The depopulation of hispaniola through disease

In America, students as young as grade school are taught about the discovery of America and the famous conquistadors such as Hernando Cortez, Cabeza de Vaca, and Christopher Columbus. Students are well versed in the rhyme, “ Columbus sailed the ocean blue in 1492,” but do not learn much more than that he discovered America until they are further along in school. Throughout America people celebrate Christopher Columbus with a holiday on October 12th to honor him for the discovery of America. The official observance of this holiday began approximately a hundred years ago in Denver, Colorado. Although the celebration of this holiday is a common practice in most parts of America, there are areas where there is not celebration of Christopher Columbus at all. In 1992, it marked the five hundredth anniversary of Columbus’ discovery of America. In Denver, Colorado nearly three thousand people including many American Indians, gathered in protest about the celebration of a person who they consider is the ultimate responsibility for the demise of the Native American Indians. They were successful in stopping the Columbus Day parade, which was originally scheduled as a massive celebration of the 1492 discovery of America. Parade organizers have insisted that the celebration of the Columbian event is an expression of their right to free speech, while the protestors still continue to insist that any celebration of Columbus and his deeds is a celebration of the genocide of the native people in the Americas. Although Christopher Columbus is credited with the discovery of America, he is not solely responsible for the death and destruction of the aboriginal Indians. In some classrooms Columbus is seen as a hero and it celebrated for the discovery of America and in others students are taught about the maltreatment and ultimate distinction of some of the Native American tribes

throughout history. One of these tribes includes the Taino Indians, who were the indigenous population of the Island of Hispaniola prior to the arrival of the Spanish explorers in 1492. Traditional theories of the demise of the Taino Indians promote various factors including the superior technology of the Europeans such as their steel swords, the canon, and arquebuz, the defense armor, the use of ships, and their differing form of warfare, as well as the psychological and cultural damage the European colonials brought upon the natives. New interpretations of early colonial documents attribute the depopulation of Hispaniola to disease, more specifically smallpox. Historians have argued over how much devastation the disease truly caused with arguments over beginning population numbers, but a more significant question to be answered is: where did this disease originate and how was it spread throughout the new world?

Christopher Columbus first sailed across the Atlantic Ocean for King Ferdinand II and Queen Isabella of Spain 1492. He was searching for western trade route to Indian in order to trade for spices. His first expedition consisted of three ships, the Nina, the Pinta, and the Santa Maria (which was captained by Columbus), as well as ninety crew members. They first landed on an island they called Guanahani, but Columbus later named it San Salvador. On the island they met the native inhabitants of the Taino tribe. Many of these native Indians were captured by Columbus' men and sold into slavery or taken back to Spain as proof of his discovery. Columbus thought that he had arrived in Asia and called this area the Indies and the inhabitants, Indians. On their way back to Spain the Santa Maria was shipwrecked and so the Nina and Pinta were the only ships to arrive

successfully in Spain. Columbus took three other trips to America in his lifetime. The second voyage was much larger than the first and consisted of seventeen ships, stationed with 1200 to 1500 men in search of gold and other riches for Spain as well as to capture more of the Indians as slaves. Columbus established a base in Hispaniola, where he had previously landed and continued to sail around to Cuba. On his third voyage Columbus sailed further south to Trinidad and Venezuela, and on his fourth and final journey he sailed even further south to Mexico, Honduras, and Panama. Columbus' journey began and ended in Hispaniola, which is where Columbus is rumored to be buried.

The Genoese navigator Christopher Columbus first landed on the island of Hispaniola. This first contact changed the native population of Hispaniola and the rest of the American continent forever. He was the first European to set foot on American soil since Leif Eriksson, and was responsible for reuniting and reintroducing the New to the Old world. After his first voyage, he returned to Spain with ten Native Americans, who were captured as proof of his discovery and were also to be trained as interpreters for a second mission. There is a debate among historians over the survival of these natives. Some place the death of a few of these natives, before ever reaching Spain. Others state that although he brought natives back with him from his first voyage, the many of the natives died travelling back from Spain on their way home to Hispaniola. Columbus' initial reports suggested large settlements and a dense population. He hoped to secure investors for more voyages by the spoken and written virtues of the new land. An example of this early propaganda can be seen in an excerpt from Columbus' journal:

