### Lexi O'Donnell

College of Population Health

University of New Mexico, Health Sciences Center

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### Education

2019 University of New Mexico, Albuquerque, NM

Ph.D. Anthropology

Dissertation: Health, Stress, and Migration in the pre-contact Southwest United States. Chair: Dr. Patricia Crown; committee: Dr. Jane Buikstra, Dr. Heather Edgar,

Dr. Osbjorn Pearson

2016 University of New Mexico, Albuquerque, NM

M.S. Anthropology – Evolutionary Anthropology

Advisor: Dr. Heather Edgar; committee: Dr. Keith Hunley, Dr. Osbjorn Pearson

2008 University of Arizona, Tucson, AZ

B.A. Anthropology

#### **Research Interests**

The overarching goal of my research is to investigate the intersections between human biology and culture, with specific attention to population-level health outcomes in vulnerable groups. I seek to understand how inequality, marginalization, and movement impact the lived experience, how they are embodied, and how they are visible in the dead. I am also interested in heterogeneity in individual frailty and risks, and how the nature of skeletal assemblages impacts our interpretations of health and stress in the dead (the Osteological Paradox). My recent work focuses on the etiology of cribra orbitalia and porotic hyperostosis and population-level health outcomes in pediatrics.

**Keyword interests**: Dental morphology, biodistance, paleopathology, human osteology/skeletal biology, the Osteological Paradox, stress and frailty, migration, health, fatty liver disease, nutrition/obesity, bone mineral density, cribra orbitalia/porotic hyperostosis, biostatistics, statistical analysis, Kaplan-Meier survival analysis, hazards and odds ratios, postmortem computed tomography

Visit my website for more information: https://lexiodonnell.wixsite.com/research

# **Publications**

### Peer-reviewed publications

**O'Donnell L**, Hill EC, Buikstra JE, O'Donnell M., Anderson AS. Skeletal manifestations of disease experience: Length of illness and porous cranial lesion formation in a contemporary mortality sample. **Article accepted** *American Journal of Human Biology*, March 6, 2023.

**O'Donnell L**, Corron L, Hill EC. Perinatal disorders and small birthweight are significantly associated with small vertebral neural canal size in a contemporary pediatric autopsy sample. **Article accepted Spine**, **March 6, 2023.** 

**O'Donnell L**, Hill EC, Anderson AS, Edgar HJH. 2022. A biological approach to adult sex differences in skeletal indicators of childhood stress. *American Journal of Biological Anthropology*. 177 (3): 381-401.

Kennett et al. 2022. South-to-North Migration Preceded the Advent of Intensive Farming in the Maya Region. *Nature Communications*. 13 (1) 1530.

**O'Donnell L**, Moes E. 2021. Sex differences in linear enamel hypoplasia prevalence and frailty in Ancestral Puebloans. *Journal of Archaeological Science: Reports*. (39):103153.

Anderson AS, Sutherland ML, **O'Donnell L**, Hill EC, Hunt DR, Blackwell AD, Gurven MD. 2021. Do computed tomography findings agree with traditional osteological examination? The case of porous cranial lesions. *International Journal of Paleopathology*. 33 (209-219).

**O'Donnell L**, Edgar HJH. 2021. Social determinants of health and wealth at Freedman's Cemetery, Dallas, Texas. *Biodemography and Social Biology*. 170(3):404-417.

**O'Donnell L,** Schillaci MA. 2021. Inferring population relationships of the Gallina and Pottery Mound Pueblo populations using craniometric and dental morphological biodistance. *Kiva.* 87(1): 97-128.

**O'Donnell L**, Moes E. 2021. Increased dental fluctuating asymmetry is associated with active skeletal lesions, but not mortality hazards in the pre-contact Southwest United States. *American Journal of Physical Anthropology* 175(1):156-171.

**O'Donnell L**, Hill EC, Anderson AS, Edgar HJH. 2020. Cribra orbitalia and porotic hyperostosis are associated with respiratory infections in a contemporary mortality sample from New Mexico. *American Journal of Physical Anthropology*. 173(4):721-733.

