

Age of Exploration  
Notes

**Exploration and Contact in the Atlantic**

Directions: Examine the following newspaper headlines for examples of present day factors that led to the movement of people between regions of the world. Answer the questions that follow:



1. What factors cause the movement of people into and out of regions of the world?
2. What are the possible effects of interaction between native and foreign groups?

**Motives for Exploration**

- \_\_\_\_\_ European nations, wanted Asian \_\_\_\_\_ and African \_\_\_\_\_
  - Sought after access to trade WITHOUT dealing with \_\_\_\_\_ intermediaries
- \_\_\_\_\_ efforts of European \_\_\_\_\_
  - \_\_\_\_\_ urged \_\_\_\_\_ to spread the faith throughout the world
  - \_\_\_\_\_ and holy wars against \_\_\_\_\_ in early centuries had led to increased tension in the region.
  - The *Reconquista* of Spain inspired Iberian crusaders...
    - The Spanish \_\_\_\_\_ refers to the Spanish crown reclaiming Spain in the name of \_\_\_\_\_, in an effort to rid it of \_\_\_\_\_.

## **Sailing Technology**

- Late 15<sup>th</sup> century \_\_\_\_\_
- \_\_\_\_\_ and two types of sails enabled ships to advance against \_\_\_\_\_
  - Three-Masted \_\_\_\_\_: large ship, with larger sails
  - \_\_\_\_\_
  - \_\_\_\_\_sails: sail in all directions, good for \_\_\_\_\_
- Navigational instruments
  - Magnetic \_\_\_\_\_
  - \_\_\_\_\_ (and cross and back staffs)- used to determine latitude
- Knowledge of winds and currents enabled Europeans to travel reliably
  - Trade winds north and south of the \_\_\_\_\_
  - Regular \_\_\_\_\_ in Indian Ocean basin
  - The \_\_\_\_\_ (Portuguese sailing technique)

## **Portuguese Exploration & Colonization**

### ***Early Explorers***

- \_\_\_\_\_ of Portugal determined to increase Portuguese \_\_\_\_\_
  - Portuguese ventured into the Atlantic, colonized Madeiras, Azores, other islands
    - \_\_\_\_\_, Portuguese landowners cultivated \_\_\_\_\_ on the islands
  - Portuguese traders ventured down west coast of Africa
    - Traded guns, textiles for \_\_\_\_\_
- Portuguese searched for sea route to \_\_\_\_\_ without Muslim intermediaries
- \_\_\_\_\_ reached Cape of \_\_\_\_\_, entered the Indian Ocean, \_\_\_\_\_
- Vasco \_\_\_\_\_ arrived at \_\_\_\_\_, returned to Lisbon with huge profit

### ***Amerigo Vespucci***

- As a trader, he was very interested in finding a quicker way to sail to \_\_\_\_\_.
  - He went on at least two, and possibly four, voyages to \_\_\_\_\_ between \_\_\_\_\_ for \_\_\_\_\_.
  - He went to many places, including \_\_\_\_\_.
- \_\_\_\_\_ about natives to excite Europeans and lure investors.

### ***Colonization of Brazil***

- The Portuguese empire in Brazil dependent on \_\_\_\_\_
- Growth of slavery in Brazil
  - Native peoples of Brazil were not cultivators; they \_\_\_\_\_
  - \_\_\_\_\_ reduced indigenous population
  - Imported \_\_\_\_\_ for cane and sugar production after 1530
  - High death rate and low birth rate fed \_\_\_\_\_ for more slaves
  - Roughly, \_\_\_\_\_ cost one human life.

