

## Academic Year 2014-2015 Publications, Conference Presentations, Theses and Dissertations by FAC Faculty and Students and Research Involving FAC Resources

### ***Publications***

Bos, Kirsten I., Kelly M. Harkins, Alexander Herbig, Mireia Coscolla, Nico Weber, Iñaki Comas, Stephen A. Forrest, Josephine M. Bryant, Simon R. Harris, Verena J. Schuenemann, Tessa J. Campbell, Kerrtu Majander, Alicia K. Wilbur, Ricardo A. Guichon, Dawnie L. Wolfe Steadman, Della Collins Cook, Stefan Niemann, Marcel A. Behr, Martin Zumarraga, Daniel Huson, Kay Nieselt, Douglas Young, Julian Parkhill, Jane E. Buikstra, Sebastien Gagneux, Anne C. Stone, and Johannes Krause. 2014. Pre-Columbian Mycobacterial Genomes Reveal Seals as a Source of New World Human Tuberculosis. *Nature* 514(7523):494-497.

Cloutier, Alesia, Cade Lampley and Natalie Shirley. 2015. Morphology of Sexually Dimorphic Cranial Traits in Postmenopausal Females. *The FASEB Journal* vol. 29 no. 1 Supplement 866.4

Damann, Franklin, Daniel E. Williams and Alice C. Layton. 2015. Potential use of Bacterial Community Succession for Estimating Postmortem Interval. *Journal of Forensic Sciences*

Gardner, Seth. 2015. A Quantitative Assessment of the Morphology of the Piriform Aperture as an Indicator of Race. *Forensic Medicine and Anatomy Research*, **3**, 7-15.

Harrington, Katherine I., and Daniel J. Wescott. "Size and Shape Differences in the Distal Femur and Proximal Tibia between Normal Weight and Obese American Whites." *Journal of Forensic Sciences* (2014).

Hefner, J. (2015). Cranial Morphoscopic Traits and the Assessment of American Black, American. *Biological Affinity in Forensic Identification of Human Skeletal Remains: Beyond Black and White*. GE Berg and S Ta'ala, eds. Boca Raton, FL: CRC Press.

Hefner, Joseph T., and Stephen D. Ousley. 2014. "Statistical classification methods for estimating ancestry using morphoscopic traits." *Journal of forensic sciences* 59(4): 883-890.

Herrmann, Nicholas P., Joanne L. Devlin, and Jessica C. Stanton. "Bioarchaeological spatial analysis of the Walker-Noe Crematory (15GD56)." In *Commingle and Disarticulated Human Remains*, pp. 51-66. Springer New York, 2014.

Kim, Jieun and Dawnie Wolfe Steadman. 2014. A Review of Codes of Ethics in the United States and Ethical Dilemmas Surrounding NAGPRA. *Korean Journal of Physical Anthropology*. Volume 27, Number 2 (2014) pp. 47-63.

Kim, Duk-Soo, Jeong-Sik Ko, Hyung-Ho Park and Dae-Kyoon Park. Morphometric Analysis of the Skull By Moire Contourography. *Korean Journal of Physical Anthropology* 27(3):165-171.

Merritt, Catherine E. "The influence of body size on adult skeletal age estimation methods." *American Journal of Physical Anthropology* 156, no. 1 (2015): 35-57.

Mundorff, Amy Z., Eric J. Bartelink and Turhon A. Murad. 2015. Sexual Dimorphism in Finger Ridge Breadth Measurements: a tool for Sex Estimation from Fingerprints. *Journal of Forensic Sciences* 59(4):891-897.

Owsley, Douglas W. and Richard L. Jantz, eds. 2014. *Kennewick Man: The Scientific Investigation of an Ancient American Skeleton*. Washington DC: Smithsonian Institution.

Reeves, N. (2015). Beyond Biomechanics: Bone Strength Properties of Obese Adults. *The FASEB Journal*, 29(1 Supplement), 866-7.

Richard, Adam H., Connie L. Parks, and Keith L. Monson. 2014. "Accuracy of standard craniometric measurements using multiple data formats." *Forensic science international* 242: 177-185.

Steadman, Dawnie Wolfe, Dennis C. Dirkmaat, Mark LeVaughn, Raymond G. Miller, Laura A. Regan and Dianne Vertes. 2014. "Recovery and Identification of Victims of the Colgan Air Flight 3407 Crash. In: Bradley J. Adams and John E. Byrd (eds), *Commingled Human Remains: Methods in Recovery, Analysis and Identification*, 2<sup>nd</sup> ed. Academic Press.

Sutphin, Rebecca, Ann H. Ross and Richard L. Jantz. 2014. Secular trend in Cherokee Cranial Morphology: Eastern vs Western Bands. *Annals of Human Biology* 41(6):511-517.

Tallman, S. D. and Winburn, A. P. (2015), Forensic Applicability of Femur Subtrochanteric Shape to Ancestry Assessment in Thai and White American Males. *Journal of Forensic Sciences*. doi: 10.1111/1556-4029.12775

Tise, Meredith L., Erin H. Kimmerle, and M. Katherine Spradley. "Cranio-metric variation of diverse populations in Florida: identification challenges within a border state." *Annals of Anthropological Practice* 38, no. 1 (2014): 111-123.