Kennett et al. 2020. Early Isotopic Evidence for Maize as a Staple Grain in the Americas. *Science Advances*. 6(23) eaba3245.

**O'Donnell L**, Meyer JV, Ragsdale CS. 2020. Trade relationships and gene flow at Pottery Mound Pueblo, New Mexico. 2020. *American Antiquity*. 89(3):492-515.

**O'Donnell L**. 2019. Indicators of stress and their association with frailty in the precontact Southwestern United States. *American Journal of Physical Anthropology*. 170(3):404-417.

**O'Donnell A**, Ragsdale CS. 2017. Biological distance analysis and the fate of the Gallina in the American Southwest. *Kiva*. 83(4):515-531.

**O'Donnell A**, Daneshvari S, Edgar HJH. 2017. Can cephalometrics discriminate between the sexes in a diverse juvenile sample? *Journal of Forensic Sciences*. 62(3):735-740.

Edgar HJH, Willermet C, Ragsdale CS, **O'Donnell A**, Daneshvari S. 2015. Frequencies of rare incisor variations reflect factors influencing precontact population relationships in Mexico and the American Southwest. *International Journal of Osteoarchaeology*. 26(6):987-1000.

### Works in review

Hill EC, **O'Donnell L**. Low bone mineral density is associated with fatty liver disease and respiratory illness in a pediatric mortality sample (title TBD). **Revise and resubmit to** *Osteoporosis International* **December 2022.** 

**O'Donnell L**, Green J, Hill EC, O'Donnell M. Biocultural and social determinants of morbidity and early mortality in a New Mexican pediatric mortality sample. **Article submitted to the** *Journal of Racial and Ethnic Health Disparities*, March 20, 2023.

# Works in preparation

**O'Donnell L.** Reappraising the role of nutrient deficiency anemia in porous cranial lesion formation: a view from the Southwest United States. **Article in prep for submission to Bioarchaeology International.** 

**O'Donnell L**, Berry S, Hill EC, O'Donnell M. Obesity/overweight and their comorbidities in a contemporary New Mexican pediatric autopsy sample. **Article in prep for submission to Journal of Biosocial Sciences.** 

**O'Donnell L**, Green J, Hill EC, O'Donnell M, Daneshvari-Berry S. Non-alcoholic fatty liver disease in children and its association with low bone mineral density and early mortality. **Article in prep.** 

Schwartz M, ... **O'Donnell L**, Yetish G, Gurven M, Kaplan H. The role of parity and sex in tooth loss in a natural fertility population with little access to dentistry. **Article in prep.** 

O'Donnell L. Frailty and Stress in People Who Move: A View from the U.S. Southwest. Article in prep.

**O'Donnell L**, Marquardt W, Price K, Williams K, Edgar HJH. Bioaffinity and Socioeconomic status at St. Joseph's Cemetery, Albuquerque, NM. **Article in prep.** 

# Reports, Book Chapters, and Non-refereed Materials

Rogers, Thatcher A, Kurota A, and **O'Donnell A**. 2021. Title TBD, Chamisal Site Bioarchaeology. Office of Contract Archeology, University of New Mexico, Albuquerque.

Rogers, Thatcher A, Kurota A, and **O'Donnell A**. 2021. Analysis of Mogollon Pottery from the Lake Roberts Site (LA 47821) and Hooker Site (LA 127051). In *Excavations at the Lake Roberts Site (LA 47821) and the Hooker Site (LA 127051), Grant County, New Mexico*, edited by Thatcher A. Rogers and Alexander Kurota, pp. 10-1-10-80. OCA/UNM Report No. 185-1097. Office of Contract Archeology, University of New Mexico, Albuquerque.

**O'Donnell L.** 2022. Living and Moving in the La Plata Valley. *Readings in Southwest Bioarchaeology*, ed. Ann L. W. Stodder.

**O'Donnell L** and G. Woodhead. 2022. Themes in Bioarchaeological Studies of Chaco Canyon. *Readings in Southwest Bioarchaeology*, ed. Ann L. W. Stodder.

