What the Renaissance knew
Exploration

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What the Renaissance knew

• Long-distance sailors before Columbus
  – Pacific Islanders (succeed)
    • (Micronesian sailors could navigate from island to island even if those islands have no mountains, i.e. cannot be seen until you are almost there, and there is no coast to follow like in the Mediterranean)
  – Vikings (fail)
  – 1336: Lanzarote Malocello discovers the Canary Islands
What the Renaissance knew

- Long-distance sailors before Columbus
  - Pacific Islanders (succeed)
What the Renaissance knew

• The age of exploration
  – The world according to Cristoforo Colombo

Henricus Marcellus’ map of 1489
What the Renaissance knew

• The age of exploration
  – A combination of small-scale privately-funded ventures (early exploration) and large-scale state-funded ventures
  – Both profit oriented at the beginning (the latter also geopolitical later)
What the Renaissance knew

• The age of exploration
  – 1488: Bartolomeu Dias rounds the Cape of Good Hope
  – 1492: Italian seaman Cristoforo Colombo/Colon/Columbus accidentally discovers America (for Spain)
  – 1493: Colombo discovers the way to navigate the Atlantic back and forth using averse winds
  – 1497: Italian seaman Giovanni Caboto/Cabot discovers the spring wind to travel from Britain to Canada (for England)
  – 1497-99 Vasco de Gama discovers how to travel from Portugal to India via the Cape of Africa (winds and currents of the South Atlantic)
What the Renaissance knew

• Circumnavigations of the Earth
  – Ferdinand Magellan (Spain): 1519-1522 (westward from Spain)
  – Francis Drake (England): 1577-1580 (westward from England)
  – Ignacio de Loyola (Spain): 1585-1589 (eastward from Spain)
  – Joao da Gama (Portugal): 1584-1590 (eastward from Portugal)
  – Jacques Mahu (Holland): 1598-1601 (westward from Holland)
  – Francesco Carletti (Italy): 1594-1602 (westward from Italy but crossed Panama overland)
  – Giovanni Gemelli-Carerri (Italy): 1693-1698 (eastward from Italy but crossed Mexico overland), first paying tourist to circumnavigate the globe
  – Jeanne Bare' (France): 1766-1769 (first woman to circumnavigate the globe, disguised as a man),
  – James Cook (England): 1768-1771
Columbus trips (1492-1502)
What the Renaissance knew

- Sebastian Munster (Basel, 1552)
  - The earliest map of the entire America and the first to name the Pacific
  - Zipangri = Japan
  - Cathay = China
  - The flag indicates the demarcation line of the Treaty of Tordesillas
What the Renaissance knew

Sebastian Munster (Basel, 1552)

Spain

Portugal

Sebastian Munster (Basel, 1552)

Zipangri = Japan

Cathay = China
Petrus Bertius (Lochom, 1640)

"non encore descouvertes" = "not yet discovered"
What the Renaissance knew

Jodocus Hondius (1606)
What the Renaissance knew

- The prototypes for European imperialism
  - Madeira
  - Azores
  - Canary Islands
- European people adapt well
- European domesticated animals adapt well
- European crops adapt well (especially sugar)
What the Renaissance knew

• Seafaring
  – Sailing from Spain to the Canary Islands is not a problem: the winds will take you there.
  – Coming back is the real problem: the current is relentlessly contrary.
  – Ships need to sail northwest (away from Spain) before hitting the winds that can carry them east towards Spain (the “volta do mar”)


What the Renaissance knew

• Marco Polo
  – Brings to Europe the knowledge that both the Indian Ocean and the China Sea are ruled by two seasonal winds, each blowing in the opposite direction
  – Winter: ships sail from India to the Middle East, Africa and Southeast Asia
  – Summer: back from Southeast Asia to India
What the Renaissance knew

• Bartolomeu Dias
  – 1487: Finds a way to reach the southern coast of Africa despite adverse currents and winds
  – 1488: Rounds the Cape of Good Hope
  – A mutiny sends him back to Portugal
  – Brings back the knowledge that there is a passage from the Atlantic to the Indian Ocean and that the wind patterns of the southern Atlantic are similar to those of the northern Atlantic, just reversed
What the Renaissance knew

- Cristoforo Colombo
  - 1492: Sails south to the Canary Islands
  - Sep 1492: Sails west thanks to favorable wind
  - The route remained a favorite for centuries
  - Even English ships would sail south to the Canary Islands before heading west to America
  - Returns with a “volta do mar”: first northeast, then east to the Azores
What the Renaissance knew

• Vasco da Gama
  – 1497: sails from Cape Verede southwest away from southern Africa towards Brazil and then southeast to the Cape of Good Hope, making a “volta” of 84 days (longer than it took Colombo to reach America)
  – 1498: reaches India by sea
  – The Indian Ocean is a much easier sea than the Atlantic Ocean
  – The Indian Ocean is already well known to maritime people from Africa to Indonesia (an Indian Muslim helps Vasco de Gama)
What the Renaissance knew

