

# Glossary

*Terms in italics identify related glossary items.*

## A

- absolute direction** Direction with respect to global location references, such as cardinal directions or macroscopic features.
- absolute distance** The physical separation between two places measured on a standard unit of length (e.g., miles or kilometers).
- absolute location** The position of a feature or place expressed in spatial coordinates of a grid system designed for locational purposes. In geography, the most common reference system is the *globe grid* or *graticule of parallels of latitude* north or south of the *equator* and of *meridians of longitude* east or west of a *prime meridian*. Absolute globe locations are cited in degrees, which are often subdivided for greater precision into minutes and seconds, or tenths and hundredths of degrees, of latitude and longitude north or south and east or west of the equatorial and prime meridian base lines.
- accessibility** The relative ease with which a destination may be reached from other locations; the relative opportunity for *spatial interaction*. May be measured in spatial, social, or economic terms.
- acculturation** Cultural modification or change that results when one *culture* group or individual adopts traits of a dominant or *host society*; cultural development or change through “borrowing.”
- acid precipitation** *Precipitation* that is unusually acidic; created when oxides of sulfur and nitrogen change chemically as they dissolve in water vapor in the *atmosphere* and return to Earth as acidic rain, snow, or fog.
- activity space** The area within which people move freely on their typical rounds of regular activity (not unusual exceptions).
- administrative region** Geographic *region* created by law, treaty, or regulation; includes political regions such as countries and states, and internal regions such as school and voting districts
- agglomeration** The spatial grouping of people or activities for mutual benefit; in *economic geography*, the concentration of productive enterprises for collective or cooperative use of *infrastructure* and sharing of labor resources and market access.
- agglomeration economy** The savings to an individual enterprise derived from locational association with a cluster of other similar economic activities, such as other factories or retail stores. Example of an external economy.
- agricultural density** The number of rural residents per unit of agriculturally productive land; a variant of *physiological density* that excludes urban population.
- agriculture** The practice of farming, including the cultivation of the soil and the rearing of livestock.
- amalgamation theory** In *ethnic geography*, the concept that multiethnic societies become a merger of the *culture traits* of their member groups.
- animism** A belief that natural objects may be the abode of dead people, spirits, or gods who occasionally give the objects the appearance of life.
- antecedent boundary** A *boundary* line established before the area in question is well populated.
- aquaculture** Farming of cultivated fish and shellfish under controlled conditions, in contrast to the harvesting of wild fish and shellfish.
- aquifer** A porous, water-bearing layer of rock, sand, or gravel below ground level.
- arithmetic density** See *crude density*.
- artifact** A material manifestation of *culture*, including tools, housing, systems of land use, clothing, and the like. An element in the material/*technological subsystem* of culture.
- artificial boundary** See *geometric boundary*.
- aspect** In *map projections*, the positional relationship between the globe and the *developable surface* on which it is visually projected: the polar aspect is tangent at the pole; the equatorial aspect is tangent at the equator; the oblique aspect is tangent anywhere else.
- assimilation** A process by which a minority population reduces or loses completely its identifying cultural characteristics and blends into the *host society*. One component is *spatial assimilation*.
- asylum seeker** A person who seeks political refuge (asylum) in a country other than their own due to fear of harassment, imprisonment or even death caused by the government.
- atmosphere** The air or mixture of gases surrounding the Earth.
- attitude** Belief and feeling about places, people, or events.
- autonomous nationalism** Movement by a dissident minority intent on achieving partial or total independence of territory it occupies from the *state* within which it lies.
- autonomous region** An area of a country that has a degree of autonomy, or has freedom from an external authority.
- awareness space** Locations or places about which an individual has knowledge even without visiting all of them; includes *activity space* and additional areas newly encountered or about which one acquires information.
- azimuthal projection** See *planar projection*.

## B

- barrier** A *geographic feature* that impedes spatial interaction, either by blocking it totally, slowing it down, or redirecting it. Barriers may be physical, socio-cultural, or psychological.
- basic sector** Those products or services of an *urban* economy that are exported outside the city itself, earning income for the community.

- behavior** Coordinated and goal-directed action by people or institutions.
- behavioral approach** A way of doing *human geography* that focuses on a disaggregate (individual) level of analysis, appreciating the role of *cognition* and emotion in determining human actions.
- bid-rent theory** A economic geography theory that refers to how the price and demand for real estate depends on the distance from the Central Business District (CBD).
- bilingualism** Describing a person's or society's use of two *languages*.
- biome** A major ecological community, including plants and animals, occupying an extensive Earth area.
- biosphere** (See *ecosphere*)
- birth rate** See *crude birth rate*.
- blockbusting** A process in which real estate agents convince white property owners to sell their houses at low prices because of the fear that black families will soon move into the neighborhood.
- boomburb** A large and rapidly growing suburb of more than 100,000 residents that is not the central city or largest city of a metropolitan area.
- Boserup thesis** The view that population growth independently forces a conversion from extensive to intensive *subsistence* agriculture.
- brain drain** The loss of a developing country's most educated citizens as they emigrate in search of better educational and career opportunities in developed countries.
- break-of-bulk point** A location where goods are transferred from one type of carrier to another (e.g., from barge to railroad).
- brownfield site** A former industrial or commercial site that is under-used, vacant, or abandoned where there is the potential for environmental contamination.
- Buddhism** A *universalizing religion*, primarily of eastern and central Asia, based on teachings of Siddhartha Gautama, the Buddha, that suffering is inherent in all life but can be relieved by mental and moral self-purification.
- built landscape** The portion of the cultural landscape consisting of structures created by humans.
- C**
- carrying capacity** The maximum population numbers that an area can support on a continuing basis without experiencing unacceptable deterioration; for humans, the numbers supportable by an area's known and used resources—including agricultural and energy resources.
- cartogram** A *thematic map* that shows the values of a quantitative variable for each region by shrinking or expanding the sizes of the regions to correspond with the variable's value.
- cartography** The art and science of maps and mapping.
- caste** One of the hereditary social classes in *Hinduism* that determines one's occupation and position in society.
- central business district (CBD)** The nucleus or "downtown" of a city, where retail stores, offices, and cultural activities are concentrated, mass transit systems converge, and land values and building densities are high.
- central city** That part of the *metropolitan area* contained within the boundaries of the main city around which suburbs have developed.
- central place** An *urban* or other settlement node whose primary function is to provide goods and services to the consuming population of its *hinterland*, *complementary region*, or trade area.
- central place theory** A deductive theory formulated by Walter *Christaller* (1893–1969) to explain the size and distribution of settlements through reference to competitive supply of goods and services to dispersed rural populations.
- centrifugal force** 1: In *urban geography*, economic and social forces pushing households and businesses outward from central and inner-city locations. 2: In *political geography*, forces of disruption and dissolution threatening the unity of a *state*.
- centripetal force** 1: In *urban geography*, economic and social forces attracting establishments or activities to central and inner-city locations. 2: In *political geography*, forces tending to bind together the citizens of a state, thus promoting its unity.
- chain migration** The process by which *migration* movements from a common home area to a specific destination are sustained by links of friendship or kinship between first movers and later followers.
- channelized migration** The tendency for *migration* to flow between areas that are socially and economically allied by past migration patterns, by economic and trade connections, or by some other affinity.
- charter group** In plural societies, the early arriving ethnic group that created the *first effective settlement* and established the recognized cultural norms to which other, later groups are expected to conform.
- choke point** A term from *geopolitics*, indicates a narrow body of water, like a strait or canal, where the application of force by a state could halt the commercial shipping activity of a rival state.
- choropleth map** A *thematic map* that shows the values of a quantitative variable for each region by shading or coloring the regions to correspond with the variable's value.
- Christaller, Walter** Walter Christaller (1893–1969), German geographer credited with developing *central place theory* (1933).
- Christianity** A *monotheistic, universalizing religion* based on the teachings of Jesus Christ and of the Bible as sacred scripture.
- circular and cumulative causation** A process through which tendencies for economic growth are self-reinforcing; an expression of the *multiplier effect*, it tends to favor major cities and *core* regions over less-advantaged *peripheral* regions.
- city** A multifunctional nucleated settlement with a *central business district* and both residential and nonresidential land uses.
- cluster migration** A pattern of movement and settlement resulting from the collective action of a distinctive social or *ethnic group*.
- cognition** Knowledge and beliefs about something, and the thinking and memory processes that create and modify them; it varies somewhat across individual people and cultural groups; *perception* is sometimes used broadly as a synonym for cognition.
- cognitive map** See *mental map*.
- cohort** A population group unified by a specific common characteristic, such as age, and subsequently treated as a statistical unit for data analysis.
- colony** In *ethnic geography*, an urban ethnic area serving as point of entry and temporary *acculturation* zone for a specific immigrant group.
- colonialism** The practice of a country acquiring political control over another country or territory, occupying it with settlers, and exploiting it economically.
- commercial economy (syn: market economy)** A system of production of goods and services for exchange in competitive markets where price and availability are determined by supply and demand forces.
- commodity chain** The set of activities involved in the production of a single good or service. A commodity chain encompasses the relationships between buyers and suppliers and the flows of materials, finance, and knowledge.
- compact state** A *state* whose territory is nearly circular.



