

# Robin Singleton

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University of Oklahoma  
Department of Anthropology  
Laboratories of Molecular Anthropology and Microbiome Research  
[rgsingleton@ou.edu](mailto:rgsingleton@ou.edu)  
robinsingleton.com  
(717) 885-3851 (cell)

## Education

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**University of Oklahoma** (Currently enrolled, PhD Candidate), 4.0 GPA

- Anthropology Ph.D. program, with a focus on molecular anthropology
- Research interests: paleogenomics and conservation anthropology

**Hiram College** (Graduated May 2015), 3.77 GPA

- B.A. program with dual majors in biology and history

## Research Projects

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### **Paleogenomics of golden eagles sacrificed at Teotihuacán**

- Using kinship analyses of golden eagle remains from animals ritually sacrificed in Teotihuacán to explore ancient animal management in Mesoamerica
- Publication in progress for submission fall 2024

### **Paleogenomics of Alaskan and Californian rockfish**

- Species identification of morphologically similar archaeological rockfish samples from low-coverage data
- Publication in progress for submission fall 2024

### **Attempted recovery of DNA from ancient canid remains excavated from the La Brea Tar Pits**

- An attempt to recover DNA from asphaltic remains using manual asphalt removal and cutting edge laboratory approaches
- Publication in progress for submission fall 2024

### **Recovery of DNA from hair samples excavated at Teotihuacán**

- Recovered DNA from five human and one non-human hairs from Teotihuacán
- Report submitted to archaeology collaborators

### **Species identification of spider monkey remains excavated at Teotihuacán**

- Identified the sub-species of the only complete set of primate remains found at Teotihuacán
- Paper published

## Research Experience

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**Graduate Research Assistant:** May 2023-Present, University of Oklahoma, Norman, OK

- Worked on a genomics study of Pacific rockfish

**Archaeological Field Assistant:** January-March 2022, Plaza of the Columns Complex Project, Teotihuacán, Mexico

- Worked on active excavations in the ritual district of Teotihuacán and subsampled remains for aDNA and isotopic analyses

**Graduate Research Assistant:** August 2018-August 2019, University of Oklahoma, Norman, OK

- Worked on a genomics study of golden eagles sacrificed at Teotihuacán

**Archaeological Field Assistant:** May-June 2019, Sonora, Mexico

- Worked on several archaeological survey sites in the Sonoran Desert in northern Mexico

**Volunteer Lab Assistant:** August 2016-May 2018, James Madison's Montpelier, Montpelier Station, VA

- Volunteered in the Montpelier archaeology lab on weekends
- Sorted, cleaned, and cataloged artifacts recovered on the grounds

**Lab/Research Technician:** June 2016-June 2018, University of Virginia, Charlottesville, VA

- Performed genotyping, microdissections, cell culture, and general lab tasks
- Contributed to ongoing research into cellular regeneration in the inner ear

**Archives Assistant:** September 2014-January 2015, Hiram College, Hiram, OH

- Digitized primary documents relating to President Garfield

## Teaching Experience

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**YES! Oklahoma Instructor:** August 2023-May 2024, University of Oklahoma, Norman, OK

- Taught classes of indigenous students from Central Oklahoma (450 second-tenth graders, with teachers and chaperones)
- Main activity: “Can you see strawberry DNA?,” a guided DNA extraction

**Graduate Teaching Assistant:** August 2020-July 2024, University of Oklahoma, Norman, OK

- Taught as the instructor of record
- Graded papers, assignments, and exams for the class
- Assisted students with course materials
- Lectured for the entire course
- Courses taught: Plagues and People (Anthropology, in-person and summer online versions); Health, Medicine, and Society (History of Science, online)

**Graduate Teaching Assistant:** August 2019-May 2020, University of Oklahoma, Norman, OK

- Assisted the instructor of record as needed
- Graded papers, assignments, and exams for the class
- Assisted students with course materials
- Lectured at various points during the class
- Course taught: What makes us human? (Anthropology)

**Writing Assistant:** August 2018-May 2019, University of Oklahoma, Norman, OK

- Assisted students with various writing concept and issues
- Reviewed student papers from all majors and levels
- Lectured in classes to introduce students to the Writing Center

**Academic Tutor:** January 2013-May 2015, Hiram College, Hiram, OH

- Tutored history, biology, and chemistry to students from all majors, in both group and individual settings

