

Unit 6 12.1 Where did the Ind. Rev. begin, & how did it diffuse?
How do location theories explain historical patterns of industrialization?



The following information corresponds to Chapter 12 in your textbook. Fill in the blanks to complete the definition or sentence. Note: All of the following information in addition to your reading is important, not just the information in the blanks.

Field Note: Branding the Backboard



The trademark swoosh of the Nike brand is _____ (everywhere). Although the company's headquarters in Beaverton, Oregon employs 6000 not a single one in Oregon is involved in _____ Worldwide as many as _____ people work directly or indirectly for Nike. The workers at the headquarter are the _____ & _____

_____, _____ & _____ (Take a minute to think about those jobs – for a company that makes shoes!) Today, the production and marketing of Nike's shoes takes an _____ network of international _____ and _____ having _____ outcomes & _____.

Where Did the Industrial Revolution Begin, and How Did it Diffuse?

Industrial production began long before the Industrial Revolution in _____ industries & _____ workshops.

- By importing _____ and the development of _____ that allowed for _____, the British were able to bury local industries in _____ & _____ by flooding the market with _____. (Think China today!)

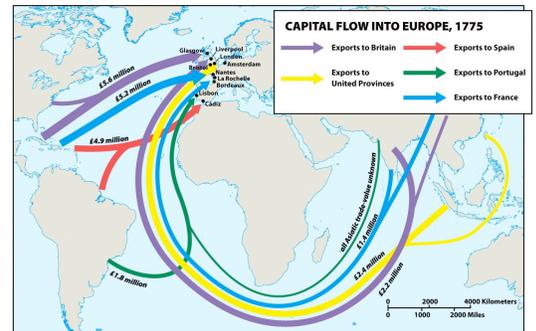


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- The 18th c (1700s) marked by new _____ that brought new uses for known _____ sources (not petroleum) sparked the Industrial .Revolution

- _____ = steam engine
- _____ = process for **smelting** iron (iron ore & coke in a blast furnace) to make _____.

Before the invention of the railroad and the steam ship, manufacturing needed to be located close to the _____ fields, but also needed to be connected to _____ where _____ arrived and _____ could depart.

A similar pattern developed as the Industrial Revolution spread to mainland Europe. The _____ area of Germany linked with _____ in the Netherlands, which today is the most important port in Europe and hub of _____ commerce.

- The RR allowed manufacturing to move to urban areas with large markets like _____ on the Thames, and _____ on the _____

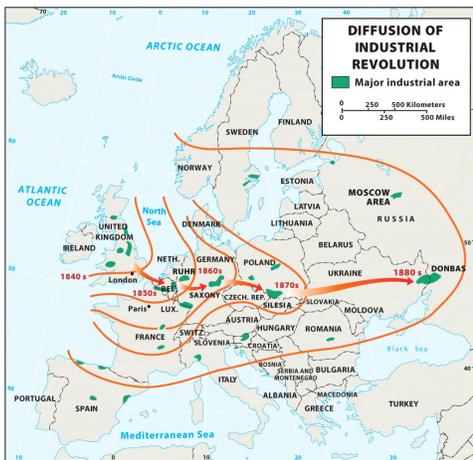
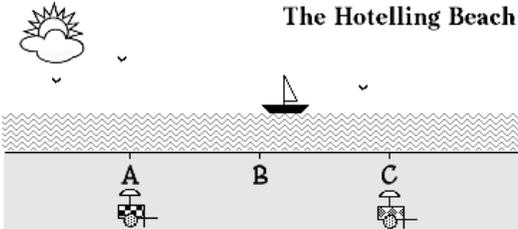


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How Do Location Theories Explain Industrial Location?

- _____ economic activities (extractive) are located where resources (forests, minerals, & good soils) are found
- _____ economic activities (manufacturing) due to _____ - (improvements in transportation and communication) are less dependent on _____ location.
 - _____ - predicts where businesses should or will locate.
 - This assumes that businesses will try to maximize their _____ over competitors; make as much _____ as possible; and consider _____ such as energy, transportation, and labor costs when choosing a location.
 - A key issue in location theory is _____ (the increase in time and cost that comes with increasing distance. _____ suggests manufacturing plants will be more concerned with markets of _____ places than more _____ places.
- **Alfred Weber** - German economic geographer (1868-1958) developed a model for the location of _____. His model eliminated _____ mobility and varying _____ rates.

- Weber's **Least Cost Theory** accounted for the _____ of a manufacturing plant by minimizing (1) _____ - the most important (2) cost of _____ (if it made up for the cost of transportation) (3) _____ (if it overcomes transportation and labor costs)
- Some argue that Weber's model does not account for variations in costs over time (e.g. taxation policies, consumer demand) this **substitution principle** suggests that decreases in certain costs can offset increases in others (e.g. lower transport costs could offset wages)



- **Harold Hotelling** (1895- 1973) studied _____ by studying _____ vendors on the beach. As both seek to maximize their sales, they would move closer and closer to the _____ until they were _____
- Hotelling's point was that the location of one industry depends on the location of other industries of the same kind.

