Rob'yn Johnston

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I. <u>Academic Preparation:</u>

A.B.D. Ph.D., University of Missouri-Columbia

Anticipated Major: Biological Anthropology

grad. 2020 Dissertation topic: Influence of total and lean body mass with physical

activity types on the bending strength of the proximal and midshaft human

femur.

13 credit hours taken in Pathology and Anatomical Sciences, including

Human Gross Anatomy with dissection.

2014 M.A., University of Missouri-Columbia

Major: Biological Anthropology

Thesis: Capitular morphology in primates and fossils: 3-D measurements of the capitulum and possible implications for reconstructing locomotor

adaptations in fossil primates.

2011 B.A., University of California, San Diego GPA: 3.98

Major: Anthropology concentration Archaeology

Minor: History

2008 A.A., Palomar College GPA: 4.0

Majors: Archaeology, General Studies: Social and Behavioral Sciences,

Liberal Arts and Sciences

Certificates: Archaeological Excavator, Archaeological Surveyor and Lab

Assistant, Geographic Information Systems.

II. Teaching Appointments

GRADUATE INSTRUCTOR

U. Missouri, Anthropology Dept.

Summer 2017

ANTHRO 2030 - Intro. Cultural Anthro. 3 units

Instructor of Record: Rob'yn Johnston

Enrollment: 14 students

<u>Course Description:</u> Analysis of human cultures with emphasis on both constant and variable factors at different levels of social complexity; contact between cultures, and cultural influences on individual behavior. 4-week class period. Included hands-on practical project of designing, implementing, and presenting original piece of anthropological research

GRADUATE TEACHING ASSISTANT

U. Missouri, Path. and Anat. Sci. Dept.

PAS 2201/2203 Human Anatomy / Lab 3 / 2 units Fall 2013 PAS 2201/2203 Human Anatomy / Lab 3 / 2 units Spring 2014 Instructor of Record: Kristina Aldridge / Scott Maddux
Enrollment: Approximately 300 lecture / 50 lab x 2 sections supervised
Course Description: A systems-based survey of human gross anatomy
including structure, function and history. Teaching assistant graded exams
and maintained gradebook, attended weekly laboratory sessions to answer
questions and guide student learning, coordinated undergraduate
laboratory interns, held pre-exam review sessions, held regular office
hours, and assisted in exam preparation and setup.

Hybrid/Flipped Courses:

PAS 2201/2203 Human Anatomy / Lab 3 / 2 units Spring 2014 Instructor of Record: Jill Harper-Judd

Enrollment: Approximately 50 lecture / 50 lab

<u>Course Description:</u> A systems-based survey of human gross anatomy including structure, function and history. Teaching assistant graded exams and maintained gradebook, attended weekly laboratory and lecture sessions to answer questions and guide student learning, wrote exam questions, held pre-exam review sessions, held regular office hours, and assisted in exam preparation and setup.

PAS 2201/2203 Human Anatomy / Lab 3 / 2 units Fall 2017 PAS 2201/2203 Human Anatomy / Lab 3 / 2 units Spring 2018 Instructor of Record: Cheryl Hill / Aiden Ruth

Enrollment: Approximately 250 lecture x 2 sections / 50 lab x 2 sections Course Description: A systems-based survey of human gross anatomy including structure, function and history. Laboratory component includes models and donor-based instruction and examination. Teaching assistant attended weekly laboratory sessions to answer questions and guide student learning, gave weekly "Minute Clinic" lectures covering the application of anatomy to common pathologies, and assisted with exam grading.

GRADUATE TEACHING ASSISTANT

U. Missouri, Anthropology Dept.

ANTH 4400/7500 Human Origins/Lab 3 units Fall 2016

Instructor of Record: Libby Cowgill

Enrollment: 12 undergraduates/2 graduate students

<u>Course Description:</u> History and theory in the study of human paleontology. Teaching assistant prepared and supervised weekly lab sections; graded undergraduate labs, exams, and feedback papers; and held weekly office hours.

ANTH 4890/7890 Human Skeletal Ident. 5 units Spring 2017

Instructor of Record: Libby Cowgill

Enrollment: 12 undergraduates

<u>Course Description:</u> Students interested in archaeology, physical anthropology, and law enforcement will learn human osteological methods

of analysis applied to bioarchaeological problems and modern forensic techniques for personal identification. Teaching assistant supervised weekly lab sections; graded and prepared exam material; and held office hours and pre-exam study sessions.

