

Wednesday

Poster Session

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|------------------------|------------|---|
| 11:30 a.m. - 1:00 p.m. | A1 | Quantification of Age-Related Pubic Symphyseal Morphological Changes Based on the Analysis of Clinical Multi-Detector Computed Tomographic (MDCT) Scans in Malaysian Males
<i>Salina Hisham, MSc*</i> ; <i>Nurliza Abdullah, MPath</i> ; <i>Mohamad Helmee Mohamad Noor, MS</i> ; <i>Daniel Franklin, PhD</i> |
| 11:30 a.m. - 1:00 p.m. | A2 | An Evaluation of the Inter-Observer Reliability of Aging Methods From the Pubic Symphysis
<i>Tyler E. Dunn, MS*</i> ; <i>Sarah C. Kindschuh, PhD</i> ; <i>Brittany S. Walter, PhD</i>
(FSF Emerging Forensic Scientist Award Poster Presentation) |
| 11:30 a.m. - 1:00 p.m. | A3 | Assessing the Utility of the Suchey-Brooks Method on a Historical Sample
<i>Sarah C. Kindschuh, PhD*</i> ; <i>Brittany S. Walter, PhD</i> ; <i>Tyler E. Dunn, MS</i> |
| 11:30 a.m. - 1:00 p.m. | A4 | Topographic Analyses and the Estimation of Age at Death From the Pubic Bone
<i>Andrew C. Seidel, MA*</i> ; <i>Christopher Stojanowski, PhD</i> ; <i>Laura C. Fulginiti, PhD</i> ; <i>Kristen Hartnett-McCann, PhD</i>
(FSF Emerging Forensic Scientist Award Poster Presentation) |
| 11:30 a.m. - 1:00 p.m. | A5 | An Estimation of American Black and White Ancestry From Measurements of the Vertebrae and Sacrum
<i>Rhian Dunn, MS*</i> ; <i>Luis L. Cabo, MS</i> |
| 11:30 a.m. - 1:00 p.m. | A6 | Ancestry Estimation Using Vertebrae: Koreans Versus United States Whites
<i>Yangseung Jeong, PhD*</i> ; <i>Heli Maijanen, PhD</i> |
| 11:30 a.m. - 1:00 p.m. | A7 | Metric Variability in the Femur and Patella: The Potential for Ancestry Assessment
<i>Marica Baldoni, MA*</i> ; <i>Rachel Joseph, MSc*</i> ; <i>Carole A.L. Davenport, PhD</i> ; <i>Constantine Eliopoulos, PhD</i> ; <i>Matteo Borrini, PhD</i> |
| 11:30 a.m. - 1:00 p.m. | A8 | An Examination of Pelvic Scarring as a Determinant of Sex
<i>Helen M. Brandt, MS*</i> ; <i>Stephen P. Nawrocki, PhD</i> ; <i>Krista E. Latham, PhD</i>
(FSF Emerging Forensic Scientist Award Poster Presentation) |
| 11:30 a.m. - 1:00 p.m. | A9 | The Impact of Antimeric Leg Length Asymmetry on Adult Stature Estimation: A Validation Study
<i>Megan E. Ingvoldstad, PhD*</i> ; <i>Brittany S. Walter, PhD</i> |
| 11:30 a.m. - 1:00 p.m. | A10 | An Estimation of Stature Using Cranial Dimensions
<i>Mubarak A. Bidmos, PhD*</i> ; <i>Abduljelil Adebessin, MSc</i> |
| 11:30 a.m. - 1:00 p.m. | A11 | A Comparative Analysis of Stature Estimation Methods for Application in Forensic Anthropology
<i>Susie C. Athey*</i> ; <i>Mackenzie Walls</i> ; <i>Alexandra R. Klales, PhD</i> ; <i>Heather M. Garvin, PhD</i> |
| 11:30 a.m. - 1:00 p.m. | A12 | Tall Tales: Various Regression Stature Methods Applied to the Huntington Collection
<i>Ashley Espinoza, *</i> ; <i>David R. Hunt, PhD</i> ; <i>Gene Hunt, PhD</i> |



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- 11:30 a.m. - 1:00 p.m. **A13** **Blast and Aircraft Crash Trauma: A Selection of World War II (WWII) Cases From the Defense POW/MIA Accounting Agency (DPAA) Laboratory**
*Andrea Palmiotto, PhD**; *Kyle A. McCormick, PhD*; *Traci L. Van Deest, PhD*;
Laurel E. Freas, PhD
- 11:30 a.m. - 1:00 p.m. **A14** **The Prevalence of Peri-Mortem Trauma Among Casualties of Armed Conflict**
Andrea Palmiotto, PhD; *Carrie B. LeGarde, MA**
- 11:30 a.m. - 1:00 p.m. **A15** **Patterns of Intentional Dismemberment in Florida Medicolegal Death Investigations**
*Katie M. Rubin, MS**; *Janet E. Finlayson, MA*
- 11:30 a.m. - 1:00 p.m. **A16** **Skeletal Asymmetry of the World War II (WWII) Battle of Tarawa Skeletal Assemblage: The Impact on the Resolution of Commingling**
*Caryn E. Tegtmeyer, PhD**; *Jesse Roberto Goliath, PhD*; *Rebecca J. Wilson-Taylor, PhD**
- 11:30 a.m. - 1:00 p.m. **A17** **Reassociating Commingled Human Crania With First Cervical Vertebrae: An Osteometric Approach**
Vasiliki Louka, MSc; *Ioanna Anastopoulou, BSc*; *Konstantinos Moraitis, PhD**
- 11:30 a.m. - 1:00 p.m. **A18** **Reassessing Determining Season at Death Using Dental Cementum Increment Analysis (DCIA) in Young Adults**
*Vicki Wedel, PhD**; *Timothy P. Gocha, PhD*
- 11:30 a.m. - 1:00 p.m. **A19** **The Application of Textile Biodeterioration Rates to Postmortem Interval (PMI) Estimation**
*Randi Marie Depp, BS**; *Kellie Jones, BA**; *Jennifer L. Webb, BS**; *Jessica T. Novak, BA**
- 11:30 a.m. - 1:00 p.m. **A20** **Best Practices for Macerating Cartilage**
*Alexis M. LaGoy**; *Tessa Somogyi, MA**; *Elizabeth A. Evangelou, MA**;
*Elizabeth A. DiGangi, PhD**
- 11:30 a.m. - 1:00 p.m. **A21** **Integrating Forensic Anthropology and Cold Case Databases: A Look at Resolved Unidentified and Missing Persons Cases in Louisiana**
*Emily F. Wieggers, MA**; *Teresa V. Wilson, PhD*; *Ginesse A. Listi, PhD*; *Maria T. Allaire, MA*;
Larry J. Livaudais, Jr., MS
- 11:30 a.m. - 1:00 p.m. **A22** **Introduction of a Mobile Digital Database System for Standardization, Quality Assurance, and Efficiency in Forensic Anthropology Casework**
*Christine M. Pink, PhD**; *Rebecca E. Bria, PhD*
- 11:30 a.m. - 1:00 p.m. **A23** **A Geospatial Database for Coroner Records: Developing a Collaborative Partnership to Facilitate Undergraduate Research**
*Katherine E. Weisensee, PhD**
- 11:30 a.m. - 1:00 p.m. **A24** **Hidden in a Dark Past: The 1887 Thibodaux Massacre of Black Sugarcane Workers**
*Davette N. Gadison, MA**; *Mark Rees, PhD*