Vickers, S., Lubinski, P. M., Henebry DeLeon, L. and Bowen, J. T. (2015), Proposed Method for Predicting Pair Matching of Skeletal Elements Allows Too Many False Rejections. *Journal of Forensic Sciences*, 60: 102–106.

Wilkinson, Caroline and Amy Lofthouse. 2015. The Use of Craniofacial Superimposition for Disaster Victim Identification. *Forensic Science International* on-line.

Wescott, D. J. 2015. Sexual Dimorphism in Auricular Surface Projection and Postauricular Sulcus Morphology. *Journal of Forensic Sciences*. doi: 10.1111/1556-4029.12737

Wescott, Daniel J. 2014. "The relationship between femur shape and terrestrial mobility patterns." In *Reconstructing Mobility*, KJ Carlson and D. Marchi, eds. New York: Springer US. pp. 111-132.

Wright, Kristy, Amy Mundorff, Janet Chaseling, Alexander Forrest, Christopher Maguire and Denis I. Crane. 2015. A New Disaster Victim Identification Management Strategy Targeting “Near Identification-Threshold” Cases: Experiences from the Boxing Day Tsunami.” *Forensic Science International* 250:91-97.

### ***Conference Presentations***

Algee-Hewitt B. 2015. “Population structure in the United States: Using Forensic Data Bank Cases to link craniometrics, genetic and social information.” Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 26, 2015.

Andronowski JM, McCormick KA, Kenyhercz MW. 2015. “Sex estimation using discriminate function analysis of nonmetric cranial traits: an interobserver error study.” Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Bailey CA and Broehl KA. 2015. “Determining identity: The use of the sustentaculum tali of the calcaneus in estimating sex.” Poster presented at the University of Tennessee Undergraduate Symposium, April 10, 2015.

Best KC, Ousley SD and Wienker CW. 2015. “Classification of a sample of Chinese males from Cuba using FORDISC 3.1.” Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Black V. 2015. “Sex estimation of the modern human pubic bone using a 3D geometric morphometric approach.” Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Bongiovanni R. 2015. “The effects of parturition on pelvic age indicators.” Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Bran D. 2015. “A validation study of sex estimation from the scapula and clavicle in a modern United States population.” Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Brennaman AI, Love-Myers K, Bethard JD and Pokines JT. 2015. “Age estimation from osteoarthritis of the shoulder in modern North Americans.” Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 28, 2015.

Costello AK. 2015. “An analysis of sexual dimorphism using geometric morphometrics of the femur and tibia: The use of GM in assessing sex of fragmented remains.” Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 28, 2015.

Dautartas AM, Jantz LM, Vidoli GM, Steadman DW. 2015. "A Multidisciplinary Validation Study of Non-human Animal Models for Forensic Decomposition Research: A Time Series Approach." Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Dudzik B. 2015. "Comparing Cranial Morphology in Asian and Hispanic Populations: Exploring Why Misclassification Can Occur When Using Discriminant Function Analysis." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Dunn TE. 2015. "Living body mass estimation from skeletal Elements in forensic contexts." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Dunn TE. 2015. "Body mass estimation in paleoanthropological and bioarchaeological contexts: validation with a known body mass modern human sample." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 27, 2015.

Fojas, CL, Kim J, Minsky-Rowland JD, Algee-Hewitt B. 2015. "Testing Inter-observer Reliability of the Transition Analysis Aging Method on the William M. Bass Forensic Skeletal Collection." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Goode K and Hens SM. 2015. "Senescence changes in palatal suture fusion across populations: applying a revised scoring method for age estimation using transition analysis." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 26, 2015.

Hens SM and Godde K. 2015. "A revised method for estimating age-at-death from palatal sutures using Bayesian statistics." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 28, 2015.

Jantz RL, Ousley SD, Hefner JT. 2015. "From Blumenbach to Howells: The slow, painful emergence of theory in forensic race estimation." Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Jantz RL and Jantz LM. 2015. "Is there structure in the Euro-American population? Evidence from cranial morphology." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 27, 2015.

Jantz LM, Shirley NR, McNulty S, Maijanen HMK, Ousley SD, Jantz R. 2015. "Evaluation and Reformation of Osteometric Data in Forensic Anthropology: The Foundations of DCP 2.0." Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Jeong Y, Jantz LM, Woo EJ, Jang Y. 2015. "Quantifying bias in applying the Asian equations of Trotter and Gleser (1958) to Korean samples." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Jung H, Woo E and Pak S. 2015. "Evaluation of mastoid process as a sex indicator using geometric morphometrics." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 28, 2015.

Kenyhercz MW and Passalacqua NV. 2015. "Missing data imputation methods and their performance with biodistance analyses." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 27, 2015.

