**Demographic Catastrophe: What Happened to the Native Population after 1492?**

*The following information is an excerpt from an article through the digital history project from Virginia Tech.*

Native peoples in these lands met the Spaniards with a range of responses. Columbus described the Taino Indians of Hispanola as generous with what they had, timid, and submissive. Often, however, encounters were marked by misunderstanding and resulted in armed conflict. In 1519, the Spaniards who accompanied the "conquistador" Hernando Cortés into Central Mexico confronted the sophisticated and highly militaristic society of the Aztecs. There, the cautious welcome extended by the Aztec ruler Moctezuma II and the people of the capital city of Tenochtitlán quickly turned to hostilities.

After a few months, the Aztecs forced the Spaniards to flee the city under cover of darkness, but the rejoicing did not last. The Spaniards, aided by Txalcalans, archenemies of the Aztecs, returned with force in April 1521. After a four-month siege of the city, the Spaniards reentered Tenochtitlán in August 1521 and established the Kingdom of New Spain. Cortés sent his lieutenant, Pedro de Alvarado south to claim the territory of what is now Guatemala, and the exploration and conquest of Meso-America continued throughout the sixteenth century.

**Demographic Catastrophe**

Many thousands of Aztecs died in the siege of Tenochtitlán. The Spaniards who entered the city describes the piles of bodies ravaged by famine and disease as well as the wounds of war. How could the 600 Spaniards who accompanied Cortés have wiped out such a large portion of the population of Tenochtitlán, where an estimated 200,000 inhabitants resided? Years earlier, the Spanish authorities of the islands of Hispanola and Cuba also told of the massive death toll that followed the arrival of the Spaniards. Indeed, the death of the local peoples is a common theme in the annals of Spanish conquest of the New World. It happened over and over again; native Americans died in droves as the Spaniards moved from one locale to the next, exploring, claiming territory, Christianizing native peoples, and establishing labor systems to exploit the natural resources of the New World.

Historians have debated the number of deaths and the percent of the population that died following the arrival of the Spaniards. Early colonial documents, including census figures and eyewitness descriptions suggested to many historians that Meso-America was a densely populated region in the fifteenth century, before the arrival of the Spaniards. Other historians have found this claim without merit; they believe the area was largely wilderness, only scantily populated. Estimates of the population of Mexico before the Spanish conquest have ranged from 3 million to 58 million, but the best estimate at present is a figure between 16 and 18 million. An additional 5 to 6 million people inhabited the rest of Central America. The population figure for the entire hemisphere is thought to fall between 48 and 53 million.

Although there has been much dispute over the exact numbers of people living in the New World, no one disputes the sharp downward trajectory in population density after the arrival of the Spaniards. Estimates of population decline following contact with the Europeans range from 70 to 90 percent and what happened has been called a "demographic catastrophe." According to the historian David Stannard, the decimation of new world peoples was a "holocaust." "Far from the heroic and romantic heraldry that customarily is used to symbolize the European settlement of the Americas, the emblem most congruent with reality would be a pyramid of skulls." \*

**Health, Disease, and the Columbian Exchange**

What explains such a massive drop in the numbers of native inhabitants? Warfare accounted for some of the deaths. During the siege of Tenochtitlán, for example, enemies of the Aztecs aided the greatly outnumbered Spaniards. Indians battled Indians, and the massive death toll can be explained in part by the longstanding hostilities between neighboring tribes. Other factors were also at work in Tenochtitlán. The geography of the city - built as it was on a lake connected to land (and a food supply) by causeways that were easily blockaded or destroyed by the Spaniards and their allies - contributed to the death toll. The inhabitants depended on aqueducts for fresh water and here again, the Spaniards were able to disrupt the supply. The Spaniards fought with more complex and lethal weapons, including cannon, although the obsidian spears of the Indians could be quite deadly. Once the Spaniards were in control of an area, their determination to extract as much wealth from the land as quickly as possible led them to exploit local workers without regard for health or life.

Warfare and labor abuse, however, cannot fully explain the massive population decline that beset the Americas after the arrival of the Spaniards. Here again, the siege of Tenochtitlán is illustrative, for it points to the role that germs have played in history. When the Spaniards attacked in April 1521, the Aztecs were a foe weakened by disease. The preceding fall an epidemic of smallpox raged through the city, killing among others, the new king, who had replaced Moctezuma II. Known as a skillful hardliner who wanted no alliance with the Spaniards, this new ruler was replaced by a youth, without the same leadership potential. As the Spaniards mobilized forces against Tenochtitlán, the city had a weak leader and its inhabitants were still reeling from a disease that killed as many as 30 percent of the people infected. While battles with the Spaniards resulted in many thousands of deaths, countless others, throughout the Americas, died from disease. The Spaniards unwittingly brought germ warfare to their exploration and conquest of the New World.