Thursday—Session I

Biological Profile: Age Estimation I

Moderator: Nicholas V. Passalacqua, PhD
Western Carolina University
Cullowhee, NC

Co-Moderator: Stephanie J. Cole, MS
University of Nevada, Reno
Reno, NV

- 8:30 a.m. - 8:45 a.m. **A25** **The Use and Misuse of Transition Analysis: An Assessment of the Boldsen et al. Age-at-Death Estimation Method**
*Sara M. Getz, PhD**
(FSF Emerging Forensic Scientist Award Paper Presentation)
- 8:45 a.m. - 9:00 a.m. **A26** **A New Method for Adult Skeletal Age Estimation Using Transition Analysis: TA³**
*Stephen D. Ousley, PhD**; *George R. Milner, PhD*; *Jesper L. Boldsen, PhD*; *Sara M. Getz, PhD*;
Svenja Weise, PhD
- 9:00 a.m. - 9:15 a.m. **A27** **New Solutions for Old Problems? Examining Machine Learning as a Strategy for Age-at-Death Estimation**
*Melissa Ann Brown, MA**; *Dillon G. Daudert, BS*; *James Jenkins, BS*
- 9:15 a.m. - 9:30 a.m. **A28** **Bone Mineral Density (BMD) as an Indicator of Age at Death in Forensic Anthropology: A Test of DXAGE**
*Jonathan D. Bethard, PhD**; *Jacqueline M. Berger, MS*; *Justin R. Maiers, MS*; *Ann H. Ross, PhD*
- 9:30 a.m. - 9:45 a.m. **A29** **Age Estimation on Two Mediterranean Populations Using Rib Histomorphology**
*Julieta Gomez Garcia-Donas**; *Andrea Bonicelli, MSc*; *Caroline Lill, MSc*;
Robert R. Paine, PhD; *Elena Kranioti, PhD*
- 9:45 a.m. - 10:00 a.m. **A30** **Utilizing Osteon Volume for Histological Age-at-Death Estimation**
*Suzanna Michener, MSc**; *Lynne S. Bell, PhD*; *David Swanlund, BA*; *Nadine Schuurman, PhD*
- 10:00 a.m. - 10:15 a.m. **Break**

Global Applications of Anthropology to Humanitarian and Human Rights Violations

Moderator: Davette N. Gadison, MA
Tulane University
Department of Anthropology
New Orleans, LA

Co-Moderator: Douglas H. Ubelaker, PhD
Smithsonian Institution
Department of Anthropology
Washington, DC

- 10:15 a.m. - 10:30 a.m. **A31** **Humanitarian Forensics: Applications Today and Emerging Challenges**
*Oran Finegan, MSc**; *Pierre M.M. Guyomarc'h, PhD*
- 10:30 a.m. - 10:45 a.m. **A32** **After Atrocity: Why Wouldn't You Investigate?**
*Dawnie W. Steadman, PhD**; *Hugh H. Tuller, MA*; *Julia Hanebrink, MA*; *Jaymelee Kim, PhD*;
Tricia Hepner, PhD
- 10:45 a.m. - 11:00 a.m. **A33** **Ethical Technologies: The Social Impacts of Forensic Interventions in Human Rights Violations**
*Alexa Hagerty, PhD**



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- 11:00 a.m. - 11:15 a.m. **A34 Forensic Archaeology in the Horn of Africa: Humanitarian Action and Posthumous Rights**
*Franco Mora, BA**; *Valeska Martinez, BA**; *Jose P. Baraybar, MSc, PhD*
- 11:15 a.m. - 11:30 a.m. **A35 Capacity Building of Forensic Scientists**
*Elizabeth A. DiGangi, PhD**; *Jonathan D. Bethard, PhD**
- 11:30 a.m. - 11:45 a.m. **A36 Assessing the Role of Churches in Missing Migrant Identifications**
*Richard Phillips, BA**; *Sara H. Katsanis*
- 11:45 a.m. - 12:00 p.m. **Discussion**
- 12:00 p.m. - 1:30 p.m. **Lunch**

