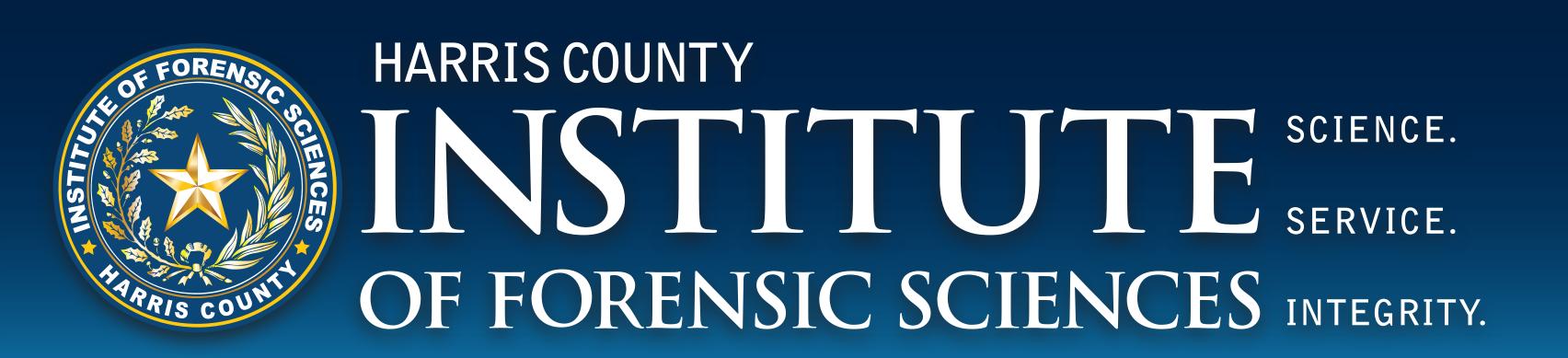
Conservation and Analysis of Human Remains from the Khmer Rouge-Period Mass Gravesite of Krang Ta Chan, Cambodia



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Femur (អ្វីងក្ដៅ)

Tibia (ឆ្អឹងកំភូនជើងធំ)

Humerus (ឆ្អឹងដើមដែ)

Ulna (ឆ្អឹងកំភូនដៃធំ)

Radius (ឆ្អឹងកំភ្លួនដៃភូច)

Clavicle (ឆ្អឹងដងកាំបិត)

Scapula (ឆ្អឹងស្លាបប្រចៀវ)

Cranial Fragments/Mandible (បំណែកឆ្អឹងលលាន៍/ឆ្អឹងថ្នាមក្រោម)

Age Categories (in years) (n = 1,904)

Total Cranial Fragments and Postcrania

Vertebrae (ឆ្អឹងកង)

Sacrum (ឆ្អឹងកញ្ឆាញ)

Cranium (លលាន៍ក្បាក)

Grand Total

Rib (ឆ្អឹងជំនីរ)

Fibula (ឆ្អឹងកំភូនជើងតូច)

ABSTRACT

Krang Ta Chan (ក្រាំងតាចាន់) (KTC) is a 1970s Cambodian mass gravesite from the Khmer Rouge (KR) genocide. Eight mass graves were excavated in the 1980s with 10,000+ victims. The Humanitarian and Human Rights Resource Center (HHRRC) funded a 2016 project to preserve and study these remains. A Cambodian team analyzed 5,000+ bones. Sex and age for 1,904 crania were estimated: 57% were male, 44% were 20-34 years old. Most injuries (84%) were blunt force trauma. This project details victims' skeletal injuries and provides further comprehension about the KR era.





INTRODUCTION

KTC, in Takeo Province, is one of nearly 20,000 mass gravesites throughout Cambodia and was a KR detention center and execution site. When 8 graves were excavated, over 10,000 victims were discovered. The site was converted into a memorial where the bones of the victims have been collected. However, the harsh environmental conditions in Southeast Asia (i.e., sun, rain, and humidity) and the lack of appropriate funding for conservation resulted in rapid deterioration of the bones. All bones were removed from the memorial *stupa* (shrine) and transported to the Choeung Ek Genocidal Center in Phnom Penh for analysis and preservation by an exclusively Cambodian team.





