations.

Ν

- **nation** (10E) A group of people who feel that they belong together as a polity for a number of reasons.
- **national highway system** (17E) A highway system that had been established by the 1920s. It led to the development of the US routes seen today, consisting of odd-numbered north-south roads and even-numbered east-west routes.
- **national landscapes** (10E) include Houses, churches, parks, monuments, and all manner of things that help determine the national flavor of a place.
- **nationalism** (10E) The ideology that maintains that members of a nation should be allowed to form their own sovereign state.
- **nation-state** (10F) A state that contains a single nation that is not disputed by anyone inside or outside.
- **nation-state ideal** (10F) The ideal arrangement under nationalist ideology that every nation should have control over a state. Conversely, every political state should embody a specific nation.
- **natural boundaries** (10H) Natural features that divide one country from another. **natural hazards** (12B) Environmental events such as floods, hurricanes, earthquakes, tornados, tsunami, mudslides, volcanic eruptions, and droughts.
- neighborhood effect (11H) See contextual effect.
- **neocolonialism** (18B) The sort of economic relationships that persist between the mother country and the former colony, even after independence.
- **neo-European realm** (18C) Former European colonies that were used for acquiring precious metals and other valuable resources and sometimes for settlement.
- **neoliberalism** (11C) A set of policies that favor minimal government interference in markets and the promotion of free trade.
- **Neolithic Revolution** (3A) The period in ancient times, approximately 12,000 years ago, when livestock and agriculture were domesticated, leading to the establishment of more permanent settlements and a rise in global population.
- **neo-Malthusians** (31) Modern population theorists that carry on Malthus's idea that population growth will lead to global chaos.
- **net migration** (5B) The difference between the number of people who leave and the number of people who arrive in a country.
- network (17D) The entire pattern of nodes and links.
- **network connectivity** (17D) The degree to which direct movements are possible over a network.
- **new international division of labor** (16F) A recent phenomenon in which the production process transcends international boundaries.
- **niche marketers** (17H) Retailers that sell goods to fulfill a particular need, such as an outdoor equipment company.

- **Niger-Congo** (7C) A large language family of 1,400 languages spoken primarily in Africa.
- **nighttime density** (14C) The time when people are home from work, which results in a low concentration of people in and around the CBD.
- **NIMBY** (12F) An acronym for "Not in My Back Yard"; refers to things that communities need and want, such as power plants and landfills, but that nobody wants in close proximity to his or her home.
- **nodal point** (14C) A place at which things, such as transportation routes, converge.
- **nodes** (17D) Components of every transportation system that are either places in their own right or intersections.
- **nonagricultural population** (13A) The portion of the population not engaged in farming. They rely on farmers for food.
- **nonaligned countries** (10I) After World War II, the countries that were not allied with either the Soviet Union or the United States.
- **nonstore retailing** (17H) The buying and selling of goods that takes place outside of a store setting, such as by traveling salespeople or through mailordering.
- **nonstructural responses** (12B) Actions taken by a society, a political body, or individuals to reduce the risk of a natural hazard.

0

- **occupational specialization** (13A) Nonagricultural workers became involved in different types of trades and tasks, from metal workers to tanners to scribes; a hallmark of early cities as well as a characteristic of modern cities.
- oligarchy (11C) A single individual or clique that holds concentrated power in an authoritarian or autocratic state.
- **One-Child Policy** (3J) Begun by the Chinese government in 1979, a population control policy that restricts most couples to just one birth without special permission.
- open boundaries (10H) Boundaries where crossing is unimpeded.
- **optimum location** (16B) According to economist Alfred Weber, the ideal location for a manufacturing plant: where there is a balance between the locations of the various raw materials, the labor force, and the markets where the final products would be sold.
- ordinary landscape (1H) A landscape that people encounter in their daily experiences.
- **organic city** (14A) A city that is loosely planned, often featuring streets of varied width that might resemble labyrinths. Many medieval cities were organic, as are modern cities such as Boston.
- **out-migration** (5B) The total number of immigrants who leave a country in a given time period.