**Mapping Portuguese Exploration & Colonization**



*Your map must include exploration and colonization of (including dates):*

Prince Henry	Brazil	Vasco de Gama
Bartolomeu Dias	Azores Islands	Amerigo Vespucci

## Spanish Exploration and Colonization

- Genoese ( \_\_\_\_\_ ) mariner
  - Proposed sailing to Asian markets by a western route
  - Sponsored by Catholic kings of Spain; sailed to Bahamas in 1492
- Columbus's voyage enabled other mariners to link \_\_\_\_\_ hemispheres.
- Columbus built the fort of \_\_\_\_\_, capital of the Spanish Caribbean (Hispanola)
  - \_\_\_\_\_ conscripted to mine gold
  - \_\_\_\_\_: land grants to Spanish settlers with \_\_\_\_\_ over local people
  - Brutal abuses plus smallpox brought decline of Taino populations
  - Indigenous peoples were the Taino
    - Lived in \_\_\_\_\_ under authority of \_\_\_\_\_
    - Showed \_\_\_\_\_ to European visitors
- Treaty of Tordesillas (1494)
  - The Treaty of \_\_\_\_\_ was agreed upon by the \_\_\_\_\_ and the \_\_\_\_\_ to clear up confusion on newly claimed land in the \_\_\_\_\_
    - Pope granted Spain all of \_\_\_\_\_
    - Portugal received \_\_\_\_\_



### ***Ferdinand Magellan***

- Ferdinand \_\_\_\_\_, Portuguese navigator, in service of Spain
  - Ferdinand Magellan-Led the first successful expedition to \_\_\_\_\_  
\_\_\_\_\_
    - Crossed both the \_\_\_\_\_ Oceans  
1519-1522

### ***Conquistador Hernan Cortes***

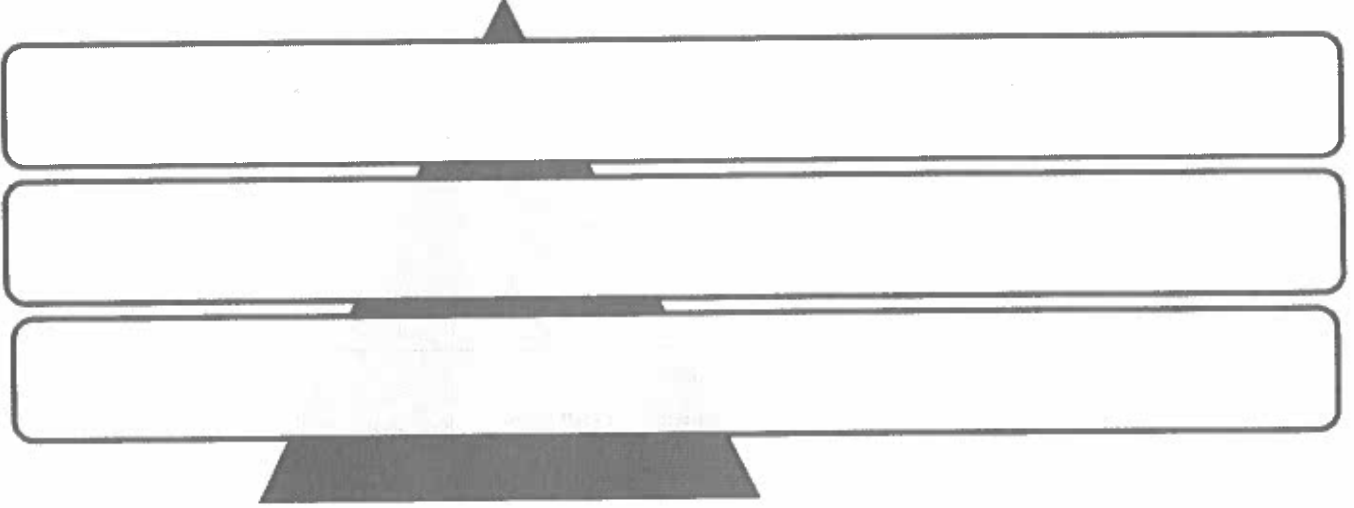
- Wanted to conquer Mexico for \_\_\_\_\_
- Helped by \_\_\_\_\_
  - woman from the Mexican Gulf Coast, who played a role in the Spanish conquest of Mexico, acting as \_\_\_\_\_ lover and intermediary for Hernán Cortés
- Arrived receiving gifts eventually turned on the \_\_\_\_\_
  - Believed to be \_\_\_\_\_
  - Captured \_\_\_\_\_ (Aztec leader)
    - With 450 men, Cortés conquered the Aztec empire, 1519-1521
    - Epidemic disease ( \_\_\_\_\_ ) also aided Spanish efforts
    - When Montezuma died, Cortes teamed with other tribes to defeat the Aztecs
- He was considered a Hero, became famous and very rich as \_\_\_\_\_  
\_\_\_\_\_
  - He continued to explore \_\_\_\_\_, hoping to find a \_\_\_\_\_ from the \_\_\_\_\_. He failed, instead discovering, and naming, \_\_\_\_\_.