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- 11:30 a.m. - 1:00 p.m. **A37 The Assessment of Jugular Growth Plate (JGP) Ossification for Age Estimation**
*Brittany S. Walter, PhD**; *Katherine Skorpinski, PhD*
- 11:30 a.m. - 1:00 p.m. **A38 Age-at-Death Estimation From the Auricular Surface of the Ilium: A Comparison of Two Methods**
*Andrea Ost, MS**; *Luis L. Cabo, MS*
- 11:30 a.m. - 1:00 p.m. **A39 A New Version Release of 3D-ID Geometric Morphometric Classification of Crania for Forensic Scientists**
*Ann H. Ross, PhD**; *Dennis E. Slice, PhD*; *Desiré Brits, PhD*; *Tamara L. Lottering, BSc*; *Candice Small, PhD*
- 11:30 a.m. - 1:00 p.m. **A40 A Reevaluation of the (hu)MANid Classification Software Using Virtually Collected Mandibulometer Measurements**
*Heather M. Garvin, PhD**; *Kelsey A. Carpenter, MS*; *Gregory E. Berg, PhD*; *Michael W. Kenyhercz, PhD*
- 11:30 a.m. - 1:00 p.m. **A41 Craniometric Variation and Sexual Dimorphism in a Chilean Population**
*Rachel M. Kreher, BS**; *Krista E. Latham, PhD*; *Stephen P. Nawrocki, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A42 The Application of the Optimized Summed Scored Attributes (OSSA) Method to Sex Estimation in Whites and Blacks**
*Summer M. Mizell**; *Holly Long**; *Alexandra R. Klales, PhD*
- 11:30 a.m. - 1:00 p.m. **A43 Worldwide Population Variation in Skull Sexual Dimorphism**
*Alexandra R. Klales, PhD**; *Stephanie J. Cole, MS*; *Kyra E. Stull, PhD*; *Heather M. Garvin, PhD*; *Matthew C. Go, MA*; *Antinea Menéndez Garmendía, MS*; *Mackenzie Walls*; *Gabriela Sánchez-Mejorada, PhD*
- 11:30 a.m. - 1:00 p.m. **A44 Cognitive Bias and the Order of Examination on Skeletal Remains**
*Marion E. Davidson**; *Carolyn Rando, PhD*; *Sherry Nakhaeizadeh*
- 11:30 a.m. - 1:00 p.m. **A45 The Impact of Bone Density and Bone Thickness on Gunshot Trauma to the Skull**
*Elizabeth A. Evangelou, MA**; *Tessa Somogyi, MA**; *Alexis M. LaGoy**; *Kevin E. Sheridan, PhD**; *Elizabeth A. DiGangi, PhD**

- 11:30 a.m. - 1:00 p.m. **A46** **A Comparison of Bullet Construction to the Area and Perimeter of Gunshot Entrance and Exit Wounds**
*Tessa Somogyi, MA**; *Elizabeth A. Evangelou, MA**; *Alexis M. LaGoy**;
*Kevin E. Sheridan, PhD**; *Elizabeth A. DiGangi, PhD**
- 11:30 a.m. - 1:00 p.m. **A47** **Differential Mass Loss in Bullets From Frontal and Temporal/Parietal Bone Impacts**
*Kevin E. Sheridan, PhD**; *Donald Poon, BA*; *Jessica E. Sanger, BA*; *Elizabeth A. Evangelou, MA*;
Tessa Somogyi, MA; *Elizabeth A. DiGangi, PhD*
- 11:30 a.m. - 1:00 p.m. **A48** **Scanning Electron Microscopes With Energy Dispersive X-Ray Spectroscopy (SEM/EDX) Analysis of Gunshot Residue (GSR) on Pig Bone**
*Anthony B. Falsetti, PhD**; *Natalie R. Langley, PhD*; *Blake D. Ehlers*; *Bethany M. Pittman*;
AmberCherie Lasala; *Kimber G. Cheek, BS*; *Derek A. Boyd, MA*
- 11:30 a.m. - 1:00 p.m. **A49** **Thermogravimetric Analysis (TGA) of Juvenile Pig Rib Compositional Changes**
*Luisa Marinho, MSc**; *Dev Sharma, PhD*; *Carolyn J. Sparrey, PhD*;
Stephen N. Robinovitch, PhD; *Alison Galloway, PhD*; *Hugo Cardoso, PhD*
- 11:30 a.m. - 1:00 p.m. **A50** **The Effects of Chemotherapy and/or Radiotherapy Treatment on Decomposition**
*Shelby Garza, BS**; *Daniel J. Wescott, PhD*
- 11:30 a.m. - 1:00 p.m. **A51** **Time to Skeletonization (TTS): *Dermestes maculatus* De Geer Skin/Hide Beetles and Skeletonization on *Python Bivittatus* Kuhl Burmese Python Remains**
*Amy Pham, BA**; *Shannon L. Dery**; *Heather A. Walsh-Haney, PhD*; *Jason H. Byrd, PhD*;
Ian Bartoszek
- 11:30 a.m. - 1:00 p.m. **A52** **Understanding Bone Diagenesis and Its Effects on Commingled Remains: The Potential and Hazards of Portable X-Ray Fluorescence (pXRF) Analysis**
*Kent M. Adamson, MSc**; *Tim Thompson, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A53** **DNA Preservation in Bone From a Multi-Individual Burial**
*Alexandra L. Emmons, MA**; *Sarah W. Keenan, PhD*; *Jon Davoren*;
Jennifer M. DeBruyn, PhD; *Amy Z. Mundorff, PhD*
- 11:30 a.m. - 1:00 p.m. **A54** **Recognizing Transplanted Allograft Bone in Forensic Anthropological Cases**
*Angi M. Christensen, PhD**; *Louis Jares, BS*
- 11:30 a.m. - 1:00 p.m. **A55** **Inferring Species Origin Through Virtual Histology: A Comparison of Third Metapodials From *Homo Sapiens* and *Ursus Americanus* Using Micro-Computed Tomography**
*Hannah Stephen, BS**; *Reed A. Davis, MSc**; *Janna M. Andronowski, PhD*
- 11:30 a.m. - 1:00 p.m. **A56** **The Scavenging Patterns of Feral Cats on Human Remains in an Outdoor Setting**
*Sara N. Garcia**; *Alexander J. Smith**; *Christiane Baigent, MSc*; *Melissa A. Connor, PhD*
- 11:30 a.m. - 1:00 p.m. **A57** **Positive Identification Via Frontal Sinus Morphology: A Geographic Information Systems (GIS) Approach**
*Jenna M.S. Watson, MA**
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A58** **The Identification of United States Casualties by the Central Identification Unit in Kokura, Japan**
*Alexander F. Christensen, PhD**



