

Department of Anthropology Colloquium

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Are we looking at the same bone? The new fully-computational, objective age-at-death estimation methods using 3D scans of the pubic symphysis

Abstract: Accurate age-at-death estimation using adult skeletal remains have been one of the most challenging tasks for anthropologists due to difficulties in; 1) finding appropriate reference skeletal collections; 2) detecting age-related skeletal traits that correspond to chronological age; 3) developing an objective technique to evaluate skeletal traits; and 4) finding an appropriate statistical model. Thus, conventional aging methods have been continuously criticized for its shortcomings, including the issue of subjectivity and lack of population diversity in the reference samples where the methods were developed on.

Recently, our team has developed three sets of novel, fully computational framework for adult age-at-death estimation using 3D coordinate data derived from the non-invasive laser scanning of the pubic symphysis. We intend to 1) minimize the issue of subjectivity in age estimation, 2) develop a more accurate and inclusive aging method that can be reliably applied to diverse biogeographic groups, and 3) offer an alternative to the macromorphoscopic methods that meets medico-legal expectations for forensic identification casework. In this lecture, the new aging methods will be reviewed and its performance on test samples will be discussed. Finally, the current project's future directions will be presented.

Date: Thursday, March 9, 2017

Time: 3:30-4:30 | **Location:** Hibben Room 105