



## Physical Anthropology Section – 2004

### **H29 Silent Slaughter in Guatemala: The Importance of Sex, Age, and Pathological Identification in a Case of Large Scale, Deliberate Starvation of Children**

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After attending this presentation, attendees will be presented with another case in which complications associated with the application of inappropriate standards for sex, age, and pathological determination complicated a large scale forensic investigation.

This presentation will impact the forensic community and/or humanity by making forensic scientists more aware of the need for the establishment of appropriate standards for sex and age determination as well as pathological lesion interpretation, and to advocate the establishment of population specific standards for populations whose circumstances are unique.

This poster will use a case of large scale intentional starvation in Guatemala to demonstrate the importance of, and complications associated with the application of methods of aging and sexing, as well as the interpretation of pathological lesions on skeletal remains of a population with two confounding factors: subadult age, and chronic malnutrition prior to the event.

The value of reliable techniques of age and sex determination is well known in the forensic setting. It is also well known that the existing techniques for determining age and sex are significantly influenced by outside factors such as population specific variation in growth rate and the influence of illness and/or malnutrition on skeletal maturation. This poster demonstrates a set of circumstances within which sex and age determination are of unique relevance, individually buried, uncommingled remains in an area for which standards for sex and age determination are not established and there is considerable reason to believe that the existing ones are not appropriate.

Additionally, knowledge of the presentation and etiology of pathological conditions is known to be of considerable value in the interpretation of past lifeways from archaeological skeletal assemblages. This paper illustrates an instance in which this knowledge was of considerable forensic value, but that may fall prey to the same problems of interpretation that befall their interpretation in archaeological analyses (the osteological paradox).

In the 1980s, the Central American country of Guatemala was in the midst of a war between the government and the country's indigenous peoples which ultimately resulted in the massacre, forced disappearance, and extrajudicial killings of an estimated 100,000 to 140,000 primarily indigenous people. The year following the coup which resulted in Efraim Rios Montt's seizure of the country's presidency was by far the most devastating for the indigenous groups, only a small group of whom (in the form of leftist guerilla groups) had been fighting to improve their impoverished lifestyles and posed a threat to the government which was debatable at best. In 1982 the systematic removal of the adults and isolation of the children by the army, from the small Maya village of Ilom resulted in the deaths of approximately 150 children. It is suspected that the encirclement of the village by the military ultimately resulted in the deaths of the children by starvation rather than by the violent means used elsewhere. The ODHAG (Oficina de Derechos Humanos del Arzobispado de Guatemala), a small forensic team funded by the Catholic church aimed, in the summer of 2003 to exhume the remains of some of these children in the hope that evidence supporting the starvation theory might be collected.

The particular circumstances of the interment of these children, including their hasty burial by families upon their return and the lack of grave markers associated with the individual graves, the extent of vegetation growth and finally the fact that 21 years had passed since the graves were dug compromised the confidence with which the anthropologists could follow the information provided by family members regarding grave locations. Often, general grave location was known, but upon contact with remains during excavation, doubt arose in the minds of the anthropologists regarding the reliability of the location of the grave. This was exacerbated by the fact that the estimated ratio of children to adults in the village, as in much of rural indigenous Guatemala is around 10:1, the result being a high number of children in the cemetery with which these children might be confused. Additional complications arose in the lab. It could not be concluded that the use of existing techniques of subadult age determination (based on American and German children) was appropriate to these children given their chronic malnutrition. Also several of the existing techniques for sexing sub adult remains including form of the ilium and mandible were used, but their appropriateness to this particular population was difficult to determine.

This poster illustrates these problems with photographs, diagrams, and comparisons to other data including the INCAP (Institute of Nutrition of Central America and Panama) longitudinal study that chronicled growth patterns of Guatemalan children and their response to nutritional supplementation. Upcoming research



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will compare specific portions of the INCAP data to the data collected here.

**Sex and Age Determination, Pathology Identification, Guatemala**