This island is the most beautiful that I have yet seen, the trees in great number, flourishing and lofty; the land is higher than the other islands, and exhibits an eminence, which though it cannot be called a mountain, yet adds a beauty to its appearance, and gives an indication of streams of water in the interior. From this part toward the northeast is an extensive bay with large and thick groves. I wished to anchor there, and land, that I might examine those delightful regions, but found the coast shoal, without a possibility of casting anchor except at a distance from the shore. The wind being favorable, I came to the Cape, which I named Hermoso, where I anchored today. This is so beautiful a place, as well as the neighboring regions, that I know not in which course to proceed first; my eyes are never tired with viewing such delightful verdure, and of a species so new and dissimilar to that of our country, and I have no doubt there are trees and herbs here which would be of great value in Spain... (Columbus, 1492)

The fifteen hundred settlers that set out aboard the second expedition’s seventeen ships did find a dense population on Hispaniola when they arrived in late 1493, but within thirty years of contact, virtually no native Taino Indians remained.

The Taino Indians are considered a sub group of the Arawakan Indians who are inhabitants of the Northeastern part of South America. The Taino Indians are the aboriginal group of American Indians in Hispaniola, which is now present day Haiti and the Dominican Republic. The three main accomplishments of this culture consisted of their language, their religion, and their construction of a ball park for entertainment purposes. The Taino Indians lived in a polytheistic society with a variety of gods and goddesses.

They praised many gods who ruled from the sky and Yocahu was their creator. Other gods including Jurakan, Zemi, Maboya served other functions. Jurakan was always angry and ruled the power of the hurricane. Zemi, who was a god of both sexes, was believed to keep the Taino Indians safe from disease, hurricanes, or disasters in war. Maboya was believed to be a nocturnal deity who destroyed the crops and was feared by all of the natives. Many sacrifices were given to the gods in order to placate them as well as gain their protection from harm. They served cassava bread, beverages, and tobacco to their gods as offerings. Myths and traditions of the Tainos were spread through traditional stories, ritual dancing, and their ceremonial, native ball game. This ball game was played between opposing teams of ten to thirty players with a rubber ball. Winning this ceremonial ball game was thought to bring on strong children and a healthy harvest.

According to the official history of the Taino Indians in Puerto Rico, the Taino Indians lived in theocratic kingdoms and had a hierarchically arranged chiefs or caciques. The Tainos were divided in three social classes: the naborias who are considered the working class, the nitaínos or sub-chiefs and noblemen which includes the bohiques or priests and medicine men and the caciques or chiefs, each village or yucayeque had one chief. The chief of the tribe or the cacique lived in a rectangular shaped dwelling located in the center of the village, while the other tribesmen lived in a round dwelling. Both buildings were constructed the same with a wooden frame, topped by straw, with the ground as a floor and little to no inside furnishings. Their personal possessions were few and consisted of hammocks for sleeping made of cloth or string, stools, clay or wooden bowls used for mixing and

serving food, gourds used for drinking water, and canoes for transportation, fishing and other water sports.

The Taino Indians were skilled hunters and farmers, as well as sailors, fishermen, canoe makers, and navigators. Their main crops consisted of: garlic, potatoes, guava, cassava, mamey, anon, and yautias. They had no formal calendar system and counted using their hands and feet.

Their complexion was bronze of average stature, with long dark hair and dark eyes as well. Men usually walked around naked or wore a breech cloth. Single women were completely naked, while married women wore an apron to cover their genitals. The length of the apron of the married women was a sign of their rank. Both sexes painted their bodies on special occasions and wore jewelry consisting of earrings, nose rings, and necklaces which were sometimes made of gold.

When the Spanish arrived they expected the native Taino Indians to recognize the sovereignty of the Spanish King by a tribute of gold and other resources and they also expected the Indians to worship the Christian god. The Taino Indians rebelled, but were ultimately defeated due to disease and the more advanced Spanish weaponry.