### ***Conquistador Francisco Pizarro***

- "Discovered" the \_\_\_\_\_ and conquered it brutally and quickly, stealing immense hoards of \_\_\_\_\_, and other treasures.
  - Captured ruler of Inca
    - Led a small band of men and toppled the Inca empire, 1532-1533
    - Internal problems and \_\_\_\_\_ aided Pizarro's efforts
    - Atahualpa promised 13,420 pounds of gold and 26,000 pounds of silver
    - Pizarro killed him anyway
- \_\_\_\_\_
- Pizarro founded \_\_\_\_\_ (which he called Ciudad de los Reyes, which means "City of the Kings").
  - Pizarro was assassinated in Lima, Peru, in 1541, by followers of Pedro de Almagro (Cortes' captain) who wanted to seize Lima for its riches.

**Spanish Colonial Rule**

- Strong emphasis on \_\_\_\_\_
- Typically the social (and racial) hierarchy in Iberian colonies was as follows:



**Treatment of the Natives**

- **Nicolas** \_\_\_\_\_ was a Spanish soldier, 1502 sent to \_\_\_\_\_  
\_\_\_\_\_ to be \_\_\_\_\_
  - He was the first to apply the \_\_\_\_\_  
of Indian forced labor.
  - Trained dogs ( \_\_\_\_\_ ) to terrorize natives
- **Encomiando ( \_\_\_\_\_ ) (1512)**
  - Required to \_\_\_\_\_ laborers
  - Required to \_\_\_\_\_
  - Required basic \_\_\_\_\_
  - Required to allow Natives to live \_\_\_\_\_ if they  
showed they are capable
- **Spanish \_\_\_\_\_ (1513)**
  - declaration by the Spanish \_\_\_\_\_ of its divinely  
ordained right to take \_\_\_\_\_ of  
the New World and to \_\_\_\_\_, exploit and, when  
necessary, to \_\_\_\_\_ the native inhabitants.
  - The Requirement \_\_\_\_\_ to Native  
Americans to inform them of Spain's rights to conquest.
    - Those who subsequently resisted conquest were considered to  
\_\_\_\_\_.
    - The Spaniards thus considered those who resisted as \_\_\_\_\_  
\_\_\_\_\_, and so used Catholic theology  
to justify their conquest.

**Mapping Spanish Exploration & Colonization**



Your map must include exploration and colonization of (including dates):

West Indies	Hispanola	Christopher Columbus	Ferdinand Magellan
Mexico	California	Hernan Cortes	Francisco Pizarro
Lima	Treaty of Tordesailles Line		

### Dutch Exploration

- Set up \_\_\_\_\_, the first \_\_\_\_\_ in history.
- Dutch mariners explored \_\_\_\_\_ in the seventeenth century
  - No \_\_\_\_\_, no farmland
  - Australia held little interest until the eighteenth century

### British Exploration & Colonization

- Henry \_\_\_\_\_ sailed and claimed what is now \_\_\_\_\_
  - Bought island of \_\_\_\_\_
  - \_\_\_\_\_ trade
- First colonized \_\_\_\_\_.
- English mariners searched for a \_\_\_\_\_ from Europe to \_\_\_\_\_.

