

Modern Euro-American Science and Imperialism

Modern European Scientific Practices

Copernicus 1473-1543 founds mod. astronomy

Francis Bacon 1561-1626 uses induction & deduction not apriori scholastic method and writes scientific manuals using witch trials

Galileo 1564-1642 uses math to analyze nature

Descartes 1596-1650 applies math to all knowledge & founds mod. philo & analytic geometry

John Locke empiricism, private property, and 1632-1704 constitutional gov't

Isaac Newton 1642-1727 calculus, gravity, fluid mechanics, light theory, laws of motion

Voltaire 1694-1788 secularism, science & freedom

David Hume 1711-76 human nature theory sets empiricist approach to psych. & sociology

Denis Diderot 1713-84—secularism, sci. method, encyclopedia (pub. 1751-72)

Immanuel Kant 1724-1804 mod. philosophy

Adam Smith 1723-90 founds modern economics

Mary Wollstonecraft 1759-97 women's rights

Auguste Comte 1798-1857 founds positivism

Charles Darwin 1809-82 theory of evolution

Herbert Spencer 1820-1903 pop. evol. & founds soc.

Karl Marx 1818-83 founds political economy

Modern European Institutions

ca. 1500 Portuguese displace Muslim traders in Africa

English capitalism flourishes 1450-1640

1524 Spain establishes council of Indies

16-17th c. enclosure of English commons

Queen Elizabeth 1533-1603 begins Eng. colonization and builds large navy to defeat Spain 1588

Académie Française est. 1635

Royal Society of London est. 1645

Treaty of Westphalia 1648 est. mod. nations

English (Glorious) Revolution 1688-9 constitutional gov't/Bill of Rights

1730s about 1/3 of Europe pop. literate

U.S. Revolution 1770s

1770s newspapers widely available

1770s scientific journals flourish

1780s scientific academies flourish

1780s first English cotton industrialization

French Revolution 1780s-90s

Haitian Revolution 1801-4

British Industrial Revolution 1780-1850

1800s workplace shifts from home to factory

1800s nation-state monopolizes force

1877 U.S. Reconstruction ends

Euro-American Imperialism

1490s Spanish colonizes New World

1490s Vasco De Gama establishes Portuguese in India & Africa

1565 first Spanish settlement N. Am.

1600 English East India Co. founded

1621 (Dutch) West India Co. est. for slave trade

1637 Puritan genocide vs. Pequots

Dutch city-states gain independence from Spain (1848)

1660 Royal African (slave) Co. begun

English confiscating Irish lands

1670s New Eng. war vs. Wampanoags

1675-7 Virginians vs. Susquehannock

1680 Pueblo Indian revolt drives Spain out of area

1766-69 Spanish establish California missions

British expel French (1756) from Canada & India

1803 U.S. Louisiana purchase

1812 Bolivar revolts in Columbia

1818-22 Chile & Peru independence

U.S. Treaty of Guadalupe 1848

1860s-80s U.S. wars against Indians

1895 Japan defeats China & beg. col.

1898 U.S. takes Spanish colonies

Sources:

Peter Hamilton, "Enlightenment and the Birth of the Social Sciences," Modernity, ed. Stuart Hall, et al., Blackwell Pubs., 1996, p. 19-54.
The Concise Columbia Encyclopedia, ed., Judith Levey and Agnes Greenhall, New York: Columbia University Press, 1983.

Scientific method:

Claimed to combine reason and empiricism through knowledge based on European experimental method (17th c. scientific revolution, esp. Newton) making objective statements beyond philosophical, theological, and ideological disputes.

Newton's work popularized in Enlightenment France by Voltaire and philosophes