# PROGRAM OF THE

# 88TH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF PHYSICAL ANTHROPOLOGISTS

MARCH 27 - 30, 2019

To be held at the

#### Hilton Cleveland Downtown

100 Lakeside Ave East · Cleveland, OH44114

## **AAPA Scientific Program Committee**

Steven R. Leigh, Chair

Amanda Agnew
Kari Allen
Ben Auerbach
Jonathan Bethard
Nicole Burt
James Calcagno
Zachary Cofran
Paul Constantino
Lynn Copes
Jennifer Cramer
Andrew Deane
Maureen Devlin
Christina Fojas

Rebecca Gilmour
C. Eduardo Guerra Amorim
Lauren Halenar-Price
Ashley Hammond
Donna Harrison
Geoff Hayes
Amber Heard-Booth
Brian Hemphill
Nathan Holton
Rob Hoppa
Jennifer Hotzman
Rebecca Jabbour
Jessica Joganic

Kent Johnson
Erin Kane
Claire Kirchhoff
Myra Laird
Kristi Lewton
Christina Nicholas
Heather Norton
Robert O'Malley
Alejandra Ortiz
Nicholas Passalacqua
Christine Pink
Stephanie Poindexter
Emma Pomeroy

Sean Prall
Melissa Schaefer
Elizabeth St Clair
Claire Terhune
Sam Urlacher
Qian Wang
Timothy Webster
Katherine Weisensee
Julie Wieczkowski
Frank Williams
John Willman

# **AAPA Meetings Director**

Lori Strong, Burk & Associates, Inc.

#### **Cleveland Advance Team**

Leslie C. Aiello Anne L. Grauer M. Geoffrey Hayes

Edward H. Hagen Christopher Kuzawa Steven R. Leigh W. Scott McGraw Denise Su

# **Program Assistant**

Kathleen McGuire

#### **Local Arrangements Committee**

Denise Su Yohannes Haile-Selassie

### **ABSTRACTS**

chimpanzee group, one broadly defined dominance structure in the Tibetan macaque group, and high within-context analysis reliability but little cross-context predictability across both species. Overall, we suggest this approach is preferable over investigations of dominance where only a few behavioral metrics and statistical analyses are utilized with little consideration of rank reliability or cross-context predictability.

Pete and Sandra Barlow Award (CWU Department of Anthropology and Museum Studies); Debra and Arlen Prentice Award (CWU Primate Behavior Program); CWU School of Graduate Studies and Research

#### Dental Disease in an Egyptian Colonial Cemetery at Tombos

MARGARET J. FURTNER¹ and MICHELE R. BUZON²
¹Department of Geography & Anthropology,
Louisiana State University, ²Department of
Anthropology, Purdue University

The purpose of this study is to examine the prevalence of dental disease at Tombos, a cemetery established during the Egyptian colonial occupation of Nubia that was used during the New Kingdom through the Napatan period. Earlier studies conducted on a previously excavated sample of the population reveal significantly high dental wear in comparison to regionally and temporally similar groups, and high levels of antemortem tooth loss in comparison to abscess and caries rates. The current sample reflects similar trends of severe dental wear, high prevalences of AMTL, and low prevalences of abscesses and caries. The average wear score for the M1 totaled 29.33/40, recorded using the Scott method. 18% of the total tooth sample was lost due to AMTL, while only 4% of observed teeth were affected by caries and 5% of associated alveolar bone was affected by abscesses. Overall, the current assemblage under study reports lower frequencies of AMTL, abscesses, and caries than the previous Tombos sample, with slightly higher rates of molar wear, and a higher individual decay rate of 81.82%. The variation between these two assemblages from Tombos may be attributed to socio-cultural differences between the samples, initially evidenced by their distinct burial styles reflecting different cultural traditions and socioeconomic class. These results indicate inter-populational variation in the prevalence of dental disease at Tombos, which may be attributed to the political and cultural changes taking place in the region as a result of colonial occupation, which differentially affected various segments of the community.

