

# THE INDUSTRIAL REVOLUTION

## **Self-study texts → Moodle:**

Peter N. Stearns, *The Industrial Revolution in World History* (2013) - excerpts

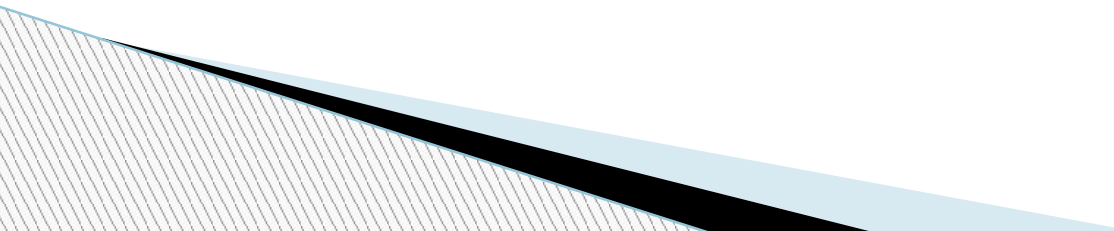
“The Railway” (from a review of Simon Bradley’s book *Nation, Network and People*, 2015)

François Bédarida, “Industrialism Triumphant” – pp. 9-12 (the last pages of the seminar text)

## Definition and essence

- a major turning point in human history – a profound transformation of the economy, social organization, cultural conditions, everyday life
- a shift from an economy based on farming and handicrafts to an economy based on manufacturing by machines in factories
  - revolution in agriculture (since the first half of the 18<sup>th</sup> c.)
  - revolution in technology - esp. the steam engine (improved 1760s, James Watt)
  - revolution in the organization of production: the factory as a radically new unit of production
- began in Great Britain in the 1770s

# WHY BRITAIN?

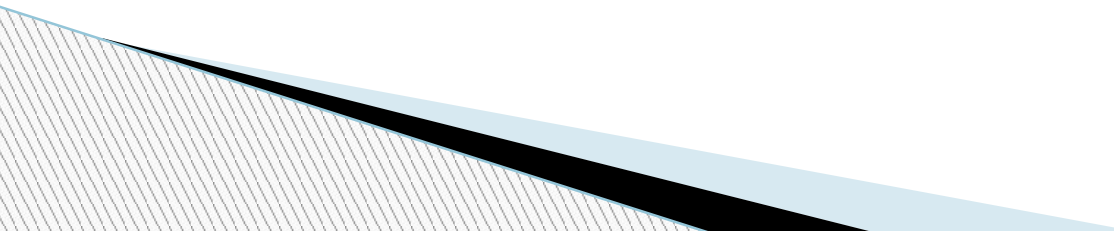
- 1) Geography and natural resources
  - 2) Enclosure of common land – the Enclosure Acts of the 18<sup>th</sup> c.
  - 3) Demographic boom
  - 4) Stable political situation; a non-interventionist government
  - 5) Availability of financial resources
  - 6) The colonial empire
  - 7) Religious, cultural and intellectual climate
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# Protestantism and the Protestant work ethic

Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, 1904

- the emergence of Western capitalist societies – linked to the internalization of a new set of values
- rooted in Calvinism:
  - worldly success and the accumulation of wealth – a sign of being God’s elect
  - work as a duty which benefits both the individual and society as a whole
  - working hard and making money – part of being a responsible, spiritually elevated person

Calvin: *“Hard work wins success only so far as God blesses our labour... No sacrifice is more pleasing to God than when every man applies himself diligently to his own calling, and endeavours to live in such a manner as to contribute to the general advantage.”*



# Liberalism and Utilitarianism

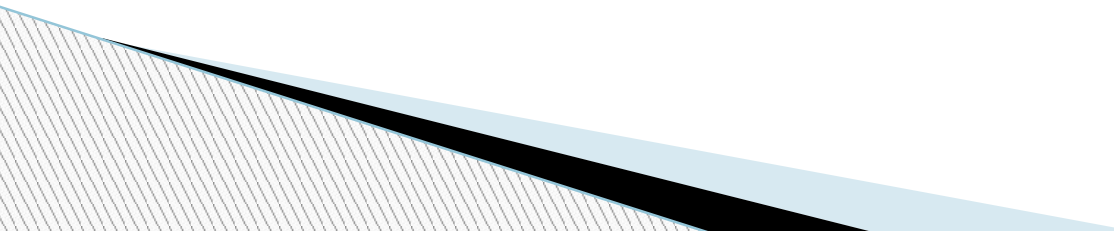
18<sup>th</sup>–19<sup>th</sup> centuries: Adam Smith, Thomas Malthus, David Ricardo, Jeremy Bentham, John Stuart Mill