- comparative advantage** The principle that an area produces the items for which it has the greatest ratio of advantage or the least ratio of disadvantage in comparison to other areas, assuming free trade exists.
- complementarity** The actual or potential relationship of two places or regions that each produce different goods or services for which the other has an effective demand, resulting in an exchange between the locales.
- concentration** In *spatial distributions*, the clustering of a phenomenon around a central location.
- concentric zone model** A model describing urban land uses as a series of circular belts or rings around a core *central business district*, each ring housing a distinct type of land use. It also describes a common urban residence pattern corresponding to different family life stages (family status).
- conformal projection** A *map projection* that retains correct shapes of small areas; lines of *latitude* and *longitude* cross at right angles and *scale* (1) is the same in all directions at any point on the map.
- Confucianism** A Chinese *value system* and *ethnic religion* emphasizing ethics, social morality, tradition, and ancestor worship.
- conic projection** A *map projection* employing a cone placed over the globe as the presumed *developable surface*.
- connectivity** The directness of routes linking pairs of places; an indication of the degree of internal connection in a transport *network*. More generally, all of the tangible and intangible means of connection and communication between places.
- consequent boundary** (*syn:* ethnographic boundary) A *boundary line* that coincides with some cultural divide, such as religion or language.
- consumer service** A portion of the service (tertiary) sector of the economy involved in providing services to individuals and households. Examples include hair salons and retailers.
- contagious diffusion** A pattern of *diffusion* in which cultural innovations spread to closer places before they spread to further places (it reflects distance decay). Contagious expansion diffusion typically results from direct contact between actual and potential adopters of the *innovation*, in a manner analogous to the spread of contagious diseases.
- conurbation** A continuous, extended *urban area* formed by the growing together of several formerly separate, expanding cities. Called Consolidated Metropolitan Area by the U.S. Census.
- core area** 1: In *economic geography*, a “core region,” the national or world districts of concentrated economic power, wealth, innovation, and advanced technology. 2: In *political geography*, the heartland or nucleus of a *state*, containing its most developed area, greatest wealth, densest populations, and clearest national identity.
- core-periphery model** A model of the spatial structure of an economic or political system in which underdeveloped or declining peripheral areas are defined with respect to their dependence on a dominating developed *core region*.
- counter migration** (*syn:* return migration) The return of migrants to the regions from which they earlier emigrated.
- creole** A *language* developed from a *pidgin* to become the native tongue of a society.
- critical distance** The distance beyond which cost, effort, and/or means play a determining role in the willingness of people to travel.
- crude birth rate (CBR)** The ratio of the number of live births during one year to the total population, usually at the midpoint of the same year, expressed as the number of births per year per 1,000 population.
- crude death rate (CDR)** (*syn:* mortality rate) The ratio of the number of deaths during one year to the total population, usually at the midpoint of the same year, expressed as the number of deaths per year per 1,000 population.
- crude density** (*syn:* arithmetic density) The number of people per unit area of land.
- cultural autonomy** The view that cultures can develop any particular set of cultural traits independent of their environmental circumstances, a view opposite of *environmental determinism*.
- cultural convergence** The tendency for *cultures* to become more alike as they increasingly share *technology* and organizational structures in a modern world united by improved developments to transportation and communication.
- cultural divergence** The likelihood or tendency for *cultures* to become increasingly dissimilar with the passage of time.
- cultural ecology** The study of the interactions between societies and the natural *environments* they occupy.
- cultural integration** The interconnectedness of all aspects of a *culture*: no part can be altered without creating an impact on other components of the culture.
- cultural landscape** The *natural landscape* as modified by human activities and bearing the imprint of a *culture* group or society; the *built environment*.
- cultural system** A generalization suggesting shared, identifying traits uniting two or more *culture complexes*.
- culture** 1: A society’s collective beliefs, symbols, values, forms of behavior, and social organizations, together with its tools, structures, and artifacts created according to the group’s conditions of life; transmitted as a heritage to succeeding generations and undergoing adoptions, modifications, and changes in the process. 2: A collective term for a group displaying uniform cultural characteristics.
- culture complex** A related set of *culture traits* descriptive of one aspect of a society’s behavior or activity. Culture complexes may be as basic as those associated with food preparation, serving, and consumption, or as involved as those associated with religious beliefs or business practices.
- culture hearth** A nuclear area within which an advanced and distinctive set of *culture traits*, ideas, and *technologies* develops and from which there is *diffusion* of those characteristics and the *cultural landscape* features they imply.
- culture realm** A collective of *culture regions* sharing related culture systems; a major world area having sufficient distinctiveness to be perceived as set apart from other realms in terms of cultural characteristics and complexes.
- culture rebound** The readoption by later generations of *culture traits* and identities associated with immigrant forebears or ancestral homelands.
- culture region** A *thematic* or *functional region* within which common cultural characteristics prevail. It may be based on single *culture traits*, on *culture complexes*, or on political, social, or economic integration.
- culture trait** A single distinguishing feature of regular occurrence within a *culture*, such as the use of chopsticks or the observance of a particular caste system. A single element of learned behavior.
- custom** The body of traditional practices, usages, and conventions that regulate social life; an expression of *culture*.
- cylindrical projection** A *map projection* employing a cylinder wrapped around the globe as the presumed *developable surface*.

## D

**dead zone** Coastal zone, often near the mouth of major rivers, where waters are very low in oxygen and subject to major die-offs of marine life. Coastal dead zones are generally caused by *environmental pollution* from fertilizers and manure in agricultural runoff, as well as urban sewage.



- death rate** See *crude death rate*.
- deforestation** The clearing of land through total removal of forest cover.
- deglomeration** The process of deconcentration; the location of industrial or other activities away from established *agglomerations* in response to growing costs of congestion, competition, and regulation.
- deindustrialization** The cumulative and sustained decline of manufacturing activities in a regional or national economy, involving the loss of both firms and jobs.
- demographic equation** A mathematical expression that summarizes the contribution of different demographic processes to the population change of a given area during a specified time period.  $P_2 = P_1 + B_{1-2} - D_{1-2} + IM_{1-2} - OM_{1-2}$ , where  $P_2$  is population at time 2;  $P_1$  is population at beginning date;  $B_{1-2}$  is the number of births between times 1 and 2;  $D_{1-2}$  is the number of deaths during that period;  $IM_{1-2}$  is the number of in-migrants and  $OM_{1-2}$  the number of out-migrants between times 1 and 2.
- demographic momentum** See *population momentum*.
- demographic transition** A model of the effect of economic development on population growth, originally expressed in terms of four stages but now including a final fifth stage.
- demography** The scientific study of population, with particular emphasis upon quantitative aspects of births and deaths.
- density** The quantity of some feature (people, buildings, animals, traffic, etc.) per unit area or size.
- dependency ratio** The number of dependents, old or young, that each 100 persons in the economically productive years must on average support.
- dependency theory** A theory that attempts to explain patterns and processes of economic development by extending the *core-periphery model* to the international scene, arguing that the development of the advanced core nations has depended upon the underdevelopment of the peripheral nations. Dependency theory argues that developing countries were made poor by their interactions with the advanced countries, starting with colonialism and the slave trade and continuing in new forms to the present.
- desertification** Extension of desert-like landscapes as a result of overgrazing, destruction of the forests, or other human-induced changes, usually in semiarid regions.
- develop** Representing the Earth's curved surface as a flat map, as when creating a *map projection*.
- developable surface** *Map projection* surface (including the plane, cone, or cylinder) that can be made flat without further distorting the Earth surface it depicts, beyond the distortion arising from projecting onto that surface as it is wrapped around the earth and then unwrapping it to split the surface.
- development** The process of growth, expansion, or realization of potential; bringing regional resources into full productive use.
- devolution** The transfer of certain powers from the *state* central government to separate political subdivisions within the state's territory.
- dialect** A *language* variant marked by vocabulary, grammar, or pronunciation differences from other variants of the same common language. When those variations are spatial or regional, they are called *geographic dialects*; when they are indicative of socioeconomic or educational levels, they are called *social dialects*.
- diffusion** The spread or movement of a phenomenon over space and through time. The dispersion of a *culture trait*, such as a new idea or practice, from an origin area (e.g., *language*, plant *domestication*, new industrial *technology*).
- disamenity zone** The very poorest part of a city, that in extreme cases, is not connected to regular city services.
- dispersion** In *spatial distributions*, a statement of the amount of spread of a phenomenon over area or around a central location. Dispersion in this sense represents a continuum from clustered, concentrated, or agglomerated (at one end) to dispersed or scattered (at the other).
- distance decay** The declining intensity of any *spatial interaction* with increasing distance from its point of origin.
- domestication** The successful transformation of plant or animal species from a wild state to a condition of dependency on human management, usually with distinct physical change from wild forebears.
- dot map** A *thematic map* that shows the occurrence of one or more instance of a feature with a dot at a particular location.
- doubling time** The time period required for a population to double in size.
- economic geography** The branch of *systematic geography* concerned with how people support themselves, with the spatial patterns of production, distribution, and consumption of goods and services, and with the areal variation of economic activities over the surface of the Earth.
- ecosphere** The region of air, water, solid Earth, and living organisms where life is found. The ecosphere includes the *atmosphere*, the *hydrosphere* of surface and subsurface waters, the *lithosphere* of the upper reaches of the Earth's crust, the *biosphere* of living organisms.
- ecosystem** A population of organisms existing together in a small, relatively homogeneous area (pond, forest, small island), together with the energy, air, water, soil, and chemicals upon which it depends.
- ecotourism** A tourism strategy aimed at conserving the natural environment by making it a tourist draw and not just a natural resource awaiting exploitation.
- ecumene** That part of the Earth's surface physically suitable for permanent human settlement; the permanently inhabited areas of the Earth.
- edge city** Distinct sizable nodal concentration of retail and office space of lower than central city densities and situated on the outer fringes of older metropolitan areas; usually localized near major highway intersections.
- Ehrlich, Paul R.** Paul Ehrlich (1932–), population biologist and author of the influential *neo-Malthusian* book, *The Population Bomb* (1968).
- electoral geography** The study of the geographical elements of the organization and results of elections, including the design of electoral districts.
- elongated state** A *state* whose territory is long and narrow.
- enclave** A small bit of foreign territory lying within a *state* but not under its jurisdiction.
- environment** Surroundings; the totality of things that in any way may affect a person or other living organism, including both biophysical and sociocultural conditions.
- environmental determinism** The view that the physical *environment*, particularly *climate*, controls human action, molds human behavior, and conditions cultural development.
- environmental justice** The notion that all people, regardless of race, ethnicity, or income, should live in a safe environment and be equally protected from environmental hazards and pollution.
- environmental pollution** See *pollution*.