# Exploring age-related variations during calcaneal growth

GAIA GABANINI<sup>1</sup>, CARLA FIGUS<sup>1</sup>, RITA SORRETINO<sup>1,2</sup>, NICHOLAS B. STEPHENS<sup>3</sup>, MARIA G. BELCASTRO<sup>2,4</sup>, WILLIAM HARCOURT-SMITH<sup>5,6,7</sup>, TIMOTHY M. RYAN<sup>3</sup> and STEFANO BENAZZI<sup>1,8</sup>

<sup>1</sup>Department of Cultural Heritage, University of Bologna, <sup>2</sup>Department of Biological, Geological and Environmental Sciences - BiGeA, University of Bologna, <sup>3</sup>Department of Anthropology, Pennsylvania State University, <sup>4</sup>ADES AMU-CNRS-EFS: Anthropology and Health, Aix-Marseille Université, <sup>5</sup>Graduate Center, City University of New York, <sup>6</sup>Department of Anthropology, Lehman College, <sup>7</sup>Division of Paleontology, American Museum of Natural History, <sup>8</sup>Department of Human Evolution, Max Planck Institute for Evolutionary Anthropology

Methods for age estimation in juvenile osteological samples are highly accurate compared to those of adults, but little is known about the variation of the foot bones during growth. This study explores the age-related morphological changes of the calcaneus, which is often well preserved even in the case of multiple or damaged burials, using Geometric Morphometric Methods.

A sample of 33 modern human juvenile calcanei (known age/sex= 22; unknown sex/age= 11) was 3D scanned using an Artec3D Space Scanner. 5 age categories (0-15 years) were defined; unknown sex/age specimens were classified as ND.

A template of 15 landmarks and 209 semi-landmarks was applied to the digital models. The (semi)landmark configurations were superimposed by Generalized Procrustes Analysis. A form space Principal Component Analysis (PCA) was computed using the known sample to explore variation during growth, while ND specimens were projected within it.

The analysis shows that PC1 (ca. 93%) is highly correlated with size and accounts for ontogenetic allometry. Negative scores (youngest individuals) are characterized by a compact morphology while positive scores (oldest individuals) show both a greater definition of the sustentaculum talii and sinus tarsii and more pronounced edges for the talar and cuboid articular facets. The projected sample follows the trajectory of the known sample, which means that our ND specimens can be aged in the 5 categories after being projected. Our results suggest that age-related morphological changes of the calcaneus during growth may be used to estimate the general age of juvenile skeletal remains.

This project is funded by the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No 724046 - SUCCESS); website: http://www.erc-success.eu/

#### The Ethical Exhibition of Human Remains

AUBREE GABBARD

Sociology and Anthropology, Metropolitan State University of Denver

Despite ongoing conversations about the collection and display of human remains, a universally accepted standard for exhibiting human remains does not exist. Who decides what human remains belong on display and how are those conclusions reached? This pilot study examines the display of human remains in museums and cultural institutions by investigating the perspectives of anthropological researchers and museum staff. Interviews and surveys with anthropologists and museum professionals working within the United States were conducted to assess perspectives on the conditions in which human remains may be displayed.

Survey responses were analyzed based on the professional's role in the field as well as their educational, professional, and cultural backgrounds. Preliminary results show common themes centering around the cultural affiliation of the remains, context and purpose of the exhibition, and type of human remains on display (complete, skeletal, replica, print, etc.). Professionals who work with descendent populations were more likely to prioritize their values and beliefs when considering exhibiting human remains. Museum visitors were asked to participate in an oral survey in order to better understand if the expected messages of exhibitions are reaching their intended audience.

Museums have a responsibility to both the general public and the communities whose cultural material they curate. Future research includes using ethnographic methods to find common goals and help facilitate conversations between groups with conflicting perspectives, seeking to answer the question of how anthropology and museum professionals can balance their accountability to both museum visitors and descendent populations.

#### Weighing the possibilities: Exploring a modified technique for the assessment of frailty in human skeletal remains

KATHERINE GADDIS<sup>1</sup>, MARISSA RAMSIER<sup>1</sup>, ARKADIUSZ KOPERKIEWICZ<sup>2</sup>, MAREK POLCYN<sup>3</sup> and ARIEL GRUENTHAL-RANKIN<sup>1,4</sup>

<sup>1</sup>Department of Anthropology, Humboldt State University, <sup>2</sup>Institute of Archaeology, University of Gdansk, <sup>3</sup>Department of Anthropology, Lakehead University, <sup>4</sup>Department of Anthropology, Binghamton University (SUNY)

In recent years, significant progress has been made toward the development of a cumulative index for assessing frailty in archaeological populations. However, current bioarchaeological assessments do not take into consideration variation in the severity of physiological stressors and individual responses to those stimuli. This study proposes a modified method for the assessment of frailty in archaeological remains that involves a weighted analysis of commonly observed non-metric biomarkers of skeletal stress rather