Industrialization Vocabulary

acid rain - created when oxides of sulfur and nitrogen change chemically as they dissolve in water vapor in the atmosphere and return to earth as rain, snow, or fog.

agglomeration - the spatial grouping of people or activities for mutual benefit; the concentration of productive enterprises for collective or cooperative use of infrastructure and sharing of labor resources and market access.

agglomeration economies - (syn: external economies) 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.

aluminum industry (factors of production, location) -  Massive charges of electricity are required to extract aluminum from its processed raw material, aluminum oxide. Electrical power amounts for between 30% and 40% of the cost of producing the aluminum and is the major variable cost influencing plant location in the industry. The Kitimat plant on the west coast of Canada or the Bratsk plant near Lake Baikal in eastern Siberia are examples of industry placed far from raw material sources or market but close to vast supplies of cheap power--- in these instances, hydroelectricity.

Bid Rent Theory - different land users are prepared to pay different amounts, the bid rents, for locations at various distances from the city center.

beak-of-bulk point - a location where transfer is possible from one mode of transportation to another; a location along a transport t route where goods must be transferred from one carrier to another. In a port, the cargoes of oceangoing ships are unloaded and put on trains, trucks, or perhaps smaller riverboats for inland distribution.

Canadian industrial heartland - the St. Lawrence Valley - Ontario Peninsula. The region has several assets: centrality to the Canadian market, proximity to the Great Lakes, and access to inexpensive hydroelectric power from Niagara Falls.

commodity chain - series of links connecting the many places of production and distribution and resulting in a commodity that is then exchanged on the world market.

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 area, assuming free trade exists.

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.

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 in the contribution of manufacturing to a national economy.

economic base - the manufacturing and service activities performed by the basic sector of a city’s labor force; functions of a city performed to satisfy demands external to the city itself and, in that performance, earning income to support the urban population.

economies of scale - cost advantages to manufacturers that accrue from high-volume production, since the average cost of production falls with increasing output.

ecotourism - responsible travel that does not harm ecosystems or the well-being of local people.

energy types - renewable: hydropower, biomass, wind, solar, geothermal, biofuels, wave/ tidal; nonrenewable: coal, oil, natural gas, nuclear (some classify as renewable?)

entrepót - is a trading center, or simply a warehouse, where merchandise can be imported and exported without paying import duties, often at a profit. This profit is possible because of trade conditions, for example, the reluctance of ships to travel the entire length of a long trading route, and selling to the entrepôt instead. The entrepôt then sells at a higher price to ships traveling the other segment of the route. This was especially true in the Middle Ages. There was demand for spices, but a long trade route led to a much higher market price than the original buying price. This led to an attractive profit for those who bothered to travel the entire route constantly.  Singapore, Hong Kong and the Cape of Good Hope were prominent examples in history and still are today to varying degrees.

export processing zones -  (EPZ’s) designated areas of countries where governments create conditions conducive to export-oriented production.

fixed costs - an activity cost (as of investment in land, plant, and equipment) that must be met without regard to level of output; an input cost that is spatially constant.

footloose industry - 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.

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.

Four Tigers - refers to the economies of South Korea, Hong Kong, Taiwan, and Singapore.

Greenhouse effect - anticipated increase in Earth’s temperature, caused by carbon dioxide (emitted by burning fossil fuels) trapping some of the radiation emitted by the surface.

growth poles - economic activities that are deliberately organized around one or more high-growth industries.

Heartland / Rimland Theory - a geopolitical hypothesis, proposed by Halford Mackinder during the first two decades of the twentieth century, that any political power based in the heart of Eurasia could gain sufficient strength to eventually dominate the world. He further proposed that since Eastern Europe controlled access to the Eurasian interior, its ruler would command the vast “heartland” to the east.

industrial regions - 1. Eastern North America, 2. Northwestern Europe, 3. Eastern Europe, and 4. East Asia

Industrial Revolution - a series of inventions and innovations, arising in England in the 1700s, that led to the use of machines and inanimate power in manufacturing process.

infrastructure - (or fixed social capital) the underlying framework of services and amenities needed to facilitate productive activity.

international division of labor - the specialization, by countries, in particular products for export.

international organization - group that includes two or more states seeking political and/or economic cooperation with each other.

“Just in time” manufacturing - (JIT) seeks to reduce inventories for the production process by purchasing inputs for arrival just in time to use and producing output just in time to sell.   Rather than costly accumulation and storage of supplies, it requires frequent ordering of small lots of goods for precisely timed arrival and immediate deployment to the factory floor.

Labor-intensive industry - an industry for which labor costs represent a large proportion of total production costs.

Least-cost Location Theory - Model developed by Alfred Weber according to which the location of manufacturing establishments is determined by the minimization of three critical expenses: labor, transportation, and agglomeration.

agglomeration - a process involving the clustering or concentrating of people or activities; the term often refers to manufacturing plants and businesses that benefit from close proximity because they share skilled labor pools and technological and financial amenities.