### Americas

- \_\_\_\_\_ TAKE ONE (1584)
  - Off coast of \_\_\_\_\_
  - \_\_\_\_\_ - no \_\_\_\_\_ skills (poor soil anyway); no \_\_\_\_\_; infighting; conflict with natives.
  - EPIC FAIL- \_\_\_\_\_ in 1586
- \_\_\_\_\_ TAKE TWO (1587)
  - Sent a group of colonists ... \_\_\_\_\_
  - Governor sent for supplies, ship taken to fight \_\_\_\_\_  
\_\_\_\_\_...does not return until 1590 found \_\_\_\_\_
- \_\_\_\_\_
  - Settled island in 1607 on \_\_\_\_\_ (strategic defense from \_\_\_\_\_)
  - Did not get the hint that the \_\_\_\_\_ did not settle there
    - Land \_\_\_\_\_
    - \_\_\_\_\_ = malaria
    - \_\_\_\_\_ water + salt water (estuary)
    - could not \_\_\_\_\_
  - Worst \_\_\_\_\_ in 700 years
  - Settled by 105 settler (35 were \_\_\_\_\_ who did not think they had to work)
    - No \_\_\_\_\_
  - \_\_\_\_\_ arrived in 1608 (arrested shortly after)
    - \_\_\_\_\_



- The \_\_\_\_\_ (1609-1611)
- John \_\_\_\_\_ arrived in 1612 introducing \_\_\_\_\_ ...saved the colony
- Established \_\_\_\_\_ in 1619 = stability
- New England
  - 1620 ' \_\_\_\_\_ '(separatists) fled England from \_\_\_\_\_
    - \_\_\_\_\_ = social contract placed all 102 settlers under the control of the 30 pilgrims
  - Key Figures:
    - William Bradford (treaty w/natives)
    - \_\_\_\_\_ (Puritan...make a Christian utopia)(Mass. Bay Company)
    - Roger Williams (troublemaker) argued separation of church and state
    - Anne Hutchinson (troublemaker) talked to god; disobeyed rules
  - \_\_\_\_\_ (1630-1640) \_\_\_\_\_ migrants to New England

### ***Colonial Life in North America***

- Greater \_\_\_\_\_ among settlers allowed marriage within their own groups
- English disdainful of \_\_\_\_\_
- Cultural borrowing: plants, crops, \_\_\_\_\_ clothes
- Foundation of colonies on \_\_\_\_\_, exploration of west coast
- Colonial government different from \_\_\_\_\_ (Spanish/Portuguese)
  - North American colonies controlled by \_\_\_\_\_ with little royal backing
  - Royal authority and royal governors, but also \_\_\_\_\_
- Settlers' farms interrupted the \_\_\_\_\_ peoples
- Settlers \_\_\_\_\_, then justified with \_\_\_\_\_
  - \_\_\_\_\_ slaves replaced \_\_\_\_\_ in the late seventeenth century
- Slave labor not yet prominent in \_\_\_\_\_ (lack of labor-intensive crops)
  - New England merchants participated in \_\_\_\_\_ distillation of rum
- The \_\_\_\_\_ was very profitable
- Native peoples trapped for and traded with Europeans
- Impact of the fur trade
  - \_\_\_\_\_ impact

- Conflicts among \_\_\_\_\_ competing for resources
- European settler-cultivators posed more serious threat to native societies
  - Cultivation of cash crops-- \_\_\_\_\_, and later, \_\_\_\_\_
  - \_\_\_\_\_ flocked to North America in the seventeenth and eighteenth centuries

**Other British Exploration**

- Captain \_\_\_\_\_ (1728-1779), British explorer
  - Led three expeditions to the \_\_\_\_\_, the Arctic, \_\_\_\_\_; died in Hawaii
    - In 1788, England established first settlement in Australia as a \_\_\_\_\_
    - Free settlers outnumbered \_\_\_\_\_ after 1830s
  - By late eighteenth century, Europeans had reasonably accurate \_\_\_\_\_ knowledge of the world
- The Pacific opened up to \_\_\_\_\_
- The English \_\_\_\_\_, founded in 1600