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11:30 a.m. - 1:00 p.m. **A59** **Interactive Resources for Craniofacial Identification**
*Terrie Simmons-Ehrhardt, MA**; *Anthony B. Falsetti, PhD*; *Catyana R. Falsetti, MFS*;
Christopher J. Ehrhardt, PhD

Postmortem Interval and the Recovery Scene

Moderator: Christine M. Pink, PhD
Metropolitan State University of Denver
Department of Sociology and Anthropology
Denver, CO

Co-Moderator: Haley Rock, BS
Indianapolis, IN

- 1:30 p.m. - 1:45 p.m. **A60** **What Can Forensic Proteomics Tell Us About Biological Age and Postmortem Interval (PMI) Estimation?**
*Noemi Procopio, PhD**; *Anna Williams, PhD*; *Andrew Chamberlain, PhD*;
Michael Buckley, PhD
- 1:45 p.m. - 2:00 p.m. **A61** **Using Stable Nitrogen Isotope Ratios From Human Muscle Tissue for Postmortem Interval (PMI) Estimation**
*Melanie M. Beasley, PhD**; *Julie Lesnik, PhD*; *Hayden McKee, MSc*;
Dawnie W. Steadman, PhD
- 2:00 p.m. - 2:15 p.m. **A62** **The Human Cadaver Decomposition Island and the Vegetation Regrowth Interval**
Haeli Kennedy; *Jasmine Garcia*; *West Ryan*; *Jacqueline A. Aitkenhead-Peterson, PhD*;
*Joan A. Bytheway, PhD**
- 2:15 p.m. - 2:30 p.m. **A63** **Longitudinal Comparison of the Megyesi and Moffatt Total Body Scoring (TBS) Methods for Estimating the Postmortem Interval (PMI)**
*Derek A. Boyd, MA**; *Kelly Sauerwein, PhD*; *Angela M. Dautartas, PhD*
- 2:30 p.m. - 2:45 p.m. **A64** **The Effects of Hydrochloric Acid (HCl) on Decomposition: Evidence of Preferential Destruction to the Head and Extremities**
*Dayanira Lopez, BS**; *Heather A. Walsh-Haney, PhD*; *Laura Frost, PhD*; *Brian Johnson, PhD*
- 2:45 p.m. - 3:00 p.m. **A65** **Outdoor Crime Scene Reconstruction**
*Dennis C. Dirkmaat, PhD**; *Luis L. Cabo, MS*
- 3:00 p.m. - 3:15 p.m. **A66** **Use of an Alternate Light Source (ALS) to Locate Surface-Deposited Skeletal Remains**
*Tracy E. Brown**; *Angi M. Christensen, PhD*
- 3:15 p.m. - 3:30 p.m. **A67** **Evaluating the Use of Photogrammetry in the Excavation of Buried Human Remains**
*Kathleen Flor-Stagnato, MA**
- 3:30 p.m. - 3:45 p.m. **A68** **Complexities in Transporting Human Remains Across International Borders**
Denise To, PhD; *Debra Prince Zinni, PhD**
- 3:45 p.m. - 4:00 p.m. **Break**

Defining Qualifications and Competencies in Forensic Anthropology: Implications for Education, Training, Accreditation, and Certification

Moderator: Natalie R. Langley, PhD
Mayo Clinic School of Medicine
Department of Anatomy
Scottsdale, AZ

Co-Moderator: MariaTeresa A. Tersigni-Tarrant, PhD
Saint Louis University School of Medicine
Center for Anatomical Science
St. Louis, MO

- 4:00 p.m. - 4:15 p.m. **A69** **Qualifications for Forensic Anthropologists**
*Marin A. Pilloud, PhD; Nicholas V. Passalacqua, PhD**
- 4:15 p.m. - 4:30 p.m. **A70** **Harris County Forensic Anthropology Training Program**
Deborah C. Pinto, PhD; Michal L. Pierce, MS*
- 4:30 p.m. - 4:45 p.m. **A71** **The American Board of Forensic Anthropology (ABFA) Examination Turns 40: Historical Perspectives and Current Trends in Certification for Forensic Anthropology**
Eric J. Bartelink, PhD; Donna C. Boyd, PhD; Diane L. France, PhD; James Pokines, PhD; Debra Prince Zinni, PhD*
- 4:45 p.m. - 5:00 p.m. **A72** **Exploring Educational Needs Beyond Technical Competency: Laboratory Management, Testimony, and Vicarious Trauma**
*Jennifer C. Love, PhD**
- 5:00 p.m. - 5:15 p.m. **A73** **Core Competencies and Entrustable Professional Activities: A Model for Forensic Anthropology Qualifications**
Natalie R. Langley, PhD; MariaTeresa A. Tersigni-Tarrant, PhD**
- 5:15 p.m. - 5:30 p.m. **Discussion**

Thursday—Session II

Isotopic Analyses and Taphonomy

Moderator: Lauren R. Pharr, PhD
Memphis, TN

Co-Moderator: William D. Cawley, MA
University of Tennessee
Knoxville, TN

- 8:45 a.m. - 9:00 a.m. **A74** **Using Apatite Yield From Bone Sample Preparations for Quality Control in Stable Isotope Analysis Applications**
Lesley A. Chesson, MS; Gregory E. Berg, PhD; Eric J. Bartelink, PhD; Melanie M. Beasley, PhD; Miranda Jans, PhD*
- 9:00 a.m. - 9:15 a.m. **A75** **A Large-Scale Evaluation of Intraperson Isotopic Variation Within Human Bone Collagen and Bioapatite**
Gregory E. Berg, PhD; Eric J. Bartelink, PhD; Jang Yuryang, PhD; Youngsoon Shin, MA; Lesley A. Chesson, MS*
- 9:15 a.m. - 9:30 a.m. **A76** **Conservation of Isotope Ratios in Burned Bones of Pigs and Humans**
Julianne J. Sarancha, MS; Gwyneth W. Gordon, PhD; Jelmer Eerkens, PhD; Christopher J. Hopkins, MS; Eugenia Cunha, PhD; David Gonçalves, PhD; Inês Santos, MSc; Ana Vassalo, MSc*