**equal-area (equivalent) projection** A *map projection* with the property that a unit area drawn anywhere on the map always represents the same area on the Earth's surface.

**equator** An imaginary east-west line (*parallel of latitude*) that encircles the globe halfway between the North and South Poles.

**equidistant** The property of *map projections* showing true distances in all directions only from the center of the projection; all other distances are incorrect.

**quirectangular projection** A cylindrical projection that converts the globe's meridians to equally spaced vertical lines and its parallels to equally spaced horizontal lines.

**erosion** See *soil erosion*.

**ethnic cleansing** The attempt by a dominant ethnic or national group to violently eliminate a less powerful ethnic or national group from a particular geographic area, to achieve racial or cultural homogeneity and an expanded settlement area for the perpetrating group.

**ethnic enclave** A small area occupied by a distinctive minority *culture*.

**ethnic geography** The study of spatial distributions and interactions of *ethnic groups* and of the cultural characteristics on which they are based.

**ethnic group** People who share common identity as members of a distinctive group, based on common national origin or heritage, *religion*, *language*, ideology, or *race*.

**ethnic island** A small rural area settled by a single, distinctive *ethnic group* that placed its imprint on the landscape.

**ethnic province** A large territory, urban and rural, dominated by or closely associated with a single *ethnic group*.

**ethnic religion** A *religion* identified with a particular *ethnic group* and largely exclusive to it. Such a religion does not seek converts (does not proselytize).

**ethnicity** Ethnic quality; affiliation with a group whose racial, cultural, religious, or linguistic characteristics or national origins distinguish it from a larger population within which it is found.

**ethnoburb** A politically independent suburban community with a significant, though not exclusive, concentration of a single ethnic group.

**ethnocentrism** Evaluating other ethnic groups based exclusively on the perspective of one's own *ethnic group*.

**European Union (EU)** An economic association established in 1957 by a number of Western European countries to

promote free trade among members; often called the Common Market. It currently has almost 30 member countries.

**exclave** A portion of a *state* that is separated from the main territory and surrounded by another country, inside of which it is an enclave.

**exclusive economic zone (EEZ)** As established in the *United Nations Convention on the Law of the Sea*, a zone of exploitation extending 200 nautical miles (370 km) seaward from a coastal state that has exclusive mineral and fishing rights over it.

**expansion diffusion** The spread of ideas, behaviors, or other culture traits from one place to another through direct or indirect contact and exchange of information; the diffusion increases the number of people or cultural groups practicing the trait while leaving the trait intact or intensified in its area of origin.

**extensive commercial agriculture** A crop or livestock system in a commercial economy characterized by low inputs of labor and capital, and low value, per unit area of land. Range herding and consumption grain are important examples.

**extensive subsistence agriculture** A crop or livestock system in a subsistence economy characterized by low inputs of labor and capital, and low value, per unit area of land. Nomadic herding and swidden agriculture are important examples.

**external economy** benefits that firms enjoy due to factors outside the firm, including the benefits of *agglomeration economies*.

**extractive industry** *Primary activity* involving the mining and quarrying of *non-renewable* metallic and nonmetallic mineral resources.

**exurb** A district outside a city, especially a prosperous area beyond the suburbs.

## F

**fallowing** The practice of allowing plowed or cultivated land to remain (rest) uncropped or only partially cropped for one or more growing seasons.

**federal state** A *state* made up of more or less equal provinces each with relatively large *regional autonomy* and government responsibility; the "states" of the United States are, in actuality, such provinces.

**field** *Geographic feature* thought of as a continuously varying surface that completely covers the space of the landscape it occupies without overlapping other fields of the same type. Examples include average precipitation or landform elevation.

**first effective settlement** The influence that the characteristics of an early dominant settlement group exert on the later *social* and *cultural geography* of an area.

**First Law of Geography** (*syn:* distance decay) "Everything is related to everything else, but near things are more related than distant things"; attributed to the American geographer Waldo Tobler (1930– ).

**folk culture** The body of institutions, customs, dress, *artifacts*, collective wisdoms, and traditions of a homogeneous, isolated, largely self-sufficient, and relatively static social group. Unlike *popular culture*, folk culture varies greatly over space but not much over time.

**food security** Refers to the situation wherein every person has access to safe and nutritious food of sufficient quantity for an active and healthy lifestyle.

**footloose firm** A descriptive term applied to manufacturing activities for which the cost of transporting material or product is not important in determining location of production; an industry or firm showing neither *market* nor *material orientation*.

**forced migration** When people are compelled by someone or some event to relocate their residence.

**Fordism** The manufacturing economy and system derived from assembly-line mass production and the mass consumption of standardized goods. Named after Henry Ford, who innovated many of its production techniques.

**foreign direct investment (FDI)** the purchase or construction of factories and other fixed assets by *transnational corporations*.

**formal economy** The aggregate production of goods and services which are regulated and known to government, as opposed to the informal economy.

**fragmented state** A *state* whose territory contains isolated parts, separated and discontinuous.

**free trade agreement** An international economic agreement whereby products made in one member country can be sold in another member country without being charged a tariff.

**freight rate** The charge levied by a transporter for the loading, moving, and unloading of goods; includes *line-haul costs* and *terminal costs*.

**friction of distance** A measure of the retarding or restricting effect of distance on *spatial interaction*. Generally, the greater the distance, the greater the "friction" and the less the interaction, or the greater the cost of achieving the interaction.



**functional dispute** (*syn.*: boundary dispute)  
In *political geography*, a disagreement between neighboring *states* over policies to be applied to their common border; often induced by differing customs regulations, movement of nomadic groups, or illegal immigration or emigration.

**functional region** (*syn.*: nodal region)  
Geographic *region* emerging from patterns of interaction over space and time that connect places.

## G

**galactic city model** See *peripheral model*.

**gated community** A restricted access subdivision or neighborhood, often surrounded by a barrier, with entry permitted only for residents and their guests; usually totally planned in land use and design, with “residents only” limitations on public streets and parks.

**gathering industry** *Primary activity* involving the *subsistence* or *commercial* harvesting of *renewable* natural resources of land or water. Primitive gathering involves local collection of food and other materials of nature, both plant and animal; commercial gathering usually implies forestry and fishing industries.

**gender** In the cultural sense, a reference to socially created—not biologically based—distinctions between femininity and masculinity.

**gender inequality index (GII)** A measure of gender equality and progress developed by the United Nations Development Programme (UNDP) that emphasizes female reproductive health, educational attainment, and participation in political, management, professional, and technical positions.

**genetically modified (GM) crops** Food or fiber crops whose genetic material has been altered through biotechnology in ways that do not occur naturally. Genetic modification takes place through transferring individual genes between organisms or between species.

**gentrification** The movement into the inner portions of American cities of middle- and upper-income people who replace low-income populations, rehabilitate the structures they occupied, and change the social character of neighborhoods.

**geodemographic analysis** A form of marketing analysis that uses GIS to infer demographic and lifestyle characteristics of potential consumers according to their residential location.

**geographic dialect** (*syn.*: regional dialect)  
See *dialect*.

**geographic feature** Natural or cultural entity on the landscapes of the Earth’s surface, e.g., mountain, river, forest, cornfield, city, country.

**geographic information system (GIS)**  
Integrated computer software and hardware for storing, processing, analyzing, and displaying data specifically referenced to locations on the surface of the Earth.

**geometric boundary** (*syn.*: artificial boundary) A *boundary* line based on a coordinate system such as the latitude-longitude *graticule*, rather than physiographic features such as mountains or rivers.

**geometrical projection** (*syn.*: perspective projection; visual projection) A *map projection* theoretically created by tracing the *graticule* shadow projected on a *developable surface* from a light source placed relative to a transparent globe.

**geopolitics** Study of how spatial relations among *regions* influence their current and past political activities and relations.

**gerrymandering** To redraw electoral voting district boundaries in such a way as to give particular candidates or classes of candidates an electoral advantage beyond the share of the electorate that supports them. Different varieties of gerrymandering may be seen as motivated by nondemocratic objectives or attempts to implement social justice.

**ghetto** A forced or voluntarily segregated residential area housing a racial, ethnic, or religious minority.

**GIS** See *geographic information system*.

**global climate change** Change in the Earth’s climate system, whether natural or caused by humans.

**globalization** A reference to the increasing interconnection of all parts of the world as the full range of social, cultural, political, and economic processes becomes international in scale and effect. One result of *space-time compression*.

**globe** A spherical physical model of the Earth.

**glocalization** The adaptation of globalized products to local tastes and contexts.

**GDI** See *gross domestic income*.

**GNI** See *gross national income*.

**gnomonic projection** A *geometrical projection* produced with the light source at the center of the Earth.

**graduated circle map** A *proportional area symbol* map using circles.

**graphic scale** A visual expression of cartographic *scale* in a map legend, consisting of a graduated line showing how

much distance on the map represents a particular distance on the Earth surface.

**graticule** (*syn.*: globe grid) The network of *meridians of longitude* and *parallels of latitude* that make up a coordinate reference system on the globe.

**gravity model** A mathematical prediction of the interaction between two places as a function of their size (or other measure of attractiveness to interaction) and some measure of the distance separating them.

**great circle** Line formed by the intersection with the Earth’s surface of a plane passing through the center of the Earth; definition of a straight line on the surface of a sphere, an arc of a great circle is the shortest earth-surface distance between two points on the surface.

**Green Revolution** A series of agricultural technology transfers during the 1940s–70s from the United States to subtropical areas of undeveloped and developing countries, accomplished through the introduction of very high-yielding hybrid grain crops, particularly wheat, maize, and rice; increased irrigation infrastructure; synthetic fertilizers and pesticides; and new forms of agricultural management. It has been estimated to have saved the lives of over a billion people from starvation but has been heavily criticized as well.