Ρ

- **Pali Canon** (8D) The primary teachings of Buddhism; also known as the Tripitaka. **pandemic** (4C) A worldwide outbreak of a disease.
- **pastoral nomadism** (15E) A culture that locates in areas too harsh for crops and that moves seasonally with their animals to locate the available water.
- **patois** (7B) Generally, rural or provincial speech or a nonstandard form of a language.
- **pattern** (1A) The arrangement of various geographic phenomena at a given point in time.
- **peak value intersection (PVI)** (14C) A single intersection with the greatest access, usually located at the intersection of two main streets.
- **perimeter** (14A) An element that defines a city and is the manner by which a city is separated from the country.
- period (1G) A way to slice up time. It is essential to historical understanding.
- **periodic movement** (5A) Population movement, often over long distances, that occurs from time to time but is not permanent, such as going away to school or joining the armed forces.
- **peripheral** (11G) In contrast to core areas, these regions are at the edge of political control, recently integrated into the state, culturally distinct, or exclaves.
- **periphery** (18C) Countries that export raw materials to core countries to process into manufactured goods.
- phenomenon (1A) Any attribute that can be considered geographically.
- **phonemes** (7A) The sounds used in a spoken language.
- physical insults (4B) Traumatic events, such as accidents, shock, or radiation poisoning, that negatively affect human health.
- **physiologic density** (3B) A statistic of population density calculated by dividing a country's population by its area of arable land. In other words, it is the number of people per square mile or kilometer of farmable land.
- **pictographic writing** (7A) A type of written speech in which small pictures are used for words.

- **pidgin** (7B) A simplified language that is used by people who speak different languages for common communication; usually not the primary language of anyone using it.
- **place** (1C) A basic unit and key concept in geography that indicates where something exists.
- place interaction (1F) A wide variety of activities that occur between places.
- place similarity (1F) One or more attributes that places have in common.
- **planned cities** (14A) Cities laid out along more symbolic lines, often rich with symbolic elements, such as cosmological principles.
- **planned economies** (15B) Economies that emerged as a response to unrestricted capitalist economies and often in response to what were perceived as some of the inequities embedded in a capitalist system.
- **pluralist theory of the state** (11C) The view that the government is a neutral arbiter of all the different stakeholders.
- **point pattern** (1E) The distribution of points on a map, which can be analyzed to determine patterns.
- **political economy** (11B) The relationship among the state, the members of the state, and the economic activities contained within the state.
- political subunits (11A) The division of territory into smaller, manageable pieces.
- **political unit** (10A) Organizational entities at several different spatial scales that aid the study of political geography. The most important of these is the country, or state.
- polygyny (4A) The cultural practice of a husband having multiple wives.
- polytheistic (8A) A religion that believes in many deities.
- **popular culture** (6G) The aspects of a culture that are widespread, fast-changing, and transmitted by the mass media.
- **population** (4B) The number of people in an area as well as the age, gender, and genetic characteristics of a society.
- population density (13A) The number of people per square mile.
- **population planning** (3J) Government attempts to increase or decrease the birth rate in the country.
- **population profile** (3H) A graphic that shows the number or percentage of men and women in a population per year group or range of years; sometimes called a population pyramid.
- population size (13A) The number of people living in an area.
- **positivism** (2E) A belief that all knowledge can be pursued by the scientific method. It puts a strong emphasis on observation and measurement.
- **possibilism** (2D) The viewpoint that arose as a criticism of environmental determinism, holding that human populations develop their own cultures within constraints set by the environment.
- **postmodernism** (2H) A complex set of ideas that arose as a criticism of modernism and that, in general, rejects that everything in the world is rational or neatly categorized.
- **poststructuralism** (2H) A broad term that refers to social theories that questioned structuralism's search for deep structures and that focused on individuals and local differences. In geography, many poststructuralists focus on how marginalized groups view and use landscapes.
- **predatory lending** (14E) A situation in which mortgages impose an undue financial burden on households by forcing debts that far exceed assets and can result in foreclosure.
- **primary loyalty** (10E) The expectation that loyalty to a nation transcends that of other allegiances.
- **primary sector** (15C) Activities involving the extraction of raw materials, the gathering of plants and animals, and the domestication of plants or animals.
- **primate city** (13H) The largest city in a country that is much greater than the second largest, overwhelming the rest of the country in terms of population, as well as cultural and economic importance.
- **prime meridian** (1B) The key reference line for longitude that is 0°; an arbitrary line that crosses through Greenwich, England, and connects the poles.
- **prime value intersection (PVI)** (14C) A single intersection with the greatest access, usually located at the intersection of two main streets.
- **primitive agriculture** (15A) The gradual transition to agriculture, occurring in different parts of the world beginning about 9000 BC. Some early agricultural groups were nomadic and some involved shifting cultivation; most early agriculturalists settled into more permanent settlements.
- primitive migration (5B) Human movements that occur when a population runs out of food.
- **primordialism** (10G) The view that nations are organically grown entities, that the world is divided into different national groups that have persisted for sometime, and that nationalist movements represent an awakening of already significant identities.
- **Prince Henry the Navigator** (2C) A Portuguese royal (1394–1460) who contributed to European exploration and geographic discovery by employing cartographers, geographers, and other experts to further Portuguese maritime interests.