GUEST LECTURES

ANTHRO 1000 (Introduction to Anthropology) February 2018 Title: "Putting the People into the Past." Covered introductory biological anthropology methods in age, sex, and ancestry determination; pathology and disease markers; and daily life reconstruction, as well as limits of methods for understanding life history of past populations and individuals.

III. <u>Professional Development</u>

- Palomar College Active Learning Conference
 Conference keynote and sessions focused on practical skills for incorporating active learning activities into lab and lecture courses. Breakout session topics: "Game Based Learning in STEM Classrooms", "Metacognition Skills for Engaging Students in Complex Readings", "A Student-Centered Classroom from Day One", and "Tech Tools and BYOD".
- AAAS/DoSER Center for Public Engagement Workshop "Science Communication and Engagement with Religious Publics"
 2 hour workshop covering strategies with engaging religious publics of a variety of backgrounds in scientific topics. Topics involved finding common ground with religious audiences, cultural values and norms in religious communities, and how to successfully overcome challenges that may occur. Practical steps were offered and session time was spent in small groups applying steps to a theoretical science communication situation.
- MPP 3202 Elements of Physiology Spring 2018 Sat in on semester-length lecture course on physiology to better understand how course content and schedule meshed with concepts presented in PAS 2201/2203.
- Graduate Worker Inclusion, Diversity, and Equity Training February 2018 Four hour, two day discussion-based training focusing on turning difficult classroom dialogues on sensitive topics into transformative dialogues that build an inclusive learning environment for all individuals of all backgrounds.
- NSF Decoding Science Workshop
 Eight week workshop with a focus on presenting scientific concepts to a public audience. The program involved pre- and post-workshop evaluation of presentation skills, training in theater, neuroscience, and journalism concepts to increase presentation effectiveness, and biweekly presentations by participants to directly implement skills from the workshops with feedback from instructors.

Preparing Future Faculty Program

Aug 2015 - May 2016

Two semester course covering aspects needed for successful transition from graduate school to faculty positions. Topics ranged from interview skills and non-tenure-track positions to dealing with racism in the classroom and other practical skills. Students completed a shadowing experience and wrote a teaching portfolio.

IV. Research Appointments

• Field Technician

July 2018

Archaeological Research of the Qarakhanids (Washington University) Supervisors: Michael Frachetti, Robert Spengler, Ann Mierkle Samarkand, Uzbekistan

Duties: Excavation of medieval citadel, ceramics processing, paleobotanical floatation and processing.

NAGPRA Osteology Specialist

Museum of Anthropology, Mizzou.

Nov. 2017 – Apr. 2018

Duties: Aid in the museum's compliance with the Native American Graves Protection and Repatriation Act (NAGPRA). Analyzed a 25% sample of curated fragmentary human remains to determine minimum number of individuals, age, and sex, as possible.

Lab Manager, Cowgill Lab

Aug. 2015 – May 2018

Department of Anthropology

Duties: Manage cast and skeletal collection inventory, rehouse and repair cast collection, equipment maintenance, supervise undergraduate employees.

Lab Rotation

Jan - May 2012

MU Phillips Lab, Biochemistry

Duties: Worked with a murine model of osteogenesis imperfecta (brittle bone disease) to see how different exercise treatment affect bone strength. Analyzed uCT scans and calculated cross-sectional geometry, administered exercise protocol to animal model, collected bone and tissue specimens, and performed torsional loading of mouse femora.

Lab Rotation

Aug 2011 - Jan. 2012

MU Ward Lab, Path. and Anat. Sci.

Duties: Collected data on capitular morphology of primate humeri and radial head morphology using *in silico* models. Proficiency in Polyworks 3-D analysis software.

Lab Technician

June - Jul. 2011

UCSD Levantine Osteology Lab

Duties: Identifying skeletal elements, calculating minimum number of individuals.

Lab Technician

June - Sept. 2010, Apr. - June 2011

UCSD Levantine Ceramics Lab,

Duties: Catalog creation, ceramic inventory, vessel reconstruction, vessel type identification, artifact weighing.

Lab Technician

Mar. 2010-Sept. 2010

UCSD Levantine Archaeology Lab,

Duties: Archaeometallurgical artifact identification, ceramic vessel reconstruction, general catalog maintenance, artifact catalog creation, ceramic inventory, skeletal remains rehousing, artifact photography for publication.

