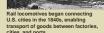


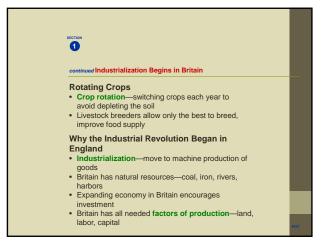
begins in Britain, spreads to other countries, and has a strong impact on economics, politics, and society.



The Beginnings of Industrialization

The Industrial Revolution starts in England and soon spreads to other countries.







Inventions Spur Industrialization

Changes in the Textile Industry

- Weavers work faster with flying shuttles and spinning jennies
 Water frame uses water power to drive spinning
- wheels
- · Power loom, spinning mule speed up production,
- improve quality
 Factories—buildings that contain machinery for
- manufacturing

 Cotton gin boosts American cotton production to meet British demand



Improvements in Transportation

Watt's Steam Engine

- Need for cheap, convenient power spurs development of steam engine
- James Watt improves steam engine, financed by Matthew Boulton
- Boulton an entrepreneur—organizes, manages, takes business risks

Water Transportation

- Robert Fulton builds first steamboat, the *Clermont*, in 1807
- · England's water transport improved by system of

Road Transportation

 British roads are improved; companies operate them as toll roads



The Railway Age Begins

Steam-Driven Locomotives

- In 1804, Richard Trevithick builds first steam-driven locomotive
 • In 1825, George Stephenson builds world's first
- railroad line

The Liverpool-Manchester Railroad • Entrepreneurs build railroad from Liverpool to

- Manchester
- Stephenson's *Rocket* acknowledged as best locomotive (1829)

Railroads Revolutionize Life in Britain

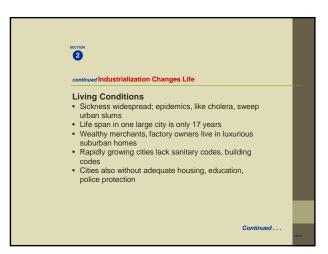
- Railroads spur industrial growth, create jobs
- Cheaper transportation boosts many industries; people move to cities

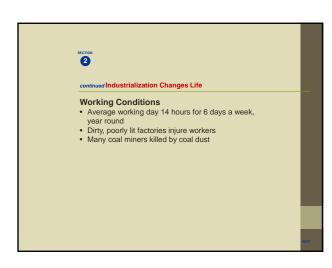
Section 2 Industrialization

CASE STUDY: Manchester

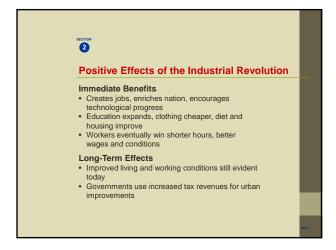
The factory system changes the way people live and work, introducing a variety of problems.

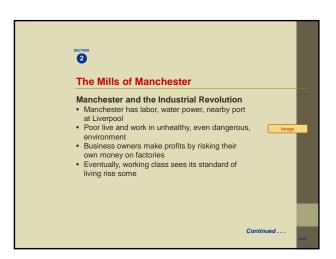














Section 3 Industrialization Spreads The industrialization that begins in Great Britain spreads to other parts of the world.



Industrial Development in the United States

Industrialization in the United States

- U.S. has natural and labor resources needed to industrialize
- Samuel Slater, English textile worker, builds textile mill in U.S.
- · Lowell, Massachusetts a mechanized textile center
- by 1820
 Manufacturing towns spring up around factories
- Towns the country
 Young single women flock to factory towns, work in textile mills
- Clothing, shoemaking industries soon mechanize



continued Industrial Development in the United States

Later Expansion of U.S. Industry

- Industrialization picks up during post-Civil War technology boom
- Cities like Chicago expand rapidly due to location on railroad lines
- Small companies merge to form larger, powerful companies

- The Rise of Corporations
 Stock—limited ownership rights for company, sold
- to raise money