**Mapping British Exploration and Colonization**



*Your map must include exploration and colonization of (including dates):*

Henry Hudson	Roanoke, North Carolina	Jamestown, Virginia	Australia
British East India Company	Plymouth, Massachusetts	James Cook	

## Global Conflict

- The \_\_\_\_\_ War (1756-1763)
  - In Europe: \_\_\_\_\_ against \_\_\_\_\_, Austria, and Russia
  - In \_\_\_\_\_: fighting between British and French forces, each with local allies
  - In the \_\_\_\_\_: Spanish and \_\_\_\_\_ united to limit British expansion
  - In \_\_\_\_\_: fights between \_\_\_\_\_ and French forces (\_\_\_\_\_)
- Outcome: British \_\_\_\_\_

## Columbian Exchange

- \_\_\_\_\_ between Old and New Worlds
  - Columbian Exchange--global \_\_\_\_\_ of \_\_\_\_\_, food crops, animals, \_\_\_\_\_, and disease \_\_\_\_\_ after Columbus's voyages
  - Permanently altered the \_\_\_\_\_
- Epidemic diseases--\_\_\_\_\_, measles, diphtheria, \_\_\_\_\_, and influenza--led to staggering population losses
  - \_\_\_\_\_ was brought to Europe
  - Smallpox reduced \_\_\_\_\_ population by 95 percent in one century after 1519
  - \_\_\_\_\_ diseases had same horrifying effects in the Pacific islands
  - Between 1500 and 1800, one hundred million people died of \_\_\_\_\_
- New foods and domestic animals
  - Wheat, \_\_\_\_\_, goats, and chickens went to Americas
  - American crops included \_\_\_\_\_, beans, tomatoes, peppers, peanuts
  - Growth of world population: from 425 million in 1500 to 900 million in 1800
- Migration of human populations
  - \_\_\_\_\_ were largest group of migrants from 1500 to 1800
  - Sizable migration from Europe to the Americas
  - Nineteenth century, European migration to South Africa, Australia, and Pacific Islands

## The Age of Exploration (1400-1800)

Europeans set sail and spread around the world. They started new systems of trade with profitable new goods. They also spread religion and the African slave trade, and they wiped out much of the Native American population.

*Why Europeans explored: Gold, Glory, and God* - Trade and the Crusades got Europeans excited about foreign goods like silk and spices, which were unavailable in Europe. Merchants wanted to expand beyond the shores of Europe and find direct routes to the goods. Rulers across Europe sought fame, power, and glory, believing that conquering distant lands would bring them what they wanted, often in the name of God. Europeans had heard of Marco Polo's journey to the East and wanted to gain riches in far-off lands.

*Portuguese Explorers* - In 1415, Prince Henry the Navigator of Portugal helped take over Ceuta, a rich Muslim trading city in North Africa. From Ceuta, the Portuguese gained access to expert maps of North Africa. Although Prince Henry never explored distant lands, Portuguese sailors trained in his navigation school in Lisbon and sailed down the western coast of Africa on his ships. Where they went, the Portuguese established trading posts. They also returned to Portugal with African captives who could be traded as slaves – the beginning of the European Slaves trade.

Bartolomeu Dias, a Portuguese explorer, sailed to the southern tip of Africa in 1488. Nine years later, Vasco da Gama sailed around the southern tip of Africa into the Indian Ocean. He reached Calicut, India, and returned many times for spices. With their expert seamanship, the Portuguese opened the seas for Europe's age of exploration.

