Sorting the fragments and assessing the relationships of the Ayioi Omoloyites tombs of Hellenistic to Roman Period Cyprus

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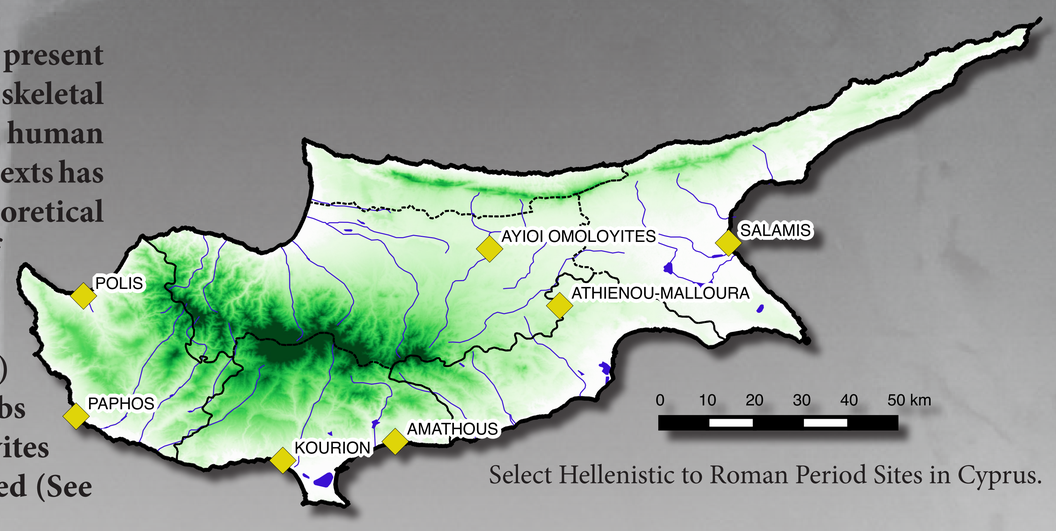
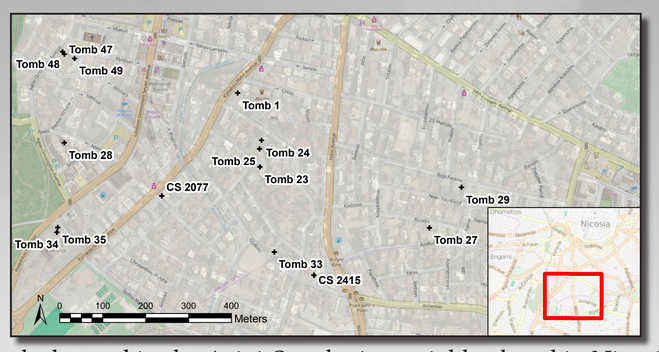
Introduction

Commingled human skeletal remains present methodological and interpretive challenges for skeletal biologists. Recent research on commingled human remains from archaeological and forensic contexts has focused on advancing methodological and theoretical approaches. Using a modified version of Knüsel and Outram's (2004) fragmentation zonal coding system, the commingled human remains from three Hellenistic (310-30 B.C.) to Roman (30 B.C. to A.D. 330) period tombs excavated in 2006 from the Ayioi Omoloyites neighborhood in Nicosia, Cyprus are examined (See Nicosia map below).



Select Hellenistic to Roman Period Sites in Cyprus.

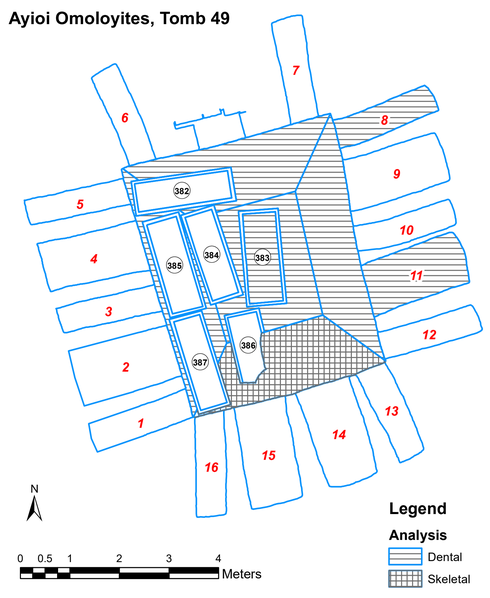


Tombs located in the Ayioi Omoloyites neighborhood in Nicosia.