Lab Technician

Aug. 2009, Aug. 2010

UCSD CARTA Lab

Duties: organizing human skeletal anatomy teaching collection and basic bone identification.

V. Honors, Awards, and Distinctions:

2019 MU Dept. of Anthropology Travel Scholarship Award: \$500

2018 MU Dept. of Anthropology Travel Scholarship Award: \$500

2016 MU Dept. of Anthropology Gelvin Scholarship Award: \$400

2013 MU Dept. of Anthropology Gelvin Scholarship Award: \$400

2011 University of Missouri Life Sciences Fellowship Award: \$33,000 per year for four years.

2010 UCSD Stout Scholarship for Academic Excellence Award: \$500

VI. <u>Publications</u>

2018 Cowgill, Libby W., and Johnston, Rob'yn A. *Biomechanical implications of the onset of walking*. Journal of Human Evolution.

In prep. Johnston, Rob'yn A., Lyman, R. Lee, and Cowgill, Libby W. *Estimation of body mass in white-tailed deer (Odocoileus virginianus) using cross-sectional geometry of the metapodial*. Journal of Archaeological Sciences.

Refereed Conferences

- 2019 Johnston, Rob'yn A, Cowgill, Libby W. *Do structural equation models work to explain the factors shaping cortical bone morphology?* Podium. Presented at the Eighty-eighth American Association of Physical Anthropologists meetings. Cleveland, OH.
- Johnston, Rob'yn A, Cowgill, Libby W. *The effect of muscle mass and exercise on proximal femoral shaft strength in NHANES III runners*. Poster. Presented at the Eighty-seventh American Association of Physical Anthropologists meetings. Austin, TX.
- 2017 Johnston, Rob'yn A, Cowgill, Libby W., and Paskoff, Taylor. *Shape differences in the proximal femur of a cadaver sample based on different classifiers of obesity*. Poster. Presented at the Eighty-sixth American Association of Physical Anthropologists meetings. New Orleans, LA.
- Johnston, Rob'yn A and Cowgill, Libby W. *Obesity-related cross-sectional geometric changes in the femur*. Poster. Presented at the Eighty-fifth American Association of Physical Anthropologists meetings. Atlanta, GA.
- Johnston, Rob'yn A.; Child, Stephanie L.; and Cowgill, Libby W. *A multi-joint case of avascular necrosis in a Native American female*. Poster. Presented at the Eighty-fourth American Association of Physical Anthropologists meetings. St. Louis, MO.
- Johnston, Rob'yn; Ward, Carol V.; Cowgill, Libby W.; and Plavkin, J. Michael. Capitular morphology in primates and fossils: a set of quantified 3-D measurements of the capitulum and possible implications for reconstructing locomotor adaptations in fossil primates. Podium. Presented at the Eighty-third American Association of Physical Anthropologists meetings. Calgary, Canada.
- Johnston, Rob'yn and Cowgill, Libby W. *Species concepts in anthropology and their relation to research interests*. Poster. Presented at the Eighty-second American Association of Physical Anthropologists meetings. Knoxville, TN.
- 2012 Cowgill, Libby W. and Johnston Rob'yn. *Biomechanical implications on the onset of walking*. Poster. Presented at the Eighty-first American Association of Physical Anthropologists meetings. Portland OR.

Non-Refereed Conferences

Johnston, Rob'yn A and Cowgill, Libby W. *Obesity-related cross-sectional geometric changes in the femur*. Poster. Life Sciences Week, University of Missouri.

- Johnston, Rob'yn A.; Child, Stephanie L.; and Cowgill, Libby W. A multi-joint case of avascular necrosis in a Native American female. Poster. Life Sciences Week, University of Missouri.
- Johnston, Rob'yn; Ward, Carol V.; Cowgill, Libby W.; and Plavkin, J. Michael. Angulation of the humeral capitulum in primates: Three-dimensional morphology of the humeral capitulum and implications for reconstructing locomotor behavior in fossil hominins. Poster. Life Sciences Week, University of Missouri.
- Johnston, Rob'yn and Cowgill, Libby W. *Species concepts in anthropology and their relation to research interests*. Poster. Life Sciences Week, University of Missouri.

Professional Reports

Nesbitt, Allison, Johnston, Rob'yn, and Cho, Elizabeth Okrutny. *Reanalysis of the Minimum Number of Individuals (MNI) of Twenty-Five Percent of the US Army Corps of Engineers Collection at the Museum of Anthropology*. Museum of Anthropology, Mizzou. University of Missouri. In prep. May 2018.