The primary documents most commonly used by historians today regarding Hispaniola are accounts from three people: Bartolome de Las Casas, Peter Martyr, and Fernandez de Oviedo y Valdes. Peter Martyr never travelled to the Caribbean himself, but instead conducted a series of interviews with inhabitants of the area on their return for nearly thirty years. He compiled an account of all of the interviews into a book form and published it in his book

titled Three Decades in 1516. Fernandez de Oviedo y Valdes did visit Hispaniola, but came in 1514 during the decline of the island after many of the colonists had already placed their roots in the area, and only remained on the island for a brief amount of time. The another source of information from this time period comes from Bartolome de Las Casas, although he arrived in Hispaniola in 1502, when the aboriginal decline had already begun, he is the closest primary source of information available since he was physically present in Hispaniola during the decline in the Taino population.

Up until this century historians attributed the depopulation of natives to acts of cruelty and mass violence committed by the Spanish explorers. This approach was promoted from 1514 on in the works of the Dominican friar Bartolome de las Casas. Las Casas participated in the conquest of Cuba and witnessed a massacre of an entire Indian community. After a failing attempt at a peaceful established community in Cuba, he gave up his life as an explorer and became a priest shortly after. It was then that he dedicated his life to the protection and defense of the Indians. Las Casas wrote the Short Account of the Destruction of the Indies in 1542 and dedicated the book to Philip II, intending to inform the crown of the events that were taking place in America and as a warning that if the atrocities continued God would destroy Spain as a punishment. He wrote several other works in defense of the Indies including The Apologetic History of the Indies and a general History of the Indies. Although his participation in Spanish colonization came after Columbus' voyages to Hispaniola, his texts have provided historians with a detailed description and background of Spanish exploration in America for nearly five hundred years. However it is important to acknowledge that Las

Casas is a biased source because of his principal concern for the protection of the Indians. His high aboriginal numbers cannot be completely trusted, as they could have been exaggerated in order to make the slaying of the natives more devastating than it actually was.

Disease raged among both Spaniards and the native peoples of Hispaniola, if not from 1492, then certainly beginning in November of 1493 with the arrival of the second expedition. (Cook, 38) Although there is not enough evidence presented to accurately identify each illness, historians can agree that infectious disease became widespread throughout Hispaniola at this time. America was not a disease-free paradise before Columbus arrived, there was sickness throughout the hemisphere and this sickness led to death. There was leishmaniasis in restricted environmental niches in the New World, and Chagas disease. In all likelihood there was histoplasmosis and/or tuberculosis. Amoebic dysentery and intestinal worms weakened people and contributed to untimely death. Non venereal treponema (endemic syphilis) existed over a wide area. Yet a handful of Old World communicable diseases had not crossed the Atlantic of Pacific in any sustained fashion prior to 1492; these included smallpox, measles, typhus, the plague, cholera, and probably malaria and yellow fever. (Henige, 1986) In summation the Taino Indians' immune systems were used to the diseases in their native land, but the Spaniards brought with them diseases of the Old World, which the aboriginals were not physically equipped to handle.

The second expedition to Hispaniola carried one surgeon and one physician, Chanca (c. 1460-1515), who wrote an extensive report in the form of a letter describing the island and its various resources. His letter to the municipal

council of Seville was transported with the fleet of Antonio de Torres, which left Hispaniola for Spain in late January of 1494. In this letter he also writes about the remaining Indians on the island, in the context of Columbus' attempt to interview the cacique or chief Guacanagari, about the fate of the Spaniards that he had left on the island after the first expedition. Chanca was present at this interview and wrote that the Spaniards were able to understand the words of the chief because of the interpreters. The Spaniards looked after the health and well being of the translators because they were critical to the success of the second expedition, but still some fell ill. Though Chanca was a physician, he failed to detail the symptoms of the interpreters. His chief responsibility, as stipulated in the Crown's letter of appointment, was to see to the health of the Europeans on board the ship, not the natives therefore there is not detailed information about the Indians who were stricken with the illness.