The *laissez-faire* doctrine: government should intervene as little as possible in the economic system so that the economic order can operate according to its own inherent laws (laissez faire: French, literally – ‘leave alone’);

‘The Invisible Hand’ (A. Smith) – when individuals pursue their own economic interest, that benefits society more than direct intervention with the intention of doing good

Utilitarianism: the ethical doctrine that virtue is based on utility (usefulness), and that conduct should be directed toward promoting the greatest happiness of the greatest number of persons

# Britain – the “Workshop of the world”

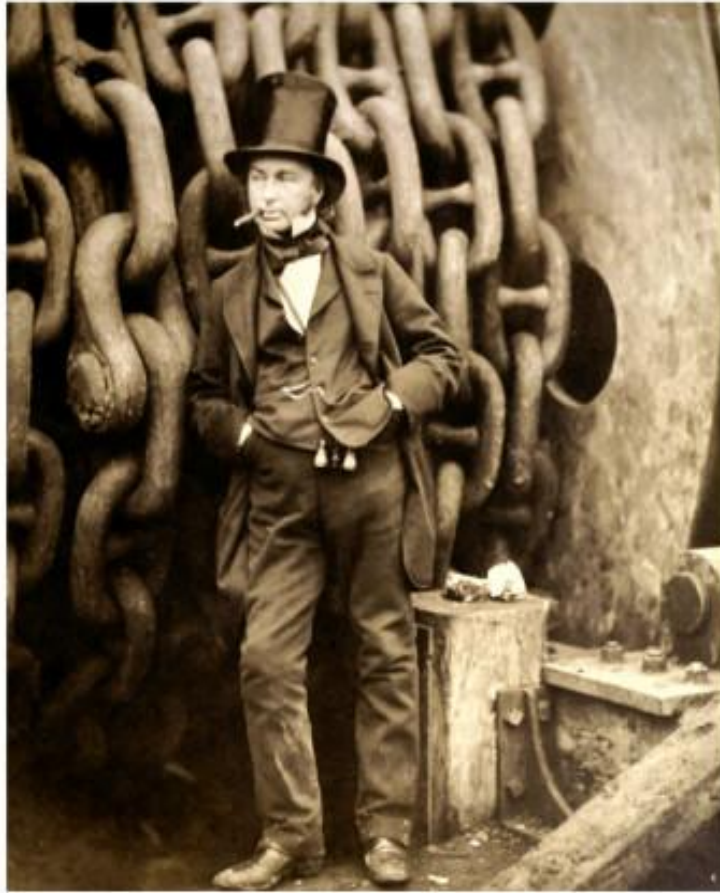
- Cotton production
    - the key early industry
    - technological advances in the 18<sup>th</sup> c. (The Flying Shuttle; The Spinning Jenny; the power loom; James Watt’s steam engine)
    - imported raw material; massively exported finished goods (1840 - about half the entire value of British export)
    - the first industry to be organized in factories
  - Coal mining
  - The iron and steel industries
    - coke [a solid fuel made by heating coal in the absence of air]; efficient furnaces; by the 1850s – the world’s largest producer of iron
  - Machine building
  - Transportation: steam ships; the railway
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## Philip de Loutherberg, 'Coalbrookdale by Night' (1801)



(1750s iron furnaces using coke as fuel; powered by a water-wheel which used water pumped from the river by a steam engine)



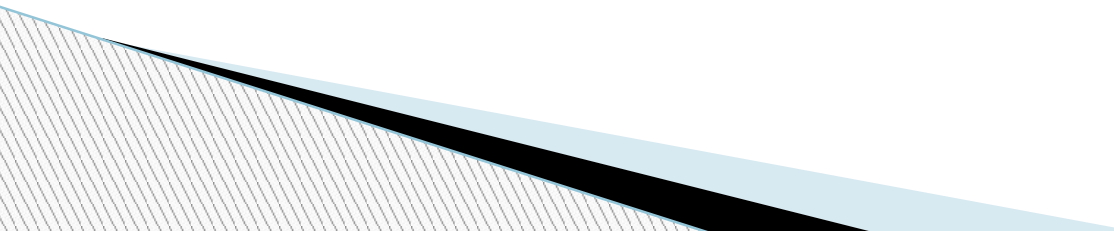
AllPosters

Isambard  
Kingdom Brunel, 1857

(in front of the giant iron chains of the  
*SS Great Eastern* during her  
construction at Millwall)



