

INDUSTRIAL REVOLUTION: REVOLUTIONS SPREADS

c. 1750-1900



THIS IS THE THEMATIC FOCUS. IT'S WHAT YOU SHOULD FOCUS ON FOR THIS SECTION

THEMATIC FOCUS

Technology and Innovation TEC

Human adaptation and innovation have resulted in increased efficiency, comfort, and security, and technological advances have shaped human development and interactions with both intended and unintended consequences.

GEOGRAPHY

INDUSTRIAL REVOLUTION: SPREADS c. 1750-1900

1800s

FREEMAN-PEDIA

AS EUROPEAN PRODUCTION GREW, MIDDLE EAST & ASIA SAW A DECLINE IN PRODUCTION

- SHIP BUILDING
- IRON WORKS
- TEXTILE PRODUCTION

INDUSTRIAL REVOLUTION: REVOLUTIONS c. 1750-1900

SPREADS

STEAM ENGINE

FALLING WATER IS TOO WEAK AND NOT RELIABLE...

- SCOTSMAN JAMES WATT WAS GIVEN A NEWCOMEN MODEL TO FIX/IMPROVE
- CAME UP WITH THIS MODEL

MOST INFLUENTIAL PEOPLE OF ALL TIME:

- MUHAMMAD
- NEWTON
- JESUS
- BUDDHA
- CONFUCIUS
- ST. PAUL
- TS'AI LUN
- GUTENBERG
- COLUMBUS
- ENSTEIN
- PASTEUR
- GALILEO
- ARISTOTLE
- EUCLID
- MOSES
- DARWIN
- ON SHUJIANGDI
- AUGUSTUS C.
- COPERNICUS
- LAOISIER
- CONSTANTINE
- JAMES WATT

(MICHAEL K. HART'S THE 100)

GLOBAL EFFECTS

DECLINE OF ASIAN/MIDDLE EAST SHARE IN GLOBAL MANUFACTURING:

IRONWORKS IN INDIA
INDIAN IRONWORKS PRIOR TO THIS PERIOD WERE WORLD RENOWNED (SEE MUGHALS), BUT BRITISH ARRIVAL/COLONIZATION LED THE BRITS TO SHUT DOWN/OUTLAW THE MINES AS IRON COULD BE USED TO HELP AID REBELLIONS AGAINST THE BRITISH RAJ

SHIPBUILDING IN INDIA/SE ASIA
SIMILAR TO IRON, AS THE BRITISH CAME IN, SHIPBUILDING IN INDIA WAS RESTRICTED OR COMMANDEERED FOR BRITISH USE. SE ASIA WAS SIMILARLY AFFECTED BY CHINESE, PORTUGUESE, & DUTCH ARRIVAL IN THE SPICE TRADE.

TEXTILE PRODUCTION IN INDIA AND EGYPT
BOTH WERE IMPORTANT CENTERS FOR TEXTILE PRODUCTION BUT WERE OUTPACED BY EUROPEAN INDUSTRIAL PROGRESS LEADING TO A DECLINE IN THEIR DOMINANCE.

FREEMAN-PEDIA

KC-5.1.II.B

The rapid development of steam-powered industrial production in European countries and the U.S. contributed to the increase in these regions' share of global manufacturing during the first Industrial Revolution. While Middle Eastern and Asian countries continued to produce manufactured goods, these regions' share in global manufacturing declined.

KC-5.1.I.D

As new methods of industrial production became more common in parts of northwestern Europe, they spread to other parts of Europe and the United States, Russia, and Japan.

INDUSTRIAL REVOLUTION: SPREADS

SLATER'S MILL, RHODE ISLAND

- "FATHER OF THE AMERICAN INDUSTRY"
- REVOLUTION
- BRITISH; W
- FROM AGE
- MEMORIZE
- OPENED 19
- BRITS CAL

Samuel

INDUSTRIAL SPREAD

RUSSIA FINALLY BE

- RUSSIA WAS ON A PRE
- MONGOLS, PETER, OTTO
- CONSERVATIVE TSARS
- MODERNIZATION DOW
- CATALYST: RUSSIA LOS
- TO A COALITION OF
- RUSSIA MUST MODERN
- 1861: EMANCIPATE
- 1892: APPOINT SER
- FORMER TICKET CI
- BUILT TRANS-S
- BUILT COMMER
- SIGNED TRADE