private sector (11B) In a capitalist society, all the factories, firms, and offices responsible for producing goods and providing services that are not run by the state; includes all of the output produced by individuals working for themselves and privately owned businesses.

probabilistic (1A) Tending to result in a pattern.

- process (1A) An action that brings about a particular pattern.
- **production** (16A) The process that creates an object that is more valuable than the sum of the raw materials going into it.
- **production chain** (16B) The process that transforms raw materials into a finished product, then distributes that product for consumption by households, government, or industries.
- productivity (17C) A measurement of the relative output per unit of labor.
- **profane landscape** (8J) Places that are not holy or sacred; everyday places. **profit** (15B) The positive difference between how much revenue is made by sell-
- ing a product and how much it costs to buy or make a product.
- **protectionism** (17B) When a country seeks to limit trade through various mechanisms.
- **Protestant Reformation** (8G) An important religious movement, which began in Europe in the sixteenth century and was marked by a rejection of the power and rituals of the Catholic Church. It led to the rise of Protestant Christian sects. **proto-language** (7C) The common ancestor of a family of modern languages.
- **psychosocial insults** (4B) The effects of things such as crowding, anxiety, belonging, or love on a person's health.
- **Ptolemy** (2A) A geographer, mathematician, and astronomer (90–168 AD), who wrote a long geography of the world. Versions of Ptolemy's maps were used for 1,500 years despite serious errors.
- **public sector** (11B) In a capitalist society, state-run functions, including external relations, a system of adjudication or arbitration, and tax collection; includes all of the output produced by government at all levels.
- **purchasing power parity** (**PPP**) (18A) A measure of per capita income that diminishes a little of the gross variation between countries and reveals development disparities.
- **pure democracy** (11H) All citizens have a say in all the issues pertaining to their community.
- pure characteristic (1D) A characteristic that can be applied to an entire place.
- **push-pull model** (5E) A model of migration that argues that people are pushed from their homes by certain negative factors and pulled to other locations by positive qualities.

Q

- **Qur'an** (8H) The holy book of Islam, believed by Muslims to be the actual words of God as revealed to Muhammad.
- **quantitative revolution** (2E) In geography, the movement that grew in strength in the 1950s and 1960s and that focused on statistics, positivistic techniques, and the search for universal laws to explain geographic patterns and processes.
- **quaternary sector** (15C) Services that rely on information gathering and sharing. These include information technology services, research and development, consulting services, and other similar activities.
- **quota** (17C) A limit imposed on the quantity of a country's exports or imports, often used to restrict imported goods.

