Introduction to Industrialism

Pre-Industrialization

- Workshop and Guild System
  - Products made by hand
    - Low Productivity
    - Varied Quality
  - Guild system created monopoly
    - Set standards for quality and price
    - Established training for new members

Resources needed for Industrialization

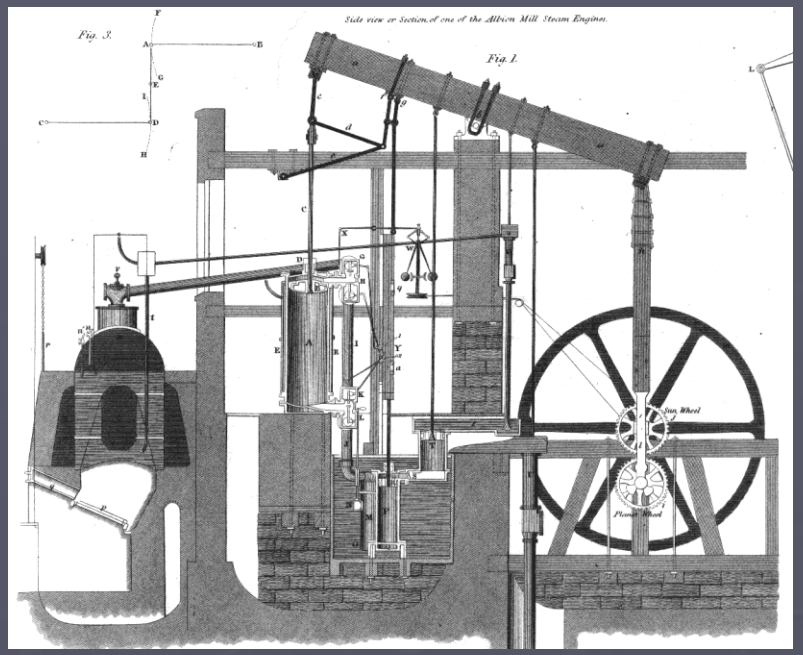
- Semi-Reliable Market
- Effective Central Bank
- Easy sources of Transportation
  - Rivers
  - Roads
  - Development of Railroads
- Cheap Labor
- Natural Resources
  - Coking **Coal**
  - Iron Ore
- Means of Shipping products to foreign Markets
  - Interlinked Rail Systems
  - Merchant Marine

Pre-Industrialization

- Cottage Industry
  - Goods made at home
    - Sold locally
    - Workers paid by the piece
    - Responsible for production, marketing, and sale of products
  - Dispersed industry
    - Varied availability of goods

The First Industrial Revolution

- James Watt's Steam Engine
  - Changes industrial landscape
    - Industry no longer needs to be located next to water
      - Wood now main power source
  - Used to pump water out of coal mines initaially

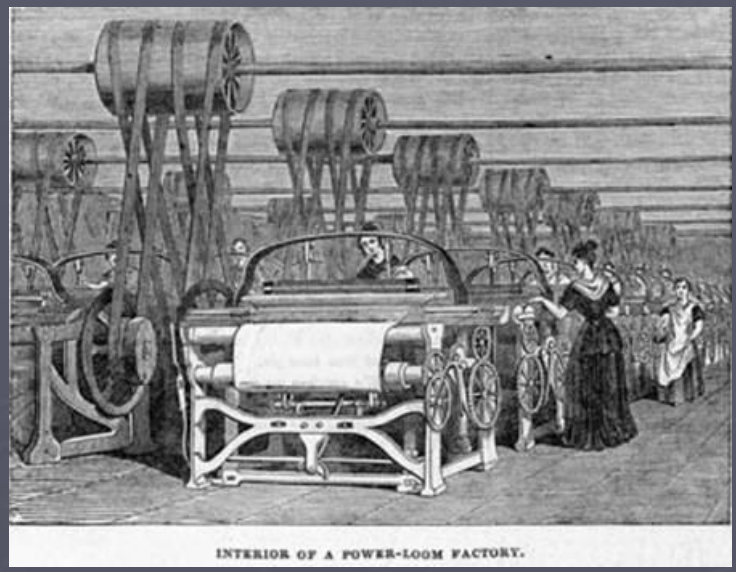


Adaptations of Steam Engine

- Iron Industry
  - Steam Engine used to supply steady supply of air to blast furnace
  - Allowed for easier smelting of iron into “pig iron”
    - Basic ingredient for all industry