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- 9:30 a.m. - 9:45 a.m. **A77** **The Role of Stable Isotope Analysis in Forensic Cases From Flagstaff, Arizona**
*Taylor Lambrigger**
- 9:45 a.m. - 10:00 a.m. **A78** **Experimental Lacustrine Taphonomy: Compositional Changes in Freshwater Lake-Submerged Skeletal Remains**
*Vienna C. Lam, MA**; *Lynne S. Bell, PhD*
(FSF Emerging Forensic Scientist Award Paper Presentation)
- 10:00 a.m. - 10:15 a.m. **A79** **Modeling the Fluvial Transport of Human Remains in the Sacramento River of California**
*Colleen F. Milligan, PhD**; *Eric J. Bartelink, PhD*
- 10:15 a.m. - 10:30 a.m. **A80** **Introducing Forensic Investigation Research Station (FIRS-TB40): Scavenger Succession and Progression at a High-Altitude Site in Colorado**
*Christiane Baigent, MSc**; *Melissa A. Connor, PhD*; *Gretchen R. Dabbs, PhD*
- 10:30 a.m. - 10:45 a.m. **Break**

Sex Estimation and Methods in Forensic Anthropology

Moderator: Megan K. Moore, PhD
Eastern Michigan University
Department of Sociology, Anthropology, and Criminology
Ypsilanti, MI

Co-Moderator: Derek A. Boyd, MA
University of Tennessee, Knoxville
Knoxville, TN

- 10:45 a.m. - 11:00 a.m. **A81** **Sex Estimation of Black South African Sacra Using Geometric Morphometrics**
*Tamara L. Lottering, BSc**; *Jason Hemingway, PhD*; *Candice Small, PhD*
- 11:00 a.m. - 11:15 a.m. **A82** **Virtual Forensic Anthropology: The Accuracy of Osteometry on 3D Virtual Models of the Os Coxa Derived From Clinical Computer Tomography (CT) Scans**
Kerri L. Colman, MSc; *Hans H. De Boer, MD, PhD**; *Johannes G.G. Dobbe, PhD*;
Niels Liberton; *Kyra E. Stull, PhD*; *Maureen van Eijnatten, PhD*; *Johannes G. Streekstra, PhD*;
Roelof-Jan G. Oostra, PhD; *Rick R. Van Rijn, PhD*; *Lida A.E. Van der Merwe, PhD*
- 11:15 a.m. - 11:30 a.m. **A83** **Virtual Anthropology: The Interchangeability of Morphological Sex Estimation Methods on 3D Models of the Pelvis and Their Dry Skeletal Counterpart**
Kerri L. Colman, MSc; *Lida A.E. Van der Merwe, PhD*; *Kyra E. Stull, PhD*;
Aubrey Van Het Reve, BSc; *Hannah E.M. Crijns, BSc*; *Johannes G.G. Dobbe, PhD*;
Johannes G. Streekstra, PhD; *Rick R. Van Rijn, PhD*; *Roelof-Jan G. Oostra, PhD*;
*Hans H. De Boer, MD, PhD**
- 11:30 a.m. - 11:45 a.m. **A84** **Perceptions and Cognitive Bias in Decomposition Scoring Methods in Forensic Anthropology**
*Kelly Sauerwein, PhD**; *Xiaojuan Zhu, PhD*; *Dawnie W. Steadman, PhD*
- 11:45 a.m. - 12:00 p.m. **A85** **Evaluation and Minimization of Contextual Bias in Forensic Anthropological Casework in the Context of a Medical Examiner's Office**
*Julie M. Fleischman, PhD**; *Michal L. Pierce, MS*; *Christian Crowder, PhD*
- 12:00 p.m. - 1:30 p.m. **Lunch**

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International Forensic Anthropology

Moderator: *Melina Calmon Silva, MA*
New Orleans, LA

Co-Moderator: *Eugenia Cunha, PhD*
National Institute of Legal Medicine
and Forensic Sciences
Coimbra, PORTUGAL

- 1:30 p.m. - 1:45 p.m. **A86 Forensic Anthropology Down Under: Reflections on the Development and Practice of Forensic Anthropology in Australia**
*Soren Blau, PhD; Samantha K. Rowbotham, MArSc**
- 1:45 p.m. - 2:00 p.m. **A87 Forensic Anthropology: A View of Brazil**
*Yara V. Lemos, MS**
- 2:00 p.m. - 2:15 p.m. **A88 Forensic Anthropology and the Philippines**
*Matthew C. Go, MA**
- 2:15 p.m. - 2:30 p.m. **A89 An Anthropology Roadmap: Sri Lanka**
*Sunil P.A. Hewage**
- 2:30 p.m. - 2:45 p.m. **A90 Forensic Anthropology As a Neglected Field of Inquiry in Forensic Death Investigations in India: A Critical Evaluation of the Current Scenario and Future Possibilities**
*Jagmahender Singh Sehwawat, PhD**
- 2:45 p.m. - 3:00 p.m. **A91 Forensic Anthropology Practice in Indonesia**
*Evi Untoro, MD**
- 3:00 p.m. - 3:15 p.m. **A92 Forensic Anthropology Research Centre (FARC): An Emerging Community of Practice in South Africa**
Erica N. L'Abbe, PhD; Leandi Liebenberg, MS; Gabriele C. Kruger, MSc;*
Anna C. Oettle, MBChB, PhD; Steven A. Symes, PhD; Shari A. Eppel, BA; Kyra E. Stull, PhD;
Marie Christine Dussault, PhD; Michael W. Kenyhercz, PhD; Yvette Scholtz, MSc;
Clarisa Sutherland, BSc; Alieske C. Hagg, MSc
- 3:15 p.m. - 3:30 p.m. **A93 Forensic Anthropology in Greece: An Overview of the Discipline's Status**
Elena Kranioti, PhD; Konstantinos Moraitis, PhD**
- 3:30 p.m. - 3:45 p.m. **A94 Routine Practice in Forensic Anthropology in Europe: Attempting to Achieve a State of the Art**
Eugenia Cunha, PhD; Elena Kranioti, PhD; Pascal Adalian; Eric Baccino, MD;*
Cristina Cattaneo, PhD
- 3:45 p.m. - 4:00 p.m. **Discussion**
- 4:00 p.m. - 4:15 p.m. **Break**