Although a variety of diseases did exist during the exploration and colonization of Hispaniola, many historians agree that the symptoms most often written about in historical accounts were those of smallpox. The origins of small pox are unknown. Smallpox is normally transmitted by the uninfected to the infected through the upper respiratory tract. The disease is spread rapidly by sneezing or coughing and is highly contagious. The progress of the disease is best described by Noble David Cook:

Incubation takes about eight to twelve days, at most ten to sixteen. Onslaught consists of malaise and fever, followed by a small generalized skin eruption on the third day. The pimple-like blisters grow into pustules, which ultimately dry, forming scabs between days eight and ten. At times eruptions

can cover the entire trunk, and if dense enough, sections of the skin may appear to peel off the victim. If the pustules are internal, as in the lungs, death is normally the result. Those who survive the attack will usually have disfiguring pock marks, and blindness is common. The time from infection to a full cure of survivors who are no longer communicable can be as long as a month. But the virus can survive protected in scabs after falling off the body, and perhaps even longer in dried sputum. Secretions on clothing or bed linens, when packed in the right conditions, can survive for some time.

Epidemics of smallpox were common in early modern Europe. In large cities the disease had become common and was considered a childhood sickness, experienced often. One case of smallpox brought the survivor long-term immunity from the disease. Unlike the Europeans, the Taino Indians did not have immunity to the smallpox disease or any of the diseases imported by the European explorers. It infected not only children, but adults and the elderly. The largest impact was the death of native Tainos in child bearing age, with the constant death of the aboriginal people; the natives did not have the opportunity to repopulate quickly enough to maintain a large group of people.

An area of confusion among historians is the estimate of Hispaniola’s native population between 1492 and 1518. There is not a specific source which states the aboriginal population of the Taino Indians, therefore historians have to speculate and cross check information in a variety of sources, many of which may or may not be reliable.

It is important to remember that many of the sources from this time period survive because they were written for an intended audience. The main audience for these sources is King Ferdinand II and Queen Isabella of Spain and the information in the early sources may present a bias of some kind, Columbus was writing of the wonders of the “ New World” in order to get more funding for exploration. If he had stated that there was no significance of the discovery of the “ New World” the King and Queen would not have been eager to invest money into more exploration and they may have been disappointed that they already lost money by sending the first expedition to this “ New World.” On the other hand Bartolome de Las Casas writes his accounts in order to warn the King and Queen to stop the atrocities that are being committed in the New World. He is acting on behalf of the Indians, in his opinion, and therefore his information could be exaggerated as well in order to make the atrocities seem more violent and damaging to the population then they were in reality.

Sources place the estimated native population of Hispaniola in 1492 anywhere from 60, 000 to 8, 000, 000. There are two general schools of thought regarding the introduction of smallpox into Hispaniola. The older argument states that the introduction of smallpox first began with the first documented epidemic of smallpox in Hispaniola in late 1518 and then spreading to the mainland where it continued for two years or more. The more recent school believes that smallpox first arrived as early as 1507 or earlier in Hispaniola, the only Spanish settlement at the time. This difference may seem trivial until we remember that some models of aboriginal

depopulation would have several millions of Indians dying in Hispaniola between 1492 and 1496. (Henige, 1986)

Historian Angel Rosenblat is a supporter of a low aboriginal population on the basis that he could not explain massive depopulation of the island. He states that " there is no doubt that the Europeans imported their microbes to Hispaniola very early, but it is odd that the first epidemic recorded is that of smallpox of 1517-1518, when there were only 30, 000 Indians on the entire island." He concluded that since the first epidemic of smallpox in Hispaniola is recorded from 1517-1518, when there is roughly 30, 000 Indians on the entire island, the native population must have been low.

The American geographer Carl Sauer was among the first to call attention to the impact of Old World disease on Native American Life. Saur remarked that the depopulation stemmed from, " societal disruption with resulting social and psychological malaise." He claimed that the Taino failed to reproduce, suffered a high death rate due to overwork, and with the introduction of Old World plants and animals, their agricultural patterns and practices were interrupted causing starvation. Sauer concluded that all of these factors contribute to the depopulation of Hispaniola as well as the outbreak of disease. Sauer called the documented outbreak of smallpox in 1518, in Hispaniola, " the first epidemic of record," but did not rule out the possibility of earlier smallpox or other diseases being spread throughout Hispaniola prior to the documented 1518 epidemic.

