



Physical Anthropology Section - 2012

H20 Analysis of Recovery Korean War Remains

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After attending this presentation, attendees will learn how the Korean War, an international conflict that occurred between 1950 and 1953, has important implications for the development of forensic sciences in South Korea. It is estimated that approximately 137,000 Korean soldiers were killed during the Korean War. MAKRI takes a leading role in the identification of Korean soldiers. Here we present our preliminary results of the analysis of 2,470 Korean KIA remains recovered between 2009 and 2010 are presented.

This presentation will impact the forensic science community by combining all the above, the Korean War KIA were mostly 17 – 25 year olds and 160 – 170 cm tall. The “Asian” characteristic of shovel-shaped teeth, cranial ossicles, and linear enamel hypoplasia were the most observed non-metrical and pathological characteristics observed. The majority of observed trauma included gunshot and projectile wounds. Recovered Korean War remains sustained 60 years of taphonomic processes causing poor preservation, meaning that many of the specimens were unable to go through the forensic anthropological identification process. Eighteen cases (0.73%; n=2,470) were identified through material evidence, testimonies, and DNA. Approximately 3,000 KIA remains are stored since they are not identified due to a lack of personal (antemortem) information. Further international collaborative research is necessary to help expand and further elaborate on these initial findings.

Forensic science is a relatively new discipline in Korea that is currently being influenced by the more established research organizations found in the Western Europe and North America. In 2007, with government support, the Republic of Korea Ministry of National Defense (ROK MND) established the MND Agency for Killed in Action Recovery and Identification (MAKRI) research organization. MAKRI is a forensic sciences research organization whose main goal is the identification of recovered killed-in-action (KIA) Korean soldiers using standard theoretical and methodological research approaches in the international forensic sciences, particularly forensic anthropology.

Of the remains available, those in a good state of preservation were selected for creating a biological profile, including data on sex, age, stature, trauma, and non-metric traits. It was possible to estimate stature based on the long bones using 19.1% (471) of cases; 38.4% ranged between 160.1 – 165.0 cm and 38.2% ranged between 165.1 – 170.0cm. Age could be estimated in 44.6% of cases and the majority of ages ranged from 17- 25 years (86%). Sex could be accurately determined in 55.6 % of cases with 49.1% being male, and 50.8% containing masculine characteristics. Non-metric traits were documented from whole crania (15% of cases, 371 skulls). Ten percent had cranial suture ossicles, and 9.2% had a metopic suture. Approximately 10% of cases had intact teeth and 89.0% had shovel-shaped incisors. Enamel hypoplasia was highest in specimens with pathology (80%). Five percent of the subjects had observable trauma, of which 26.6% exhibited gunshot wounds and 72.4% projectile wounds. Approximately 63% of the gunshot wounds were observed in the cranium and 36.4 % were observed in the extremities.

MAKRI, Korean War, Recovery Remains