Kenyhercz MW, Klales AR, Rainwater CW, Fredette SM. 2015. "The Optimized Summed Scored Attributes Method for the Classification of American Blacks and Whites: A Validation Study." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Klein NS. 2015. "A comparative study of human decomposition research facilities in the United States: The role of 'Body Farms' in forensic applications." Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

LeGarde CB. 2015. "A test of Wright and Vasquez on an American Population." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Lopez MA, Steadman DW. 2015. "Estimating Skeletal Differences between Contact and Non-Contact Gunshot Wounds to the Head: The Role of Forensic Anthropologists in Understanding Circumstances of Death." Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 21, 2015.

Mahfouz M, Fatah EEA, Shirley NR, Herrmann NP, Mustafa A. 2015. "Computerized reconstruction of fragmentary skeletal remains." Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Maijanen H and Jeong Y. 2015. "Potential caveats in body mass estimation: comparison of reported living and measured cadaver weight." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 26, 2015.

McCormick KM and Kenyhercz MW. 2015. "Bilateral Asymmetry in Age-Related trait Expression of the Pubic Symphysis and Auricular Surface of the Ilium." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.

Meeusen R, Christensen AM, Hefner JT. 2015. "The use of femoral neck axis length to estimate sex and ancestry." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.

Minsky-Rowland J. 2015. "Hidden heterogeneity in a modern skeletal sample." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 26, 2015.

- Miranker M. 2015. "Three age indicators of the adult human pelvis and the influence of occupation and morphology." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 26, 2015.
- Miranker M. 2015. "Estimation of age from the adult pelvis: A comparison across different pelvic sites and statistical methods." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.
- Sauerwein K, Saul TB, Steadman DW, Boehnen C. 2015. "The effects of decomposition upon the efficacy of biometrics for positive identification." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 19, 2015.
- Shirley NR, Dudzik B. 2015. "The Anatomy of Age Estimation." Paper presented at the American Academy of Forensic Sciences, Orlando, FL. February 20, 2015.
- Simmons-Erhardt T, Erhardt CJ and Monson KL. 2015. "Use of measurements derived from computed tomography (CT) head scans of modern Americans for comparison to the Forensic Data Bank of FORDISC 3.0." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.
- Steadman DW, Pack FL, Algee-Hewitt BF, Hulsey BI and Cabana GS. 2015. "Validation of a Non-destructive DNA Extraction Method Applied to Forensic Samples." Poster presented at the American Association of Physical Anthropologists, St. Louis, Missouri, March 27, 2015.
- Steadman DW. 2014. "Political Killings and the Anonymized Dead: Perspectives on the Efforts to Recover Historic Memory from Spanish Civil War Graves." Paper presented at the American Anthropological Association, Washington, D.C., December 5, 2014.
- Steadman DW. 2014. "Skeletal Injuries in Child Fatality Cases." Paper presented at the Children's Advocacy Center Fall of Sullivan County, TN Fall Seminar. Bristol, TN, September 29, 2014.
- Stull KE, Kernyhercz MW, L'Abbe EN, Tuamsuk P, Hulse C and Taysom E. 2015. "Sex biased asymmetry in the craniometrics variation of modern South Africans." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 27, 2015.
- Tabencki MU. 2015. "Sex determination using the distal articular surface of the fibula." Poster presented at the American Academy of Forensic Sciences, Orlando, FL. February 18, 2015.
- Warren MM, Herrmann NP, Li Z, Trask WR, Regan LA and Jantz RL. 2015. "The consequence of the global supermarket on the isotope signatures of modern humans." Poster presented at the American Association of Physical Anthropologists, St. Louis, MO. March 28, 2015.

### ***Dissertations and Theses***

Aurigemma, T. A. (2015). *The height of the pubic tubercle as an indicator of parturition* (MA Thesis, BOSTON UNIVERSITY).

Berthelot, Carolyn M. "Metric, nonmetric, and geometric morphometric methods of sex estimation using the distal humerus." MA Thesis., BOSTON UNIVERSITY, 2014.

Brennaman, A. L. (2014). *Examination of osteoarthritis for age-at-death estimation in a modern population* (MA Thesis, BOSTON UNIVERSITY).

Dunn, Tyler E. (2014) "Estimation of body mass index from the metrics of the first metatarsal." (MA Thesis, BOSTON UNIVERSITY).

Maijanen, H. M. K. (2014). The prevalence of pathological conditions in a modern skeletal collection—implications for forensic anthropology. Ph.D. Dissertation, Department of Anthropology, University of Tennessee, Knoxville.

May, Shannon Elizabeth, "An Investigation of Diabetes Mellitus in Postmortem Human Remains." PhD diss., University of Tennessee, 2014.[http://trace.tennessee.edu/utk\\_graddiss/2843](http://trace.tennessee.edu/utk_graddiss/2843)

Reeves, Nicole Marie. (2014) Augmenting Functional Adaptation: Does Obesity have a Systemic Effect on Bone Strength Properties in Humans? Ph.D. Dissertation, Department of Anthropology, University of Tennessee, Knoxville. [http://trace.tennessee.edu/utk\\_graddiss/2724](http://trace.tennessee.edu/utk_graddiss/2724)

Shapero, S. P. (2014). *A validation study of the newly developed calce method for determining age-at-death using the acetabulum* (MA Thesis, BOSTON UNIVERSITY).