R

random distribution (1E) A phenomenon that is neither clustered nor dispersed. **rank-size relationship** (13H) A relationship that typifies the overall urban hierar-

- chy within a country. It is determined by dividing the population of the largest city in half to determine the size of the second largest city, the second by the third, and so on.
- **rate of natural increase (RNI)** (3F) The difference in births and deaths in a population, usually expressed as a percentage; does not take into account migration into or out of an area.
- **rate of population growth** (3F) A statistic, expressed as a percentage, that indicates the growth rate of a population in a given time period and that includes not only births and deaths but also migration.
- **Ravenstein's laws** (5E) A set of theories about migration developed in the late nineteenth century by Ernst Georg Ravenstein.
- **Received Pronunciation** (7D) Considered to be the standard form of English, spoken in and around London and often used on British radio and television.
- **recession** (15C) The situation that occurs when measures of the economy decline, often for a sustained period of time, such as half a year.
- recharge (12D) How quickly groundwater is replenished.
- **recreational auto city** (14D) The time when automobiles were no longer a novelty and became more affordable and popular among middle-class families, raising ownership to one car for every five people in the United States.

- **refugee** (5D) A person living outside of his or her own country who cannot return home because of fear of injury or persecution.
- **refugee warehousing** (5D) The long-term housing of refugees in a specific location without allowing them to assimilate into the receiving country.
- **region** (1G) A way of subdividing space into categorizable geographic units.
- **regional geography** (2E) A type of geographic inquiry that focuses on the region as the main way to classify and understand the world. Regional geographies tend to focus on broad, holistic descriptions of regions.
- **reincarnation** (8C) In religions such as Hinduism, the belief that souls are reborn after death in other life forms.
- relative location (1B) The location of a place compared to other places.
- **relative significance** (1D) The level of significance a characteristic has, depending on scale of analysis and the topic of interest.
- **religion** (8A) A cultural system of beliefs, traditions, and practices, often centered around the worship of a deity or deities.
- **relocation diffusion** (6D) The diffusion of a particular phenomenon over a far distance as a result of migration.
- remittances (5A) Payments made by overseas migrants to their families back home.
- repatriation (5D) The process of moving refugees back into their home country or region.
- **replacement level of fertility** (3E) The total fertility rate necessary to keep a population at a constant size over time, assuming no migration; usually between 2.1 and 2.3.
- **representative democracy** (11H) A complicated structure in which people elect representatives who are supposed to take the time to understand the issues and to represent their interests.
- **reservation** (11G) A special region, most common in the Americas, established as a territory for indigenous peoples. It usually represents just a fraction of the land that these peoples had previously occupied.
- **restricted migration** (5B) The fact that, in the modern world, there is very little "free" migration because of laws and border regulations. Thus, even when people make a free decision to move, they may not be able to migrate.
- **resurgent identity** (9B) An ethnic group that reemerges after its importance faded or it was suppressed.
- **retail chains** (17G) Stores that have several locations and are owned by the same company, as opposed to single, family-owned businesses.
- **reverse hierarchical diffusion** (6D) Diffusion up a hierarchy, such as from a small town to large cities.
- **Ring of Fire** (12C) Large areas of the Pacific Rim that are subject to volcanoes and earthquakes because of tectonic activity and their location along major crustal plate boundaries.
- Ritter, Carl (2D) A German geographer (1779–1859), who emphasized observation of the landscape and who argued that geography must focus on understanding the interconnections among phenomena on the earth's surface and not just basic description.
- **Rosetta Stone** (7A) A large stone discovered in 1799 with three languages inscribed on it. It eventually led to the deciphering of Egyptian hieroglyphics.
- **runic alphabet** (7C) An early alphabet used by Germanic speakers before the adoption of the Latin alphabet.
- **rural-to-urban migration** (5B) The movement of people from the countryside to the city.

S

sacred landscape (8J) A place that has religious or spiritual importance.