**greenbelt** A land use planning technique to conserve open (green) space, whereby cities establish a perimeter beyond which new development is not permitted.

**greenhouse effect** Heating of the Earth’s surface as shortwave solar energy passes through the *atmosphere*, which is transparent to it but opaque to reradiated long-wave terrestrial energy; also, increasing the opacity of the atmosphere through addition of increased amounts of carbon dioxide and other gases that trap heat.

**gross domestic income (GDI)** The total value of goods and services produced per year within a country by domestically- or foreign-owned interests; formerly called “gross domestic product.”

**gross national income (GNI)** The total value of goods and services produced per year at home or abroad by domestically-owned interests within a country; formerly called “gross national product.”

**guest worker** A migrant permitted to work in a country other than their homeland due to a temporary labor shortage. The best-known example of the use of guest workers is West Germany inviting people from Turkey in the aftermath of World War II.



# H

**hazardous waste** Discarded solid, liquid, or gaseous material that poses a substantial threat to human health or to the *environment* when improperly disposed of or stored.

**heritage landscape** Landscape strongly associated with the history of a particular cultural group.

**hierarchical diffusion** A pattern of *diffusion* in which cultural *innovations* spread by “jumping” between places of more importance (such as larger cities) before they spread to places of less importance; reverse hierarchical diffusion from less important to more important places occurs less often.

**hierarchy of central places** The step-like series of *urban* units in classes differentiated by both size and function.

**Hinduism** An ancient and now dominant *value system* and *religion* of India, closely identified with Indian *culture* but without central creed, single doctrine, or religious organization. Dharma (customary duty and divine law) and *caste* are uniting elements.

**hinterland** The rural market area or region served by an *urban* center.

**host society** The established and dominant society within which immigrant groups seek accommodation.

**human development index (HDI)** The most common tool for measuring human development is the Human Development Index (HDI). It is used by the United Nations (UN) to rank a country’s level of human development. The three dimensions of development used to calculate a country’s HDI is health, education, and living standards. The measure of health is determined by life expectancy at birth, or the average number of years a newborn infant can expect to live. Access to education is measured by examining mean, or average years of schooling and expected years of schooling. Living standards are measured by gross national income per capita, or the total value of goods and services produced by a country’s economy each year measured per person.

**human geography** One of the two major divisions (the other is *physical geography*) of *systematic geography*; the spatial analysis of human populations, their *cultures*, their activities and behaviors, and their interrelationships with the physical landscapes they occupy.

**hunter-gatherer/hunting-gathering** An economic and social system based primarily or exclusively on the hunting

of wild animals and the gathering of food, fiber, and other materials from uncultivated plants, insects, eggs, and so on.

**hydrologic cycle** The natural system by which water is continuously circulated through Earth systems by evaporation, condensation, and *precipitation*.

**hydrosphere** All water at or near the Earth’s surface that is not chemically bound in rocks, including the oceans, surface waters, *groundwater*, and water held in the *atmosphere*. It also includes frozen water, although this is sometimes distinguished as the *cryosphere*.

# I

**ideological subsystem** The complex of ideas, beliefs, knowledge, and means of their communication that characterize a *culture*, along with the *technological* and *sociological subsystems*.

**imperialism** The forceful expansion by a state with the objective of taking permanent and pervasive control over large areas of land, with the goal of spreading the state’s culture, economic system, and form of governance to the conquered lands.

**independent invention** (*syn:* parallel invention) *Innovations* developed in two or more unconnected locations by individuals or groups acting independently. See also *multilinear evolution*.

**Industrial Revolution** The term applied to the rapid economic and social changes in manufacturing that followed the introduction of mechanized production to the textile industry of England in the last quarter of the 18th century, and subsequently to other economic activities and places around the globe since then.

**infant mortality rate** A refinement of the *death rate* to specify the ratio of deaths of infants age 1 year or less per 1,000 live births.

**informal economy** That part of a national economy that involves productive labor not subject to formal systems of control or payment, such as taxation; economic activity or individual enterprise operating without official recognition or measured by official statistics. It ranges from “under the table” employment to buying and selling on the “black market.”

**infrastructure** The basic structure of services, installations, and facilities needed to support industrial, agricultural, and other economic activity, including transportation and communication, along with water, power, and other utilities.

**innovation** Introduction of new *culture traits*, whether ideas, practices, or material objects.

**insolation** The solar radiation received at the Earth’s surface (from *intercepted solar radiation*).

**intensive commercial agriculture** A crop or livestock system in a commercial economy characterized by high inputs of labor and/or capital, and high value, per unit area of land. *Truck farming* is an important example.

**intensive subsistence agriculture** A crop or livestock system in a subsistence economy characterized by high inputs of labor and/or capital, and high value, per unit area of land. Consumption rice is an important example.

**internally displaced person (IDP)** An IDP is a person who has had to leave their home community due to the danger caused by environmental catastrophe, civil unrest, or war but has not sought refuge in another country.

**intervening opportunity** The concept that closer opportunities will materially reduce the attractiveness of interaction with more distant—even slightly better—alternatives; a closer alternative source of supply between a demand point and the original source of supply.

**IPAT equation** An equation relating the environmental impact of a society to the key factors of population, affluence, and technology.

**irredentism** The policy of a *state* wishing to incorporate within itself territory inhabited by people who have ethnic or linguistic links with the people of the state but that lies within a neighboring state.

**Islam** A *monotheistic, universalizing* religion that includes belief in Allah as the sole deity and in Mohammed as his prophet completing the work of earlier prophets of *Judaism* and *Christianity*.

**isogloss** A mapped boundary line marking the limits of a particular linguistic feature.

**isoline** A map line connecting points of equal value on some variable, such as elevation, precipitation, or travel time.

**isotropic plain** See *uniform plain*.

# J

**J-curve** A curve shaped like the letter J, depicting exponential or geometric population growth (e.g., 1, 2, 4, 8, 16 ...).

**Judaism** A *monotheistic, ethnic religion* first developed among the Hebrew people of the ancient Near East; its determining conditions include descent from Israel (Jacob), the Torah (law and scripture), and tradition.



# L

**landlocked** Describing a *state* that lacks a sea coast.

**language** The system of words, their pronunciation, and methods of combination used and mutually understood by a community of individuals.

**language family** A group of *languages* thought to have descended from a single, common ancestral tongue.

**Latin American city model** A description of land uses in Latin American cities. The model combines wedge-shaped sectors and concentric rings emanating from a central business district. The wealthy live along a well-served commercial spine and the poorest residents live in peripheral squatter settlements.

**latitude** Angular distance of a location north or south of the *equator*; measured in degrees, minutes, and seconds. Grid lines marking latitude are called *parallels*. The equator is 0°; the North Pole is 90°N; the South Pole is 90°S.

**laws of migration** A set of laws proposed by British demographer E.G. Ravenstein. Many of these laws are still relevant today. These laws are: Most migrants only travel a short distance; Migrants who travel longer distances usually move to big cities; Most migration proceeds step by step; Most migration is rural to urban movement; Every migration flow results in a return migration, or counter-flow; Most migrants are adults, and families are less likely to migrate internationally; and Most international migrants are adult males.

**law of retail gravitation** Any *gravity model* of shopping behavior, such as *Reilly's Breaking-Point Law* or the *potential model* when applied to multiple stores or shopping centers.

**least-cost theory** (*syn:* Weberian analysis) The view that the optimum location of a manufacturing establishment is at the place where the costs of transporting raw materials and finished products, as well as labor, and the advantages of *agglomeration* or *deglomeration* are most favorable.

**line-haul cost** (*syn:* over-the-road cost) A cost involved in the actual physical movement of goods (or passengers); cost of haulage (including equipment and route costs), excluding *terminal costs*.

**lingua franca** Any of various auxiliary *languages* used as common tongues among people of an area where several languages are spoken; literally, "Frankish language."

**linguistic geography** (*syn:* dialect geography; dialectology) The study of the

spatial distribution of languages, including the study of language groups and families, dialects, creoles and pidgins, and so on.

**link** A transportation or communication connection or route within a *network*.

**lithosphere** The Earth's solid crust and mantle.

**locational interdependence** The circumstance under which the locational decision of a particular firm is influenced by the locations chosen by competitors. For example, retail businesses often choose their location in order to attract customers away from competing retail businesses.

**longitude** Angular distance of a location east or west of a designated *prime meridian*, measured in degrees, minutes, and seconds. Grid lines marking longitude are called *meridians*. Distances are measured from 0° at the *prime meridian* to 180° both east and west, with 180°E and W being the same line. For much of its extent, the 180° meridian also serves as the *International Date Line*.

**long-lot system** A survey system that divides land into long, narrow strips extending back from a river or road, found in areas settled by French colonists.

# M

**Malthus, Thomas Robert** Thomas R.

Malthus (1766–1843). English economist, demographer, and cleric who suggested that unless self-control, war, or natural disaster checks population, it will inevitably increase faster than will the food supplies needed to sustain it. This view is known as Malthusianism. See also *neo-Malthusianism*.

**Malthusian theory** The arguments of Thomas Malthus (1760–1834), an English economist, that stated that population grew geometrically whereas food supplies grew only arithmetically, leaving humanity to suffer from famine, disease and war. More generally, the Malthusian approach argues that there is an upper limit to population size due to a limited carrying capacity of the Earth or local places.

**map projection** A systematic method of transferring the *globe grid* system from the Earth's curved surface to the flat surface of a map. Projection automatically incurs error, but an attempt is usually made to preserve one or more (though never all) of the characteristics of the spherical surface: equal area, correct distance, true direction, proper shape.

**map scale** (*syn:* cartographic scale) See *scale*.

**maquiladora** (also *maquila*) Foreign-owned manufacturing plant located in Mexico for the low cost assembly of clothing, electronics, automobiles, and other export products.