• Ferdinand Magellan
  – Sep 1519: Sails from Spain to Canary Islands to Cape Verde and to South America
  – Nov 1520: Crosses the strait into the Pacific Ocean
  – Mar 1521: Reaches Guam (after 99 days from the strait) and the Philippines
  – Apr 1521: Killed by Filipino warriors
  – Sep 1522: Juan Elcano completes the circumnavigation of the globe with a cargo of cloves, cinnamon, mace and nutmeg
  – Elcano brings back knowledge that the world is a lot bigger than previously realized
What the Renaissance knew

• The Classic Route from Europe to America
  – 1513: Ponce de Leon discovers Florida and learns how to use the Gulf Stream
  – 1519: Antonio de Alaminos sails from the Indies to Spain through the Florida straits exploiting the Gulf Stream
What the Renaissance knew

- The Classic Route from Asia to America
  - Jun-Sep 1565: Andres de Urdaneta sails from the Philippines to Acapulco in 129 days
What the Renaissance knew

• The first planetary tourist
  – Francesco Carletti travels from Spain to Cape Verde to Mexico to the Philippines to Japan to China to India back to Portugal via St Helena
What the Renaissance knew

- The age of exploration/ African Slave Trade
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Prevailing north-south Atlantic currents made voyages from Europe to Africa possible but not viceversa
  – Traffic from Africa to Europe forced to be overland
  – European navigation technique prospered and improved thanks to the three large inland seas (Mediterranean, North Sea, Black Sea)
  – Opening of navigation between the Mediterranean and the North Sea (1277) pioneered the techniques needed to travel the world
What the Renaissance knew

- The age of exploration / African Slave Trade
  - Canaries (1341): inhabited
    - Initially: trade, slave raids (Portugal)
    - Colonization (1405, Norman colonists sponsored by Spain) using local slaves
    - Agricultural expansion (sugar, wine, wheat, dairy products, meat) using local slaves
What the Renaissance knew

- The age of exploration/ African Slave Trade
  - Senegal (1444): Portuguese traders, gold and slave trade
  - Cape Verde islands (1445): Portuguese traders, inhabited, trade post, colonization, agricultural expansion (sugar)
  - Portuguese merchant Fernao Gomes (1470s) reaches the “Gold Coast” (Ghana) and the pepper region (Benin)
  - Portugal organizes (1482) the first state-funded expedition into the Atlantic (Diogo Cao, to the Kongo)
  - Portugal founds (1482) the first European settlement in West Africa, Elmina (Ghana)
• The age of exploration/ Africa in the 1400s
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Portugal to Africa: cloth from Flanders and England, brass and copper goods from Germany, glass from Venezia/Venice, swords from Spain, candles… and slaves from other African kingdoms
  – Africa to Portugal: slaves, gold, ivory
  – Genoese and Florentine merchants act as middlemen within Europe
  – The Pope gives his blessing with the bull “Romanus Pontifex” (1455), which views the slave trade as a form of missionary activity
  – The king of Portugal makes more money selling slaves around Europe than by all its taxes combined (1466)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Booming demand for slaves in Spain (eg, for draining marshes, and sugar plantations of Canary Islands)
  – Florentine merchants manage the trade of black and Muslim slaves in Sevilla (e.g., Juanotto Berardi, first cargo of slaves to cross the Atlantic, although from the “Indies” to Spain, and Bartolomeo Marchionni, first supplier of African slaves to the Spanish colonies in the New World)
  – Columbus a product of the slave-based economy of the Atlantic
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – African naval superiority near the coasts and up the rivers
  – Fundamental parity: African forces could not attack European ships in high seas, but European forces could not attack the mainland
  – Africans conducted trade with Europeans on their own terms
  – European commerce in West Africa took place most often on ships anchored well away from shore
    • Diseases (deadly for Europeans)
    • Language (unknown to Europeans)
    • Know-how (unknown to Europeans)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Europeans did not export anything to Africa that Africa did not already have
  – Trade was purely profit-oriented
    • Iron (from 16th c): European iron was cheaper in Senegambia than the iron transported overland from inland regions (but African steel was superior quality than European steel)
    • Cloth: European textiles were not a necessity but a vanity good (the Kongo produced the same amount of textiles as Holland in the 17th c, and the most prestigious cloth was the one produced north of the Gold Coast, Europeans helped export African textiles to other parts of Africa)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Slaves needed in the “New World” for Portuguese sugar plantations
  • Madeira (1480s): Italian techniques and capital (Sicilian technology and marketing by Lomellino family of Genoa), indigenous labor force (biggest exporter of sugar in the world in 1500)
  • Sao Tome` (1500s): exclusively slave labor, faster-growing operations
  • Brazil (1540s): Amerindian and African slaves, larger and faster-growing operations
  • Spanish sugar colonists: Santo Domingo (1505), Puerto Rico (1523), Jamaica (1527)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Slaves needed in the “New World” for Spanish gold mines
    • Hispaniola (first shipment of black African slaves, 1510)
    • Cuba (1524)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Native “Indians” of the New World vulnerable to disease and not use to harsh labor conditions
  – Decimation of the native population of the West Indies
  – Black Africans preferred for harsh labor conditions (one black slave worth four “Indians” in a 1511 report to the Spanish king)
  – King Ferdinando of Spain authorizes shipment of black African slaves from Spain to the West Indies (1510, for Hispaniola’s gold mines)
  – King Joao III of Portugal authorizes shipment of black African slaves directly from Sao Tome to the Spanish Indies (1533)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – The demographic collapse of the West Indians turns the African slave trade into a colossal enterprise
  – Chronic shortage of labor in the New World
  – Black Africans tend to side with Spanish/Portuguese masters against the “Indians”
  – Revolts
    • Hispaniola, 1522: black African slaves try to escape
    • Santo Domingo, 1533: guerrilla war by Indians against the Spanish
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Portuguese slave trade of 1526-30: 18,000 to Sao Tome, 7,500 to Europe, 5,000 to the Atlantic islands, 12,300 to Spanish America
  – After 1530: mostly Spanish America (although mostly traded by Portuguese ships)
  – Slave routes: from Sao Tome and Elmina to Cape Verde to Madeira, Canary Islands, Lisbon, Sevilla to Cartagena (Colombia), Portobello (Panama, Santo Domingo, Havana (Cuba), Veracruz (Mexico)
  – Until 1553: kingdom of Benin is the main supplier of slaves to Portugal
  – 1575: Luanda founded, headquarters of Portugal’s operations in the south
  – End of 16th c: direct route from Sao Tome to Brazil
What the Renaissance knew