- **satellite state** (10D) A state with less actual sovereignty, such as the freedom to exercise its own foreign policy or even to make internal changes.
- **scale** (1D) This determines the frame of reference and shows which characteristics are especially important.
- scale of analysis (1D) A scale that determines what is being studied based on the size of the area being examined.
- schedule (13A) Cycles of the day, of seasons, and of rain and drought that determined the food supply.
- Schengen Agreement (10H) In 1995, several European countries lifted all border controls between them, allowing for unimpeded access across international boundaries. It now includes most Western and Central European countries as well as many Eastern European countries.
- schistosomiasis (4C) An endemic infectious disease caused by a fluke, which also lives in snails for part of its life cycle. The infection causes a massive immune response, affecting about 200 million people worldwide.
- scientific exploration (2D) A movement that arose in the nineteenth century and focused on sending teams of scientists to explore certain parts of the world.
- **scurvy** (2C) A vitamin C-deficiency disease common among sailors in premodern times.

- second wave of European immigration (5G) The period in US history between 1880 and 1921, which saw millions of immigrants from Europe arrive in America.
- **secondary sector** (15C) Activities that add value to raw materials through some form of manufacturing, processing, or construction.
- **sector model** (14D) Developed by Homer Hoyt, a visual representation of a city that took site factors explicitly into account. These sites included the high-rent area, low-rent sectors, and middle-income sectors.
- **segregation** (9C) The separation between or among different social or ethnic groups.
- **self-determination** (10E) An idea whereby members of a nation are allowed to form their own sovereign state.
- **semi-periphery** (18C) Countries that contain aspects of both core and periphery. **Semitic** (7C) The branch of the Afro-Asiatic language family that includes Arabic.
- **sense of place** (IC) A set of meanings attached to an area, particularly to the people who know that place well.
- settlements (13A) Built out of more permanent materials, rather than being of temporary construction, they allowed for the development of agriculture.
- **Sharia** (8H) Traditional Muslim law as set forth in the Qur'an and the example set by Muhammad in his lifetime.
- shatterbelts (101) Regions that are politically fragmented and are often areas of competition between two ideological or two religious realms.
- Shinto (81) The traditional animistic religion of Japan.
- **Siddhartha** (8D) The Buddha; a noble born in the Himalayas approximately 2,500 years ago who rejected his life of privilege and sought a path to enlightenment. His teachings form the basis for Buddhism.
- **Sikhism** (8I) Monotheistic religion founded in South Asia in the late 15th century by Guru Nanak as a reaction to perceived problems with the teachings of Islam and Hinduism.
- **single member plurality system** (111) A system in which an entire country or political subdivision is divided into electoral districts, each of which elects only one representative.
- **single-occupancy motor vehicle travel (SOV)** (17F) The vehicles (such as cars, minivans, pickup trucks, and motorcycles) that are used by 80% of Americans to get to work.
- **Sino-Tibetan** (7C) A large language family that includes various dialects of Chinese, including Mandarin.
- site (1C) The immediate environment of a place.
- situation (1C) The way in which a particular place relates to the space that surrounds it.
- **situation factors** (12B) Realities such as where people are located, how old they are, their financial resources, and other truths that might affect a human's actual or perceived ability to deal with a possible hazard.
- **smog** (12E) Air pollution produced by sunlight reacting with ozone released from cars, factories, and power plants.
- **social consequences** (5F) The positive or negative effects of migration when two or more societies come together.
- **social construction of space** (6F) The idea that society shapes the spatial nature of our world.
- **social factors** (4G) Societal realities, such as racist or sexist policies, that might limit a person's access to health care.
- sociofact (6C) A culture trait in the sociological subsystem.
- **sociological subsystem** (6C) The part of a culture that guides how people are expected to interact with each other and how their social institutions are structured.
- **solid waste** (12F) Essentially, garbage or trash, but it may include solid, semisolid, or even liquid refuse.
- **sovereignty** (10A) An indicator that a particular government has complete control and jurisdiction over a defined area.
- **space** (1C) A two-dimensional area that contains a number of places and boundaries that may or may not be clearly defined.
- **spatial connectivity** (1F) The network created by spatial interactions, which geographers attempt to understand.
- spatial interaction (1F) The movement and interconnections between places.
- **special regions** (11G) Political subunits that are granted different powers than those of regular subunits.
- **sprachbund** (7C) A group of languages from different families or branches of a family that share grammatical or lexical similarities because of proximity.
- squatter settlements (14G) Temporary structures built up by people with nowhere else to go, which usually suggest illegal occupation.
- **state** (10Å) A country; the most important spatial scale unit in political geography. **stateless nation** (10F) A nation that has no state to call its own.
- **step migration** (5E) When migrants move from a small town to a larger town, then stop and work for a while before moving on to an even larger town, and so on.