# The Railway

- 1830: first steam passenger service, **Liverpool-Manchester**; 32 miles. Locomotive: The *Rocket* (George Stephenson), 16 mph
  - By 1850: a national rail system; 6,000 miles of track
  - 1841: Thomas Cook - the first rail excursion from Leicester to Loughborough. In 1851 he organized huge rail excursions to the Great Exhibition -> rise of holiday travel
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# The Remains of Stephenson's 'Rocket', 1829. National Railway Museum





J. M. W. Turner, *Rain, Steam and Speed* (1844)

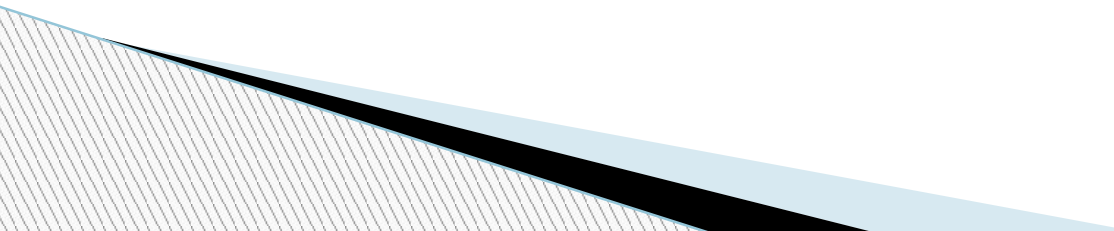
The Great Western Railway  
(engineered by I. K. Brunel, opened  
1838)