ANTHROPOLOGY

Identification Efforts in Forensic Anthropology

- Moderator: Annarita Franza, PhD*
Department of Experimental & Clinical Biomedical Sciences
University of Florence
Florence, ITALY
- Co-Moderator: Katie M. Rubin, MS*
University of Florida
C.A. Pound Human Identification Laboratory
Gainesville, FL
- 4:15 p.m. - 4:30 p.m. **A95** **The Use of a Gelatin-Based Consolidant to Preserve Thermally Altered Remains**
Jan J. Topoleski, MFS; Angi M. Christensen, PhD*
- 4:30 p.m. - 4:45 p.m. **A96** **The Application of X-Ray Photoelectron Spectroscopy to Examine the Surface Chemistry of Cancellous Bone and Medullary Contents to Refine Bone Sample Selection for Nuclear DNA Analysis**
Janna M. Andronowski, PhD; Amy Z. Mundorff, PhD; Jon Davoren; Reed A. Davis, MSc; Eric W. Price, PhD*
- 4:45 p.m. - 5:00 p.m. **A97** **Forensic Anthropology and Identification at the State Level: Lessons From the Louisiana Repository for Unidentified and Missing Persons**
Teresa V. Wilson, PhD; Ginesse A. Listi, PhD; Maria T. Allaire, MA*
- 5:00 p.m. - 5:15 p.m. **A98** **Forensic Anthropology and Identification in Natural Disaster-Related Cemetery Disruptions**
Ginesse A. Listi, PhD; Christine L. Halling, MS; Ryan M. Seidemann, MA; Teresa V. Wilson, PhD*
- 5:15 p.m. - 5:30 p.m. **A99** **A Virtual Anthropology Consultancy Service (VACS)**
Lucina Hackman, PhD; Sue Black, PhD*

Friday

Biological Profile: Ancestry Estimation

- Moderator: Gregory E. Berg, PhD*
Defense POW/MIA Accounting Agency
Identification Laboratory
Joint Base Pearl Harbor-Hickam, HI
- Co-Moderator: Janet E. Finlayson, MA*
University of Florida
Gainesville, FL
- 8:30 a.m. - 8:45 a.m. **A100** **Ancestry Estimation Using Cranial and Postcranial Macromorphoscopic Traits**
*Micayla C. Spiros, MS**
- 8:45 a.m. - 9:00 a.m. **A101** **Macromorphoscopic Trait Analysis in Forensic Anthropological Casework**
Joseph T. Hefner, PhD; Stephen D. Ousley, PhD*
- 9:00 a.m. - 9:15 a.m. **A102** **A Reevaluation of Tooth Crown Measurements in the Estimation of Ancestry Using Random Forest Classification**
Michael W. Kenyhercz, PhD; Marin A. Pilloud, PhD; Joseph T. Hefner, PhD*
- 9:15 a.m. - 9:30 a.m. **A103** **Assessing the Within-Group Structure of the “Hispanic” Sample in FORDISC® 3.1**
Dorianis Perez, BS; Luis L. Cabo, MS*
(FSF Emerging Forensic Scientist Award Paper Presentation)

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- 9:30 a.m. - 9:45 a.m. **A104** **Testing the Homogeneity of “White”: Dental Morphology in Americans and Australians of European Decent**
*Heather J.H. Edgar, PhD**; *Shamsi Berry, PhD*
- 9:45 a.m. - 10:00 a.m. **A105** **Estimating Ancestry and Region of Origin: A Multidisciplinary Approach to the Identification of Unknown Individuals**
*Angela Soler, PhD**; *Andrew J. Schweighardt, PhD*; *Laura Huynh, MS*; *Carl Gajewski, MS*
- 10:00 a.m. - 10:15 a.m. **A106** **Using Mitochondrial DNA (mtDNA) -Derived Maternal Ancestry to Assist in Forensic Anthropology Investigations of Deceased Unidentified Individuals From the United States-Mexico Border**
*Cris E. Hughes, PhD**; *Charla Marshall, PhD*; *Sonia E. John*; *Bruce E. Anderson, PhD*
- 10:15 a.m. - 10:30 a.m. **Break**

Biological Profile: Age Estimation II

Moderator: Denise To, PhD
Defense POW/MIA Accounting Agency
Identification Laboratory
Joint Base Pearl Harbor-Hickam, HI