**market economy** An economic system in which most goods and services are privately produced and distributed for monetary exchange; an economy characterized by free market exchange (freely varying prices and production systems) with no or only minimum state intervention.

**market equilibrium** The theoretically stable point of intersection of demand and supply curves of a given commodity; at equilibrium the market is cleared of the commodity.

**market orientation** The tendency of an economic activity to locate close to its market; a reflection of large and variable costs of transporting finished products.

**Marx, Karl** Karl Marx (1818–1883), German philosopher, economist, and social theorist who decried the inequalities produced by capitalism and advocated revolutionary change in order to bring about a communist system.

**material culture** The tangible, physical items produced and used by members of a specific *culture* group and reflective of their traditions, lifestyles, and technologies.

**material orientation** The tendency of an economic activity to locate near or at its source of raw material; this is experienced when the costs of transporting materials are highly variable spatially and/or represent a significant share of total costs.

**mathematical projection** The systematic rendering of the *globe grid* on a *developable surface* to achieve *graticule* characteristics not obtainable by visual means of *geometrical projection*.

**maximum sustainable yield** The maximum rate at which a *renewable resource* can be exploited without impairing its ability to be renewed or replenished.

**Mediterranean agriculture** An agricultural system based upon the mild, moist winters; hot, sunny summers; and rough terrain such as that found in the Mediterranean basin. It involves cereals as winter crops, summer tree and vine crops (olives, figs, dates, citrus and other tree fruits, and grapes), and grazing animals (sheep and goats).

**megacity** An urban area with more than 10 million inhabitants.

**mental map** (*syn:* cognitive map) By analogy to a cartographic map, the set of mental representations people hold in their mind that expresses their beliefs and knowledge about the layout of the environment at



- different scales, whether neighborhoods, cities, regions, countries, or the entire world. The representations are subjective and influenced by personal feelings, and may be quite incomplete and distorted as compared to the actual layouts.
- mentifact** A central element of a *culture* expressing its values and beliefs, including *language, religion, folklore*, artistic traditions, and the like. An element in the *ideological subsystem* of culture.
- Mercator projection** A true *conformal cylindrical projection* first published in 1569; because straight lines drawn on this projection are lines of constant compass direction (*rhumb lines*), it is especially useful for navigation.
- meridian** A north-south line of *longitude* indicating distance east or west of the *prime meridian* running through Greenwich, England.
- metacity** An urban area with more than 20 million inhabitants.
- metropolitan area** In the United States, a large functionally integrated settlement area comprising one or more whole county units and usually containing several *urbanized areas*; discontinuously built up, it operates as a coherent economic whole.
- migration** The permanent (or relatively permanent) relocation of an individual or group to a new place of residence.
- migration field** The area from which a given city or region draws the majority of its in-migrants.
- mobility** General term for all types of human movement through space and time, including *temporary travel* and *migration*.
- model** An idealized representation, abstraction, or simulation of reality. It is designed to simplify real-world complexity and eliminate extraneous phenomena in order to isolate for detailed study causal factors and interrelationships of *spatial systems*.
- modernization theory** An influential theory that attempts to explain patterns and processes of economic development. It sees societies arranged on a continuum between traditional and modern with modernization occurring as a society adopts advanced technologies and market mechanisms and experiences industrialization, urbanization, and rising prosperity.
- monolingual** A society or country that uses only one *language* for all purposes of communication.
- monotheism** The belief that there is but a single God.
- mortality rate** (*syn: death rate*) See *crude death rate*.
- movement bias** Any aggregate control on or regularity of movement of people, commodities, or communication. Included are *distance bias, direction bias, and network bias*.
- multilinear evolution** A concept of independent but parallel cultural development advanced by the anthropologist Julian Steward (1902–1972) to explain cultural similarities among widely separated peoples existing in similar environments but who could not have benefited from shared experiences, borrowed ideas, or diffused technologies. See *independent invention*.
- multilingualism** The common use of two or more *languages* by an individual or in a society or country.
- multinational state** A state that contains two or more ethnic groups that agree to coexist peacefully by recognizing each other as distinct nationalities.
- multi-state nation** (*syn: part-nation-state*) A nation that stretches across borders and across states.
- multiple-nuclei model** The postulate that large cities develop by peripheral spread not from one *central business district* but from several nodes of growth, each of specialized use. The separately expanding use districts eventually coalesce at their margins. It also describes a common urban residence pattern corresponding to different ethnic groups (ethnic status).
- multiplier effect** The direct, indirect, and induced consequences of change in an activity. 1: In industrial *agglomerations*, the cumulative processes by which a given change (such as a new plant opening) sets in motion a sequence of further industrial employment and *infrastructure* growth. 2: In *urban geography*, the expected addition of *nonbasic* workers and dependents to a city's total employment and population that accompanies new *basic sector* employment.
- N**
- natalist policies** Anti-natalist policies refer to government actions to discourage families from having children. Many countries that are not yet economically developed seek to reduce their birth rate so that societal increases in wealth are not spread across so many people. They may offer information about family planning, and subsidize contraception or publicize the idea that fewer children are better for the family and the country. Pro-natalist policies refer to government actions to encourage families to have children. Many economically developed countries recognize that their total fertility rate, at or below replacement level fertility, needs to increase to avoid societal strain such as a shortage of workers or increasing taxes on fewer working age citizens. Governments might subsidize day care, provide a monthly stipend to parents, or simply publicize the need for families to have more children.
- nation** A culturally distinctive group who self-identity as a separate group, may or may not occupy a territorial homeland, and are bound together by a sense of unity arising from shared *ethnicity*, beliefs, and *customs*.
- nationalism** A sense of unity binding the people of a *state* together; devotion to the interests of a particular country, an identification with the state and an acceptance of its goals.
- nation-state** A *state* whose territory is identical to that occupied by a single particular *ethnic group* or *nation*.
- natural boundary** (*syn: physical boundary*) A *boundary* line based on recognizable physiographic features, such as mountains or rivers.
- natural hazard** A process or event in the natural environment that has consequences harmful to humans.
- natural landscape** The physical *environment* unaffected by human activities. The duration and near totality of human occupation of the Earth's surface assures that little or no "natural landscape" strictly defined remains intact. Opposed to *cultural landscape*.
- natural resource** A feature or material in the environment that a population perceives to be necessary and useful to its maintenance and well-being.
- natural selection** the mechanism of biological evolution; changes to the gene pool of a population of living organisms over time according to variation and survival of the fittest in particular environmental conditions.
- neocolonialism** A disparaging reference to economic and political policies by which major developed countries are seen to retain or extend influence over the economies of less developed countries and peoples. A continuing expression of dependency theory.
- neoliberal globalization** Approach introduced during the 1980s that revived faith in the market mechanism and the private sector as a means of promoting regional development.
- neolocalism** A social movement advocating a return to local products, locally owned businesses, and locally controlled institutions in reaction against mass popular culture and globalization.



**neo-Malthusianism** The advocacy of population control programs to preserve and improve general national prosperity and well-being, and avoid the catastrophic consequences of overpopulation.

**net migration** The difference between in-migration and out-migration of an area.

**network** The areal pattern of sets of places (*nodes*) and the routes (*links*) connecting them, along which movement or communication can take place.

**network bias** The view that the pattern of *links* in a *network* will affect the likelihood of flows between specific *nodes*.

**network city** One of two or more nearby cities, potentially or actually complementary in function, that cooperate by developing transportation links and communications infrastructure joining them.

**new international division of labor (NIDL)** A spatial rearrangement of production in which developing countries capture more of the world's manufacturing activity while developed countries shift to services.

**New Urbanism** A planning movement that promotes walkability and mixed-use buildings with offices and residences on the upper floors.

**node** An origin, destination, or intersection place in a communication or transportation *network*.

**nomadic herding** (*syn.*: pastoral nomadism) Migratory but controlled movement of livestock solely dependent on natural forage. A type of *extensive subsistence agriculture*.

**nonbasic sector** Those economic activities of an urban area that supply the resident population with goods and services, have no "export" implication, and do not bring in wealth from outside the city.

**nonecumene** (*syn.*: anecumene). That portion of the Earth's surface that is uninhabited by people or only temporarily or intermittently inhabited. See also *ecumene*.

**nonmaterial culture** The oral traditions, songs, and stories of a *culture* group along with its beliefs and customary behaviors.

**nonrenewable resource** A *natural resource* that is not replenished or replaced by natural processes or is used at a rate that exceeds its replacement rate.

**Not-In-My-Backyard (NIMBY)** Protests from local residents that often appear when companies or public agencies try to select a location for a waste treatment facility or other potentially polluting facility.

## O

**object** *Geographic feature* thought of as a discrete bounded entity separated

from other entities by space that can be conceived of as empty. Examples include mountain peaks or roads.

**official language** A governmentally designated *language* of instruction, of government, of the courts, and other official public and private communication.

**offshoring** The relocation of business processes and services to a lower-cost foreign location; the offshore *outsourcing* of, particularly, white-collar technical, professional, and clerical services.

**orthographic projection** A *geometrical projection* that results from placing the light source at infinity.

**outsourcing** 1: Producing abroad parts or products for domestic use or sale; 2: Subcontracting production or services rather than performing those activities "in house."

**overpopulation** A judgment that the resources of an area are insufficient to sustain adequately its present population numbers.

**ozone** A gas molecule consisting of three atoms of oxygen (O<sub>3</sub>) formed when diatomic oxygen (O<sub>2</sub>) is exposed to *ultraviolet radiation*. In the upper *atmosphere* it forms a normally continuous, thin layer that blocks ultraviolet light; in the lower atmosphere it constitutes a damaging component of *photochemical smog*.

## P

**palimpsest** Originally a reused leather document with visible traces of previous writing. In cultural geography, the landscape may be viewed as a palimpsest containing evidence of previous cultures and previous land uses.