VII. Leadership Activities

MU Anthropology Facebook Content Manager

Spring 2016 - Present

Promoted anthropology events on campus, publications and presentations by graduate students and faculty, and popular science articles relating to anthropology.

Swallow Hall Graduate Student Furniture Grant Writing

Fall 2015

Amount requested: \$28,000 (not funded)

Grant requested new furniture for the shared Art History and Archaeology / Anthropology graduate student workspace.

Rewrite of Graduate Student Handbook

Spring 2015

Updated and restructured MU Anthropology Graduate Student Handbook to reflect changes in curriculum and procedures.

Mizzou Atlatl Club

Founder, co-captain

Apr. 2013 – May 2018

Found funding for the creation of the team. Demonstrated and taught the use of prehistoric hunting technology to individuals ranging from 5th grade students to MU administration and alumni. Organized and ran weekly practices on MU campus. Demonstrations included a small lecture on topics relating the atlatl to concepts from all four anthropological disciplines as a method of increasing engagement with the field.

Outreach Events:

Two Mile Prairie Elementary Native American Day	Oct. 2016
Two Mile Prairie Elementary Native American Day	Oct. 2015
Museum of Anthropology International Archaeology Day	Oct. 2015
Two Mile Prairie Elementary Native American Day	Oct. 2014

VIII. Students Mentored

Hailee Komaroni (undergraduate) Student research experience

Bryn Rose (undergraduate)

Student research experience.

Gage Scurlock (undergraduate)

Student research experience.

Justin Schmolling (undergraduate)

Student research experience.

IX. Non-Academic Employment:

Archaeologist

November 2018 – Present

AECOM San Diego Office

Duties: Process artifacts for storage, create GIS layers and maps for reports, write monitoring and excavation reports for clients, monitor construction activities.

Photographer

May 2016 – May 2017

University of Missouri Museum of Anthropology

Duties: Photography of collections for database, new acquisitions, insurance, and publication.

Photograph published in the 2016 Missouri Archaeology Month Poster

GIS Specialist (Seasonal)

May-Aug. 2016, May-Aug 2017

Missouri State Historic Preservation Office

Duties: Site and survey data entry using ESRI software and ArchaeologyEditor. Digital/paper archiving of site forms. NAGPRA rehousing for compliance inventory.

Academic Intern

Sept. 2010-Dec. 2010

San Diego Museum of Man, Curation Department.

Duties: Basketry condition reports and photography for federal grant, conservation, artifact cataloging.

Lab Technician

June 2008 - Aug. 2008

Professional Archaeological Services

Duties: cataloging archaeological artifacts, identifying artifacts, and preparing artifacts for storage, coordinating duties of other technicians.

GIS Intern

Sept. 2006 – Dec. 2006, Feb. 2007 – Aug. 2007

City of San Marcos, CA

Duties: creation using Geographic Information Systems software, creation of data layers using global positioning system equipment and paper records.

X. Outreach Experience

Anthropology Days

Oct. 2018

Palomar College.

Designed and ran primate identification station "Baby Mama", assisted in developing stations "Disease Tease" and human ancestry station with Marlo Willows.

World Anthropology Day

Feb. 2018

MU Museum of Anthropology.

Developed and ran tables demonstrating skeletal anatomy and hominid evolution with Elizabeth Cho.

Dinosaurs and Cavemen Community Event

Mar. 2017

University of Missouri Anthropology / PAS Depts.

Event photographer; ran stations explaining excavation mapping techniques and primate nail morphology.

International Archaeology Day

Oct. 2016

MU Museum of Anthropology

Event photographer; designed station related to atlatl use with A. Kate Trusler.

Dinosaurs and Cavemen Community Event

Mar. 2015

University of Missouri Anthropology / PAS Depts.

Support staff.

Dinosaurs and Cavemen Community Event

Feb. 2014

University of Missouri Anthropology / PAS Depts.

Support staff.

Dinosaurs and Cavemen Community Event

Mar. 2013

University of Missouri Anthropology / PAS Depts.

Designed station "Little Lascaux" with Libby Cowgill and Amy Warren.

XII. Professional Societies

American Association of Anatomists	Member	2018-2019
American Association of Physical Anthropologists	Member	2011-present
Phi Theta Kappa National Honor Society	Member	Lifetime