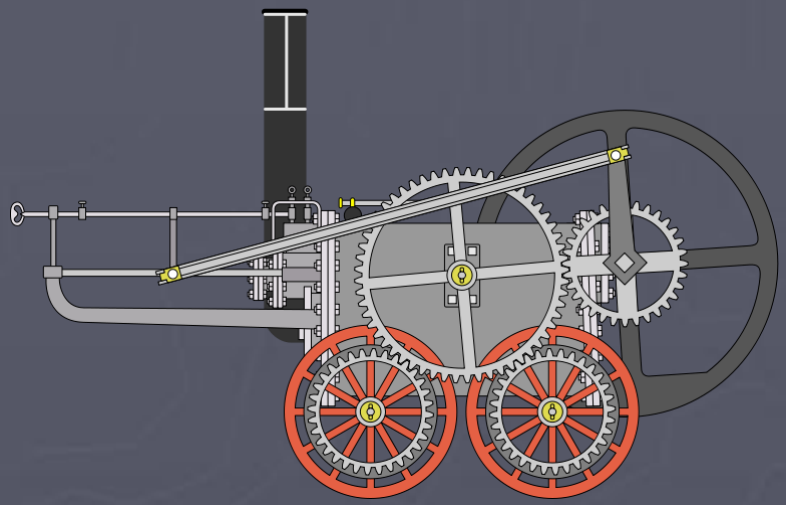
Adaptations of Steam Engine

- Textile Industry
  - Power loom 1785
    - Steam Engine powered spinning of cotton into thread
  - Cotton Gin invented in 1794
    - More efficient refinement of cotton
  - Causes Britain to more heavily pursue imperialism
    - Egypt and India


INTERIOR OF A POWER-LOOM FACTORY.

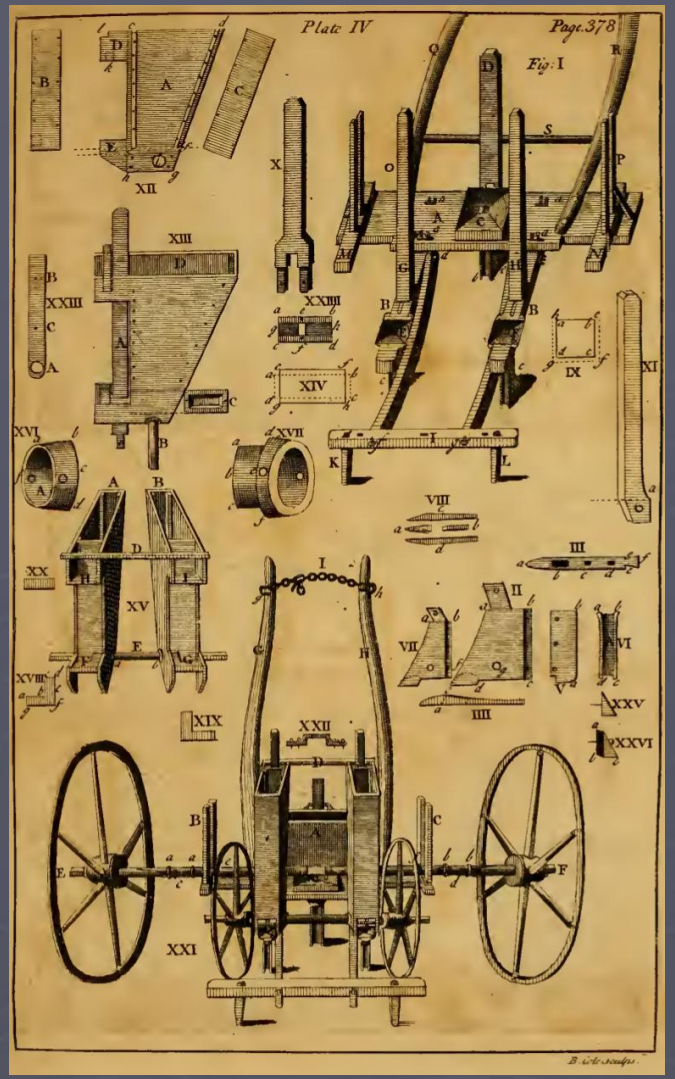
Adaptations of the Steam Engine

- Transportation
  - Steam Locomotive
    - Wide-scale use begins 1804
      - Increased demand for coal
    - Took lots of modifying
  - Steam Ship
    - Developed in late 18th-Early 19th Centuries
      - Drastically decreased travel times
    - Trans-Atlantic Voyages began 1838