**parallel invention** See *independent invention*.

**parallel** An east-west line of *latitude* indicating distance north or south of the equator.

**partial displacement migration** *Migrations* wherein migrants move to a new residence nearby, with a new activity spaces that overlap some with their former home ranges.

**pattern** The design or spatial arrangement of phenomena on the Earth surface.

**peak land value intersection** The most accessible and costly parcel of land in the *central business district* and, therefore, in the entire *urbanized area*.

**perceptual region** (*syn.*: cognitive region) Geographic *region* created informally to reflect the subjective beliefs and feelings of individuals or cultural

groups (in the latter case, they are also known as *vernacular regions*).

**perforated state** A *state* whose territory is interrupted ("perforated") by a separate, independent state totally contained within its borders.

**peripheral model** A depiction of the contemporary metropolitan area emphasizing patterns of suburban location and functions.

**periphery/peripheral** In urban geography, the outer regions or boundaries of an area. In economic geography, peripheral areas tend to be underdeveloped and have lower levels of productivity than core areas. See also *core-periphery model*.

**personal communication field** An area defined by the distribution of an individual's short-range informal communications. The size and shape of the field are defined by work, recreation, school, and other regular contacts and are affected by age, sex, employment, and other personal characteristics.

**personal space** An invisible, usually irregular area around a person into which he or she does not willingly admit others. The sense (and extent) of personal space is a situational and cultural variable.

**physical boundary** See *natural boundary*.

**physical geography** One of two major divisions (the other is *human geography*) of *systematic geography*; the study of the structures, processes, distributions, and change through time of the natural biophysical phenomena of the Earth's surface that are significant to human life.

**physiological density** The number of persons per unit area of arable (cultivable) land.

**pidgin** An auxiliary *language* derived, with reduced vocabulary and simplified structure, from combinations of other languages. Not a native tongue, it is a cultural syncretism used for limited communication among people with different languages, such as in situations of trade.

**place** A particular geographic location with its unique biophysical, cultural, and social characteristics.

**place perception** Beliefs and attitudes people have about particular places, regions, or landscapes.

**place stereotype** A simplified belief or set of beliefs about a place that often reflect actual characteristics of the place somewhat inaccurately.

**place utility** 1: In human movement and *migration* studies, a measure of an individual's perceived satisfaction or approval of a place in its social, economic, or environmental attributes. 2: In *economic geography*, the value



- imparted to goods or services by *tertiary* activities that provide things needed in specific markets.
- placelessness** The loss of locally distinctive characteristics and identity and replacement by standardized landscapes.
- planar projection** (*syn:* azimuthal projection) A *map projection* employing a plane as the presumed *developable surface*.
- planned economy** A system of production of goods and services, usually consumed or distributed by a governmental agency, in quantities, at prices, and in locations determined, at least in part, by governmental programs.
- plantation agriculture** A large commercial agricultural holding, frequently foreign owned, devoted to the production of a single export crop.
- political geography** A branch of *human geography* concerned with the spatial analysis of political phenomena.
- polytheism** Belief in or worship of more than one god.
- popular culture** The constantly changing mix of material and nonmaterial *culture traits* available through mass production and the mass media to an urbanized, heterogeneous, nontraditional society. Unlike *folk culture*, popular culture varies quickly over time but not much over space.
- popular region** See *vernacular region*.
- population density** A measurement of the numbers of persons per unit area of land within predetermined limits, usually political or census boundaries. See also *physiological density*.
- population geography** A division of *human geography* concerned with spatial variations in distribution, composition, growth, and movements of population.
- population momentum** (*syn:* demographic momentum) The tendency for population growth to continue despite rapid changes to fertility rates (such as due to stringent family planning programs) because of a relatively high concentration of people in the childbearing years.
- population projection** A prediction of a population's future size, age, and sex composition based on the application of stated assumptions to current data.
- population pyramid** A bar graph in pyramid form showing the age and sex composition of a population, usually a national one.
- positional dispute** (*syn:* boundary dispute) In *political geography*, disagreement about the actual location of a *boundary*.
- possibilism** The philosophical viewpoint that the physical *environment* offers human beings a set of opportunities from which (within limits) people may choose according to their cultural needs and technological awareness. The emphasis is on a freedom of choice and action not allowed under *environmental determinism*, while still recognizing the influence of the environment on culture.
- postindustrial** A stage of economic development in which service activities become relatively more important than goods production; professional and technical employment supersedes employment in agriculture and manufacturing; and level of living is defined by the quality of services and amenities rather than by the quantity of goods available.
- potential model** A measurement of the total interaction opportunities available under *gravity model* assumptions to a center in a multicenter system.
- primary activity** A part of the economy involved in making *natural resources* available for use or further processing; included are mining, *agriculture*, forestry, and fishing and hunting.
- primate city** When a country's leading city is disproportionately larger and functionally more complex than any other city; a city dominating an urban hierarchy composed of a base of small towns and an absence of intermediate-sized cities. Contrary to the *rank-size rule*, primate cities are considerably larger than twice the size of the second largest city in a country or region.
- prime meridian** An imaginary line passing through the Royal Observatory at Greenwich, England (now a suburb of London), serving by international agreement as the 0 degree line of *longitude*.
- producer service** A service sector activity performed for other businesses such as accounting, advertising, engineering consulting, and public relations.
- projection** See *map projection*.
- proportional area symbol** A *thematic map* symbol that varies the size of two-dimensional shapes to show quantities of some variable (such as a *graduated circle*) circleamplee)
- proportional area symbols** Symbols of different size on maps to indicate the magnitude of a variable of interest in different places; the larger the symbol, the greater the magnitude of the variable.
- prorupt state** A *state* of basically *compact* form but with one or more narrow extensions of territory.
- protolanguage** An assumed, reconstructed, or recorded ancestral *language*.
- Public Land Survey System (PLSS)** A *rectangular survey* system adopted in the Land Ordinance of 1785, used to divide land over much of the United States from Ohio to the West Coast. The PLSS creates a checkerboard township and range pattern, dividing land into square townships six miles on a side. Townships are further subdivided into 36 sections of land with each section one mile on a side.
- pull factor** Characteristic of a locale that acts as an attractive force, drawing migrants from other regions.
- purchasing power parity (PPP)** A measurement of a country's wealth that takes account of what money actually buys in the country, relative to the cost of living.
- push factor** Unfavorable characteristic of a locale that contributes to the dissatisfaction of its residents and impel their emigration.

## Q

- quaternary activity** A specialized subset of service activities involving research, information, and administration.
- quinary sector** Some typologies of economic sectors contain a fifth sector. This is essentially a subset of the tertiary (service) sector, but focused on very sophisticated decision making such as scientific research.

## R

- race** An outdated categorization of humans based on outward physical characteristics such as skin color, hair texture, or eye color or shape.
- rank-size rule** An observed regularity in the city-size distribution of some countries. In a rank-size hierarchy, the population of any given town will be inversely proportional to its rank in the hierarchy; that is, the *n*th-ranked city will be 1/*n* the size of the largest city.
- raster approach** A data model for digital geographic information in which the landscape is broken into small cells, each of which contains a numerical value reflecting the degree of presence of some feature; computational expression of the *field* conception of *geographic features*.
- rate** The frequency of an event's occurrence during a specified time period.
- rate of natural increase** *Birth rate* minus the *death rate*, suggesting the annual rate of population growth without considering *net migration*.
- reapportionment** The process and outcome of a reallocation of electoral seats to defined territories, such as congressional seats to states of the United States.



- rectangular survey** A survey system that superimposes a rectangular grid upon the land rather than using natural features to describe and divide land.
- redistricting** The drawing of new electoral district boundary lines in response to changing patterns of population or changing legal requirements.
- redlining** A discriminatory real estate practice in North America in which members of minority groups are prevented from obtaining money to purchase homes or property in predominantly white neighborhoods. Redlining is officially illegal.
- reference map** A general-purpose map that attempts to show *geographic features* such as roads and landforms accurately and in detail.
- refugee** *Forced or reluctant* migrant, usually at the international scale, fleeing difficult or dangerous environmental, military, economic, or political conditions.
- region** (*syn:* geographic region) Any Earth area with distinctive and unifying physical or cultural characteristics that set it off and make it substantially different from surrounding areas. Regions and their boundaries are devices of areal generalization, intellectual concepts rather than just visible landscape entities.
- regional concept** The view that physical and cultural phenomena on the surface of the Earth are rationally arranged by complex, diverse, but comprehensible interrelated spatial processes.
- regional geography** The study of the natural and cultural characteristics of geographic *regions*; the study of areal differentiation.
- regionalism** In *political geography*, group—frequently ethnic group—identification with a particular region of a *state* rather than with the state as a whole.
- Reilly's Breaking-Point Law** A *law of retail gravitation* proposed by William J. Reilly that finds the breaking point or boundary line of the market area *functional regions* around two cities' trade areas. It predicts that consumers will make shopping trips to the city within the market area in which they live.
- relative direction** Direction with respect to personal or cultural ideas rather than objective systems such as cardinal directions or landmarks.
- relative distance** A transformation of *absolute distance* into such relative measures as time or monetary costs. Such measures yield different explanations of human spatial behavior than do linear distances alone. Distances between places are constant by absolute terms, but relative distances may vary with improvements in transportation or communication technology or with different perceptions of space.
- relative location** The position of a place or activity in relation to other places or activities (see *situation*). Relative location implies spatial relationships and usually suggests the relative advantages or disadvantages of a location with respect to all competing locations.
- relic boundary** A former *boundary* line that is still discernible and marked by some *cultural landscape* feature, such as a fence.
- religion** A personal or institutionalized system of worship and of faith in the sacred and divine.
- relocation diffusion** The transport of ideas, behaviors, or articles from one place to another through the *migration* of those possessing the feature transported.
- reluctant relocation** When people relocate their residence (migrate) somewhat involuntarily.
- remittance** Money sent by international migrants back to family members in their home country.
- remote sensing** Any of several techniques of obtaining images of an area or object without having the sensor in direct physical contact with it, as by aerial photography or satellite sensors.
- renewable resource** A *natural resource* that is potentially inexhaustible either because it is constantly (as solar radiation) or periodically (as *biomass*) replenished as long as its use does not exceed its *maximum sustainable yield*.
- replacement level** (*syn:* replacement fertility rate) The number of children per woman that will supply just enough births to replace parents and compensate for early deaths, keeping the population size of an area constant, with no allowance for *migration* effects; depending on the rate of survival into the reproductive years, calculated at between 2.1 and 2.5 children per woman.
- representative fraction** The *scale* of a map expressed as a ratio of a unit of distance on the map to distance measured in the same unit on the ground, e.g., 1:250,000 means that 1 inch on the map represents 250 thousand inches (almost 4 miles) on the Earth surface.
- residential dissimilarity index** A measure of how segregated a group is from other groups.
- resource** See *natural resource*.
- resource dispute** In *political geography*, disagreement over the control or use of shared resources, such as boundary rivers or jointly claimed fishing grounds.
- return migration** See *counter migration*.
- rhumb line** A directional line that crosses each successive *meridian* at a constant angle; a rhumb line accurately shows a constant compass direction. All straight lines are rhumb lines on the *Mercator projection* map.
- Rostow's States of Economic Growth** Economic historian Walt Rostow theorized that all developing economies pass through six stages of growth and advancement: (1) traditional societies, (2) preconditions for takeoff, (3) takeoff, (4) the drive to maturity, (5) the age of mass consumption, and (6) the postindustrial stage and rise of services.
- rotation** The agricultural practice of planting two or more crops simultaneously or successively on the same area to preserve fertility or to provide a plant cover to protect the soil.
- rural-to-urban migration** A very common type of migration, particularly in economically developing countries, whereby people leave the countryside for a major city's greater opportunities in employment, education, health care, etc.

