

Physical Anthropology Section – 2004

H31 Preservation in Paradise II: A Pre-Columbian Burial in a Contemporary Cemetery

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The goal of this presentation is to document the discovery of a PreColumbian burial encountered in contemporary cemetery on the island of Coiba, Republic of Panamá.

This presentation will impact the forensic community and/or humanity by enabling us to identify a unique, non-forensic feature in a contemporary forensic setting as well as providing insight into possible factors involved in the preservation of skeletal remains in a tropical environment.

Pre-Columbian indigenous populations inhabited the island of Coiba, off the Pacific coast of the presentday Republic of Panamá, from approximately 500 BCE until the early 16th century with the arrival of the Spanish. This paper presents the excavation, recovery and analysis of a Pre-Columbian burial encountered in contemporary cemetery (the Marañon Cemetery), during the course of human rights work on the island of Coiba, Republic of Panamá. The Marañon Cemetery has served as a final resting-place for the inmate inhabitants of the Coiba prison colony from 1914 until 1992. The Pre-Colombian remains that are the focus of this work were encountered in a relatively shallow grave, approximately 55-cm in depth, on the west side of the cemetery and were arranged in a neat "packet style" burial. The remains were extremely fragmentary and fragile. All the bones displayed cortical flaking and many elements crumbled upon contact. Roots and dirt were present in almost all of the elements. All skeletal elements appeared to be represented, although the deteriorating preservation did not permit the intact recovery or inventory of all elements. However, even though the general state of preservation of this burial was poor, several nearly complete bones were recovered. The remains were not in an anatomical or articulating position, indicating that they were skeletonized when they were placed in the grave. Historical sources document that the Guaimi Indians of the Chiriquí region observed similar burial practices, exposing the cadaver on a platform for a year and then interring the bones in family burial grounds. The skeleton was determined to most likely represent a female, based on gross cranial and pelvic morphology, in her late teens or early twenties. Age was assessed via the epiphyseal closure method. Fragments of iliac crest displayed clear epiphyseal scars and the vertebral epiphyses were not fused to the vertebral bodies, suggesting an age of less than 25 years. Ancestry was assessed via morphological features and pathologic conditions of the remains. Severe wear was exhibited on the teeth, especially the molars and incisors, exposing the dentin. Some degree of flattening was observed on the occipital. Expansion of the diploë was noted, with cranial thickness measured at 10mm. Porotic hyperostosis was present on the parietals and the occipital while significant bilateral cribra orbitalia was noted on the orbital plates of the frontal. These latter conditions are indicators of anemias that are commonly observed in prehistoric populations, but are rarely seen in contemporary populations. Linear enamel hypoplasias were noted on a canine and an incisor. This suite of traits indicates that these remains are of pre-Columbian indigenous origin and not of forensic medico-legal significance. While the state of preservation of this burial would by and large be considered poor, the authors were surprised to find that it was actually better preserved than many of the contemporary burials that were examined. Factors possibly contributing to this differential preservation may be the fact that the burial was located further away from the destructive palm root systems on the east side of the cemetery, and that the remains were skeletonized when they were buried, depriving the root systems and insects of soft tissue on which to feed. This unique burial enabled us to identify a non-forensic feature in a contemporary forensic setting as well as providing insight into possible factors involved in the preservation of skeletal remains in a tropical environment.

Pre-Columbian Burial, Forensic Anthropology, Tropical Environment