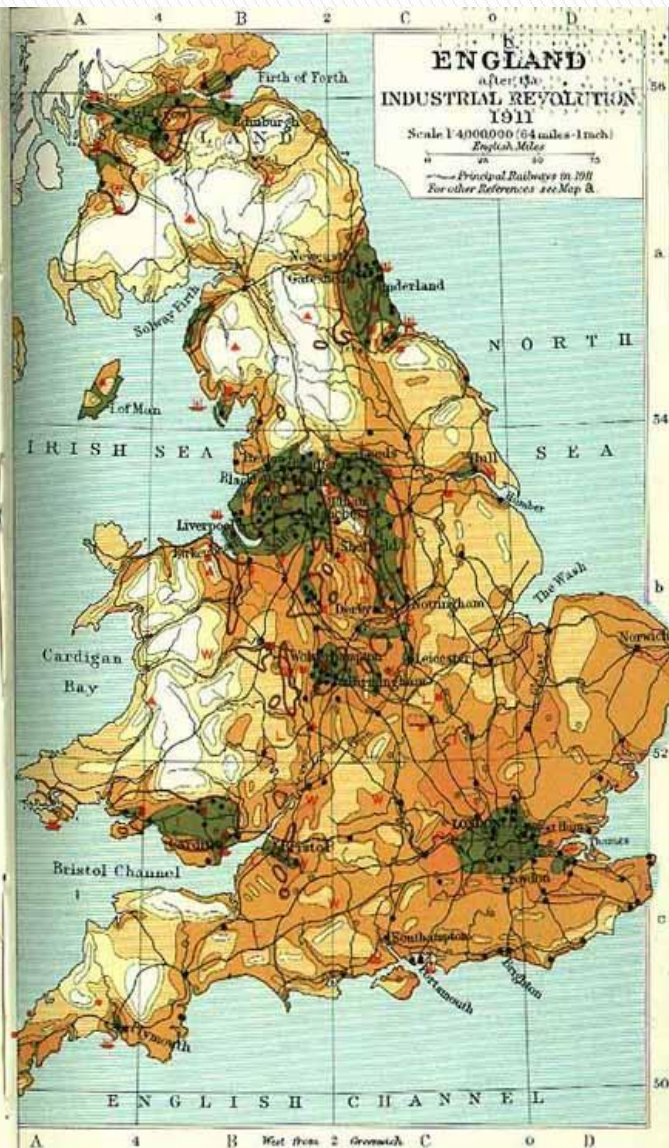
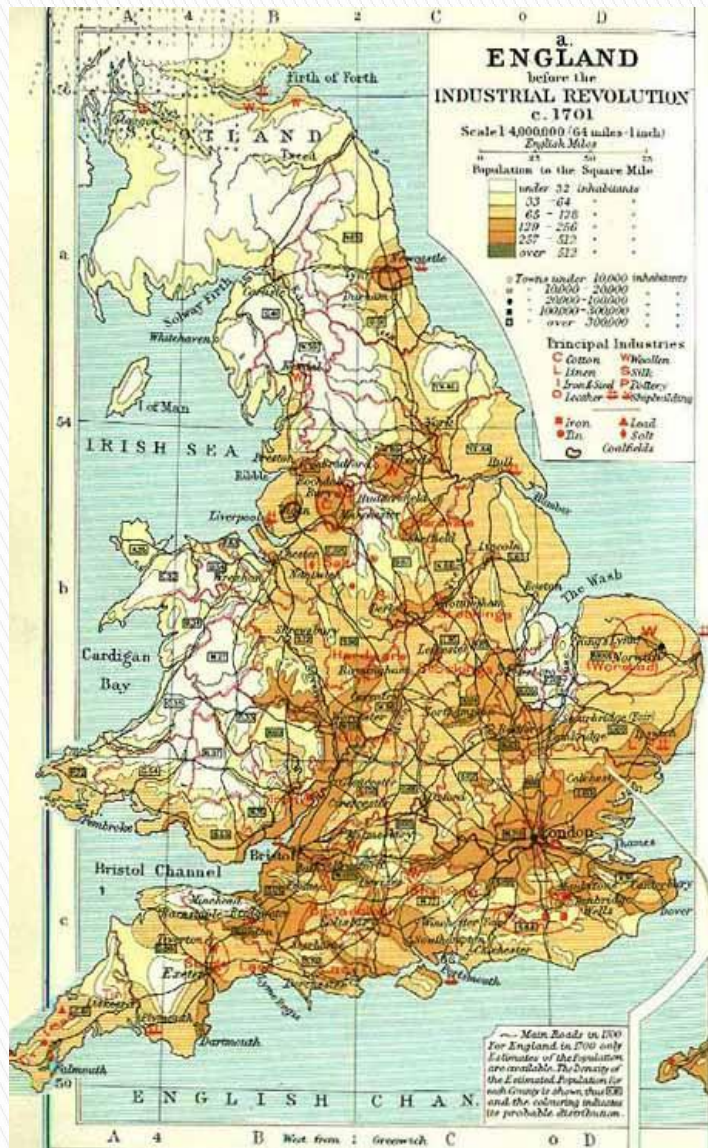