- **storm surges** (12C) Walls of wind-driven water caused by a hurricane or tropical storm. They can be meters or tens of meters higher than sea level.
- **streetcar city** (14D) That phase that took place after the Civil War in which city population ballooned, transit systems developed, and electric streetcars replaced horsecars and omnibuses.
- **structural responses** (12B) The building of physical structures, such as levees, to reduce the impact of a potential natural hazard.
- **structuralism** (2G) A set of social theories that generally look for deep structures or theories that guide human actions and societies.
- **structuralist school of development** (18G) Views the intervention of government as key to economic development.
- **structuration** (2G) A social theory that human action is partly constrained by social structures governed by laws and social norms and that societies can choose to either reproduce or change their behaviors.
- **structure** (2G) In social theory, social, political, or economic systems that might limit or constrain the human capacity to make independent decisions; often contrasted with **agency**.
- **subjects** (11D) In monarchical, feudal, or imperial settings, the residents of the state. They are given few rights, despite their many obligations for military service, labor, and taxation.
- **subprime lending** (14E) Mortgages made available to people who could not qualify for regular conventional, or prime, mortgages. They always entail higher fees and/or rates to make up for a higher risk of default.
- **subsequent boundaries** (10H) Boundaries created after recognized settlement. They are meant to separate existing cultural groups and may signify an attempt to align the boundaries that exist between nations.
- **subsistence agriculture** (15E) Nearly all the crops and livestock are used to support the farmer, the farmer's family, and perhaps a larger group within a clan or village.
- **suburbs** (14D) Inhabited areas around cities that grew rapidly due to decentralization of cities and automobile dependency.
- **Superfund Program** (12G) A US government program that identifies and attempts to clean up the worst pollution sites in the country.
- **superstructure** (2G) A social theory that argues that society has rules that humans can choose to act on or not.
- **surpluses** (13A) Overabundances of food, often grain, resulting from organized agriculture and allowed for distributions, trade, and taxation.
- **sustainable development** (18G) A development model that does not lead to tremendous gains in income but is effective in improving the well-being of the population.
- synagogue (8E) A Jewish house of worship.
- **systematic geography** (2E) An approach to studying geography that focuses on specializing in one subfield of the discipline and then applying that knowledge to a variety of regions or places.

Т

- **Taoism** (8I) An ancient Chinese philosophy or religion focused on individual morality, self-restraint, and humility.
- **tariffs** (17C) Taxes on items leaving or entering a country, often used to raise the price of imported goods.
- **technological subsystem** (6C) The material objects that a culture produces, as well as the procedures for using those objects.
- **territorial states** (13B) Larger states that evolved from smaller city-states. They managed a number of cities and extended far beyond the hinterland of a single city.
- **territory** (10A) An area in which a government has some measure of sovereignty. Outside the boundaries, a government does not have sovereignty.
- **tertiary sector** (15C) Activities that provide services. This category includes everything from store clerks to auto mechanics to lawyers and doctors.
- **The Great Columbian Exchange** (15G) The global exchange of crops that occurred after 1492, including the transport of European crops, such as wheat, melons, and grapes, by Christopher Columbus to the island of Hispaniola.
- thematic maps (1E) Maps that show the distribution, flow, or connection of one or more characteristics and are used to show distribution.
- **theories of the state** (11C) Theories used by geographers and other scholars to discuss how states operate, particularly those within democratic, capitalist systems.
- **theory of rural land use** (15F) The theory, developed by von Thunen and published in 1826, that determines which crop to cultivate based on an equation that takes into account land rent, output, price, production costs, transportation costs, and distance from market.
- **Theravada Buddhism** (8D) The oldest of the two major branches of Buddhism. Practiced mainly in Sri Lanka, Thailand, Burma, and Cambodia, its beliefs are relatively conservative, holding close to the original teachings of the Buddha.