• The age of exploration/ African Slave Trade
What the Renaissance knew

- The age of exploration/ African Slave Trade
  - 1510: First import of African slaves into Spanish America to man the sugar industry
  - 1530s: Spanish slave trade centered on Nicaragua
  - 1550s: Black population of Spanish America vastly outnumbers white population
- Weakness of imperial control
- Missionaries: Franciscans (1524), Dominicans (1526), Jesuits (1550)
- Gold, God and Glory
- “The black slave is the basis of the hacienda and the source of all wealth” (Jose de los Rios, procurator-general of Lima, 1646)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – 1550: Lisbon has 10,000 slaves (mostly domestic servants) from black Africa, India, China, etc
  – 1565: Sevilla has 6,000 slaves (mostly domestic servants and miners) from Africa (both blacks and Berbers)
  – Marriage between whites and blacks not forbidden
  – The high birth-rate of the 16th century makes African slaves redundant in Europe
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Abolitionists
    • Domingo de Soto, Dominican theologian of Segovia: “De Iustitia et de Iure” (1557)
    • Alonso de Montufar, archbishop of Mexico: “We do not know of any just cause why the negroes should be captives” (1560)
    • Fernao de Oliveira, captain of Portugal: “Arte da Guerra no Mar” (1554)
    • Martin de Ledesma, Dominican friar of Coimbra: “Commentaria” (1560)
    • Tomas de Mercado, Dominican friar: “Suma de Tratos y Contratos” (1569)
    • Bratolome Frias de Albornoz, first lawyer in New Spain: “Arte de los Contratos” (1573)
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – 1591: Battle of Tondibi (Morocco destroys the Songhai Empire) increases the supply of African slaves
  – Several villages of the Niger delta become wealthy city-states specializing in the slave trade with the Portuguese
  – International currency: cowries (used from India to Islam to Africa)
  – Positive impact of Portugal on Congo and Angola
    • Agricultural revolution (rice, oranges, cassava)
    • Population boom
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Brazil in 1600:
    • 120 sugar mills, passes Sao Tome as main sugar supplier
    • Large-scale sugar-only slave-driven plantation pioneered in Brazil
    • 350,000 African slaves sold to Brazil in 1651-1700
    • 1700s: Gold rush of the Minas Gerais
    • 150,000 African slaves sold to Brazil in 1701-1710
    • Brazil exports tobacco and brandy to Africa
What the Renaissance knew

• The age of exploration/ African Slave Trade
  – Spanish America in 1640:
    • 330,000 African slaves in Spanish America
      – 150,000 in Peru
      – 105,000 in New Spain (Virreinato de Nueva España, i.e. Mexico and Central America)
      – 16,000 in the Caribbean
      – 45,000 in Colombia
      – 12,000 in Venezuela
• The Spanish Empire needs 9,000 African slaves per year
What the Renaissance knew

• The age of exploration/ Latin America
  – The Treaty of Tordesillas (1494) between the Catholic powers of Spain and Portugal
  – Contested by Protestant Britain
What the Renaissance knew

- The age of exploration/ Latin America

Balboa 1513
Ponce de León 1513
Cortés 1518-1521
Cortés 1524-26
Francisco Pizarro 1524-25
Francisco Pizarro 1526-27
Francisco Pizarro 1531-33
Narváez 1527-28
Cabeza de Vaca 1528-1536
Cabeza de Vaca 1541-44
Benalcázar 1534-39
Almagro 1535-37
Jiménez de Quesada 1536-37
Federmann 1537-39
Gonzalo Pizarro 1540-42
Orellana 1541-42

(National Geographic: Into the Unknown)
What the Renaissance knew

- The age of exploration/ Latin America
  - Map of viceroyalties
What the Renaissance knew

• The age of exploration/ Latin America
  – 1519-21: Cortes conquers the Aztecs in Mexico
    (only 2 million survive war, disease and famine, out of a population of 25 million)
  – 1531-36: Pizarro conquers the Incas in Peru
  – Gold from Peru and Caribbeans (1500)
  – Silver from Mexico and Potosi (1545)
What the Renaissance knew