**Teaching/Writing Assistant:** January 2013-May 2015, Hiram College, Hiram, OH

- Assisted students and reviewed student papers from all majors
- Taught writing concepts (grammar, plagiarism, structure, etc.) and facilitated group decisions in freshman classes

**Near Peer Mentor:** May 2014-August 2014, Hiram College and ISLS, Hiram, OH

- Co-taught and co-designed a three-week, multi-location water biology course for students from Pakistan and Cleveland

**Summer Assistant:** May 2013-August 2013, York County 4-H, York, PA

- Designed and ran educational programs for 4-H students of a variety of ages

## Publications

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2024 Sterling Lee Wright, Kristen Reyfield, **Robin Singleton**, Karissa Hughes, Andrei Soficaru, Ciprian Cretu, Lushuang Huang, Si Wu, Katherine L Reinberger, Adam Rabinowitz, Courtney Hofman. Ancient DNA and Paleoproteomic Analysis on Roman Imperial-Era Individuals from Histria, Romania. *Journal of Archaeological Science: Reports*. DIO: 10.1016/j.jasrep.2024.104510

- 2023 Kristen M Rayfield, Alexis M Mychajliw, **Robin R Singleton**, Sabrina B Sholts, Courtney A Hofman. Uncovering the Holocene roots of contemporary disease-scapes: bringing archaeology into One Health. *ProcB*. DIO: 10.1098/rspb.2023.0525
- 2023 John Philip Carpenter, Guadalupe Sánchez, Rommel Tapia-Carrasco, Andrew R Krug, Edson Cupa, Dakota Larrick, Carlos Eduardo Hernández, **Robin R Singleton**, Matthew C Pailles. In Search of a Borderland: Material Culture Patterns on the Southern Limits of the North American Southwest. *Journal of Field Archaeology*. DIO: 10.1080/00934690.2023.2258715
- 2022 Nawa Sugiyama, Saburo Sugiyama, Clarissa Cagnato, Christine A.M. France, Atsushi Iriki, Karissa S. Hughes, **Robin R. Singleton**, Erin Thornton, Courtney A. Hofman. Earliest Evidence of Primate Captivity and Translocation Supports Gift Diplomacy Between Teotihuacan and the Maya. *PNAS*. DIO: 10.1073/pnas.2212431119

## Research Presentations

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### *Animal management and sacrificial power*, October 2023

- Speed talk at the 2023 Student Conference on Conservation Science

### *Paleogenomic Analysis of Rockfish Diversity in the North Pacific: Insights into Past Human-Fish Interactions and Contemporary Ecological Challenges*, September 2023

- Poster at the 2023 International Society for Biomolecular Archaeology meeting

### *Animal management and sacrificial power: Using ancient genomics to study golden eagle (*Aquila chrysaetos*) sacrifice in Teotihuacán*, September 2023

- Poster at the 2023 International Society for Biomolecular Archaeology meeting
- Presentation focused on final results of this research

### *Prospects for the recovery of aDNA from asphaltic faunal remains*, March 2023

- Poster at the 2023 Society for American Archaeology (SAA) meeting

### *Captive management and sacrificial power: Using ancient genomics to study animal sacrifice in Teotihuacán*, October 2021

- Talk at the 2021 Raptor Research Foundation Conference, held virtually
- Presentation focused on the raptor ecology aspects of this research

### *Captive management and sacrificial power: Using ancient genomics to study animal sacrifice in Teotihuacán*, April 2021

- Poster at the 2021 Society for American Archaeology (SAA) meeting, held virtually
- Presentation focused on the archaeological aspects of this research

### *Captive management and sacrificial power: Using ancient genomics to study animal sacrifice in Teotihuacán*, August 2020

- Poster at the 2020 Latin American & Caribbean Section of the Society for Conservation Biology meeting, held virtually
- Presentation focused on the conservation aspects of this research

### *Captive management and sacrificial power: Using ancient genomics to study animal sacrifice in Teotihuacán*, April 2020

- Accepted poster at the 2020 Society for American Archaeology (SAA) meeting in Austin, TX (canceled due to Coronavirus pandemic)
- Presentation focused on the archaeological aspects of this research

### *Fighting Back Against Standardization: Using Group Learning to Promote Understanding*, April 2015

- Biology senior thesis project on my work with ISLS and educational strategies for engaging students in biology programs
- Presented to the general Hiram community