- **August Losch** (1967) added the _____ influence of _____ demand and _____ costs to the location equation to define a zone of _____ beyond which _____ will make sales unprofitable.
- **Edward Ullman's** spatial interaction forms a basis for understanding the volume and timing of the flow of goods between locations
 - **(1) Complementary** – refers to the needs of one region matching the products of another (oranges from Florida to New York)
 - **(2) Intervening Opportunity** – refers to the presence of a nearer opportunity which reduces the attractiveness of a more distant location, and
 - **(3) Transferability** – refers to ease with which products can be moved.

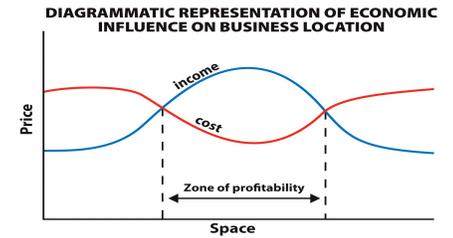


Figure 12.2
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Major Industrial Regions (before 1950)

Before 1960 the main locational costs for industry were transportation of raw materials and shipping of finished products.

- There are **four** primary industrial regions: _____, _____, _____ & _____, and _____

Western Europe – Britain experienced early industrialization followed by **expansion diffusion** eastward to Russia. Colonial empires provided _____ and raw materials for production.

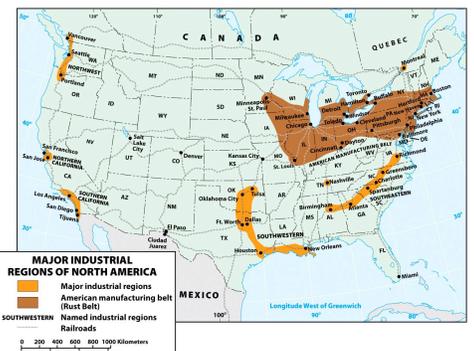


Figure 12.8
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North America - has some of the world's largest coal reserves (from _____ to the N _____).

- After WWI the US emerged as the world's preeminent industrial powers. (It did not suffer the destruction of WWI, had the needed infrastructure, and had a _____).
- The _____ extends from the _____

- Three Manufacturing Belts of Germany
 - The Ruhr district, based on the _____ (Heavy industry including tanks for Nazi WWII)
 - Saxony near the border with _____ (Specializes in lighter manufacturing - optical equipment, cameras, textiles & ceramics)
 - And Silesia (now part of _____)
 - _____ is Europe's leading industrial power.
- Other important industrial centers are in N. _____, _____ & N. Spain, S _____, and S. _____.
- WWII helped to destroy much of Europe's industrial infrastructure but newly rebuilt factories included the latest technology, helping to give them a _____.



northeastern _____ to _____ & from the _____ valley to the _____ & _____ rivers.

- Industrialization began in _____ with a large _____ population and _____ that helped it develop. The NY port serves as a _____, where cargo is transferred from one type of transportation to another, which generates _____, _____, & _____.
- The _____ helped to connect the _____ to the _____.
- Canada's _____ district links two parts of the US Manufacturing Belt between Buffalo and Detroit (the most route between these to US cities was through _____)
- _____ forms a part of the Canadian industrial zone, with the benefit of cheap _____, with _____ refining and _____ located there.
- Note: the darker areas on the map (previous page or p.394 in text) reflect the industrial RUST BELT with areas of DEINDUSTRIALIZATION today.

The Former Soviet Union (Russia & the Ukraine)

- Under communist rule heavy industry was developed in _____ (southeast of Moscow) called the "_____ " for its auto manufacturing.
- The _____ Mountains are a source of a variety of metallic ores, including iron, copper, nickel, chromite, bauxite (aluminum)... A large supply of coal and iron ore came from the remote area of _____



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- During WWII many Russian industrial plants were _____ and _____ in Volga cities. A series of _____ constructed on the Volga River, made electrical power plentiful.
- _____ had started to industrialize before it was taken over by the Soviet Union (not without a fight!) They produced about 90% of all of the _____ mined in the Soviet Union and helped it grow into one of the world's largest manufacturing regions.

Eastern Asia – Japan and China (both avoided European colonization)



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- Japan has limited _____, so they must be imported from around the world, and still managed to become an industrial power. It benefited from the _____ from colonization and government _____ during the _____ Restoration.
- WWII decimated Japan's national economy, but it would rebound quickly and became a global economic power.
- The Japanese Manufacturing Belt
 - _____ - the dominant region, with about 1/3 of the population includes the megalopolis of _____. The natural harbor of _____ is centrally located. The Kanto Plain produces more than _____% of Japan's annual output.
 - _____ district – the second largest industrial complex includes _____. This region is the center for steel mills, chemical industries, auto making, shipping, and textiles and is

challenging the Kanto Plain for dominance.

- Access to a large, low wage, trainable labor force continues to attract manufacturers. Japan's success in the 1950s was based on its skilled and low wage labor force, which allowed it to flood the market with low priced, low quality goods. When it began to excel in quality, prices rose, wages rose, and they began to experience competition from countries where cheaper labor was found.

China's industrialization came later than the 1950's but has made it a strong participant in the global trade network today and will be discussed later.