RESULTS

Skeletal Elements:

- 5,233 bones removed
- 1,904 crania = MNI
- 590 cranial fragments & mandibles
- 2,739 postcranial elements

Sex:

Trauma:

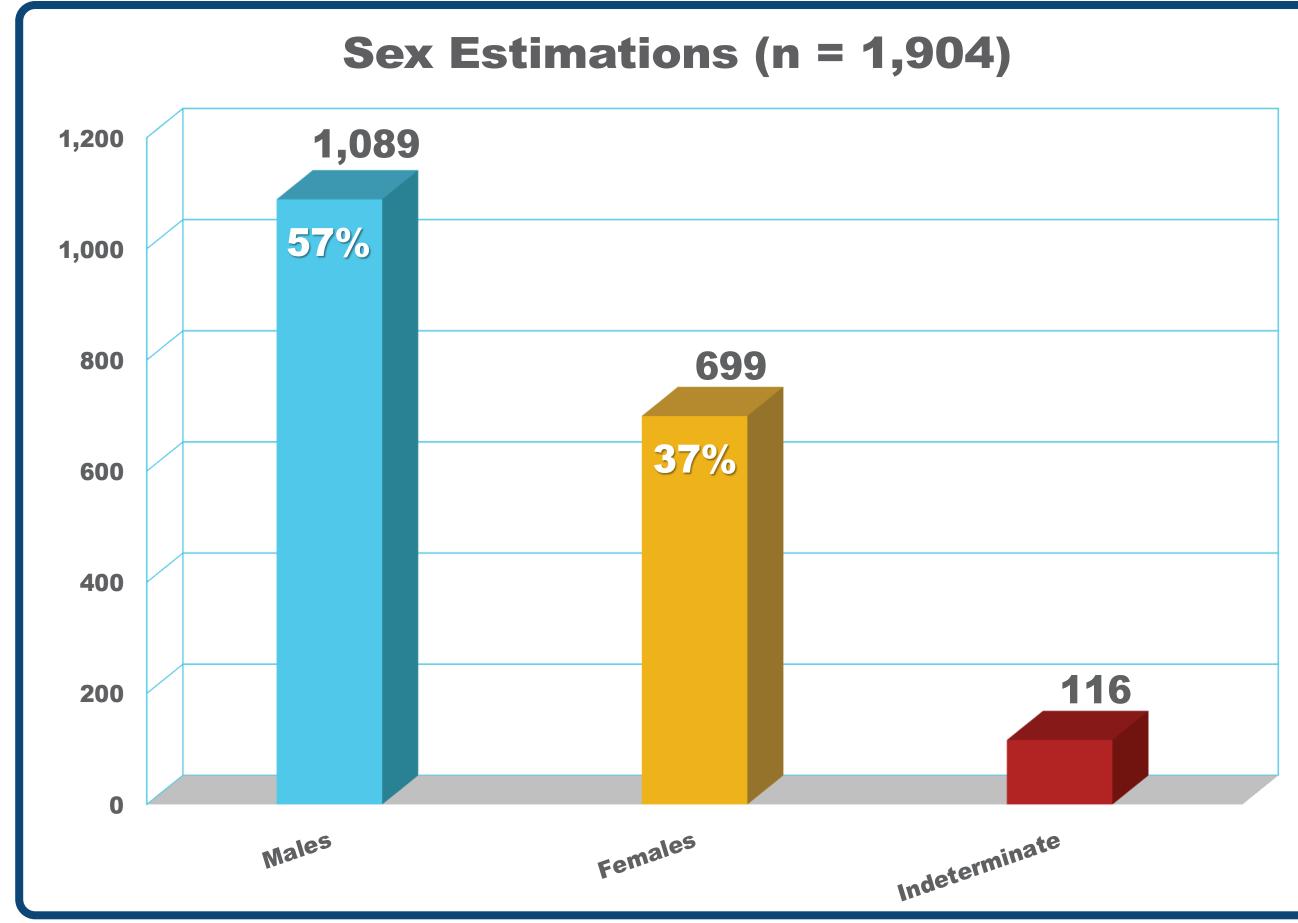
- Blunt force = 84%
- **■** Female = 37%

■ Male = 57%

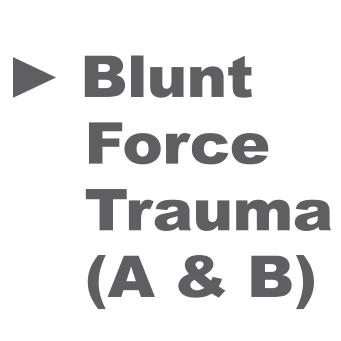
- Sharp force = 16%
- Indeterminate = 6%
- Gunshot = 0.03%

Age:

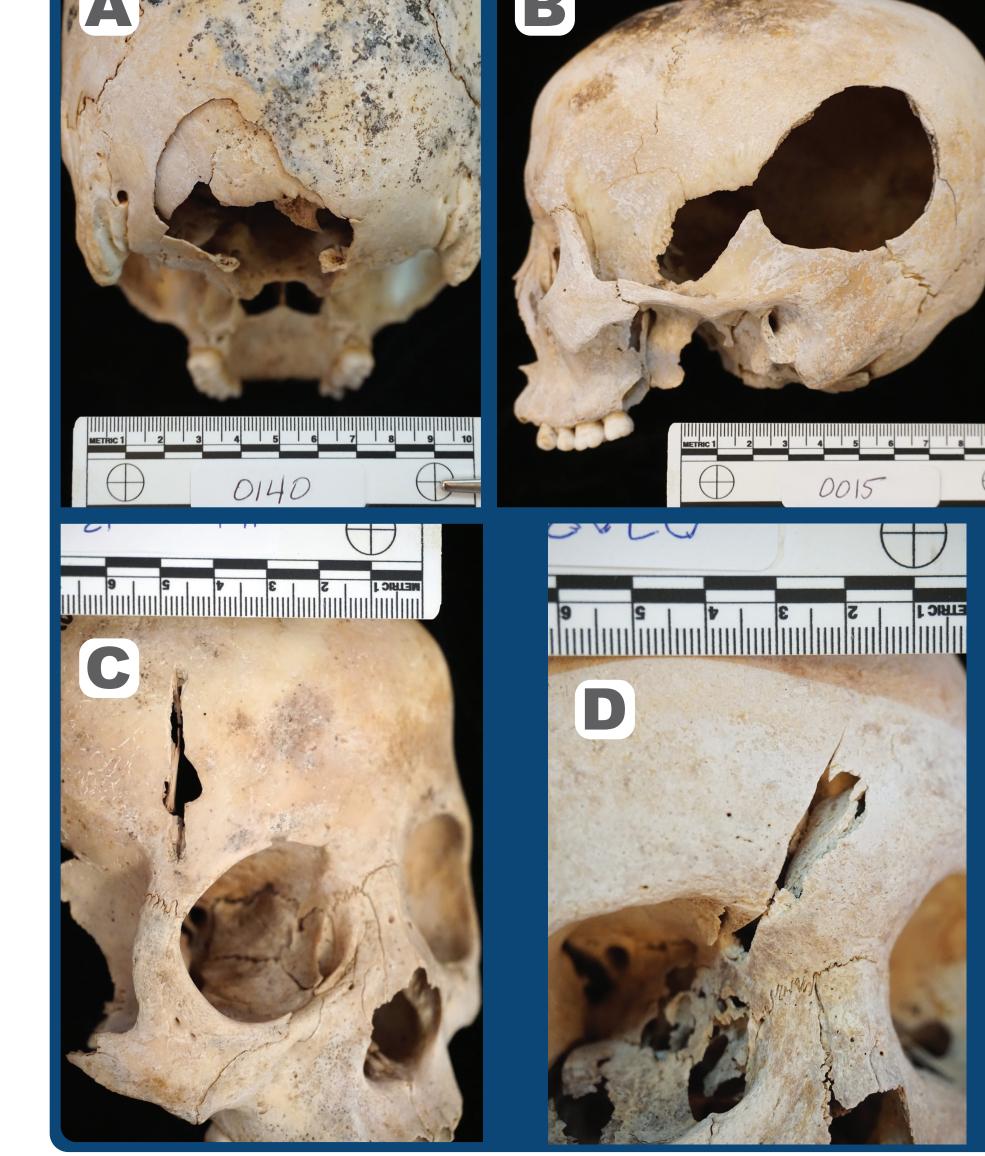
- 20-34 years old = 44%
- 35-49 years old = 31%











1,079

3,329

ANALYTICAL & PRESERVATION PROCESS

- Crania labeled with identification number, inventory/analysis sheet started
- Remains photographed prior to (and after) cleaning
- Remains cleaned with water, soaked in insecticide and fungicide, dried
- Re-association of disarticulated (separated) cranial bones attempted
- Analysis of crania:
 - Age-at-death Sex Cranium weight, length, and width taken
 - Traumatic injuries recorded and photographed
- Remains coated with polymers to seal them against humidity



DISCUSSION & CONCLUSION

After analysis and preservation were complete, all of the remains were respectfully returned to a renovated *stupa*. This project provides important information about the demographics of the KR victims and their sustained traumatic injuries, and contributes to a more comprehensive understanding of the KR era.



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