### *The Morals of War: Aesop's Fables in the Bayeux Tapestry*, March 2015

- History senior thesis project on the depictions of Aesop's Fables found in the borders of the Bayeux Tapestry and how they comment on the main narrative

- Presented to the general Hiram community

## **Workshops and Training**

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### **Radar Aeroecology Workshop:** August 2018

- Learned how radar data can be applied to ecological questions tracking birds, bats, and other flying animals

### **Population Genomics Workshop:** June-July 2020

- Learned about various next-gen population genomics approaches, with hands on applications to data analysis
- Taught online

### **Version Control using Git and GitHub:** October 2021

- Learned how to set up projects on GitHub and manage them

### **nf-core/eager Bioinformatics Workshop:** December 2022

- Learned the basics of the nf-core/eager pipeline for ancient DNA analysis and its applications and benefits
- Taught online

### **Radiocarbon Dating Training:** January 2023

- Took rockfish samples to UC Irvine for hands-on training on how to prepare them for and run radiocarbon dating

### **Repetitive Tasks in R Workshop:** March 2023

- Learned methods for automating repetitive tasks using R

### **Applications of Museum Collections and Phylogenomics to Biodiversity Conservation:** September 2023

- Learned about utilizing historical samples and museum collections in genomic research

## **Grants and Fellowships (\$47,280 total)**

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- Awarded six Graduate Student Senate research grants totaling \$3600 (October 2018-November 2022)
- Awarded four Graduate Student Senate travel grants totaling \$1600 (March 2021-November 2023)
- Awarded three graduate research grants from the M.E. & L.R. Opler Endowment totaling \$4700 (October 2019-October 2023)
- Awarded three graduate travel grants from the M.E. & L.R. Opler Endowment totaling \$1375 (March 2020-October 2023)
- Awarded the George Miksch Sutton Scholarship for \$5800 (April 2020)
- Awarded the Exploration Fund Grant from the Explorer's Club for \$4000 (external) (April 2022)
- Awarded the Dodge Family Research Fellowship for \$5390 (May 2022)
- Awarded the Robberson and Wethington Scholarship for \$5000 (January 2022)
- Awarded the Pollitzer Student Travel Awards for \$500 (February 2022)
- Awarded the Graduate Student Seed Funding grant for \$2500 (March 2023)
- Awarded the Dodge College of Arts and Sciences Dissertation Improvement Fellowship \$7500 (plus tuition) (May 2023)
- Awarded the Conservation Paleobiology Network Student Conference grant for \$1155 (July 2023)
- Awarded the College of Arts and Sciences Travel Assistance Program award for \$750 (August 2023)
- Awarded the Graduate Student Seed Funding grant for \$2500 (September 2023)
- Awarded the Robberson Travel Scholarship for \$1000 (October 2023)

## **Guest Lectures**

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### *The Chemistry of Dyeing*, June 2024

- Guest lecture for YES! Oklahoma at The University of Oklahoma

### *Ethics in Molecular Anthropology*, March 2024

- Guest lecture in Molecular Anthropology course at The University of Oklahoma  
*Introduction to Ancient DNA*, November 2023
- Guest lecture in Jurassic World course at Middlebury College  
*Introduction to Ancient DNA*, October 2023
- Guest lecture in Environmental Archaeology course at Temple University  
*Introduction to Ancient DNA*, December 2022
- Guest lecture in Jurassic World course at Middlebury College

## Service

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- Anthropology Graduate Student Association Treasurer (Jan 2019-Dec 2020) and Faculty Liaison (January-December 2022)
- Senator in the Graduate Student Senate and member of the Ways and Means committee (August 2021-August 2023)
- Graduate student representative for the Faculty Senate Committee for open access publication (Fall 2022)

## References

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**Dr. Courtney Hofman**, University of Oklahoma: Department of Anthropology, Laboratories of Molecular Anthropology and Microbiome Research

- Ph.D. advisor and research supervisor
- [courtney.hofman@ou.edu](mailto:courtney.hofman@ou.edu)

**Dr. Sara Schaal**, University of Oklahoma: Laboratories of Molecular Anthropology and Microbiome Research; NOAA

- Colleague
- [sara.schaal@ou.edu](mailto:sara.schaal@ou.edu)

**Dr. Peter Sudmant**, University of California Berkley: Department of Integrative Biology

- Research collaborator
- [psudmant@berkeley.edu](mailto:psudmant@berkeley.edu)