Moes, Emily, **O'Donnell L**, Robinson M, Kennett, DJ, Prufer K. 2021. Old Age among Ancient Foragers: Evidence from the Middle Holocene in Belize. *Book Chapter*, ed. Gabriel Wrobel & Andrea Cucina.

**O'Donnell A**. 2019. Doctoral Dissertation: Trends in Health, Stress and Migration in the pre-Contact Southwest United States.

Stodder, Ann L.W. and **O'Donnell L.** Coalition Period Burials from the 2018 Guadalupe-Johnson Street Water Line Projects. Santa Fe: Office of Archaeological Studies, The Museum of New Mexico. Report Submitted to the City of Santa Fe Water Division.

Moes, Emily and **O'Donnell, L**. Multiple reports on individual skeletal analyses for Bladen Paleoindian and Archaeological Project and Uxbenká Archaeological Project.

Stodder, Ann L.W. and **O'Donnell, L**. Multiple reports on skeletal analyses for remains excavated in New Mexico.

# Refereed Abstracts and Conference Presentations

**O'Donnell L,** Hill, EC, Corron LK. 2023. Cribra orbitalia is associated with increased visceral fat and reduction of the vertebral neural canal in a pediatric autopsy sample. American Association for Anatomy (AAA), Anatomy Connected. March 25-27, 2023, Washington, DC.

Hill, EC, **O'Donnell L.** 2023. Bone mineral density and pediatric fatty liver disease. American Association for Anatomy (AAA), Anatomy Connected. March 25-27, 2023, Washington, DC.

Corron LK, **O'Donnell L**, Hill, EC. 2023. The expression of skeletal markers and their relationship to stress and disease in a contemporary subadult reference sample. 29<sup>th</sup> Annual Meeting of the European Association of Archaeologists, Belfast, Northern Ireland. Session title: Through Infancy and Beyond: Bioarchaeological Perspectives of Childhood in the Past. September 4.

Moes, E, **O'Donnell L.** 2022. Comparing Biodistance Estimates from Deciduous and Permanent Dental Morphology in a Sample from the Pre-Hispanic Southwest United States. International Symposium on Dental Morphology, Frankfurt Germany, August 15-19.

Edgar, HJHE, **O'Donnell L,** Willermet C, Moes, E, .2022. Biodistance and frailty, Mexico. International Symposium on Dental Morphology, Frankfurt Germany, August 15-19.

Hill, EC, **O'Donnell L.** 2022. Factors associated with low bone density in a juvenile mortality sample. Experimental Biology 2022 [Abstract ID R2403], Philadelphia PA, April 2-5.

Daneshvari Berry S, **O'Donnell L**, Farnbach Pearson AW. 2021. Measuring frailty in a Mississippi asylum sample. American Association of Physical Anthropologists (2020, presented in 2021), Los Angeles, CA.

Anderson A, **O'Donnell L**, Hill EC, Edgar HJH. 2020. Cemetery-to-bedside: Investigating common archaeological indicators of childhood stress in a contemporary sample from the New Mexico Office of the Medical Investigator. Submitted to Cottage Health Research Institute (CHRI) Collaborative Research Symposium.

Daneshvari Berry S, **O'Donnell L**, Farnbach Pearson AW. 2020. Measuring frailty in a Mississippi asylum sample. Submitted to American Association of Physical Anthropologists, Los Angeles, CA.

Hill EC, **O'Donnell L**, Anderson AS, Edgar HJH. 2020. An examination of the frequency and etiology of cribra orbitalia and porotic hyperostosis using computer tomography (CT) scans of a contemporary sample from New Mexico. Submitted to American Association of Physical Anthropologists, Los Angeles, CA.

**O'Donnell L**, Hill EC, Anderson AS, Edgar HJH. 2020. Examining the etiology of cribra orbitalia and porotic hyperostosis using computed tomography (CT) scans of a contemporary sample from the New Mexico Office of the Medical Investigator. Submitted to Society for American Archaeology, Austin, TX.

**O'Donnell L**, Moes E, Rusk KM. Does fluctuating asymmetry predict lesion status in systemic stress indicators? Kind of... 2019. Podium presentation, American Association of Physical Anthropologists, Cleveland, Ohio.