## William Powell Frith, "The Railway station" (1862)

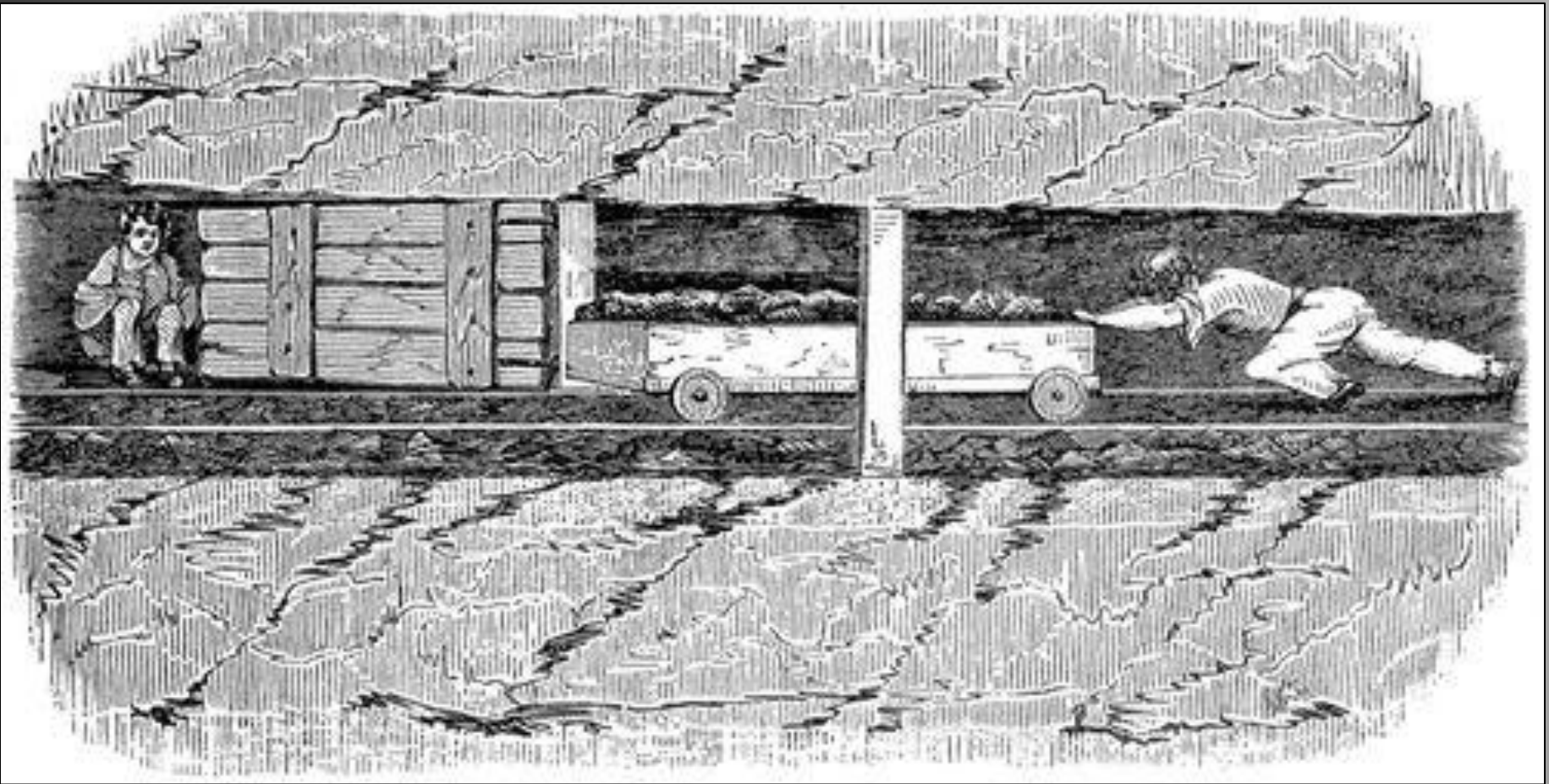
London, Paddington Station  
A Great Western Railway train

# SOCIAL IMPACT OF INDUSTRIALIZATION

- New labour organisation (read Stearns – self-study text, pp. 17-18)
  - Urbanization
  - Transformation of social structure: the industrial middle class and the industrial working class (read Stearns – self-study text, pp. 21-23)
  - Child labour and factory acts
  - Political reform
  - Impact on family life and gender roles (read Stearns – self-study text, pp.18-21)
  - The Mid-Victorian Boom and the confidence of the nation; the rise of consumerism
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Britain's population before and after the Industrial Revolution (1701-1911)



## Child labour in coal-mines



“Trapper” and “Drawer”

# Factory Acts – a move away from strict laissez-faire

- 1833:
  - children younger than 9 not allowed to work
  - children not permitted to work at night
  - young people under 18 could work no more than 12 hours a day
- 1844:
  - children 9–13 years could work for 9 hours a day with a lunch break
  - women and young people work the same number of hours
- 1847: the “Ten Hour Act”