 Corporation—company owned by stockholders, share profits not debts
- Large corporations attempt to control as much business as they can





continued Continental Europe Industrializes

Expansion Elsewhere in Europe

- · Bohemia develops spinning; Northern Italy mechanizes silk textiles
- Industrialization in France more measured; agriculture remains strong



The Impact of Industrialization

- Rise of Global Inequality

 Wealth gap widens; non-industrialized countries fall further behind
- European nations, U.S., Japan exploit colonies for resources
- · Imperialism spreads due to need for raw materials, markets

Transformation of Society

- Europe and U.S. gain economic power
- African and Asian economies lag, based on agriculture, crafts
 Rise of middle class strengthens democracy, calls
- for social reform

Section 4 **Reforming the Industrial World**

The Industrial Revolution leads to economic, social, and political reforms.



Reforming the Industrial World

The Philosophers of Industrialization

Laissez-faire Economics

- Laissez faire economic policy of not interfering with businesses

 Originates with Enlightenment economic philosophers
- Adam Smith defender of free markets, author of The Wealth of Nations
- Believes economic liberty guarantees economic progress
 • Economic natural laws—self-interest, competition,
- supply and demand

Continued . .



continued The Philosophers of Industrialization

The Economists of Capitalism

- · Thomas Malthus, David Ricardo boost laissezfaire capitalism
- Capitalism system of privately owned businesses seeking profits
- Malthus thinks populations grow faster than food supply
- Wars, epidemics kill off extra people or misery and poverty result
 Ricardo envisions a permanent, poor underclass
- providing cheap labor



The Rise of Socialism

Utilitarianism

- Jeremy Bentham's utilitarianism—judge things by their usefulness
- John Stuart Mill favors regulation to help workers, spread wealth

Utopian Ideas

- Robert Owen improves workers' conditions, rents
- cheap housing
 In 1824, Owen founds utopian community, New Harmony, Indiana

Socialism

- Socialism—factors of production owned by, operated for the people
- Socialists think government control can end poverty, bring equality



Marxism: Radical Socialism

Marxism's Prophets

- Karl Marx German journalist proposes a radical socialism, Marxism
 Friedrich Engels—German whose father owns a Manchester textile mill

The Communist Manifesto

- Marx and Engels believe society is divided into warring classes
- Capitalism helps "haves," the employers known as the bourgeoisie

 Hurts "have-nots," the workers known as the
- proletariat

 Marx, Engels predict the workers will overthrow the owners



continued Marxism: Radical Socialism

The Future According to Marx

- Marx believes that capitalism will eventually destroy itself
- Inequality would cause workers to revolt, seize factories and mills
- Communism—society where people own, share the means of production
- Marx's ideas later take root in Russia, China, Cuba
- Time has shown that society not controlled by economic forces alone



Labor Unions and Reform Laws

Unionization

- Unions—associations formed by laborers to work for change
- Unions negotiate for better pay, conditions with
- Official regulators
 employers
 Sometimes they strike—call a work stoppage—to
- pressure owners

 Skilled workers are first to form unions

 Movement in Britain, U.S. must fight for right to
- Union goals were higher wages, shorter hours, improved conditions

Continued . . .



continued Labor Unions and Reform Laws

- Reform Laws
 British, U.S. laws passed to stop worst abuses of industrialization
 1842 Mines Act in Britain stops women, children working underground
 In 1847, workday for women, children limited to 10 hours in Britain
- U.S. ends child labor, sets maximum hours in 1904



The Reform Movement Spreads

- The Abolition of Slavery
 In 1833, reformers help end slavery in British empire
 Slavery ends in U.S. in 1865; ends by 1888 in rest of Americas

- The Fight for Women's Rights

 Women pursue economic and social rights as early as 1848
- International Council for Women founded 1888; worldwide membership

Reforms Spread to Many Areas of Life

- Reformers establish free public schools in Europe in late 1800s
- Public schools common in U.S. by 1850s; prison reform also sought