## S

- sacred place** Location with special significance to a religious group, and often attracting pilgrimages or worship rituals. Sacred places are often natural features or religious structures directly connected with a deity or associated with significant events in the history of a particular religion.
- satisficing location** A less-than-ideal best location, but one providing an acceptable level of utility or satisfaction.
- scale** 1: In cartography, the ratio between the size of area on a map and the actual size of that same area on the Earth's surface. 2: In more general terms, scale refers to the size of the area studied or over which some phenomenon exists, from local to global.
- scale of analysis** A framework for understanding how events and processes at different scales influence one another that refers to the size of the Earth's surface being considered in any situation. Commonly referenced scales of analysis range from global, regional, national, sub-national, state, metropolitan, or local.
- S-curve** The horizontal bending, or leveling, of an exponential or *J-curve* of population growth, reflecting the *carrying capacity*.
- secondary activity** Part of the economy involved in the processing of raw materials derived from *primary activities* and in altering or combining materials to produce



- commodities of enhanced utility and value; included are manufacturing, construction, and power generation.
- sector model** A description of urban land uses as wedge-shaped sectors radiating outward from the *central business district* along transportation corridors. The radial access routes attract particular uses to certain sectors, with high-status residential uses occupying the most desirable wedges. Thus, it also describes a common urban residence pattern corresponding to different levels of socioeconomic status (social status).
- secularism** A rejection of or indifference to *religion* and religious practice.
- self-determination** The right of a group to govern itself in its own state or territory.
- segregation** A measure of the degree to which members of a minority group are not uniformly distributed among the total population.
- semi-periphery** Newly industrializing countries, such as South Korea and Brazil, that occupy an intermediate position between core countries, such as the United States, and peripheral countries, such as Liberia.
- semi-periphery** Regions occupying an intermediate position between the core and the periphery within the world system.
- separatism** (*syn:* ethnic separatism; autonomous nationalism) Desired *regional autonomy* expressed by a culturally distinctive group within a larger, politically dominant *culture*.
- service activity** See *tertiary activities*.
- sequential occupation** The use and modification of the cultural landscape by successive cultural groups, reflecting differing cultural values, technologies, and social relations.
- sex ratio** The ratio of the number of one sex to that of the other in a population; typically the number of males relative to the number of females
- shamanism** A set of beliefs and practices in some *tribal religions* based on belief in a hidden world of gods, ancestral spirits, and demons responsive only to a shaman or interceding priest.
- shatterbelt** A term from *geopolitics*, indicates a region of countries or territories with internal conflicts that could become the location of conflict between the major powers.
- shifting cultivation** (*syn:* slash-and-burn agriculture; swidden agriculture) Crop production on tropical forest clearings kept in cultivation until their quickly declining fertility is lost. Cleared plots are then abandoned and new sites are prepared. A type of *extensive subsistence agriculture*.
- Shinto** The *polytheistic, ethnic religion* of Japan that includes reverence of deities of natural forces and veneration of the emperor as descendent of the sun-goddess.
- Simon, Julian** Julian Simon (1932–1998), American economist who rejected *neo-Malthusian* arguments, instead arguing that population growth generates economic growth and innovation.
- site** A concept of *absolute location*, describes a place by reference to characteristics at the location of the place itself, such as local landforms, climate, ethnicity of residents, and other physical or cultural characteristics.
- situation** A concept of *relative location*, describes a place by reference to characteristics that derive from the place's location relative to other places or the larger regional or *spatial system* of which it is a part. Situation implies spatial interconnection and interdependence.
- social distance** A measure of the perceived degree of social separation between individuals, *ethnic groups*, neighborhoods, or other groupings; the voluntary or enforced *segregation* of two or more distinct social groups for most activities.
- sociofact** A rule, custom, or institution that links individuals and groups as part of a *culture*, including family structure and political, educational, and religious institutions. An element in the *sociological subsystem* of culture.
- sociological subsystem** The totality of expected and accepted patterns of interpersonal relations and social rituals that characterize a *culture*, along with the *ideological* and *technological subsystems*.
- soil** The complex mixture of loose material including minerals, organic and inorganic compounds, living organisms, air, and water found at the Earth's surface and capable of supporting plant life.
- soil erosion** The wearing away and removal of rock and soil particles from exposed surfaces by agents such as moving water, wind, or ice.
- soil salinization** The process in which soils become unproductive because of the accumulation of alkaline salts near the surface. This condition is often associated with the use of irrigation systems in arid areas. Over time, increasing concentrations of salt prevent the growth of many types of plants, effectively removing the farm fields from cultivation.
- sovereignty** The right of self-governance as a state, whereby other states acknowledge that status.
- space** As used by geographers, it does not refer to outer space but to areal extent on the Earth's surface, in and around which all humans exist and their activity occurs.
- space-time compression/convergence** Expressions of the extent to which improvements in transportation and communication have reduced the *friction of distance* and permitted, for example, the very rapid *diffusion* of ideas across space. *Globalization* depends in part on space-time compression.
- space-time path** A diagram of the line through space and time which describes where we are at any given time, how long we spend there, and how fast we move between locations; they are usually described at the scale of single days but may be monthly, yearly, or lifetime paths. Space-time paths must fit within space-time prisms.
- space-time prism** A diagram of the volume of space and the length of time within which our activities are confined by constraints of our bodily needs (eating, resting), our daily responsibilities, and the means of mobility at our command.
- spatial assimilation** A part of the assimilation process in which a minority population leaves its segregated enclaves and becomes widely distributed through a territory.
- spatial association** When the spatial arrangements of two distributions of features correspond or covary with each other in some way.
- spatial diffusion** See *diffusion*.
- spatial distribution** The arrangement of things on the Earth's surface; the descriptive elements of spatial distribution are *density*, *dispersion*, and *pattern*.
- spatial interaction** The movement (e.g., of people, goods, information) between different places; an indication of contact and interdependence between different geographic locations or areas.
- spatial margin of profitability** The set of points delimiting the area within which an economic activity can be profitably carried out.
- spatial search** The process by which individuals evaluate the alternative locations to which they might move.
- spatial system** The arrangement and integrated operation of phenomena produced by or responding to spatial processes on the Earth's surface.
- spatially fixed cost** An input cost in manufacturing that remains constant wherever production is located; locational decisions are not influenced much by such costs.



