



## Physical Anthropology Section – 2004

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### **H9 A Tale of Two Museums: Available Fetal Collections at the National Museum of Natural History and the Albert SzentGyorgi Medical University, Hungary**

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The purpose of this presentation is to inform the forensic science community of the two fetal collections worldwide available for research – the fetal collections at the NMNH, Washington D.C., U.S.A., and the Hungarian collection at the Albert Szent-Gyorgi Medical University, in Szeged, Hungary. The biological profiles of the collections will be discussed, the nature of the collection process will be compared, and the inherent limitations of the reviewed.

This presentation will impact the forensic community and/or humanity by allowing for a rare opportunity to study fetal materials that are not readily available elsewhere. While there are inherent limitations involved in using museum collections, as the materials may be pathological, anomalous or unwanted, the fact that there are no other collections available necessitates their usage. Such data may be useful to develop fetal profiles for forensic cases, and thus determine fetal viability.

Forensic fetal remains are occasionally submitted to the Office of the Medical Examiner for age determination, as well as possibility of fetal viability. There are few references on forensic fetal osteology, and there are fewer collections available for research. These fetal collections are located at the National Museum of Natural History (NMNH), in Washington D.C., U.S.A., and the Albert Szent Gyorgi Medical University in Szeged, Hungary, Eastern Europe. The primary objective of this presentation is to inform the forensic anthropologists of the two fetal collections, the composition of the collections, the nature of the collection process, and the inherent limitations of these materials.

The fetal collections at the NMNH were collected in the early 1900s by organizations and private physicians. The collection consists of 271 fetuses, of which 120 are white and 151 and black, mixed or "mulatto." These represent 119 males and 94 females between the ages of three lunar months and newborns. The card catalog may provide limited information on ancestry, phenotypic sex or even age. The materials were obtained from private physicians or during autopsy, then donated the NMNH through Dr. Hrdlicka. Since most of the collection represents spontaneous abortions, the collection is probably biased towards anomalous or pathological materials.

The Hungarian remains were collected after WWII to present. The materials collected immediately after WWII may represent illegally aborted fetuses, as abortion was outlawed in the country after the war. The fetuses collected thereafter may represent spontaneously aborted fetuses, or maternal/fetal demise that were submitted the pathologists in the area. These materials were collected, macerated and measured. The morphometric data were published in "Forensic Fetal Osteology" (1978) by Fazekas and Kosa. The collection is composed of 138 skeletons, composed of 71 males and 67 females between the ages of three lunar months and full-term newborns. All of the fetuses are of Eastern European descent. Autopsy records are available on all fetuses, however lunar age may not always be available. Indeed, one would have to pull all of the autopsy records to record which of the fetuses are of known lunar age, and which fetuses had lunar age calculated through Haase's rule.

The two collections are different in terms of their biological profiles. The NMNH collection was collected approximately 100 years ago, and are composed of black, white and mixed fetuses. The ages were given by my other mother, or were assigned by the pathologist. Yet, there are no other known black fetal materials available for research. In contrast, the Hungarian collection represent a more homogenous population although there are some fetuses of minority descent intermixed in this material.

**Anthropology, Museum, Fetus**