• The age of exploration/ Latin America
  – Spanish conquest of the New World via “encomiendas” (private enterprise) and missions not war campaigns
  – Encomienda: the natives are trusted to a Spaniard who is responsible for their education in Spanish language and Catholic religion in return for their work
  – Towns and encomiendas economically linked together (consumer and producer)
  – Spanish encomenderos only controls a tiny part of the Americas (coastal areas, mining towns)
What the Renaissance knew

• The age of exploration/ Latin America
  – Missionaries: Franciscans (1524), Dominicans (1526), Jesuits (1550)
  – 1520: The Dominican friar Bartolome` de las Casas creates a utopian farming community in Venezuela (inspired by Thomas More’s “Utopia” of 1518)
  – 1532: The Dominican friar Vasco de Quiroga founds the hospital of Santa Fe in Mexico City (inspired by More, up to 30,000 Indios)
  – 1542: Bartolome` de las Casas frames new laws protecting the “Indios”
  – Missions created as self-sufficient economic systems opposed to the brutal exploitation system of the encomiendas
What the Renaissance knew

• The age of exploration/ Latin America
  – 1579: Jesuits found utopian missions in Paraguay and northern Argentina (there are 22 by 1679)
    • More tolerant towards the rights of the Indios than the encomiendas
    • Main exports: yerba mate, textiles, boats, books
    • Proto-industrial society: mills, looms, tanneries, boat building, printing press, etc
    • De-facto trade monopoly in the region
    • Huge profits for the Jesuits
    • A communist theocracy with a capitalist export system
What the Renaissance knew

- The age of exploration/ Latin America
  - Jesuit-mission economy opposed by both Spanish encomenderos and Brazilian “paulistas/mamelucos” (mixed race colonists and slave hunters, from Arabic “mamluk” or "slave")
  - 1631: Jesuit missions moved inland to escape persecution and found Candelaria
  - 1640: Spain grants the Jesuits the right to form their own army to defend against Brazil
  - The Jesuits build their own state at the border between the Spanish and Portuguese empire
  - 1750: The combined armies of Spain and Portugal attack the Jesuit missions
  - 1767: Spain expels the Jesuits
What the Renaissance knew

• The age of exploration/ Latin America
  – Third phase of missionary colonization: Franciscan friars build missions along the coast of California
    • 1767: The Franciscan friar Junipero Serra inherits the missions of Baja California when the Jesuits are expelled
    • 1769-70 Junipero Serra founds the missions of San Diego and Monterey
What the Renaissance knew

• The age of exploration/ Latin America
  – Two types of conquest:
    • Mexico and Peru: conquest of pre-Colombian highly-populated centralized states
      – Rapid conquest
      – Gold and silver in abundance
      – Rise of a strong aristocracy
      – No assimilation of the native “Indians”
What the Renaissance knew

• The age of exploration/ Latin America
  – Two types of conquest:
    • Argentina, Chile, Brazil: conquest of sparsely-populated primitive tribes (guerrilla warfare)
      – Slow expansion
      – No gold, emphasis on agriculture
      – Strong nationalist feeling by the colonists
      – No women (too dangerous), i.e. mixed blood population, i.e. faster assimilation of the “Indians” (especially Chile)
    – Waves of European immigrants eventually obliterate the Indigenous element
What the Renaissance knew

• The age of exploration/ Latin America
  – The Catholic Church
    • Controls education
    • Owns 50% of the wealth
    • A parallel state
    • Less discrimination against the natives (anyone who converts can be part of the Church, but Indios can never be part of the State’s government)
    • Opposed to slavery of the Indios
What the Renaissance knew

• The age of exploration/ Latin America
  – Spain’s main enemies in Latin America
    • British pirates (Francis Drake, Henry Morgan)
    • Dutch pirates
    • French pirates
What the Renaissance knew

• The age of exploration/ Latin America
  – Impact of colonies on Spain
    • The colonies are mainly a mining economy that sends gold and silver in huge quantities to Spain
    • Spain does not manufacture goods, it simply uses the wealth from America to purchase them from other countries
    • Net transfer of wealth from the Americas to Spain’s enemies
    • Inflation gets worse and causes hardships for ordinary Spanish citizens
    • Mass emigration towards the Americas
    • The Spanish immigrants import European-style agriculture (notably cattle raising in Argentina)
What the Renaissance knew

• The age of exploration/ Latin America
  – Portuguese America (Brazil)
    • Second-class colony (modest wood trade) compared with the East Indies (lucrative spice trade)
    • 1549: first governor of Brazil
    • 1550: Portugal ships African slaves to Brazil
    • 1550: First Jesuits in Brazil
      – Fight cannibalism among the Indios
      – Fight promiscuity among the Portuguese
      – Fight slavery
      – Found the mission and community of Sao Paulo
What the Renaissance knew

• The age of exploration/ Latin America
  – Portuguese America (Brazil)
    • Brazil expands thanks to the bandeiras of the paulistas
      – Mixed-race communities near Sao Paulo
      – Expand in the interior to hunt slaves (opposed to the Jesuit missions that protect Indios)
      – Expel Spanish settlers
      – Expand in the interior to look for mining (1670-1750)
      – Eventually turn to plantations or cattle raising
What the Renaissance knew