- **Third World** (18A) Impoverished countries that have frail or corrupt economic and political systems and that aspire to become developed countries.
- **tiger economies** (18F) Quick and effective industrialization in East Asia by a concentration on factory production, government integration with industry, and a reliance on exports.
- **T-O map** (2B) A type of medieval map that was based on Christian theology, showed the world as three continents (Asia, Africa, and Europe), and resembled
- a "T" inside an "O."
- **toponymy** (7F) The study of place names. **topophilia** (2F) A love of place.
- **topophobia** (2F) A fear of place.
- **Torah** (8E) In Judaism, the first five books of the Hebrew scriptures, believed to be the law of God.
- **tornados** (12C) Violent rotating columns of air that are in touch with the surface of the earth.
- total fertility rate (TFR) (3E) The number of children a woman can expect to have in her lifetime, given current fertility rates.
- **totalitarianism** (11C) The type of autocracy that has been associated with ideologies of fascism, communism, and religious fundamentalism.
- **tourism** (16H) A huge and varied industry made up of travel agents, hotels, restaurants, attraction developers, cruise, tour guides, guidebooks, and local and regional officials who seek to market their own place.
- toxic waste (12G) Waste that poses a risk to human populations.
- **trade deficit** (17A) When imports into a country exceed the number of exports going out of a country.
- trade surplus (17A) When exports out of a country exceed the number of imports coming into a country.
- traditional religions (8A) Faiths practiced by small, isolated groups of people who largely live in developing areas of the world.
- **transnational corporation (TNC)** (16F) A corporation with many divisions based on production lines or stages in the production chain that cross international boundaries.
- **transportation facilities** (17D) Improvements in the ease and volume of travel, such as airports, expansion of harbors and sea lanes, expansion of a uniform railroad network, and steady extension and upgrading of roadways.
- **transportation infrastructure** (17D) The availability and quality of transportation networks in a country, such as roads and railways.
- **transportation network** (14A) A framework that allows the movement of people and goods. In most cases, it has been composed of surface streets, but several cities have also adopted canals as a means of carrying heavy freight.
- **travel distance** (1F) The distance traveled between places based on existing transportation routes.
- **travel time** (1F) The time it takes to get from one place to another, accounting for different levels of connectivity.
- trinary rank-size distributions (13H) The top three cities overwhelm the rest in terms of population.
- Tripitaka (8D) The primary teachings of the Buddha; also known as the Pali Canon.
- **tsunami** (12C) Large waves spawned by a massive displacement of water caused by volcanoes or earthquakes.
- **tuberculosis** (**TB**) (4E) A potentially deadly lung disease, also known as TB. There are 9 million new cases each year.
- typhoon (12C) A hurricane in the northwestern Pacific Ocean.

U

- **undeveloped world** (18D) Countries in the "bottom billion"; countries that have averaged periods of very small growth and periods of negative growth, no improvement from one generation to the next, and almost no foreign investment.
- **unifying institutions** (10G) Institutions that help promote nationalist ideology and bring members of a nation together.
- **unitary states** (11E) States in which nearly all of the sovereignty and power reside with the central government.
- **universalizing religions** (8A) Faiths that seek to convert nonbelievers to their ranks.
- **untouchables** (8C) Within Hindu society, a group whose jobs are considered to be so spiritually and physically impure that they are below all other people in social status and historically have been widely discriminated against.
- **urban center** (14A) Represents the organizing principle of the city and reflects the vital concerns of the population. In modern times, the main items that constitute the center is the "downtown," where land value is at its peak and where office, banking, and retail functions are located.
- **urban functions** (13G) Specialized functions taken on by cities as a result of an interurban network.

urban hierarchy (13H) The idea that cities are rarely equal in size and importance to each other.

