

DNA CHALLENGES POSED IN ATTEMPTING TO SOLVE CHRISTOPHER COLUMBUS MISTERIES

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Almost 500 years after his death, on May 20th, 1506, a lot of mysteries remain unsolved concerning the origins and location of the remains of one of the most outstanding sailors and best-known discoverers.

After his death in 1506 in Valladolid, Spain, the bones of Columbus were first moved to Seville, Spain in 1509. In 1544, following the orders written by Columbus himself in his last will, his remains were sent to his favourite land in America, the Spanish island of the Dominican Republic. Once there, his remains were buried at the Cathedral in Santo Domingo.

Years later, in 1795 the Spanish had to leave the island, and the remains of Columbus were moved to the closest Spanish Colony at that time, Cuba. Finally, in 1898, after Cuba became an independent country, the bones of Columbus were definitely sent to rest in Seville, and buried in the Cathedral of this Andalusian city.

Controversy started in 1877, when Dominicans were partially rebuilding the Cathedral and found a wooden box in a gravesite engraved with the name of "Admiral Christopher Columbus". Inside, they found a set of bones, but not a complete skeleton. Since at that time, in 1877, the remains of Columbus should have been in Havana, Cuba, the Dominicans claimed that the remains the Spanish moved into Cuba and later to Spain were not those of the Admiral, but belonged to one of his relatives, buried close to him.

Therefore, today Columbus has two gravesites, in two different and distant cities: Seville, in Spain, and Santo Domingo in the Dominican Republic.

Attempting to solve this mystery, a group of historians headed by Marcial Castro asked our Laboratory of Genetic Identifications to perform DNA analysis on the remains of Columbus. To compare DNA we have obtained remains of two close relatives: his brother, Diego Columbus, and his son Hernando Columbus. Both of them are buried in Seville, the brother in a Monastery, and the son in the same cathedral, close to his father.

By comparing mtDNA between Christopher and Diego (brother to brother) we should be able to answer the main question remaining: to confirm, or not, the authenticity of these remains in Seville, supporting the so-called "Spanish theory" on the location of Columbus' remains. Nevertheless, we're now trying to get permission to exhume the remains of Columbus held at the Dominican Republic, because anthropological studies have already shown that neither the remains in the Dominican Republic nor the remains in Seville are complete skeletons, and it could be that both places could truly have remains of the discoverer.

There are many theories about the origins of Christopher Columbus, and there is a lot of controversy among historians. The best-known and most widely accepted claim is that Columbus and his brothers are Italians, from the City of Genoa who later came to Spain. But there are many other theories about his origins. Most of these theories, according to specialists in history, are weak and based on circumstantial facts, and are not really accepted by the scientific community. Nevertheless, there is one theory, known as the Majorca's theory, supported by Mr. Gabriel Verd, that claims that Columbus is the son of Prince Charles of Viana. According to this theory, Columbus was born in Felanitx, Majorca, Spain, in 1461; and his mother was Margarita Colom.

From the genetic point of view, this is the only theory regarding the origin of Columbus where the father's remains are identified, since the remains of the Prince of Viana are buried in the Monastery of Poblet, Tarragona, Spain. Our team at the University of Granada is currently finishing DNA analysis to identify them. Once we have a final positive identification of Prince Charles of Viana, we could compare his autosomal or Y-chromosome DNA to that of Columbus, and definitely confirm or discard the theory.

This point does not mean that we want to demonstrate that Columbus is the son of Prince Charles of Viana. It only means that once we have nuclear DNA from both gentlemen no one would ignore the possibility of performing comparisons. And this is the main challenge so far: to try to get nuclear (autosomal or Y) DNA to know a little bit more about the origins of the First Admiral Columbus.

Our research has a great advantage: we do not want to demonstrate any theory regarding the location of the remains or the origins of Columbus, and therefore we have complete freedom and independence to face all requests and consider all theories.

Finally, I'd like to mention that the "Columbus Identification DNA Team" that I lead, is also composed by the teams of Mark Stoneking (Leipzig, Germany), Olga Rickards (Rome, Italy), Bruce Budowle (Quantico, Virginia), Angel Carracedo (Santiago, Spain), and Daniel Turbon (Barcelona, Spain); I want to acknowledge that we have the complete support and technical help of ABI and the Promega Corporation. Analysis is underway and results should be expected in 2004.