• The age of exploration/ Latin America
  – Portuguese America (Brazil)
    • Sugar-cane civilization in the Northeast
      – Sugar plantations spread in the Northeast, fueled by slave imports
      – African slaves better fit for agricultural economy vs Indios still in neolitic stage
      – African slaves are afraid to escape in the jungle vs Indios escape back to their tribes in the jungle
      – Smallpox annihilates Indios
What the Renaissance knew

• The age of exploration/ Latin America
  – Portuguese America (Brazil)
• Sugar-cane civilization in the Northeast
  – Brazil becomes a rural and family-driven civilization
  – Colonial senate composed of plantation masters
  – Limited Portuguese control over senate
  – Economic, political and cultural epicenter in the Northeast
What the Renaissance knew

• The age of exploration/ Latin America
  – Portuguese America (Brazil) in 1600:
    • 120 sugar mills, passes Sao Tome as main sugar supplier
    • Large-scale sugar-only slave-driven plantation pioneered in Brazil
    • 350,000 African slaves sold to Brazil in 1651-1700
    • 1700s: Gold rush of the Minas Gerais
    • 150,000 African slaves sold to Brazil in 1701-1710
    • Brazil exports tobacco and brandy to Africa
What the Renaissance knew

• The age of exploration/ Latin America
  – Portuguese America (Brazil)
    • 1693: Gold rush moves masses to the West, Rio becomes the main city, decline of sugar plantations
What the Renaissance knew

• The age of exploration/ Latin America
  – Spanish and Portuguese America
  • Medieval-style feudal society
    – Lords: Native Spanish and Portuguese colonists (government, clergy, business)
    – Landed gentry: Criollos/Creoles (descendants of Spanish and Portuguese colonists)
    – Mestizos (Spanish America)/ mamalucos (Brazil)
    – Indios (semi-slaves)
    – African slaves
  • Static economy
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – Holland
    • Dutch merchants control the flow of sugar from Brazil to Europe (from 1599), its refineries and the flow from Holland to the rest of Europe
    • Most merchants are Jews who move to Holland to avoid the Spanish Inquisition
    • 1607: Dutch West Indies company
    • 1613: Trading post in North America (Manhattan)
    • Most slaves taken to New Holland by the Dutch are captured at sea from Portuguese ships
    • 1619: African slaves brought to America on Dutch ships
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – Holland
    • 1623: Dutch ships seize Bahia from the Portuguese in Brazil
    • 1637: The Dutch navy seizes Elmina from Portugal
    • 1641: The Dutch seize Luanda and Sao Tome from Portugal
    • 1641: Curacao as the dispatching point of black slaves captured from foreign ships
What the Renaissance knew

- The age of exploration/Atlantic expansion
  - Holland
    - 1640s: Dramatic acceleration of Atlantic slave trade under Dutch management
      - Control of African trading posts
      - Control of Caribbean trading posts
      - Control of half of Brazil
    - 1625-50: 100,000 slaves to Brazil, 50,000 to Spanish America, 20,000 to British Caribbean
    - Brazilians expel (1654) the Dutch from most of Brazil and reconquer (1648) Luanda and Sao Tome and Brazilians
What the Renaissance knew

- The age of exploration/ Atlantic expansion
  - Holland
    - 1674: the Dutch West Indies Company becomes mainly a slave-trading operation
    - The Dutch East Indies Company imports goods from Asia and the Dutch West Indies Company sells them to Africa
    - The Dutch start selling weapons to Africans (the Portuguese never did)
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – France
    • 1565: Spain destroys French settlements in Florida
    • 1603: Canada (mainly for furs)
    • 1608: Samuel de Champlain founds the trading post of Quebec
    • 1625: Jesuits in Canada
    • 1625: Caribbean
    • Conversion of the Caribbean into sugar plantations
    • Boom of Nantes as the main slaving port
    • 1642: Montreal (lucrative trade in furs)
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – England
    • John Hawkins initiates the British slave trade (1562)
    • 1609: Bermuda
    • Conversion of the Caribbean into sugar plantations (Barbados 1643, Jamaica 1655)
    • 1672: the Royal Africa Company is founded to trade slaves between Africa and America
    • Bristol’s “Ten Percenters” (independent trade slavers) compete with the RAC
    • Most slave trade for Caribbean sugar plantations
    • Virginia’s tobacco plantations become major customer of Caribbean traders from 1650s
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – England
    • 1700s: The American colonies contribute to Britain’s wealth and power
    • The colonists are aware of their importance
    • The parliament sees them as a valuable economic and military investment
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – England
    • 1713 (Treaty of Utrecht): England obtains the asiento to provide slaves to the entire Spanish America
    • “Factories” at Barbados and Jamaica to handle African slaves
    • 1721-30: more than 100,000 African slaves taken to America by British ships
    • West African slaves also sold to Morocco and Egypt (about 4,000 per year)
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – England
    • 1741-50: 200,000 African slaves to America
      – 60,000 to Virginia
      – 50,000 to Jamaica
      – 30,000 to Barbados
    • 1749: 150 ships from England
      – 70 from Liverpool
      – 49 from Bristol
      – 8 from London
What the Renaissance knew