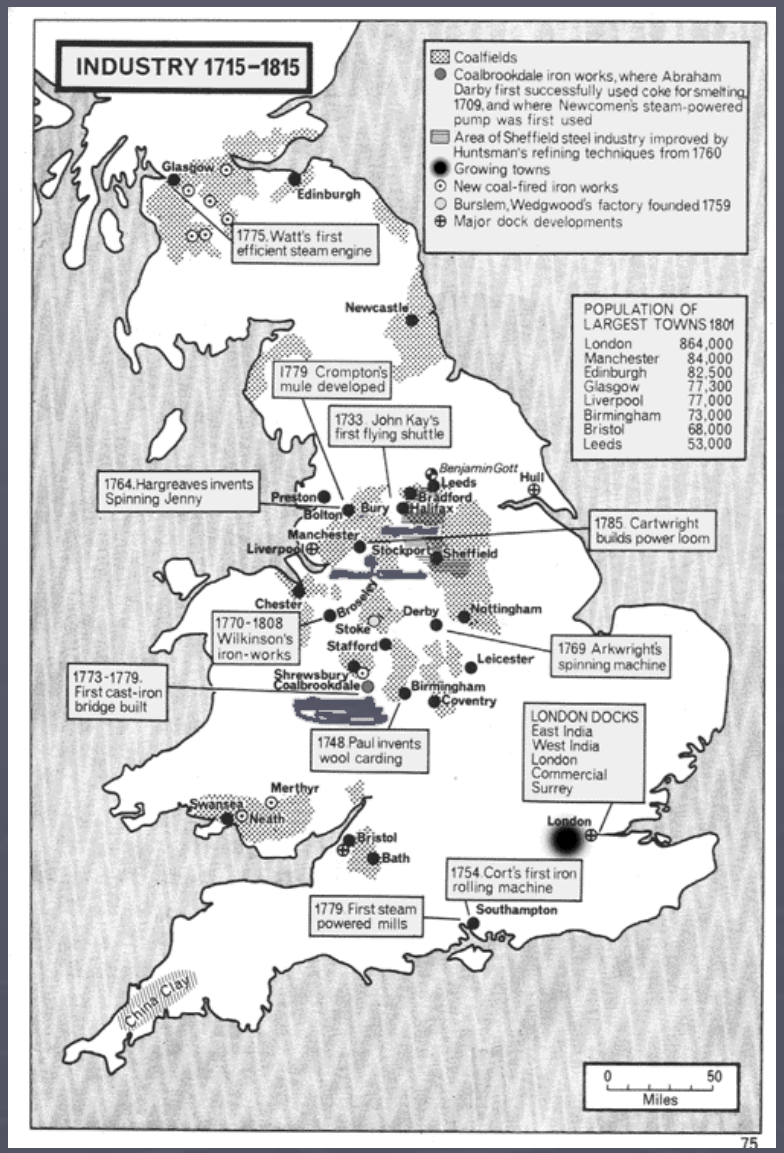
Origins of Industrialism: Britain

1. Capitalist System
   - Entrepreneurship
     - Heritage of people taking risks for economic gain
   - Middle-Class
     - Growing through guilds and trading systems
   - Patent System
     - Projection for ideas
2. Labor
   - Jethro Tull's seed drill and enclosure movement forced people to cities to look for jobs



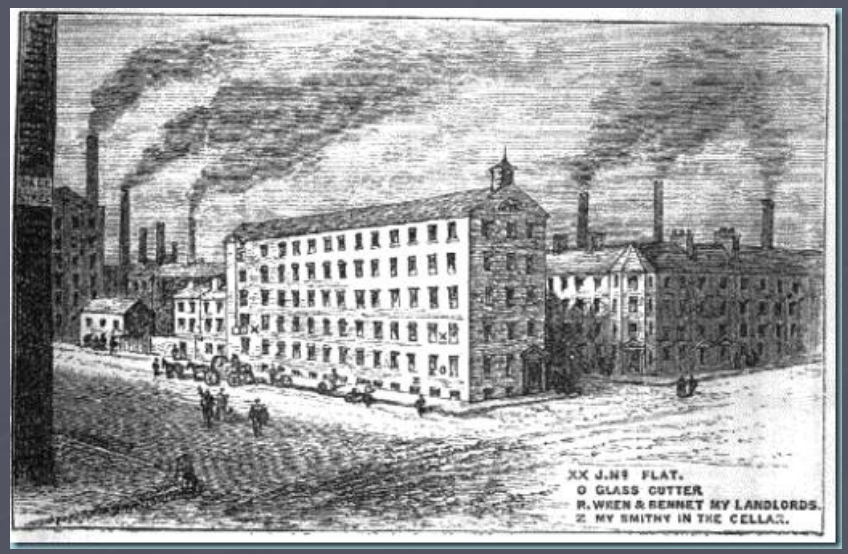
Origins of Industrialism: Britain

3. Easy access to resources
   - Iron and Coal
4. Transportation infrastructure
   - Ports, Roads, Canals
5. Location of resources
   - Close to rivers
6. Mature banking system
7. Stable political system
8. Colonies
   - Sources of raw materials



Effects of Industrialization

- Economic: Supply and Demand
  - More goods available at cheaper price
- Social: Urbanization
  - Labor clustering in cities
- Political: Ideology
  - Socialism/Communism
  - Capitalism
  - Liberalism



Effects of Industrialization

- Environment: Industrial Waste
  - Increased pollution
- Technological: Mechanization
  - Transportation
  - Manufacturing
- Economic: Agricultural
  - Second Agricultural Revolution
    - Mechanization of Agriculture
- Social: Demographics
  - Transition to second level of Demographic Transition Model