Dissertation Defense

Distinguishing Closely Related Modern Human Populations Using Cranial Morphometrics: A View from Korea and Japan

Katherine I. Harrington, PhD Candidate in Anthropology

Wednesday, May 6, 2020 at 10am-12pm
Via Zoom

If you wish to attend this defense, please email Dr. Christopher Bae (cjbae@hawaii.edu) for the Zoom room login information.

Abstract:
Understanding the nature of human morphological variation has been an integral component of biological anthropology research. In this dissertation, I investigate the cranial variation between the Korean and Japanese populations with the aim of determining if two closely related populations can be differentiated and to test whether directionality of gene flow can be detected in the cranium. 2D craniometric and 3D cranial landmark coordinate data were collected from Korean and Japanese skeletal collections representing the early modern (Joseon Dynasty and Edo Period respectively) and modern periods. Geometric morphometric methods and multivariate statistics were conducted with these data. The results show that while the two populations share cranial variation, there is enough between-group variation to be able to distinguish them. The direction of gene flow was also detectable in the results, which indicated that there was more admixture during the early modern period and that the gene flow was in the direction from Korea to Japan. Together, these results reflect present information that was not completely expected from the historical evidence. Finally, the results also suggest that there is differential gene flow in both populations from groups not included in this research.