• The age of exploration / Atlantic expansion
  – England
    • 1713: Rise of Liverpool due to the slave trade and cotton trade with Spanish America (Manchester’s cotton goes 50% to Africa for slaves and 30% to North America)
    • Boom of shipbuilding in the slave-trade ports of Liverpool and Bristol that now compete with London
    • 1723: Newport (Rhode Island) main slave-trading port in North America: sells rum to Africa and sells slaves to the British Caribbean
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – England
    • 1740s: 85% of English textile exports go to Africa
    • Goods from Asia to Africa (mostly via the Dutch)
    • Iron bars (10,000 iron bars in 1682 alone)
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – Spain
    • Rapidly conquers a vast region
    • Goal: national pride and loot
    • Controls densely-populated areas
    • Coexists with the natives and favors inter-marriage
    • Discourages women from emigrating to America
    • Enforces the Catholic faith
    • Discourages non-Spanish immigration (deprives the empire of badly needed skills) and persecutes Jews (Inquisition)
    • Natives accept the new masters as replacing the old ones (Aztecs, Incas)
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – Britain
    • Slowly develops a small region
    • Goal: capitalist profit
    • Invades sparsely-populated areas
    • Expels the natives and imports families
    • Encourages women to emigrate to America
    • Discourages sex with natives
    • Tolerates all religions
    • Encourages non-British immigration (provides the new colonies with all sorts of skills)
    • Natives rebel against the new masters and are exterminated
What the Renaissance knew

- The age of exploration/ Atlantic expansion
  - Spain
    - Does not develop agriculture and commerce
    - Does not populate the colonies
    - Most of the colonists sent from Spain are male (racially mixed population)
    - Wealth depends on exploitation of native and slave population
  - England
    - Develops agriculture and commerce
    - Populates the colonies
    - Colonists are families (racially divided population)
    - Wealth depends on the work of immigrants
What the Renaissance knew

• The age of exploration/ Atlantic expansion
  – Spanish colonies in 1700: $450 per capita
  – British colonies in 1700: $500 per capita
  – Spanish colonies in 1800: $450 per capita
  – USA in 1800: $807 per capita
What the Renaissance knew

- The age of exploration/Atlantic expansion
  - Trade routes of the 17th c
What the Renaissance knew

- The age of exploration/Asia

(National Geographic: Into the Unknown)
What the Renaissance knew

- The age of exploration/ Asian expansion
  - Motivated by spices
  - In the Middle Ages, Christian demand for spices had caused the Muslims to get wealthy, and the Islamic world used that wealth to wage war against the Christian world
What the Renaissance knew

• The age of exploration/ Asian expansion
  – Islamic conquest of Constantinople cripples the trade routes of Venice and Genoa
  – Islamic conquest of Constantinople motivates Christian kings to look for a different route to the Indies
What the Renaissance knew

• The age of exploration/ Asian expansion
  – Strategic importance of south India (first non-Islamic land beyond Ottomans, Arabs, Persians, Ghurids)
  – The Islamic conquest of Constantinople creates the first direct link between Europe and India
What the Renaissance knew

• The age of exploration/ Asian expansion
  – Rise of Portugal, best placed Christian kingdom to bypass the Islamic lands and to reach south India
  – Portugal has nothing to offer to the Indies in exchange for spices hence it has to use firepower and colonize
  – Portugal becomes the first invader of India to come from the sea, not from the northeastern route
What the Renaissance knew

• The age of exploration/ Asian expansion
  – 1509: The sultan of Egypt attacks the Portuguese navy in the Indian Ocean near Diu and is defeated, thus turning Portugal into the dominating power in India
  – 1510: Portugal conquers the Ottoman outpost of Goa in India
  – Goa becomes the financial/commercial capital of the East
  – The Hindu kingdom of Vijayanagar a strategic ally of Portugal (zenith in 1509-1529, destroyed 1565)
What the Renaissance knew

• The age of exploration/ Asian expansion
  – Full-rigged ship for long-distance voyages (about 1450)
  – Enables sea routes around the Islamic world
  – Long-range artillery makes the Portuguese virtually invincible in Asia
Venetian galley of 1650  
(Museum of Science, Chicago)

British ship that sailed to the USA in 67 days, bringing the pilgrims who founded Plymouth (1620)  
(Museum of Science, Chicago)

British ship for the East Indies (1752)  
(Museum of Science, Chicago)

Columbus' "Santa Maria" (1492)  
(Museum of Science, Chicago)
What the Renaissance knew

• The age of exploration/ Asian expansion
  – The opening of sea routes to the Indies and the Americas coincides with the political, cultural and economic decline of the Islamic world
  – Beneficiaries: Portugal and India
  – Decline of Venice and Genoa
  – Decline of Alexandria
What the Renaissance knew

• The age of exploration/Asian expansion
  – 1509: Portugal takes Goa in India
  – 1511: Portugal takes Malacca/Melaka
  – 1521: Spain takes the Philippines
  – 1557: Portugal takes Macao
  – 1602: Holland founds the VOC in Indonesia
  – 1636: Britain acquires Madras
What the Renaissance knew