Price K, **O'Donnell L**, Marquardt W. Four down, 6,000 to go: Processing and Researching the St. Joseph's Cemetery Site legacy collection. 2019. Podium presentation, Society for American Archaeology, Albuquerque, NM.

**O'Donnell L**, Moes E, Hill EC, Kennett DJ, Prufer KM. Indicators of skeletal stress in a small skeletal sample spanning the Holocene in the Maya Mountains of Belize. 2019. Poster presented to the Society for American Archaeology, Albuquerque, NM.

Marquardt, W, **O'Donnell A**, Price K, Williams K, Edgar HJH. 2018. Mortuary Analysis of St. Joseph Sanatorium, Albuquerque, New Mexico: A Multidisciplinary Approach. Poster presented during the Bioarchaeology in the Americas session, Society for American Archaeology, Washington, DC.

**O'Donnell A**, Edgar HJH. 2015. Social determinants of health and wealth at Freedman's Cemetery, Dallas, Texas. Poster presented to the Western Bioarchaeology Group (WeBIG), Arizona State University, Phoenix, AZ.

**O'Donnell A**, Daneshvari S. 2015. Can cephalometrics discriminate between the sexes in a diverse juvenile sample? Podium presentation, American Association of Physical Anthropologists, St. Louis, Missouri.

**O'Donnell A**, Ragsdale CS, Willermet CM, Edgar HJH. 2014. Rare incisor variants are observed at relatively high frequencies in Mexico and the American Southwest. American Journal of Physical Anthropology Supplemental 48. Poster presented at invited symposium, American Association of Physical Anthropologists, Calgary, Alberta.

**O'Donnell A**, Rautman ALM, Stodder, ALW. 2013. Developing a systematic tool for differential diagnosis of juvenile scurvy and rickets in archaeological collections. Poster presented to the Paleopathology Association, Knoxville, Tennessee.

#### Collaborative Projects

Cribra orbitalia and porotic hyperostosis in a contemporary sample from the New Mexico Office of the Medical Investigator (OMI). This project examines cribra orbitalia (CO) and porotic hyperostosis (PH) in a contemporary post-mortem computed tomography database to assess lesion etiology. Collaborators: Dr. Ethan Hill, Amy S. Anderson, Drs. Jane Buikstra, John Green, Michael J. O'Donnell, Jr., Louise Corron, Heather Edgar; Student researchers: Raychel Durdin (MA research, University of Mississippi), Jennie Austen (PhD research, University of Reading), Cal McGehee (MA research, University of Mississippi)

Social and developmental determinants of pediatric obesity and its sequelae. Investigation of social determinants and predictors of non-alcoholic fatty liver disease [NAFLD] (medical insurance status, socioeconomic status, diet and lifestyle); and NAFLD's impacts on bone mineral density (BMD). Low BMD in children predicts early morbidity and mortality in adults. Aims: screening for malnutrition (Vitamins C and D, protein, calcium deficiency); screening for low BMD; actionable interventions to

improve nutrition and behavior, BMD, and outcomes for children. **Collaborators**: Drs. Shamsi Daneshvari Berry and Ethan Hill

Biological expressions of social determinants of health in pediatric decedents from New Mexico: an analysis of dried blood spots, blood serum, and vitreous humor. This project focuses on environmental exposures to heavy metals and other toxins in pediatric decedents from New Mexico. It further examines childhood nutrition and nutrient deficiencies. The goal is to better characterize, not only how social determinants, such as neighborhood and race/ethnicity impact children's exposures to toxins and their nutrition, but also how those things impact bone health. Collaborators: Drs. Ethan Hill, Amy Anderson, Heather JH Edgar, Natalie Adolphi

Quantitative Ultrasound (QUS), DEXA, and Bone Density. Two-part study: 1) correlating speed of sound in bone as measured by QUS to DEXA in pediatric patients; 2) prospective study of bone density from QUS and its correlation to fatty liver disease (FibroScan) and other endocrine disorders. Collaborators: Drs. Rebecca H. Lamoureux, Ethan Hill, Daniel Sandoval

**Bioarchaeology Working Group – HNDs-R.** Invited member of the bioarchaeology working group for the NSF funded project (Scott Ortman and A. L. W. Stodder, co-PIs) entitled Human Networks, Sustainable Development, and Lived Experience in a Nonindustrial Society.