*The Adventures of Spain* - Christopher Columbus had three ships: the Nina, the Pinta, and the Santa Maria. He wanted to reach India and the east by traveling west around the earth. Though he was from Italy Queen Isabella of Spain paid for his voyage. Queen Isabella was a leader who saw Columbus has potential, even the many kings in Europe did not believe in his expedition plans. In 1492, Columbus sailed the ocean blue. Columbus thought he had reached India but was really in the Americas. This is why the Caribbean islands are sometimes called the West Indies and why Native Americans are sometimes called Indians. Columbus return three more times to the region in search of gold. He explored Hispaniola (the island of present day Haiti and the Dominican Republic), Cuba, Jamaica, and the coast of Central and South America. Though many of the people who already lived in those areas were friendly to Columbus and his men when they arrived, the European settlers were more interested in gold than in friendship and, in general, treated the native people cruelly.

In 1519, the Spanish conquistador Hernan Cortes reached Tenochtitlan, in modern day Mexico, which was home to the Aztec empire. Legend has it that Montezuma, leader of the Aztecs, welcome to the Spaniards because the Aztecs had never seen armor and horses, and they believe that Cortes was

### *West Africa*

West Africa in the 1400s was no longer made up of major kingdoms. Instead, it consisted of more than 100 independent kingdoms that constantly went to war over land and trade. Even before these wars took place, enslaving captured enemies was an established practice in West Africa. The winning kingdom received free labor from the defeated kingdom. In addition, the victor would often sell the slaves to traders. (Arab Muslim traders included slaves with their shipments of salt and gold as early as the 600s CE). By the last half of the 1400s, two of the more successful kingdoms, the Kongo, on the Zaire River, and the Ndongo to its south, had dominated their neighbors and sold their enemies into slavery. By the time the Europeans arrive in the 1480s, the African slaves trade was already big business.

## The Age of Exploration (1400-1800)

Quetzalcoatl, a pale skinned God. With advantages such as superior weapons, guns, and the help of other tribes who dislike the Aztecs for taking so many prisoners, Cortez eventually destroyed the city in 1521 and the Aztec empire. Francisco Pizarro embarked on a conquest in the Inca Empire, located in modern-day Peru. He arrived in 1532 and captured the Inca's king Atahualpa. Pizarro promised to spare the king if he filled a room with gold. After Atahualpa had his subjects bring enough gold to fill the room, Pizarro killed him anyway. The Spanish army used guns and horses to defeat the Incas. Diseases brought from Europe helped both Dias and Pizarro destroy these empires by killing off huge numbers of the population.

### *More Spanish Explorers*

1502: Amerigo Vespucci, an Italian who made voyages for Spain, sailed along the coast of South America. He was one of the first guys to realize he wasn't in Asia, so a German mapmaker labeled the new land "America" in his honor.

1513: Vasco Nez de Balboa hiked across Panama and was the first European to see the Pacific Ocean by heading west.

1520: Ferdinand Magellan, a Portuguese man sailing on behalf of Spain, reached the tip of South America. He died on the trip, but his ships returned in 1522 as the first crew to circumnavigate, or sail around ("circum" like a circle), the earth.

*The Columbian Exchange* - There have been no mixing of plants and animals between the Americas and the rest of the world for over 10,000 years. Things like corn, tobacco, cocoa, and potatoes didn't exist elsewhere until they were brought back from the Americas. In return, Europeans brought wheat, barley, grapes, and onions, as well as cattle, pigs, and horses to the Americas. The plants change the diets of people all over the world, and the animals change the way land was used in the Americas. The humans hadn't been exposed to any of each other's germs either. Diseases such as smallpox, measles, and the flu were common in Europe, but Native Americans didn't have immunity. Immunity is resistance to a disease or sickness, particularly due to previous exposure to the germs. About 20 million people died from disease in a 100-year span in Central America alone. This mixing of plants, animals, viruses, and bacteria is known as the Columbian exchange or the great biological exchange.