- spatially variable cost** An input cost in manufacturing that changes significantly from place to place in its amount and its relative share of total costs; locational decisions are influenced considerably by such costs.
- speech community** A group of people having common characteristic patterns of vocabulary, word arrangement, and pronunciation.
- sprawl** The spreading of urban developments on undeveloped land near a city.
- spread effect** (*syn:* trickle-down effect) The diffusion outward of the benefits of economic growth and prosperity from the power center or *core area* to poorer districts and people.
- squatter settlement** A collection of buildings where the people have no legal rights to the land they are built upon. The people are living there illegally and do not own the land.
- standard language** A *language* substantially uniform with respect to spelling, grammar, pronunciation, and vocabulary and representing the approved community norm of the tongue.
- standard line** Line of contact between a projection surface and the globe; locations covered by the line are transformed from the sphere to the plane surface without distortion.
- state** (*syn:* country) An independent political unit occupying a defined, permanently populated territory and internationally recognized as having full sovereign control over its internal and foreign affairs.
- stateless nation** A group that identifies itself as a nation based on common ethnic, linguistic, and religious identity, but that lacks majority status in any nation-state.
- statistical map** A *thematic map* that shows counts of a mapped item per unit area or location.
- step migration** A *migration* in which an eventual long-distance relocation is undertaken in stages as, for example, from farm to village to small town to city. See also *hierarchical migration*.
- stereographic projection** A *geometrical projection* that results from placing the light source at the *antipode*.
- stimulus diffusion** A type of diffusion that occurs when an innovation is rejected in its original, complete form, but an aspect of the innovation is eventually adopted by the local culture.
- subnationalism** The feeling that one owes primary allegiance to a traditional group or nation rather than to the state.
- subsequent boundary** A *boundary line* that is established after the area in question has been settled and that reflects the cultural characteristics of the bounded area.
- subsistence agriculture** Any of several agricultural economies in which crops are grown or livestock are raised nearly exclusively for local or family consumption.
- subsistence economy** An economic system of relatively simple technology in which people produce most or all of the goods to satisfy their own and their family's needs; little or no exchange occurs outside of the family or social group.
- substitution principle** In industry, the tendency to substitute one factor of production for another in order to achieve optimum plant location.
- suburb** A functionally specialized segment of a large *urban* complex located outside the boundaries of the *central city*; usually, a relatively homogeneous residential community, separately incorporated and administered.
- superimposed boundary** A *boundary line* placed over and ignoring an existing cultural pattern.
- supranationalism** Term applied to associations created by three or more states for their mutual benefit and achievement of shared objectives.
- sustainable development** A concept popularized by the World Commission on Environment and Development's Bruntland Report (1987) calling for development that meets the needs of the present without endangering the ability of future generations to meet their needs; the concept of sustainable development seeks to balance the desire for economic growth with the recognition of environmental limits to growth.
- syncretism** The development of a new form of *culture trait* by the fusion of two or more distinct parental traits.
- systematic geography** An approach to geographic study that selects a particular aspect of the physical or cultural *environment* for detailed study of its areal differentiation and interrelationships. Branches of systematic geography are labeled according to the topic studied (e.g., recreational geography) or the related science with which the branch is associated (e.g., *economic geography*).
- tapering principle** The diminution or tapering of costs of transportation with increasing distance from the point of origin of the shipment because of the averaging of *fixed costs* over a greater number of miles of travel.
- tariff** A tax charged on imported products to protect domestic producers of the same items against competing foreign businesses with a lower cost basis.
- technological subsystem** The complex of material objects together with the techniques of their use by means of which people carry out their productive activities and that characterize a *culture*, along with the *ideological* and *sociological subsystems*.
- technology** The integrated system of knowledge, skills, tools, and methods developed within or used by a *culture* to successfully carry out purposeful and productive tasks.
- technology gap** The contrast between the *technology* available in developed *core regions* and that present in *peripheral areas* of *underdevelopment*.
- technology transfer** The *diffusion* to or acquisition by one *culture* or *region* of the *technology* possessed by another, usually more developed, society.
- temporary travel** Short-term *mobility*, such as journeys to stores, workplaces, school, entertainment locales, or vacation destinations, in which people intend to return home at the end of the day or soon thereafter.
- terminal cost** (*syn:* fixed cost of transportation) A cost incurred, and charged, for loading and unloading freight at origin and destination points and for the paperwork involved; cost charged each shipment for terminal facility use and unrelated to distance of movement or *line-haul cost*.
- terracing** The practice of planting crops on steep slopes that have been converted into a series of horizontal step-like level plots (terraces).
- territorial dispute** (*syn:* boundary dispute; functional dispute) In *political geography*, disagreement between *states* over the control of surface area, including the locations of boundaries.
- territoriality** An individual or group attempt to identify and establish control over a defined territory considered partially or wholly an exclusive domain; the behavior associated with the defense of the home territory.
- terrorism** Systematic open and covert action employing the inducement of fear and terror as a means of political coercion.

## T

**Taoism** (*syn:* Daoism) A Chinese *value system* and *ethnic religion* emphasizing conformity to Tao (Way), the creative reality ordering the universe.



**tertiary activity** (*syn:* service sector) A part of the economy that fulfills the exchange function, that provides market availability of commodities, and that brings together consumers and providers of services; included are wholesale and retail trade, associated transportation and government services, and personal and professional services of all kinds.

**thematic map** (*syn:* statistical map) A specific-purpose map that shows the distribution of one or a few themes or variables, such as unemployment rates by county.

**thematic region (sometimes formal region)** Geographic *region* based on the pattern of one or more objectively measurable themes or properties, such as soil types or linguistic dialects.

**themed landscape** Built environments designed to suggest or simulate a distinctive place, created to attract visitors by allowing them to fantasize about being in different times, places, and events. Disneyland and Las Vegas are two of the most famous examples, but more modest examples can be found in many shopping malls, chain restaurants, housing subdivisions, and the like.

**Third World** Originally (1950s) designating countries uncommitted to either the “First World” Western capitalist bloc or the “Second World” Eastern communist bloc; subsequently, a term applied to countries considered in a state of *underdevelopment* in economic and social terms.

**threshold** In *economic geography* and *central place theory*, the minimum market area or population needed to support the supply of a product or service.

**time geography** The study of temporal and spatial properties of human activity, particularly temporary travel.

**tipping point** The degree of neighborhood racial or ethnic mixing that induces the former majority group to move out rapidly.

**toponym** A place or geographic feature name.

**toponymy** The place names of a region or, especially, the study of place names.

**total displacement migration** *Migrations* wherein migrants move far enough so their new activity spaces do not overlap at all with their former home ranges.

**total fertility rate (TFR)** The average number of children that would be born to each woman during her childbearing years if she bore children at the current year’s rate for women of that age.

**town** A nucleated settlement that contains a *central business district* but that is small and less functionally complex than a *city*.

**tragedy of the commons** The observation that in the absence of collective control over the use of a resource available to all, it is to the advantage of all users to maximize their separate shares even though their collective pressures may diminish total yield or destroy the resource altogether.

**transboundary river basin** Drains land from two or more countries, thus requiring international cooperation over the management of water resources.

**transferability** Acceptable costs of a spatial exchange; the cost of moving a commodity relative to the ability of the commodity to bear that cost.

**transhumance** A type of nomadic migration in which herders move their flock between grazing areas according to the season.

**transnational corporation (TNC)** A large business organization operating in at least two separate national economies; a form of *multinational corporation*.

**transnationalism** The practice of immigrants maintaining close social or economic ties to their country of origin through frequent travel or communications.

**tribal religion** (*syn:* traditional religion) An *ethnic religion* specific to a small, localized, preindustrial culture group.

**trickle-down effect** See *spread effect*.

**truck farm** (*syn:* horticultural farm; market gardening) A farm that intensively produces fruits and vegetables for market rather than for processing or canning.

## U

**ubiquitous industry** A *market-oriented* industry whose establishments are distributed in direct proportion to the distribution of population.

**underdevelopment** A level of economic and social achievement below what could be reached—given the natural and human resources of an area—were necessary capital and technology available.

**uneven spatial development** The uneven spatial pattern observed in standards of living and levels of economic development.

**uniform (isotropic) plain** A hypothetical portion of the Earth’s surface assumed to be an unbounded, uniformly flat plain with uniform and unvarying distribution of population, purchasing power, transport costs, accessibility, and the like. Commonly assumed as a simplification in

geographic models of spatial interaction and economic activity.

**unitary state** A *state* in which the central government dictates the degree of local or *regional autonomy* and the nature of local governmental units; a country with few cultural conflicts and with a strong sense of national identity.

**United Nations Convention on the Law of the Sea (UNCLOS)** A code of maritime law approved by the United Nations in 1982 that authorizes, among other provisions, territorial waters extending 12 nautical miles (22 km) from shore and 200-nautical-mile-wide (370-km-wide) *exclusive economic zones*.

**universalizing religion** A *religion* that claims global truth and applicability, regardless of ethnicity or culture group, and seeks the conversion of all humankind via proselytizing.

**urban geography** The geographical study of cities; the branch of *human geography* concerned with the spatial aspects of (1) the locations, functional structures, size hierarchies, and intercity relationships of national or regional systems of cities, and (2) the *site*, evolution, *economic base*, internal land use, and social geographic patterns of individual cities.

**urban growth boundary** Geographical boundaries placed around a city to limit suburban growth within that city.

**urban hierarchy** A ranking of cities based on their size and functional complexity.

**urban influence zone** An area outside of a *city* that is nevertheless affected by the city.

**urbanization** Transformation of a population from rural to *urban* status; the process of city formation and expansion.

**urbanized area** A continuously built-up *urban* landscape defined by building and population densities with no reference to the political boundaries of the city; it may contain a *central city* and many contiguous towns, *suburbs*, and unincorporated areas.

**usable reserves** Mineral deposits that have been identified and can be recovered at current prices and with current technology.

## V

**vector approach** A data model for digital geographic information in which meaningful discrete objects are represented as points connected with lines; computational expression of the *object* conception of *geographic features*.



**vernacular** 1: The nonstandard indigenous *language* or *dialect* of a locality. 2: Of or related to indigenous arts and architecture, such as a *vernacular house*. 3: Of or related to the perceptions and understandings of the general population, such as a *vernacular region*.

**vernacular house** An indigenous style of building constructed of native materials to traditional plan, without formal drawings.

**vernacular region** A *perceptual region* defined informally by inhabitants of a cultural group, usually with a popularly given or accepted nickname.

**voluntary migration** When people relocate their residence by free choice, without being forced or compelled.

**von Thünen model** Model developed by Johann Heinrich von Thünen (1783–1850), German economist and landowner, to explain the forces that control the prices of agricultural commodities and how those variable prices affect spatial patterns of agricultural land utilization.

**W**  
**Weberian analysis** See *least-cost theory*.  
**world city** One of a small number of interconnected, internationally dominant centers (e.g., New York, London, Tokyo) that together control the global systems of finance and commerce.

**world systems theory** A theory developed by sociologist Immanuel Wallerstein arguing that international trade has led to a capitalist world economy. This world system is based on wealth and power, and is arranged according to influence: the core (most dominant), the semi-periphery, and the periphery (least dominant).

**X**  
**xenophobia** A hatred or fear of that which is foreign, often directed at immigrant minority groups.

**Z**  
**zero population growth (ZPG)** A term suggesting a population in equilibrium, fully stable in numbers with births (plus immigration) equaling deaths (plus emigration).