MEIJI RESTORATION

1853-4: USA SENT MATTHEW PERRY TO OPEN TRADE WITH JAPAN

MISSISSIPPI, ONE OF THE FOUR NAVAL GUNSHIPS

- PERRY WAS LEADING ADVOCATE FOR THE USE OF STEAM ENGINE →
- CARRIED LETTER TO EMPEROR FROM THE US PRESIDENT
- SAILED TO CHINA FIRST
- HAD LETTERS TRANSLATE TO DUTCH (DUTCH LEARNING)

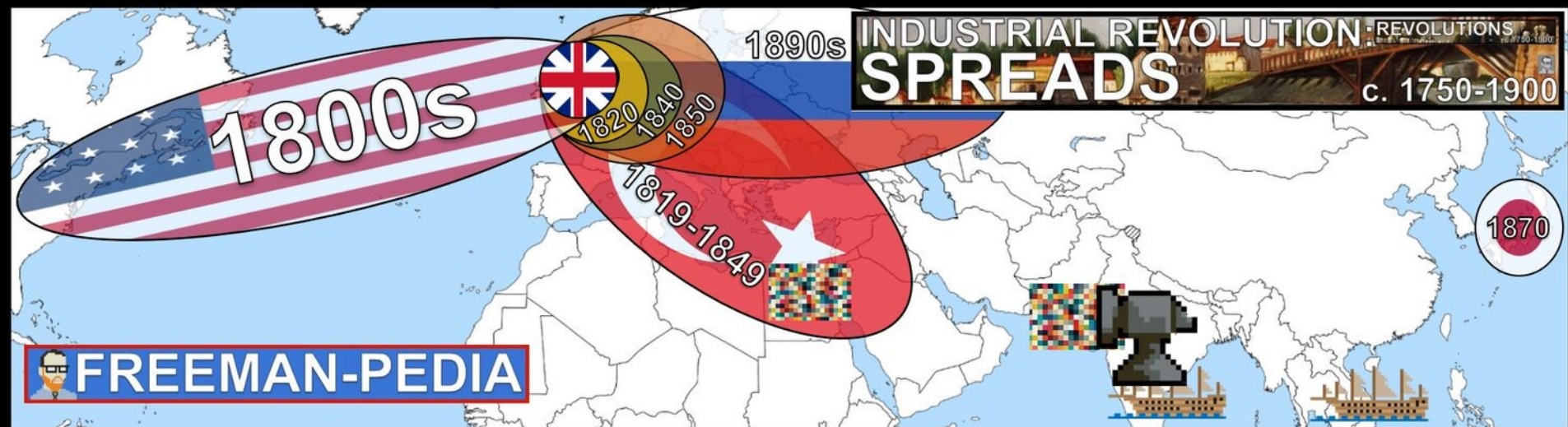
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SERGEI WITTE, PRIME MINISTER, FINANCE MINISTER, & MINISTER OF TRANSPORT, ADVOCATE FOR MODERNIZATION

GEOGRAPHY



AS EUROPEAN PRODUCTION GREW, MIDDLE EAST & ASIA SAW A DECLINE IN PRODUCTION:

SHIP BUILDING **IRON WORKS** **TEXTILE PRODUCTION**



THE INDUSTRIAL REVOLUTION BEGAN IN BUT, IT QUICKLY SPREAD...