Historians Woodrow Borah and S. F. Cook, who are Berkeley associates of Sauer, are supporters of the high end of the native Taino population

spectrum. They pursued the interests of Sauer and revolutionized the way historians think about the size of the pre-Columbian native population of Hispaniola with the use of mathematical equations to help determine an aboriginal population. They also used a system to rank the various factors most responsible for post-conquest decline. (Lovell, 427) Borah and Cook suggest the importance of disease for Hispaniola's depopulation stating outright that:

We disagree on the relative lateness of the introduction of disease. From the men of the first voyage of Columbus on, there was disease among the Spaniards. A large proportion of the men were ill at any given time, and there was a steady loss through death. It seems most unlikely that the sick among the Spaniards would have been so isolated that the natives would not have picked up any disease of epidemic possibility. (Cook, 39)

Borah and Cook used the information from the census of 1496 as a stepping stone in their research. The figure generated by the census was 1. 13 million. The tribute tax system was developed by Columbus in order to receive goods and resources from the natives to be sent to the King and Queen of Spain. According to Tinker and Freeland, this tribute was imposed by Columbus on all those fourteen years of age and older, including both men and women. It is precisely these coerced wealth producers, the tribute paying bodies, whom the census would have counted. According to Borah and Cook, 1. 13 million is an incomplete figure because it did not factor in the children younger than fourteen, the elderly, the native leaders, and those who were already enslaved by the Spanish. Borah and Cook used a series of logarithms to graph the estimated population. By graphing the known population from

1496 to 1570 they were able to use this depopulation curve to arrive their population estimate of 7, 975, 000 for Hispaniola in 1492. Borah and Cook argued for a much earlier introduction of disease than 1518.

One of the methods used to determine the original inhabitants of Hispaniola is the idea of the " carrying capacity" of any given territory. This is used to determine the ability of the land to provide for its native inhabitants. This theory is widely disputed by historians because it is difficult to compare the geography of the Caribbean Islands now compared to what they were like nearly five hundred years ago.

Frank Moya Pons (1971) believes that the demise of the islanders was " produced by mass suicides, homicides, abortions, and maltreatment, not including the illness that also should have affected part of the population, although it may not have been in the same measure that the aforementioned factors did it." He is a lifetime specialist on the early colonial history of the Dominican Republic's two-thirds of the island; Moya Pons knows the early sources very well. Moya Pons began with the research of those before him and used their data and varied the method to achieve different results. He believes that Rodrigo de Albuquerque's 1514 distribution provides the most complete and reliable early source for Taino population data: there were then 26, 334 natives on the island under Spanish domination. Moya Pons took the 1508 figure of 60, 000 of Miguel de Pasamonte, as reported by Bartolome de Las Casas; the 1509 " count" of 40, 000; and finally the 1510 Diego Columbus report of around f 33, 523 Indians, and subjected the figures to relatively simple mathematical manipulations to calculate rates of decline for three sets of years: 1508-1509, 1508-1510, and

1508-1514. He did not use the same data which Sauer, Borah, and Cook used. He also scrutinized living conditions on the island in closer detail, including the introduction of the encomienda system. The encomienda system is a labor system that was used by the Spanish crown during the colonization of the Americas. In the encomienda the crown granted a person control over a specific amount of natives that they were supposed to take responsibility for. The function of the person who controlled the natives including protecting the natives from other rival tribes, instructing the native in the Spanish language, and to teach them the Catholic faith. In exchange for this protection and learning the natives were to pay a tribute in the form of crops or gold. This system began to function more in 1502-1503 with the arrival of Governor Ovando along with 2, 500 settlers. By 1510, according to Las Casas there were over 10, 000 Europeans on the island.

Medical historian Francisco Guerra was among the first to make the modern case linking the introduction of Old World pathogens in the form of Influenza into the Caribbean with the massive second expedition of Columbus. Guerra uses his knowledge in medicine to rule out other diseases such as malaria or yellow fever and instead diagnosis the epidemic as influenza. The diagnosis is based on source descriptions that mention infection, high fevers, prostration, aches, pains, extreme contagion, and overall malaise, symptoms that for Guerra indicate a textbook case of influenza. For Guerra the infection was carried somewhere within one or more of the seventeen ships. On board were Old World plants and animals the colonists planned to nurture in the new environment. Most significantly to Guerra were the eight sows that were loaded on one of the ships. Guerra postulated that the sows contained the