# **Research Funding and Grants**

Research Fund	ding and Grants
2021-2024	co-director (co-PI), University of Mississippi Archaeological Curation Project, Save America's Treasures. Institute of Museum and Library Services. Drs. Edmond
	,
	Boudreaux, Maureen Meyers, Carolyn Freiwald, and Matthew Murray. Federal Award
	Identifier ST-03-18-0012-18. <b>\$1,000,000</b>
2019-2020	Quality Enhancement Plan, Critical Thinking Redesign Grant. Received with Drs.
	Carolyn Freiwald, Kristin Hickman, and Matthew Murray. \$4,000
2019	Departmental Travel Funding. \$500
2018	Harvey C. and Sarah M. Moore competitive travel grant. \$500
2018	Harvey C. and Sarah M. Moore Endowed Fellowship in Anthropology. \$1,000
2018	Friends of Coronado Historic Site Scholarship. Funding for dissertation research.
	\$1,500
2017	Center for Regional Studies, University of New Mexico, Research Fellowship. \$15,000
2016	New Mexico Research Grant, High Priority, University of New Mexico: Funding for
	dissertation research. \$5,000
2014	Research, Project and Travel Grant (RPT), University of New Mexico: Funding for
	travel to conference. \$840

# In-preparation or submitted for review —research funding applications

2022

National Institutes of Health – Loan Repayment Program (NIH-LRP), in-preparation, Early-Life Stress, Social Determinants of Health and Their Impacts on Death in Childhood: Perspectives from a Pediatric Mortality Sample. PI: Lexi O'Donnell; Research Mentor: Dr. John J. Green (Mississippi State University). Submitted November 14, 2022.

#### **Honors and Awards**

2016 Anthropology Department, University of New Mexico, Binford Fellowship. \$14,000

### **Employment**

**Spring 2023** Assistant Professor, College of Population Health, University of New Mexico

Fall 2022-2023 Research Assistant Professor, Museum Studies, University of New Mexico

Adjunct Assistant Professor, College of Population Health, University of New Mexico

2019-Fall 2022 Assistant Professor (advanced, declined by me), Department of Sociology and

Anthropology, University of Mississippi

Visiting Assistant Professor of Biological Anthropology, Department of Sociology and

Anthropology, University of Mississippi

**2019-present** Adjunct Assistant Professor, Department of Anthropology, University of New Mexico

**2018-present** Office of Archaeological Studies, Santa Fe.

Dental morphological and metric data collection, review and update of dental

pathology data

**2018-2019** Bioarchaeologist, Maxwell Museum, Laboratory of Human Osteology

Skeletal analysis of Pottery Mound human remains for NAGPRA grant

**2017-2019** Adjunct Faculty, University of Saint Francis

Osteology instructor for Gross Anatomy course, Physician Assistant Studies

Summer 2018 Faculty Assistant, University of New Mexico

Chaco Culture National Historic Park; archaeological excavation, site survey, site

condition assessments

Fall 2017 Bioarchaeologist, Maxwell Museum, Laboratory of Human Osteology

Skeletal analysis of burials from Cascada Seca site, New Mexico, reports, repatriation

(NAGPRA)

**Spring 2016** Archaeologist, Office of Contract Archaeology

Ceramic analysis and reconstruction, Lake Roberts (Mimbres)

2015-2019 Curatorial Assistant, Maxwell Museum

Bureau of Land Management, NAGPRA coordination, skeletal analysis, repatriation

Summer 2014 Maxwell Museum, Student Employee

Data entry (Oracle)

**2008-2009** Statistical Research, Inc.

Data entry (Access) for over 1,000 skeletons excavated from the Joint Courts Complex,