1810s: **UNITED STATES OF AMERICA**

- FRANCIS CABOT LOWELL MEMORIZED MACHINES WHILE WORKING IN ENGLAND & BUILT AMERICA'S FIRST "FACTORY" IN 1813

1825: **BELGIUM**

- FORMER ENGLISHMAN JOHN COCKERILL TRANSPLANTED HIS FAMILY BUSINESS

1830s: **FRANCE**

- INDUSTRIALIZATION WAS SLOW AFTER THE 25+ YEARS OF WARFARE IN FRANCE

1840s: **GERMANY**

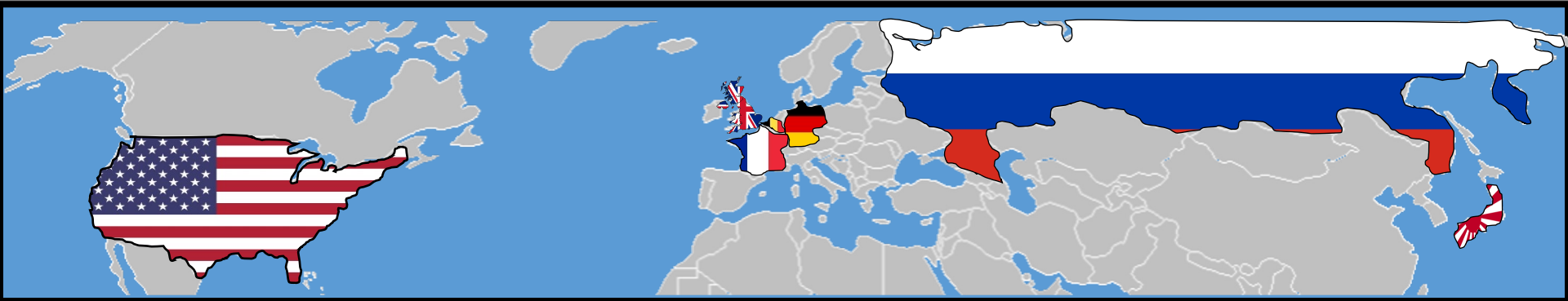
- BEGINNING IN 1840s & TAKING OFF AFTER UNIFICATION (1871), GERMANY CAME TO RIVAL THE BRITISH INDUSTRIAL OUTPUT (*GERMANY=#1 INDUSTRIALIZED NATION IN THE WORLD BY 1914*)

1870s: **JAPAN**

- JAPANESE INDUSTRIALIZATION FOLLOWED THE MEIJI RESTORATION (RAPID MODERNIZATION)

1890s: **RUSSIA**

- TSAR NICHOLAS II BEGAN SLOW PROCESS OF INDUSTRIALIZATION LAGGING BEHIND THE WEST
- CONSTRUCTION BEGINS ON THE TRANS-SIBERIAN RAILROAD TO CONNECT TO PACIFIC



INDUSTRIAL REVOLUTION: REVOLUTIONS

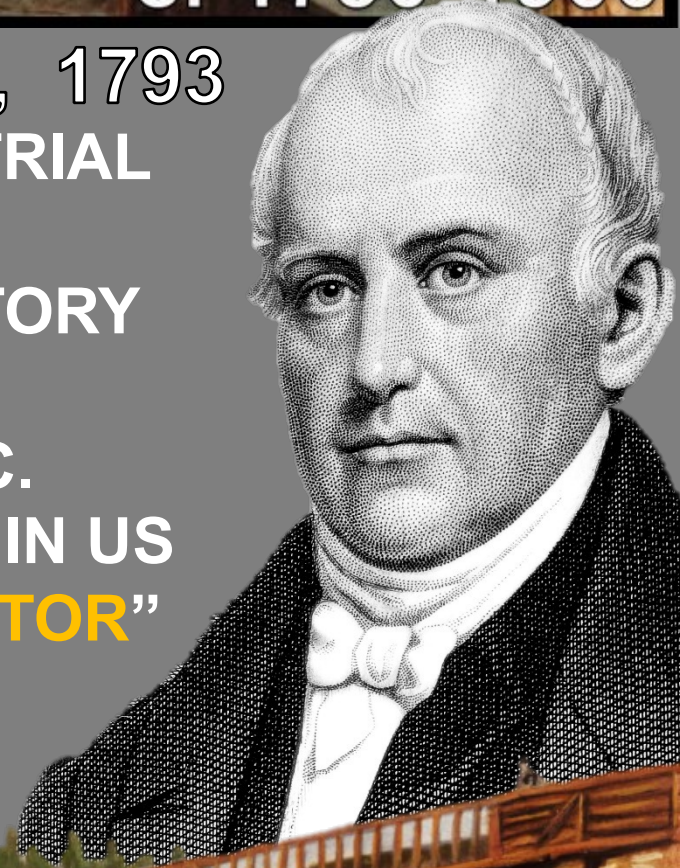
SPREADS

c. 1750-1900

SLATER'S MILL, RHODE ISLAND, 1793

- “FATHER OF THE AMERICAN INDUSTRIAL REVOLUTION.” –ANDREW JACKSON
- BRITISH; WORKED IN ENGLISH FACTORY FROM AGE 10-21
- MEMORIZED MACHINES, PLANS, ETC.
- OPENED 1ST WATER POWERED MILL IN US
- BRITS CALL HIM “**SLATER THE TRAITOR**”