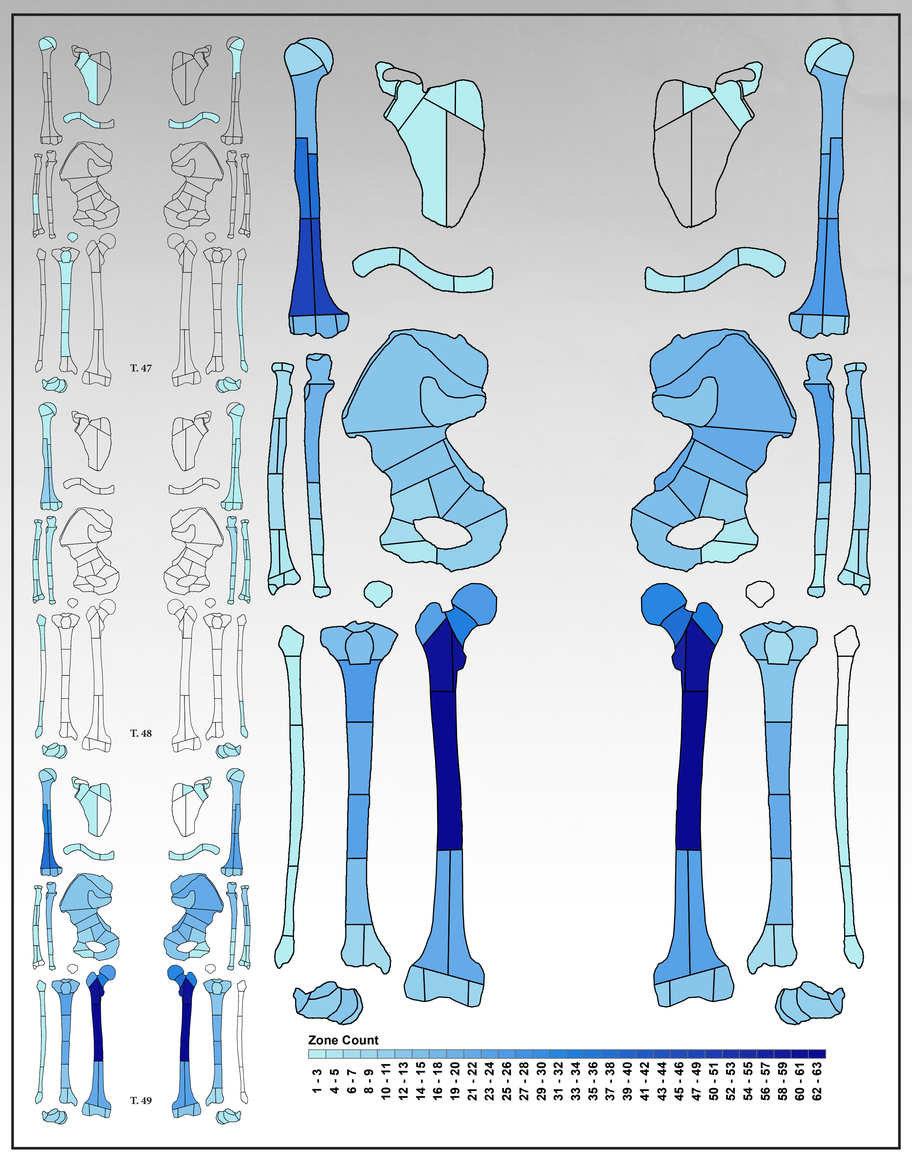
In addition to basic osteological assessments, dental morphological traits were collected using the ASU Dental Anthropology System (ASUDAS) (Turner et al., 1991) to compare to recent biodistance research by Harper and Tung (2012) on a series of Hellenistic-Roman and Venetian tombs recorded in the Malloura Valley south of Nicosia (See Cyprus map centered above).

Research Questions

1. What is the demographic profile of the Ay. Omoloyites tombs?
2. What is the biological relationship of the Ay. Omoloyites population to the Malloura Valley populations to the south?



Plan map of Tomb 49 with area analyzed highlighted.



Summarized zone scores for select post-cranial elements from the Ay. Omoloyites tombs.

Methods

- Sort and code the commingled remains from the three tombs by archaeological context according to a modified zonal system (Knüsel and Outram, 2004)
  - Summarize zone counts by element and demography
- Record demographic and paleopathological observations according to *Standards* (Buikstra and Ubelaker, 1994)
- Collect dental morphological traits according Turner, Nichols, and Scott (1991)
- Perform biodistance analysis in R (R Core Team, 2016) based on a reduced set of dental traits using Mean Measure of Divergence (MMD) (Irish, 2009; Sołtysiak, 2011) and compare to other Cypriot dental data (Harper and Tung, 2012)

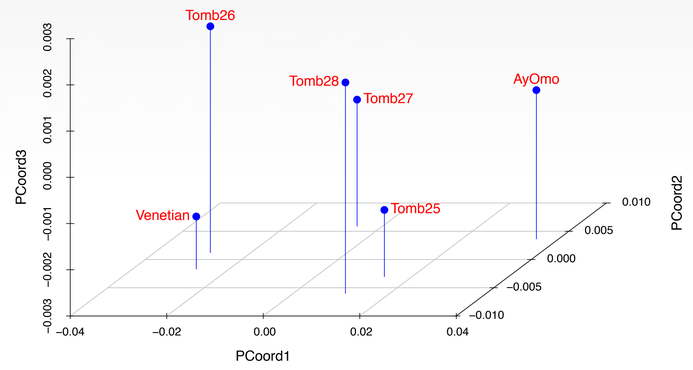
Results

A total of 986 elements were inventoried in 2015 with 89, 148, and 731 elements recorded from Tomb 47, 48, and 49, respectively. All age groups are represented in each tomb. Minimum Number of Individuals (MNI) for the two smaller tombs 47 and 48 are five and eight, respectively. Although only 25 percent of Tomb 49 has been examined for this study, the MNI is 70.

Typical skelelal collections from Tomb 49.

A graduated color plot of zones (center figure) illustrates the fracture patterns in the collection and provides a summary composite image of the post-cranial elements from the three tombs.

From 110 individual teeth, we calculated MMDs from 10 traits (M^1 Carab, M^2 E Ext, M^2 R#, M_1 G Pat, M_2 G Pat, M_1 C#, M_1 Deflect, M_1 Proto, and M_2 R#) following Harper and Tung (2012). Ayioi Omoloyites fell outside of the Malloura Valley cluster and opposite from the Venetian Period tombs (See Coordinate Plot below). No MMD value was significant, suggesting samples exhibit minimal differentiation based on the suite of traits examined.



Principal Coordinate Plot of the MMD Values

Conclusions

Our preliminary analysis indicates that the Hellenistic and Roman tombs in Nicosia offer a wealth of data about the early inhabitants of the capital. The analysis of Tomb 49 will continue in 2016. Once documentation is complete, the osteological and contextual data will provide an excellent comparison to the Hellenistic and Roman remains at Kourion, Kopetra, and Paphos (Fox and Marklein, 2014).

Acknowledgments

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