- **urban morphology** (14A) A form of an urban area, which in developing countries tends to include inadequate housing, a fairly modern central business district, and a few well-serviced neighborhoods.
- **urban network** (13C) Cities that are tied together in some meaningful way, which geographers and other urban researchers may describe as functional linkages.
- **urban population** (14A) A population composed of individuals who are not themselves engaged in agriculture yet have to be housed and fed, which poses a challenge to the urban economy.
- **urbanization** (13C) The increase in the percentage of people who live in cities, which eventually outstrips the number of people living in rural areas.
- **urbanization curve** (13E) A way to describe the process by which a society becomes more urban. The curve is a general model of change based on time.

۷

- Vajrayana (8D) The branch of Buddhism practiced primarily in Tibet and Mongolia. value added (16A) The difference between the price of the final product and the cost of raw materials, labor, and other inputs.
- **vassal** (10B) Someone who must show fealty and pay some form of tribute to an overlord in return for being able to use the land.
- vector (4C) The means by which a disease agent is transmitted to a host, such as a mosquito, tick, fly, or rodent.

Vedas (8C) The holy books of the Hindus.

- **venture capitalists** (16E) Financers who are willing to risk their money on a risky, initial idea in hopes of great gains.
- **vernacular** (7B) Local or isolated to a particular area. In the study of languages, words and phrases unique to a particular region.
- vernacular region (IG) A region that people construct in their mind, making them difficult to dissect.
- vertical loyalty (10E) A political structure in which the people were expected to owe allegiance to the ruler.
- **von Humboldt, Alexander** (2D) A Prussian explorer and naturalist (1769–1859), who traveled widely, especially in the Americas, categorizing natural objects and writing about the importance of scientific inquiry.

W

- **walking city** (14D) A city in which a majority of people walk to get from one spot to the other, which was the case for every city before 1850.
- water diversion (12D) The human alteration of natural water patterns, such as irrigation channels, aqueducts, reservoirs, and similar structures.

- water pollution (12D) Human contamination of water resources, such as lakes, rivers, and oceans.
- Western values (18B) Important elements of Western culture, including rationalism, science as opposed to religion, and a strong work ethic.
- Westphalian State System (10C) Dating from the Treaty of Westphalia in 1648, a system based on the idea of a world composed of autonomous, clearly bounded, sovereign territorial states.
- White, Gilbert (12B) The geographer (1911–2006) who pioneered research on natural hazards and human response to flooding.
- **World Bank** (18B) An agency in the effort to promote development that represents a consortium of most of the world's countries. It exists primarily as a lending institution, making loans available to poorer countries and providing advice about the "correct" course of development.
- world cities (131) Cities that are at the top of the global hierarchy; can be defined in terms of attributes or level of interaction and are usually highly populated.
- **world development** (18A) Raising the living standards of the world's poorest countries and, so, reducing disparities between countries in the world.
- **world systems perspective** (18C) The view that the economic system operates as a whole because the economy is global and events in one country have an effect on other countries.
- **World Trade Organization (WTO)** (17A) Represents most of the world's economies and enforces the rules of free trade. The rules are negotiated and signed by most of the world's trading nations in order to smooth the flow of trade between countries.

Y

yellow fever (4E) A mosquito-transmitted viral disease that causes an acute hemorrhagic fever, affecting about 200,000 people worldwide each year.

Ζ

zero population growth (3E) See replacement level of fertility.

Zipf's law (5E) The idea that places or things that are farther apart will have less interaction between them. See also **distance decay**.