*Questions. Complete in full sentences on separate sheet of lined paper.*

1. *What prompted the Europeans to pick up and set sail?*
2. *Describe the beginnings of the European slave trade. How did it start?*
3. *Bartolomeu Dias, Vasco da Gama, and Prince Henry the Navigator are often cited as three of Portugal's most important explorers. Who claimed what?*
4. *How was the Aztec Empire conquered?*
5. *Who funded Columbus's infamous journey west? Where did Columbus wind up?*
6. *The Spanish conquerors of America were called*
  - a. *Emperors*
  - b. *Conquistadors*
  - c. *Governor generals*
  - d. *Expatriates*
7. *Who was Quetzalcoatl?*

Name: \_\_\_\_\_ Date: \_\_\_\_\_ pd: \_\_\_\_\_

**The Columbian Exchange**

Charting Exercise

**Directions:** While reading Alfred Crosby's excerpt 'The Columbian Exchange', identify the movement of people, goods and disease on the chart below. Identify each by their proper name. You may have repeats.

<b>Europe to Africa</b>	<b>Europe to America</b>	<b>Africa to Europe</b>	<b>Africa to America</b>	<b>America to Europe</b>

## The Columbian Exchange

by Alfred Crosby

Millions of years ago, continental drift carried the Old World and New Worlds apart, splitting North and South America from Eurasia and Africa. That separation lasted so long that it fostered divergent evolution; for instance, the development of rattlesnakes on one side of the Atlantic and vipers on the other. After 1492, human voyagers in part reversed this tendency. Their artificial re-establishment of connections through the commingling of Old and New World plants, animals, and bacteria, commonly known as the Columbian Exchange, is one of the more spectacular and significant ecological events of the past millennium.

When Europeans first touched the shores of the Americas, Old World crops such as wheat, barley, rice, and turnips had not traveled west across the Atlantic, and New World crops such as maize, white potatoes, sweet potatoes, and manioc had not traveled east to Europe. In the Americas, there were no horses, cattle, sheep, or goats, all animals of Old World origin. Except for the llama, alpaca, dog, a few fowl, and guinea pig, the New World had no equivalents to the domesticated animals associated with the Old World, nor did it have the pathogens associated with the Old World's dense populations of humans and such associated creatures as chickens, cattle, black rats, and *Aedes egypti* mosquitoes. Among these germs were those that carried smallpox, measles, chickenpox, influenza, malaria, and yellow fever.

The Columbian exchange of crops affected both the Old World and the New. Amerindian crops that have crossed oceans—for example, maize to China and the white potato to Ireland—have been stimulants to population growth in the Old World. The latter's crops and livestock have had much the same effect in the Americas—for example, wheat in Kansas and the Pampa, and beef cattle in Texas and Brazil. The full story of the exchange is many volumes long, so for the sake of brevity and clarity let us focus on a specific region, the eastern third of the United States of America.

As might be expected, the Europeans who settled on the east coast of the United States cultivated crops like wheat and apples, which they had brought with them. European weeds, which the colonists did not cultivate and, in fact, preferred to uproot, also fared well in the New World. John Josselyn, an Englishman and amateur naturalist who visited New England twice in the seventeenth century, left us a list, "Of Such Plants as Have Sprung Up since the English Planted and Kept Cattle in New England," which included couch grass, dandelion, shepherd's purse, groundsel, sow thistle, and chickweeds. One of these, a plantain (*Plantago major*), was named "Englishman's Foot" by the Amerindians of New England and Virginia who believed that it would grow only where the English "have trodden, and was never known before the English came into this country." Thus, as they intentionally sowed Old World crop seeds, the European settlers were unintentionally



contaminating American fields with weed seed. More importantly, they were stripping and burning forests, exposing the native minor flora to direct sunlight and to the hooves and teeth of Old World livestock. The native flora could not tolerate the stress. The imported weeds could, because they had lived with large numbers of grazing animals for thousands of years.

Cattle and horses were brought ashore in the early 1600s and found hospitable climate and terrain in North America. Horses arrived in Virginia as early as 1620 and in Massachusetts in 1629. Many wandered free with little more evidence of their connection to humanity than collars with a hook at the bottom to catch on fences as they tried to leap over them to get at crops. Fences were not for keeping livestock in, but for keeping livestock out.