Tucson, AZ

### **Courses Taught**

# **University of New Mexico**

Spring 2023

PH 101, Intro to Population Health, 38 enrolled

Fall 2022

PH 102, Global Health Challenges, 31 enrolled

PH 533, Research Methods, 8 enrolled

MSST 400/500, Practicum Museum Methods, 7 enrolled

# University of Mississippi

#### Spring 2022

ANTH 311/398, Paleopathology, 8 enrolled

ANTH 622, Readings in Paleopathology, 2 enrolled

ANTH 342 – Osteology Directed Study, 1 enrolled

ANTH 697, Thesis, 1 enrolled

ANTH 101, Introduction to Anthropology, 35 enrolled

HON 401/402, 2 enrolled

# Fall 2021

ANTH 311, Forensic Anthropology, 18 enrolled

ANTH 607, Graduate Seminar in Biocultural Anthropology, 4 enrolled

ANTH 527, Quantitative Anthropology, 4 enrolled

HON 401, Senior Honors Research, 2 enrolled

### Spring 2021

ANTH 311, The Evolution of Human Health and Disease, 10 enrolled

ANTH 101, Introduction to Anthropology (remote), 64 enrolled

ANTH 101, Introduction to Anthropology (WEB), 41 enrolled

HON 401, Senior Honors Research, 1 enrolled

#### Fall 2020

ANTH 101, Introduction to Anthropology (online), 30 enrolled

ANTH 311, Southwest Archaeology, 4 enrolled

HON 401, Senior Honors Research, 2 enrolled

ANTH 607, Graduate Seminar in Biocultural Anthropology, 4 enrolled

ANTH 697, Thesis, 1 enrolled

#### Summer 2020

ANTH 101, Introduction to Anthropology

ANTH 304, Biological Anthropology

### Spring 2020

ANTH 101, Introduction to Anthropology, 47 enrolled

ANTH 101, Introduction to Anthropology (online), 27 enrolled

ANTH 311/511, Dental Anthropology, 8 enrolled

ANTH 622, Readings in Anthropology II, 1 enrolled

#### Fall 2019

ANTH 101, Introduction to Anthropology, 4 enrolled

ANTH 304, Biological Anthropology, 30 enrolled

ANTH 607, Graduate Seminar in Biocultural Anthropology, 5 enrolled

# University of St. Francis, Albuquerque, Adjunct Faculty, Winter 2017- Winter 2019

PAMS 601, Anatomy (Osteology portion of course), 35 enrolled

PAMS 601, Anatomy (Osteology portion of course), 35 enrolled

PAMS 601, Anatomy (Osteology portion of course), 40 enrolled

### University of New Mexico, Albuquerque, Fall 2013-Summer 2019

ANTH 451, Bioarchaeology, Graduate Assistant

ANTH 101, Introduction to Anthropology, Graduate Assistant

ANTH 151L, Human Evolution Laboratory, Teaching Assistant

ANTH 350, Human Osteology, Graduate Assistant

ANTH 351L, Human Osteology Laboratory, Teaching Assistant

ANTH 150, Evolution and Human Emergence, Graduate Assistant

### **Student Mentorship**

#### Master's Advisement

2023	Cal McGehee, University of Mississippi, health conditions and their impacts on dental
	development (title TBD), chair
2023	Nikki Wilcox, University of Mississippi, reader with Carolyn Freiwald
2022	Mina Brandon, University of Mississippi, co-chair with Carolyn Freiwald
2021	Daniel Shawl, University of Mississippi, Chronology of the Fatherland Site: the Dating
	of Mound E of the Grand Village of the Natchez, chair
2021	Shannon Wooten, University of Mississippi, Relationships on the Frontier: A Ceramic
	Analysis of Carter Robinson (44LE12) Mound Sites, chair

**2020** Raychel Durdin, University of Mississippi, *A diagnosis of cribra orbitalia and porotic* 

hyperostosis using cranial vault thickness. Research funded by the Graduate School's