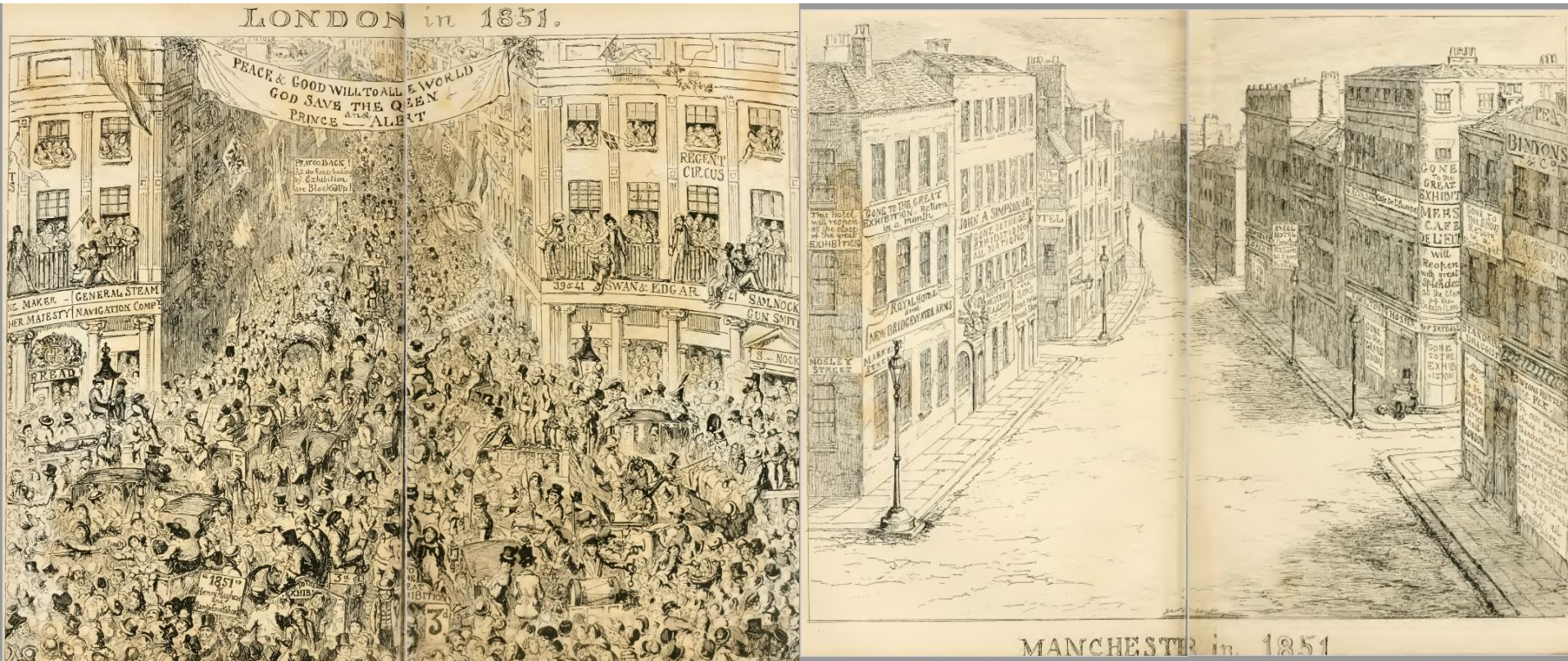


# POLITICAL REFORM

- The Reform Acts: 1832, 1867, 1884
- **Chartism:** a working-class movement for political reform in Britain, 1838-1858

**enfranchisement:** giving the right to vote (**the suffrage**) to the middle and part of the working class

# The Great Exhibition of 1851 – cartoons by George Cruikshank, 1851



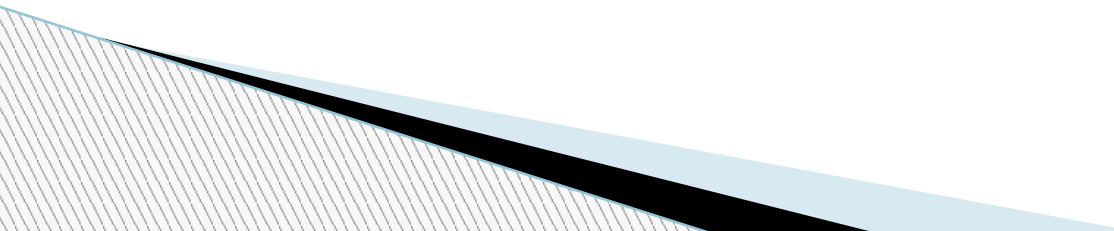




# The Great Exhibition of 1851: Crystal

The Mid-Victorian Boom and the peak of Britain's ~~Balance~~ **Balance**

# DOMINANT VICTORIAN VALUES

- Hard work, personal success
  - Individualism: self-reliance, self-help, self-improvement
  - “Respectability”: financial independence, propriety, modesty, sobriety
  - Enterprise, initiative, competition
  - Thrift, moderation
  - Belief in progress and social mobility
  - Social responsibility, duty towards society
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**THANK YOU!**