**Disease Environments**

In 1492, Europeans and New World inhabitants lived in separate disease environments; "disease environment" refers to the particular pattern of diseases that are present in a particular area, and while Europeans and Native Americans shared some disease similarities, there were also significant differences between the two. The European disease environment was a complex one, in part because Europeans had been sharing diseases with other areas of the globe - Asia, Africa, and the Middle East. When Europeans made trading expeditions to these regions they took with them European diseases and returned with diseases picked up in the areas they visited. Travel and trade blurred the lines separating the four major disease environments of the eastern hemisphere.

The cities Europeans lived in exposed them to "crowd" diseases, those spread by close contact and poor sanitation and personal hygiene (Europeans rarely bathed). Typhus, spread by fleas, was endemic; a form of typhus spread by lice was more severe and epidemics of lice-borne typhus regularly swept through urban areas. The average European diet was not a balanced one, exposing Europeans to malnourishment and nutritional diseases. Smallpox and measles ravaged the population in waves or "epidemics," striking young people especially and leaving those who survived with immunity from future infections. When the next epidemic of smallpox struck, some part of the population remained healthy, while others, usually the young, were suffering from the diseases. Infant mortality was high in Europe; about half the population died before the age of fifteen. Influenza and other respiratory infections were regular health threats. Europeans were familiar with venereal diseases, however, doctors had not described the symptoms of syphilis in their medical texts and it is unlikely that syphilis belonged to the European disease environment. Fevers, intestinal disorders, typhus, smallpox, measles, and influenza were "endemic" to Europe; that is, much of the population had experience with these diseases.

During the fourteenth century, bubonic plague swept through Europe, killing between 20 and 30 million people by 1400 (about one-fourth of the population). Known as the "black death" because of the spots of blood that turned black under the skin, bubonic plague was a "pandemic" in the fourteenth century. In a pandemic, most of a region's population is affected, or the disease is epidemic in different parts of the world at the same time. Both were true of bubonic plague in the fourteenth century. The plague began in central Asia and was transported to Europe by land across the Middle East and then by ship to the various ports in Europe. The bacteria that causes plague breeds in rats. Rats carry fleas, and the bite of a flea from an infected rat transmits the disease to humans. The infected rats traveled to Europe along with the trade goods and spread the plague across the continent. By the end of the fifteenth century, the plague had receded and the customary European disease environment had reemerged.

Until the end of the fifteenth century, the disease environment of the Americas remained isolated from that of other parts of the world. And, in isolation, the peoples who inhabited the western hemisphere developed unique patterns of disease. Among the diseases missing from the environment of the western hemisphere were measles, smallpox, mumps, and typhus. These diseases migrated to the Americas along with the Europeans, and when they struck, they did so as "virgin soil epidemics." This term describes the initial outbreak of a disease previously unknown in an area (or absent from a particular area for many generations). A virgin soil epidemic always results in high rates of morbidity (sickness) and mortality (death).

The transfer of germs across the Atlantic is part of what the historian Alfred Crosby has called the "Columbian Exchange," or the transfer of plants, animals, and diseases across the Atlantic, in both directions. Crosby argues that just as we consider the people who migrated to the new world to be active agents of historical change, we must also consider the role played by the migration of plants, animals, and germs. The "most important changes brought on by the Columbian voyages," Crosby claims, "were biological in nature."\*\*

Europeans brought with them grains such as wheat and rye. They took back to Europe potatoes, corn, and tomatoes. Horses, cattle, and sheep had been domesticated by Europeans centuries earlier, and these animals quickly made themselves at home in the American landscape. In contrast, inhabitants of the Americas had relatively few domesticated animals - dogs and some fowl, but no burden-bearers like the horse. There were serious social and ecological consequences as a result of the transporting of animals and plants. As sheep proliferated in the new world, they ravaged the Mexican landscape. The potato became a staple of the European peasant diet; when a fungus struck Irish potato crops in the 1840s, millions died and countless others immigrated to cities in the United States. Those of us who try to rid our lawns of dandelions each spring are coping with one of the consequences of the Columbian exchange, a European plant brought to America with the first explorers.

Although the new plants and animals may have disrupted the lifestyles of new world inhabitants, these peoples did not die in epic numbers because of the transfer of plants and animals. In contrast, the germs brought by the Europeans were often lethal.

\* Quoted in Suzanne Austin Alchon, A Pest in the Land: New World Epidemics in a Global Perspective ( Albuquerque: University of New Mexico Press, 2003), 147.

\*\* Alfred W.Crosby, The Columbian Exchange: Biological and Cultural Consequences of 1492 (Westport: Greenwood Publishing Co., 1972), xiv.

<http://salem.k12.va.us/staff/rharless/College%20History/Demographic%20Catastrophe%20Article.doc>