Summer Research Assistantship program, chair

Honors Thesis Advisement

2022 Natalie Clark, University of Mississippi, second reader

**2022** Sarah Grevy, University of Mississippi, A Cross-Cultural Survey of the Funerary Practice

of Body Element Removal and Deposition in Mortuary Pottery, third reader

**2022** Cedric (C.J.) Cornelius, University of Mississippi, Are Enamel Hypoplasias Correlated

with Short Stature and Age at Death?, chair

**2022** Kanazsha Cooper, University of Mississippi, Are Enamel Hypoplasias Correlated with

Short Stature and Age at Death?, chair

**2020** Elizabeth (Libby) Houston, University of Mississippi, *Underlying correlations in dental* 

pathology regarding the remains from East Smithfield and St. Mary Graces, chair

**2020** Joseph Upton, University of Mississippi, *Underlying correlations in dental pathology* 

regarding the remains from East Smithfield and St. Mary Graces, chair

# **Postdoctoral Mentorship**

Fall 2022 Caitlin Brynn McPherson. co-mentor with Dr. Heather Edgar, University of New

Mexico. ASERT IRACDA funded postdoctoral scholar. Research focusing on PMCT,

Developmental Origins of Health and Disease, Growth and Development.

## **Other Mentoring**

**2017-present** Emily Moes (graduate student, University of New Mexico); skeletal analysis,

paleopathological analysis, dental morphology and biodistance analysis

**Summer 2018** Kelly Navickas (Wellesley College); cultural resource management/public archaeology,

skeletal analysis, NAGPRA

Fall 2014-2015 Organized and supervised numerous undergraduate volunteers for a project involving

cleaning of human skeletal remains from archaeological site in Belize

### **Synergistic Activities**

**2013-2019** Maxwell Museum, Laboratory of Human Osteology, Research Assistant

Coordination of volunteers, analysis and inventory of human skeletal remains, data

analysis

2011-2019 Maxwell Museum, Laboratory of Human Osteology, Volunteer

Coordination of volunteers; analysis and inventory of human skeletal remains; data analysis; labeling, inventory and analysis of human skeletal remains; organization of the documented skeletal collection; scanning electron microscopy of teeth from Peru; analysis of teeth to be used for isotope analysis; minimum number of individual counts

for large collection of juvenile and adult skeletal remains (commingled)

Summer 2016 Volunteer work in Bogotá, Colombia

Skeletal analysis and documentation of human skeletal remains from Cementerio

Central.

**2006-2010** Arizona State Museum, Bioarchaeology Lab, Volunteer

Analysis and inventory of skeletal remains, including cremains; separation of human bones from faunal bones, data entry (Access), excavation of juvenile skeletal remains

at Honeybee site

**2005-2008** Old Pueblo Archaeology, Volunteer and Contractor

Ceramic analysis and reconstruction, cleaning and labeling artifacts, inventory and cataloging of artifacts, mailing list, field training in Yuma Wash

#### Service

2023 International Journal of Osteoarchaeology

2022 SSM - Population Health

2022 Forensic Science, Medicine, and Pathology 2022 International Journal of Paleopathology

2022 Kiva

2022 Anthropologischer Anzeiger (two articles)

2021 Anthropologischer Anzeiger 2021 The Anatomical Record 2021 Kiva (two articles) 2020 American Antiquity

2020 National Science Foundation 2020 Bioarchaeology International 2019 Bioarchaeology International 2018 Journal of Forensic Sciences

2018 Kiva 2017 Kiva

# Student Education

Weekly biological anthropology methods workshops 2021

# **Departmental Service**

2022 Hiring committee (two positions), University of Mississippi

2020 Online transition team, assisting other faculty members transition courses online

during the COVID-19 pandemic, University of Mississippi

# **Public Education**

2021 Guest discussant https://www.twitch.tv/jacksfacts (May 20, 2021)

2021 Guest discussant in Human Osteology, University of Mississippi (April 2021), Invited

by Dr. Carolyn Freiwald.

2020 Guest discussant in course on Human Variation, University of New Mexico (November

2020), invited by Dr. Heather Edgar.

2020 Virtual Skeletal Biology Research in the Time of COVID-19, invited to discuss

O'Donnell and Colleagues (2020) - AJPA article on respiratory infection and porous

cranial vault lesions.