Co-Moderator: Laura Cirillo, BA
San Francisco, CA

- 10:30 a.m. - 10:45 a.m. **A107** **New Methods for Forensic Age Estimation Based on Dental Development**
*Kelly Heim, PhD**; *Marin A. Pilloud, PhD*; *Hassem Geha, DDS*; *Ying Wu, DDS, PhD*
(FSF Emerging Forensic Scientist Award Paper Presentation)
- 10:45 a.m. - 11:00 a.m. **A108** **Variations in Skeletal and Dental Growth and Development Patterns and Their Effect on Age Estimation: A Preliminary Study of Five Populations**
*Louise K. Corron, PhD**; *Kyra E. Stull, PhD*; *Michael H. Price, PhD*; *Yueran Yang, PhD*
- 11:00 a.m. - 11:15 a.m. **A109** **Estimation of Juvenile Age at Death Using Anterior-Posterior (AP) Radiographs of the Knee**
*Rachel E. Smith**; *Carolyn V. Isaac, PhD*; *Jered B. Cornelison, PhD*; *Jane Wankmiller, PhD*
- 11:15 a.m. - 11:30 a.m. **A110** **WITHDRAWN**
- 11:30 a.m. - 11:45 a.m. **A111** **Staging Clavicular Development on Magnetic Resonance Imaging (MRI): Pitfalls and Recommendations for Age Estimation**
*Jannick De Tobel, MD**; *Elke Hillewig, MSc*; *Mayonne Van Wijk, MSc*; *Steffen Fieuws*; *Patrick W. Thevissen, PhD*; *Koenraad L. Verstraete, PhD*
- 11:45 a.m. - 12:00 p.m. **A112** **Age-at-Death Estimation: Accuracy and Reliability of Age-Reporting Strategies**
*Christine Bailey, MA**
- 12:00 p.m. - 1:30 p.m. **Lunch**



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Poster Session

- 11:30 a.m. - 1:00 p.m. **A113** **The Validation of a New Age-at-Death Method Utilizing Osteoarthritis (OA) of the Shoulder**
*Morgan J. Ferrell**; *Jonathan D. Bethard, PhD**
- 11:30 a.m. - 1:00 p.m. **A114** **The Application of Dental Cementochronology in Unidentified Migrants in South Texas**
*Mary C. Swearingen, MA**; *Nicholas P. Herrmann, PhD*; *Kate Spradley, PhD*;
Sophia Mavroudas, MA
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A115** **Ancestral Variation of the Relative Proportionality of Skeletal Facial Features: A Metric Assessment**
*Janet E. Finlayson, MA**; *Michala K. Stock, PhD*
- 11:30 a.m. - 1:00 p.m. **A116** **Undocumented Border Crossers (UBCs) By Sea: Investigating the Eastern Border Crisis**
*Amanda N. Friend, MA**
- 11:30 a.m. - 1:00 p.m. **A117** **Examining Differences in Presumed Migrants From Texas and Arizona Using Cranial and Dental Data**
*Christopher A. Maier, PhD**; *Rebecca L. George, MA*
- 11:30 a.m. - 1:00 p.m. **A118** **A Mixed-Method Approach to Predicting Deceased Migrant Attributes in the Southern Arizona Desert**
*Caitlin C.M. Vogelsberg, MS**
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A119** **A Validation of the 2014 Hefner and Ousley Decision Tree Model for Ancestry in a Mexican Population**
Bersal C. Villegas-Camposeco; *Mackenzie Walls**; *Antinea Menéndez Garmendia, MS*;
Gabriela Sánchez-Mejorada, PhD; *Alexandra R. Klales, PhD*; *Jorge A. Gómez-Valdés, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A120** **Spatial Distributions of Stable Isotope Ratios in Tap Water From Mexico for Region of Origin Predictions of Unidentified Border Crossers**
*Saskia Ammer, MSc**
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A121** **Using Semimechanistic Modeling for the Prediction of Oxygen and Hydrogen Drinking Water Isotopes From Human Hair in Mexican Populations**
*Chelsey A. Juarez, PhD**
- 11:30 a.m. - 1:00 p.m. **A122** **Predicting Region of Origin for Unidentified Deceased Migrants at the Texas-Mexico Border Utilizing Stature and Stable Isotopes**
*Nicholas P. Herrmann, PhD**; *Robyn Theresa Kramer, BA*; *Christopher A. Wolfe, MA*;
Kate Spradley, PhD
- 11:30 a.m. - 1:00 p.m. **A123** **Early Bone Healing Response in an Acute Occipital Skull Fracture of a 19-Month-Old After a 72- to 78-Hour Survival Interval**
*Dana Austin, PhD**; *Maryvi Gonzalez-Sola, PhD*; *Susan J. Roe, MD*
- 11:30 a.m. - 1:00 p.m. **A124** **Fracture Surface Characteristics for the Interpretation of Peri-Mortem Blunt Force Fractures in Bone**
*Christopher W. Rainwater, MS**; *Derek Congram, PhD*; *Steven A. Symes, PhD*;
Nicholas V. Passalacqua, PhD