• The age of exploration/ Asian expansion
  – The Dutch empire of the spices
    • 1595: Jan-Huygen van Linschoten published detailed instructions for navigating to the East Indies
    • 1597: The first Dutch expedition returns from Indonesia (two years and four months later after leaving, and with only 89 of the original 249 men)
    • 1598: Jacob Van Neck reaches Indonesia in "only" six months
    • 1602: VOC (Dutch East India Trade Company)
    • 1619: Batavia (Jakarta) developed by Chinese immigrants
What the Renaissance knew

• The age of exploration/ Asian expansion
  – The Dutch empire of the spices
    • 1641: VOC captures Melaka and becomes the dominant power in the archipelago
    • 1641: Japan allows only Holland to trade in Japan
    • 1642: VOC captures Taiwan
What the Renaissance knew

• The age of exploration/ Asian expansion
  – The Dutch empire of the spices
    • Portuguese sailors use the Arab navigation route ("monsoon sailing") that hinges on having a port in India
    • 1642: Dutch sailors discover a southern short cut to the Sunda strait (between Java and Sumatra)
    • They both go through the Cape of Good Hope
    • 1652: Holland founds a colony in the Cape of Good Hope (South Africa)
    • 1656: Holland captures Sri Lanka from Portugal
    • 1706: Holland controls all of Java
What the Renaissance knew

- The age of exploration/Asian expansion
  - The Dutch empire of the spices
What the Renaissance knew

- The age of exploration/ Asian expansion
  - The Dutch empire of the spices
    - Malaysia: tin and later rubber (1877)
    - China: silk and porcelain
    - Arakan (west Burma): slaves
    - Siam (Thailand): hides
    - Sumatra: Pepper and later tobacco (1858)
    - Java: textiles and later coffee (1791) and sugar
    - Borneo: camphor
    - Moluccas: nutmeg, mace, cloves
    - Celebes (Sulawesi): rice
    - Cloves and nutmeg trees grew only on a few small volcanic islands...
What the Renaissance knew

• The age of exploration/ Asian expansion
  – The Dutch empire of the spices
    • Holland's mission: monopoly of spices from the Indies
    • Dutch aim at creating an empire of trading posts protected by forts
    • Dutch compete with Arab, Chinese, Indian and Persian traders
    • Dutch win only with military force
    • Dutch's military rivals: Portugal (based in Sri Lanka and south India) and Britain
What the Renaissance knew

• The age of exploration/ Asian expansion
  – The Dutch empire of the spices
    • Tyrannical regulation of spice production to maximize Dutch profits
    • Dutch monopoly on spice trade
    • Muslim resentment of Christian occupation
    • Consequence: massive increase in piracy
What the Renaissance knew

- The age of exploration/ Asian expansion
  - The Dutch empire of the spices
    - Main weakness: lack of manpower (territorial acquisitions overstretch the small country)
What the Renaissance knew

- The age of exploration/Asian expansion
  - Europeans in India
What the Renaissance knew

• The age of exploration
  – Zheng He (1405-33): China to India, Arabia, Africa
  – Bartolomeu Dias (1488): rounds the Cape of Good Hope
  – Cristoforo Colombo/Columbus (1492): accidentally discovers America (the discovery of the Americas as the result of the European hunger for trade with the Orient)
  – Giovanni Caboto/Cabot (1497): accidentally discovers Labrador and New England (first transatlantic journey)
  – Vasco da Gama (1498): reaches India by sea
  – Ferdinand Magellan (1522): circumnavigates the globe
  – Giovanni da Verrazzano (1524): explores the Atlantic coast from North Carolina to Nova Scotia
What the Renaissance knew

• The age of exploration
  – Ptolemy’s “Geography” is printed within 20 years of the first printed book and remains the main source of knowledge about the world
  – Boom of map makers (Mercator’s map of 1538, Ortelius’ atlas of 1570)
  – A map maker is a maritime journalist, who gathers information from all returning ships
  – The view of the world changes: instead of a land with some water it becomes an ocean with some land in it
What the Renaissance knew

• Gemma Frisius (1530)
  – Latitude: easily gauged by the length of the day and the height of the sun
  – Longitude: ?
  – Determining the longitude requires a very accurate clock: each hour of difference between noon at the departure point and noon at the current point corresponds to $360/24$ degrees of longitude, i.e. $40000/15$ kms = 1600 kms
  – A clock that makes a mistake of a minute per hour (the average in the 16th c) causes an error of 26 kms per hour
  – Problem unsolved until 1760s (John Harrison in Britain)
What the Renaissance knew

• The age of exploration/ Africa
  – 1579: Portugal gains a stronghold in Angola following a trade dispute and with help from the Kongo
What the Renaissance knew

• The age of exploration
  – Spanish and Portuguese explorers colonize in the name of their monarchs (thus the interior too)
  – British and Dutch explorers colonize in the name of profit (thus mainly the coasts)
  – 17th c: colonization spurred by the strategic goal of self-sufficiency of the state (thus British and Dutch also become more controlled by the monarchy)
What the Renaissance knew

- The age of exploration
  - Birth of the “corporation” in England (East India Company, 1599; Virginia Company, 1606; Massachusetts Bay Company, 1628; Hudson’s Bay Company, 1670) and the Netherlands (Dutch East India Company, 1602; Dutch West India Company, 1621) to fund long-distance trade
  - Netherlands in 1600
    - Most sophisticated capitalism
    - Greatest trading nation of Europe
    - Most efficient shipping technology (one third of British costs)
What the Renaissance knew