Samuel Slater



INDUSTRIAL REVOLUTION: REVOLUTIONS SPREADS

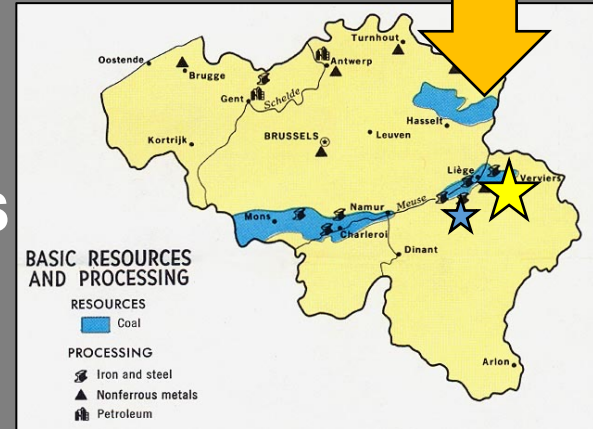
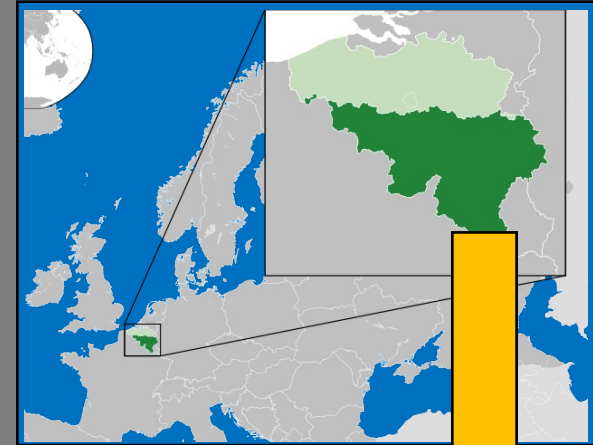
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1ST STOP IN EUROPE: **BELGIUM** →



 John Cockerill

- TWO BRITISH INDUSTRIALISTS MOVED TO RESOURCE RICH WALLONIA, **BELGIUM** IN 1807 →
 - WILLIAM WAS A MECHANICAL ENGINEER IN ENGLAND
 - ←JOHN (SON) TOOK OVER
 - BUILT TEXTILE MACHINERY FACTORY IN 1807 IN VERVIERS ★
- BY THE 1840s, THE COCKERILLS WERE THE WORLD'S LARGEST STEEL PRODUCER



★
COCKERILL STEEL PLANT AT SERAING, BELGIUM

INDUSTRIAL REVOLUTION: SPREADS

REVOLUTIONS c. 1750-1900

RUSSIA FINALLY BEGINS TO CATCH UP

- RUSSIA WAS ON A PRETTY BIG WIN STREAK:
- *MONGOLS, PETER, OTTOMANS, CATHERINE, NAPOLEON...*
- CONSERVATIVE TSARS IN MID 1800s SLOWED MODERNIZATION DOWN (WORST TIMING...)
- CATALYST: RUSSIA LOSES CRIMEAN WAR (1853-6)
 - TO A COALITION OF BRITAIN, FRANCE, OTTOM.
- RUSSIA MUST MODERNIZE TO CATCH UP
 - 1861: EMANCIPATE THE SERFS
 - 1892: APPOINT SERGEI WITTE TO FINANCE MIN
 - FORMER TICKET CLERK
 - BUILT **TRANS-SIBERIAN RAILROAD**
 - BUILT COMMERCIAL SCHOOLS
 - SIGNED TRADE TREATIES WITH CHINA



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