influenza and transferred it to humans while they were domesticated onboard the second expedition to Hispaniola. Guerra argued that almost immediately the illness that brewed aboard the ship, spread throughout the island infecting everyone. The appeal of Guerra’s argument to other historians is the impact that the disease had on the natives as well as the Spanish population. Of the fifteen hundred settlers who return with Columbus on the second voyage to Hispaniola in 1493, merely two hundred are left alive a decade later. Even Columbus fell sick, although he recovered, whereas many Indians and Spanish settlers did not. In 1999, however, Guerra shifted his focus, emphasizing the potential effect of typhus. His new research presents updated information on the other diseases, which was unavailable when he originally published in the 1980s. The symptoms described by Guerra, however could cover various illnesses, not just typhus or influenza. Unfortunately the ability to indentify early colonial disease is nearly impossible with the incomplete evidence, unreliable diagnosis, and the distance. Even in modern times many fevers and illnesses are only identified after a number of detailed tests and some new illnesses still are incorrectly diagnosed.

Hernando Gorjon, a vecino of the village of Azua, provides a written account in 1520 of the devastation he witnessed. He visited the Indies in 1502 and when he arrived there, he stated that there were many towns and people still living, but that gradually over time people had disappeared. He blamed the following factors: prior to 1520 the island witnessed not just one large outbreak of smallpox, but several epidemics of a variety of diseases and that the natives were not working as much as they should have been. This has

been translated from its original source which states: “ la causa de esta despoblacion es haber poca gente para trabajar e entender en grangerias.” In addition “ anade haberse ido e otras enfermedades que han dado a los indios.”

Historian David Henige discredits the idea of disease as the origin for the depopulation of Hispaniola all together. He states that, “ the fact that smallpox did not strike the Hispaniola Indians until they had begun to be concentrated into settlements by the Spanish only reinforces other evidence that the island’s contact population was not particularly large and had been declining ever since the Spanish first arrived.” His research concludes that the encomienda system is mainly responsible for the depopulation of the Taino Indians, and that disease was introduced once depopulation began.

Population statistics and numbers are very important throughout history. In the case of Hispaniola, any estimate is still leading up to their extinction. Regardless of the numbers involved by 1519, the population had been decreased to the bare minimum or a mere shell of its original inhabitants.

Regrettably, solid evidence of the native Hispaniola population is not available. Scholars and historians alike have poured over records for fresh data or searched over old data for hidden insight and have still come up empty. A simple answer for this lack of information is that the Taino had no reason to count themselves or take a census. By the time the colonists found it necessary to count the native population, the depopulation had already begun. Noble David Cook argues, “ Furthermore, the first Spanish colonial counts, when finally taken, were flawed. They were incomplete,

encompassing only part of the peoples of part of the island, and they were conducted at a time of catastrophic political and ecological change” (pg. 38).

Even before the official outbreak of smallpox in Hispaniola, small numbers of African slaves were being exported from Spain to Spanish estates in Santo Domingo, starting in 1503. In 1510 the Spanish king officially sanctioned use of slaves in mines on the island. By 1517, up to four thousand slaves were allowed to be imported annually. All trade with Santo Domingo, including the new trade in slaves was supposed to be reserved for Spain, but with the increased demand Portuguese and Genoese traders soon began bringing slaves to Santo Domingo illegally directly from West Africa.

This illegal trade of slaves through West Africa is thought by some historians to be the cause of the next outbreak of smallpox in Hispaniola between 1517 and 1518. The smallpox disease was also epidemic in Spain and Portugal, but ships from Spain usually halted at Puerto Rico or San German first, where any smallpox that developed during the voyage should have been discovered. However the Spanish only instituted the inspections of the ships after the second epidemic ended, therefore the epidemic could have originated in Spain or in Africa, although Africa is more likely.

The second epidemic of smallpox, which some historians would recognize as the first, was noticed among the African slaves in the mines of Hispaniola in December 1518. It then spread rapidly to the rest of the Native American population, and by May 1519 killed nearly 1/3 of the Indians on Hispaniola. At this point the outbreak had spread to Cuba in 1518 and from Hispaniola to Puerto Rico in 1519, killing nearly half of its native population within a

month. By 1519 smallpox had reached the three Spanish-occupied islands in the Caribbean and it was inevitable that smallpox would s