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- 11:30 a.m. - 1:00 p.m. **A125** **Buckle Rib Fractures: More Than a Pleural Surface Phenomenon**
*Timothy P. Gocha, PhD**; *Mariah E. Moe, BS**
- 11:30 a.m. - 1:00 p.m. **A126** **Is Puppe's Rule That Flawless? Two Peculiar Cases of Cranial Fractures Running Through Craniotomy Holes**
*Alberto Amadasi, MD**; *Francesca Magli, MA*; *Debora Mazzarelli, BS*; *Annalisa Cappella, PhD*; *Enrico A. Muccino, MD*; *Katiuscia Bisogni, MD*; *Cristina Cattaneo, PhD*
- 11:30 a.m. - 1:00 p.m. **A127** **Using High Resolution Mass Spectrometry Analysis to Investigate Trabecular Bone Metabolomics for Postmortem Interval (PMI) Estimation**
*Beatrix Dudzik, PhD**; *Natalie R. Langley, PhD*; *Kathleen Hauther*; *Lee Meadows Jantz, PhD*; *Taylor Beckmann, BS*; *Johnny E. Cebak, PhD*; *Michelle Donohue, BS*; *Corey Hoch, BS*; *Stacy Chelf, MS*; *Paul Wood, PhD*
- 11:30 a.m. - 1:00 p.m. **A128** **Assessing the Accuracy of Decomposition Scoring Methods in Arizona's Sonoran Desert**
*Shari G. Ex, BA**; *Jason P. De León, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A129** **Deconstructing Non-Carious Cervical Lesions on Teeth in Forensic Contexts**
*Jessica I. Cerezo-Román, PhD**; *Bruce E. Anderson, PhD*
- 11:30 a.m. - 1:00 p.m. **A130** **A Retrospective Study of the Forensic Anthropology Cases Investigated by the Legal Medicine Institute in Rio de Janeiro, Brazil, From 2011 Through 2017**
*Melina Calmon Silva, MA**; *Marcos Paulo Machado*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A131** **Beyond the Biological Profile: Demographic Patterns in Forensic Anthropology Casework in Honolulu, Hawaii**
*Jennifer F. Byrnes, PhD**; *William R. Belcher, PhD*; *Christina G. Mello, PhD*
- 11:30 a.m. - 1:00 p.m. **A132** **The Use of Ground Penetrating Radar (GPR) in the Search for Remains of Missing United States Servicemembers**
*Sabrina C. Taala, MA**; *Ryan Taira, BA*
- 11:30 a.m. - 1:00 p.m. **A133** **The Use of Ground Penetrating Radar (GPR) to Possibly Locate Remains Associated With Surgical Devices**
*Adam Munera**
- 11:30 a.m. - 1:00 p.m. **A134** **The Forensic Utility of Photogrammetry in Surface Scene Documentation**
*Elizabeth Church**; *James Pokines, PhD*; *Christopher J.H. Ames, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m. **A135** **Best Practice Procedures for Sampling Differentially Burned Bone for Successful DNA Recovery**
*Katelyn L. Bolhofner, PhD**; *Matthew V. Emery, PhD*; *Jane E. Buikstra, PhD*; *Laura C. Fulginiti, PhD*; *Anne Stone, PhD*
- 11:30 a.m. - 1:00 p.m. **A136** **Putting Life Back Into the Bones: The Symptomatology of Pain and Suffering in the Cyprus Research Reference Collection and Its Relationship to Positive Identification**
*Jennifer A. Sizemore**; *Anna S. La Valley, MSc*; *Emily Brooks*; *Xenia Paula Kyriakou**



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Skeletal Trauma

*Moderator: Julie M. Fleischman, PhD
Harris County Institute of Forensic Sciences
Houston, TX*

*Co-Moderator: Ashley E. Kendell, PhD
California State University, Chico
Department of Anthropology
Chico, CA*

- 1:30 p.m. - 1:45 p.m. **A137** **A Multidisciplinary Investigation of Chronic Animal Abuse: Contributions From Veterinary Forensics and Forensic Anthropology**
*Jonathan D. Bethard, PhD**; *Martha Smith-Blackmore, DVM*
- 1:45 p.m. - 2:00 p.m. **A138** **Evaluating Non-Accidental Injury and Comorbidity in Elderly Decedents Through Macroscopic and Microscopic Patterning of Fracture and Fracture Repair**
*Donna C. Boyd, PhD**; *Jennifer C. Love, PhD*
- 2:00 p.m. - 2:15 p.m. **A139** **An Experimental Investigation of Blunt Force Fracture in the Human Mandible**
*Mariyam I. Isa, MA**; *Todd W. Fenton, PhD*; *Alexis C. Goots, MA*; *Feng Wei, PhD*;
Roger C. Haut, PhD
- 2:15 p.m. - 2:30 p.m. **A140** **Assessing the Impact of High- Versus Low-Velocity Thoracic Trauma: A Study of Experimental Rib Fracturing Using Juvenile Pigs (*Sus Scrofa*)**
*Harman Nahal, BSc**; *Luisa Marinho, MSc*; *Carolyn J. Sparrey, PhD*; *Hugo Cardoso, PhD*
- 2:30 p.m. - 2:45 p.m. **A141** **Factors Affecting Bone Speed of Sound (SOS) in Infants**
*Miriam E. Soto Martinez, PhD**; *Christian Crowder, PhD*; *Brian Dawson, MS*;
Urszula Polak, MS
- 2:45 p.m. - 3:00 p.m. **A142** **An Analysis of Skeletal Demographics and Traumatic Injuries From the Khmer Rouge Period in Cambodia**
*Julie M. Fleischman, PhD**
- 3:00 p.m. - 3:15 p.m. **Break**

Diversity and Inclusion

*Moderator: Allysha P. Winburn, PhD
University of West Florida
Department of Anthropology
Pensacola, FL*

*Co-Moderator: Susan C. Anton, PhD
New York University
Department of Anthropology
New York, NY*

- 3:15 p.m. - 3:30 p.m. **A143** **Diversity and Inclusion in Forensic Anthropology: Where We Stand and Prospects for the Future**
*Sean D. Tallman, PhD**; *Cate E. Bird, PhD*
- 3:30 p.m. - 3:45 p.m. **A144** **Increasing Graduate Student Diversity in Forensic Anthropology Through Research**
*Kate Spradley, PhD**; *Olivia A. Jones*
- 3:45 p.m. - 4:00 p.m. **A145** **Perspectives on Diversity in Skeletal Collections**
*Allysha P. Winburn, PhD**; *Antaya L. Jennings, BA**; *Dawnie W. Steadman, PhD*;
Elizabeth A. DiGangi, PhD

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- 4:00 p.m. - 4:15 p.m. **A146** **Why Are There So Many Women in Forensic Anthropology? A Critical Evaluation of Gender Politics in Forensic Anthropology**
*Marin A. Pilloud, PhD**; *Nicholas V. Passalacqua, PhD*
- 4:15 p.m. - 4:30 p.m. **A147** **Recruitment Strategies From the Increasing Diversity in Evolutionary Anthropological Sciences (IDEAS) Program of the American Association of Physical Anthropology (AAPA)**
*Phoebe R. Stubblefield, PhD**; *Susan C. Anton, PhD*
- 4:30 p.m. - 4:45 p.m. **A148** **The Morphology of Intersectionality: Discordance Between Ancestry Estimates and Social Identifiers**
*Chaunesey Clemmons, BA**
- 4:45 p.m. - 5:00 p.m. **A149** **A Push for Trans-Inclusive Language in Forensic Sciences**
*Fatimah Bouderdaben**
- 5:00 p.m. - 5:30 p.m. **Discussion**