• The age of exploration
  – European exploration opened up connections between Europe, West Africa and East America
  – Beginning of the largest trans-continental migration of people in history
    • Europeans to America
    • Africans to America
    • Africans to Europe
What the Renaissance knew

European explorations of America

(From “A People And A Nation”, Houghton Mifflin, 1998)
What the Renaissance knew

• The Americas
  – Spanish, Portuguese, French colonies: colonized by politicians and businessmen
  – Spain: gold, silver, precious stones (Mexico, Peru)
  – Portugal: sugar (Brazil)
  – France: fur (Canada)
  – Spanish, Portuguese, French colonies: forced conversion of subjects
  – Future territory of the USA ignored by all powers for 150 years
What the Renaissance knew

- The Americas
  - Britain's problems
    - Population explosion (3m in 1500 to 5m in 1650)
    - Crisis of textile industry (continental competition)
    - High unemployment
    - Inflation (400% between 1500 and 1600)
    - Undesirable religious sects (Puritans, Catholics)
  - British colonization of America: a solution to Britain's problems
What the Renaissance knew

• The Americas
  – 1607: Virginia Company's settlement at Chesapeake Bay
  – 1612: Tobacco plantation in Virginia
  – 1619: the Virginia Company brings women to
  – 1619: a Dutch ship brings African slaves to Virginia
  – 1620: Puritans found a colony in Plymouth
  – 1622: two noblemen are granted land that would become New Hampshire and Maine
  – 1624: the Dutch West India Company founds the colony of Nieuw Nederland
  – 1625: the Dutch West India Company founds Nieuwe Amsterdam
What the Renaissance knew

• The Americas
  – Algonquian Indians (1585)

(Granger Collection http://www.granger.com)
What the Renaissance knew

• The Americas
  – 1630: the Massachusetts Bay Company settles Puritans in Massachusetts, who found Boston
  – 1632: Maryland is born as the private possession of an individual (the Catholic colony)
  – 1636: Harvard College is founded near Boston
  – 1636: a Puritan minister establishes a settlement in Rhode Island
  – 1639: settlers from Massachusetts Bay unite in the colony of Connecticut
What the Renaissance knew

• The Americas
  – North America 1650

(From “A People And A Nation”, Houghton Mifflin, 1998)
What the Renaissance knew

- The Americas

Massachusetts 1675
(Art Institute of Chicago)
What the Renaissance knew

• The Americas
  – British America: colonized by business people (money) and religious people (books)
  – The advantage of religion
    • Massachusetts had the highest literacy rate in the world
    • New England had women in adequate number and developed communities
    • Diverse economy (fish, lumber)
    • Shipbuilding (in 1700 Boston second only to London in the British Empire)
What the Renaissance knew

• The Americas
  – West Indies import slaves from Africa and export sugar
  – New England imports sugar from West Indies, hardware and textiles from Britain, and exports fish to Europe, lumber to West Indies
What the Renaissance knew

- The Americas
  - 1638: Virginia has become the major source of tobacco for Europe
  - 1650: The West Indies still attract more British immigrants than the mainland
  - 1663: Eight noblemen are granted Carolina (sugar, rice, indigo)
  - 1664: Britain captures Nieuw Nederland, renames Nieuwe Amsterdam New York and divides New Jersey and Delaware
  - 1681: Quakers found Pennsylvania, also born as the private possession of an individual (wheat, flour)
What the Renaissance knew

• The Americas
  – 1712: North Carolina is separated from South Carolina
  – 1732: land is granted to noblemen for the creation of the colony of Georgia, south of Carolina and extending west to the Pacific Ocean, meant as a refuge for the poor and the victims of religious persecution

(From “A People And A Nation”, Houghton Mifflin, 1998)
What the Renaissance knew

• The Americas
  – 1714-39: Peace and economic boom
  – 1739: Attack on Spain (failed attempts to occupy Panama, Chile, Colombia)
  – 1745: Attack on France (Canada)
  – 1750: the population of the 13 colonies is 1,170,800
  – 1758-63: British conquest of Canada from France, first large-scale war of conquest outside Europe
  – 1763: British control over North America
What the Renaissance knew

• The Americas
  – 1763-74: Land prices skyrocket, immigration from British islands booms
  – 1770: the population of the 13 colonies has almost doubled in 20 years to 2,131,000
  – 1774: Britain assigns the Ohio basin to Quebec/Canada and recognizes Catholicism as the religion of Quebec/Canada
  – 1776: Philadelphia (40,000 people) is the second city of the British Empire after London
What the Renaissance knew

- The colonization of the Americas and Oceania was a team work in which humans, weeds, animals and viruses cooperated
  - European had strong immune systems because they had been in contact with many cultures
  - Native Americans and Australians had lived isolated for thousands of years
  - European germs killed millions of natives
What the Renaissance knew

• The colonization of the Americas and Oceania was a team work in which humans, weeds, animals and viruses cooperated
  – European crops and weeds changed the ecosystem of America and Australia
  – America and Australia had no major surviving predators that could stop the expansion of European animals (the first wave of invaders had hunted down to extinction mammoths etc)
  – European livestock fed on European weeds and helped spread the weeds in America and Australia