2020 Contributor, COVID-19: Concepts of Sickness and Wellness, the Maxwell Museum of

Anthropology, University of New Mexico

2018 Educational outreach, Office of Archaeological Studies, development of educational

materials

Consulting

2022 Consult on unidentified remains for Lafayette County Coroner [Rocky Kennedy] (MS)

### **Invited Lectures and Talks**

**Summer 2023** Porous cranial lesions now and then: Reappraising the role of anemia in the formation of cribra orbitalia and porotic hyperostosis with contemporary data. Keynote speaker: Porous Skeletal Lesions (PSL) 2023. Coimbra Portugal. July 6-8, 2023.

**Fall 2022** A biocultural view of early-life stress and developmental plasticity. Invited Lecture.

Anthropology of Disease, Dr. Heather Edgar. November 17, 2022.

Fall 2022 A biocultural view of early-life stress. Invited Lecture, College of Population Health,

University of New Mexico. Presented September 9, 2022.

**Spring 2022** The Tales Our Teeth Tell: Living and Moving During the AD 1000s-1400s in New

Mexico. Invited lecture, San Juan Basin Archaeological Society. Presented April 14,

2022.

Our Teeth Tell Tales: Living and Moving During the AD 1000s-1400s in New Mexico. Invited webinar, Crow Canyon Archaeological Center, Discover Archaeology Webinar

Series. Presented March 3, 2022.

Past and Present: A Biocultural View of Health and Migration. Presented at the

University of Mississippi, University, MS. February 24, 2022.

**Spring 2020** Now & Then: Reappraising the Causes of Skeletal Indicators of Health and Stress in the

Past Using Present-day Autopsy Data. Presented at the University of Mississippi,

University, MS. Presented February 21, 2020.

Fall 2020 Archaeological Science: Our Teeth Tell (Migration) Tales: Biological Distance and the

Fate of the Gallina in the American Southwest. Ssippin' Science Podcast.

Archaeological Science: Our Teeth Tell (Migration) Tales: Biological Distance and the Fate of the Gallina in the American Southwest. Oxford Science Café, September 15,

2020. Part of the Migration 2020 Virtual Events Programming.

Bioarchaeology. Presented September 22, 2020. Scott Kirk, available on YouTube,

"Short Videos on Archaeology".

Fall 2018 Trends in Health, Stress and Migration in the U.S. Southwest. Presented at the

University of Idaho, Moscow, ID.

Pathology, presented in Forensic Anthropology (ANTH 251). Instructor: Katelyn Rusk.

Migration and Its Impacts on Health in the American Southwest presented in

Paleopathology (ANTH 454/554). Instructor: Dr. Heather Edgar.

Fall 2017 Pathology, presented in Forensic Anthropology (ANTH 251). Instructor: Katelyn Rusk.

Bioarchaeology, presented in Forensic Anthropology (ANTH 251). Instructor:

Katelyn Rusk.

Bioarchaeology, presented in World Archaeology (ANTH 220). Instructor: Dr. Wirt

Wills.

Social Determinants of Health and Wealth in a Freed Slave Cemetery presented in

World Archaeology (ANTH 220). Instructor: Dr. Wirt Wills.

Spring 2016 Osteology, week-long lecture/lab course presented to Advanced Archaeology Lab

class. Instructor: Dr. Patricia Crown.

Fall 2016 Pathology, presented in Forensic Anthropology (ANTH 251). Instructor: Katelyn Rusk.

Bioarchaeology, presented in Forensic Anthropology (ANTH 251). Instructor: Katelyn

Rusk.

Fall 2015 Pathology, presented in Forensic Anthropology (ANTH 251). Instructor: Katelyn Rusk.

Bioarchaeology, presented in Forensic Anthropology (ANTH 251). Instructor: Katelyn

Rusk.

### **Skills and Proficiencies**

Data analysis: Stata, R, SAS, MS Excel Other software: Horos, MS Access

Human skeletal analysis (adult and juvenile)

Dental analysis including pathology, morphology, and metrics

Paleopathological analysis, paleopathology from computed tomography (CT scan) and radiography

# **Professional Development**

Trainings

e-learning Training (eTC) – online instruction endorsement (6 week-long course)
HRRC IRB Members & Staff (University of New Mexico Health Sciences Center (expires

May 2025)