Major manufacturing regions - 1. Eastern Anglo America, 2. Western and Central Europe, Eastern Europe, and Eastern Asia  (see map given out in class)

Manufacturing export zones - A feature of economic development in peripheral countries whereby the host country establishes areas with favorable tax, regulatory, and trade arrangements in order to attract foreign manufacturing operations. The goods manufactured in these export zones are primarily destined for the global market.

Manufacturing/warehouse location considerations: industrial parks, agglomeration, shared services, zoning, transportation, taxes, environmental considerations.

Maquiladora - factories built by U.S. companies in Mexico near the U.S. border, to take advantage of much lower labor costs in Mexico.

Market - the geographical area in which a product may be sold in a volume and at a price profitable to the manufacturer.

Market area (hinterland) - the area surrounding a central place, from which people are attracted to use the place’s goods and services.

Market orientation - the tendency of an economic activity to locate close to its market; a relocation of large and variable distribution costs.

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

Multiplier effect - the direct, indirect, and induced consequences of change in a n 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 additional of non basic workers and dependents to a city’s total employment and population that accompanies new basic sector employment.

NAFTA- North American Free Trade Agreement; launched in 1994 and linking Canada, Mexico, a nd the United States in a n economic community aimed at lowering or removing trade and movement restrictions among the countries.

Outsourcing - production abroad parts or products for domestic use or sale; sub-contracting production or services rather than performing those activities “in house.”

Ozone (depletion) - a gas molecule consisting of three atoms of oxygen formed when diatomic oxygen 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.

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.

Resource - a substance in the environment that is useful to people, is economically and technologically feasible to access, and is socially acceptable to use.

Resource dispute - disagreement over the control or use of shared resources, such as boundary rivers or jointly claimed fishing grounds.

Silicon Valley - a prime example of a high-technology corridor in the United States.

Specialized Economic Zones - specific area within a country in which tax incentives and less stringent environmental regulations are implemented to attract foreign business and investment. SEZ’s or Special

Economic Zones in China

High-Technology corridors - areas along or near major transportation arteries that are devoted to the research, development, and sale of high-technology products. these areas develop because of the networking and synergistic advantages of concentrating high-technology enterprises in close proximity to one another.

Substitution principle - in industry, the tendency to substitute one factor of production for another in order to achieve optimum plant location.

Threshold / range - the minimum market needed to support the supply of a product or service.

Time-space compression - a term associated with the work of David Harvey that refers to the social and psychological effects of living in a world in which time-space convergence has rapidly reached a high level of intensity.

Time-space convergence - a term coined by Donald Janelle that refers to the greatly accelerated movement of goods, information, and ideas during the twentieth century made possible by technological innovation in transportation and communications.

Topocide - the deliberate killing of a place through industrial expansion and change, so that its earlier landscape and character are destroyed.

Trade-route site - a place for a city that is at a significant point on transportation routes.

Transnational corporation - companies that have international production, marketing, and management facilities.

Ubiquitous industry - a market-oriented industry whose establishments are distributed in direct proportion to the distribution of population.

Variable costs - a cost of enterprise operation that varies either by output level or by location of the activity.

Weber, Alfred -  German geographer who was a major theorists of industrial location. He devised a model of how to understand industrial locations in regard to several factors, including labor supply, markets, resource location, and transpiration.

World cities - cities most closely integrated into the global economic system because they are in the center of the flow of information and capital. Business services concentrate in disproportionately large numbers in world cities, including law, banking, insurance, accounting, and advertising. Three cities stand out in a class of their own: London, New York, and Tokyo. A second tier of major world cities includes Chicago, Los Angeles, Washington, DC, Brussels, Frankfurt, Paris, Zurich,Sáo Paulo and Singapore. A third tier of secondary world cities includes Houston, Miami, San Francisco, Toronto, Bangkok, Bombay, Hong Kong, manila, Osaka, Seoul, Taipei, Berlin, Madrid, Milan, Rotterdam, Vienna, Buenos Aires, Caracas, Mexico City, Rio de Janeiro, Johannesburg, and Sydney.

Fourth-level cities (in the USA) - dependent centers, provide relatively unskilled jobs and depend for their economic health on decisions make in the world cities, regional command and control centers, and specialized producer-service centers. Four subtypes of dependent centers can be identified in the United States:

Resort - retirement, and residential centers such as Albuquerque, Fort Lauderdale, Las Vegas, and Orlando; clustered in the South and West

Manufacturing - Buffalo, Chattanooga, Erie, and Rockford; clustered mostly in the old northeastern manufacturing belt.

Industrial and Military - Huntsville, Newport News, San Diego; clustered mostly in the South and West

Mining - Charleston (West Virginia) and Duluth; located in mining areas