Native American resistance to the Europeans was ineffective. Indigenous peoples suffered from white brutality, alcoholism, the killing and driving off of game, and the expropriation of farmland, but all these together are insufficient to explain the degree of their defeat. The crucial factor was not people, plants, or animals, but germs. The history of the United States begins with Virginia and Massachusetts, and their histories begin with epidemics of unidentified diseases. At the time of the abortive Virginia colony at Roanoke in the 1580s the nearby Amerindians "began to die quickly. The disease was so strange that they neither knew what it was, nor how to cure it." [1] When the Pilgrims settled at Plymouth, Massachusetts, in 1620, they did so in a village and on a coast nearly cleared of Amerindians by a recent epidemic. Thousands had "died in a great plague not long since; and pity it was and is to see so many goodly fields, and so well seated, without man to dress and manure the same." [2]

Smallpox was the worst and the most spectacular of the infectious diseases mowing down the Native Americans. The first recorded pandemic of that disease in British North America detonated among the Algonquin of Massachusetts in the early 1630s: William Bradford of Plymouth Plantation wrote that the victims "fell down so generally of this disease as they were in the end not able to help one another, no not to make a fire nor fetch a little water to drink, nor any to bury the dead." [3]

The missionaries and the traders who ventured into the American interior told the same appalling story about smallpox and the indigenes. In 1738 alone the epidemic destroyed half the Cherokee; in 1759 nearly half the Catawbas; in the first years of the next century two-thirds of the Omahas and perhaps half the entire population between the Missouri River and New Mexico; in 1837-1838 nearly every last one of the Mandans and perhaps half the people of the high plains.

European explorers encountered distinctively American illnesses such as Chagas Disease, but these did not have much effect on Old World populations. Venereal syphilis has also been called American, but that accusation is far from proven. Even if we add all the Old World deaths blamed on American diseases together, including those ascribed to syphilis, the total is insignificant compared to Native American losses to smallpox alone.

The export of America's native animals has not revolutionized Old World agriculture or ecosystems as the introduction of European animals to the New World did. America's grey squirrels and muskrats and a few others have established themselves east of the Atlantic and west of the Pacific, but that has not made much of a difference. Some of America's domesticated animals are raised in the Old World, but turkeys have not displaced chickens and geese, and guinea pigs have proved useful in laboratories, but have not usurped rabbits in the butcher shops.

The New World's great contribution to the Old is in crop plants. Maize, white potatoes, sweet potatoes, various squashes, chiles, and manioc have become essentials in the diets of hundreds of millions of Europeans, Africans, and Asians. Their influence on Old World peoples, like that of wheat and rice on New World peoples, goes far to explain the global population explosion of the past three centuries. The Columbian Exchange has been an indispensable factor in that demographic explosion.

All this had nothing to do with superiority or inferiority of biosystems in any absolute sense. It has to do with environmental contrasts. Amerindians were accustomed to living in one particular kind of environment, Europeans and Africans in another. When the Old World peoples came to America, they brought with them all their plants, animals, and germs, creating a kind of environment to which they were already adapted, and so they increased in number. Amerindians had not adapted to European germs, and so initially their numbers plunged. That decline has reversed in our time as Amerindian populations have adapted to the Old World's environmental influence, but the demographic triumph of the invaders, which was the most spectacular feature of the Old World's invasion of the New, still stands.

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[1] David B. Quinn, ed. *The Roanoke Voyages, 1584–1590: Documents to Illustrate the English Voyages to North America* (London: Hakluyt Society, 1955), 378.

[2] Edward Winslow, Nathaniel Morton, William Bradford, and Thomas Prince, *New England's Memorial* (Cambridge: Allan and Farnham, 1855), 362.

[3] William Bradford, *Of Plymouth Plantation, 1620–1647*, ed. Samuel E. Morison (New York: Knopf, 1952), 271.

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