

**Carolyn Freiwald**  
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Associate Professor of Anthropology  
Anthropology Graduate Program Coordinator  
Department of Sociology and Anthropology  
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**RESEARCH INTERESTS**

Maya and Mesoamerican archaeology, bioarchaeology and zooarchaeology, archaeological chemistry  
Migration, diet, animal-human relationships

**EDUCATION**

- 2011 PhD, University of Wisconsin-Madison Department of Anthropology  
Maya Migration Networks: Reconstructing Population Movement in the Belize River Valley during  
the Late and Terminal Classic  
2004 MS, University of Wisconsin-Madison, Anthropology  
1989 BA, University of Wisconsin-Madison, International Relations and History

**ACADEMIC POSITIONS**

- 2019-present University of Mississippi, Associate Professor in Anthropology  
UM Forensic Chemistry Advisory Board  
2012-present University of Wisconsin-Madison Honorary Fellow, Department of Anthropology  
2013-2019 University of Mississippi, Assistant Professor in Anthropology  
2012-2013 University of Mississippi, Visiting Assistant Professor in Anthropology  
2010 University of Wisconsin Richland Center, Anthropology Adjunct Faculty  
June 2012 University of Texas at San Antonio, archaeology field school staff  
2009-2012 University of Wisconsin-Madison, Zoology 699 Instructor  
2009-2010 University of Wisconsin-Madison, Department of Spanish and Portuguese, Instructor  
2003-2006 University of Wisconsin-Madison, Department of Anthropology, Teaching Assistant

**PUBLICATIONS**

- Freiwald, C. In press. Mobile Maya Bodies. In *Moving Maya: Circulations en espaces mayas*, edited by  
Clarissa Cagnato and Juliette Danfakha. Presses Universitaires Paris-Nanterre, Collections de la  
Maisons des Sciences de l'Homme "Mondes".  
Freiwald, C, D Micklin, K Fulton, D Mixer, & L LeCount. In press. Making a place for ancestors at  
Actuncan, Belize: An osteobiography of a Maya burial ground. In *Osteobiographies in Mesoamerica*,  
G Wrobel & A Cucina (Eds). University Press of Florida.  
Wrobel, G, E Harrison-Buck, C Freiwald, JA Biggs, M McKenna, & S Murata. In press. An  
Osteobiography of an Ancient Maya Burial and Termination Ritual in Belize. In *Osteobiographies in  
Mesoamerica*, G Wrobel & A Cucina (Eds). University Press of Florida.  
Green-Mink, K, CE Ebert, JJ Awe & C Freiwald. In press. Colonial Lifeways Revealed through  
Osteobiographic Analysis at Cahal Pech, Belize. In *Osteobiographies in Mesoamerica*, G Wrobel & A  
Cucina (Eds). University Press of Florida.  
McNeil, C, E Barrios, O Gómez, C Freiwald, M Díaz, N Meissner, M Colin. 2023. Hablando con los  
dioses: analizando las ofrendas de la plaza de los siete templos y del sur de Tikal. In *Simposio de  
investigaciones arqueológicas en Guatemala 2022*, pp. 63-78. Instituto de Antropología e Historia,  
Asociación Tikal.  
Yaeger, J, C Helmke, MK Brown, M Zender, B Cap, & C Freiwald. 2023. A shell gorget from Feature 384-  
2 at Buenavista del Cayo, Belize. *Mexicon XLV(2)*:35-41.  
Freiwald, Carolyn. 2023. Oxygen isotope values in the Maya region. In *Isotopic Proveniencing and  
Mobility: The State of Research*, TD Price (Ed), Springer.

- Hoggarth, JA, C Freiwald, CE Ebert, C Helmke, JJ Awe, K Green, P Powless, & AH McKeown. 2022. As the Baktun turned: Reconstructing Classic to Postclassic population dynamics in the Belize River Valley. In *Identity, Power, and Politics: 3,000 Years of War and Peace in the Maya Lowlands*, GE Braswell & VV Aquino (Eds). Routledge Archaeology of the Ancient Americas Series.
- Price, TD & C Freiwald. 2022. Baseline strontium isotope ratios in Mesoamerica. In *The Routledge Handbook of Mesoamerican Bioarchaeology*, V Tiesler (Ed), pp. 486-509. Routledge, New York.
- Freiwald, C, A Rand, & J Belanich. 2022. What's new in profiling an individual inside and out. In *The Routledge Handbook of Mesoamerican Bioarchaeology*, V Tiesler (Ed), pp. 577-600. Routledge, NY.
- Halperin, CT, Y Flynn-Arajdal, KA Miller Wolf, & C Freiwald. 2021. Terminal Classic residential histories, migration, and foreigners at the Maya site of Ucanal, Petén, Guatemala. *Journal of Anthropological Archaeology* 64:101337.
- Ebert, C, AJ Rand, K Green-Mink, JA Hoggarth, C Freiwald, JJ Awe, C Helmke, W Trask, M Danforth, J Yaeger, M. Kathryn Brown, & DJ Kennett. 2021. Applying sulfur isotopes to paleodietary reconstruction and human mobility from the Preclassic through Colonial Periods in the eastern Maya lowlands. *PLOSOne* 16(8):e0254992.
- Rand, A, C Freiwald, & V Grimes. 2021. Stable sulphur isotope analysis in the Maya region: A faunal baseline for dietary and mobility studies. *Journal of Archaeological Sciences: Reports* 102977.
- Freiwald, C. 2021. Barton Ramie and in-migration to the Belize River Valley: Strontium isotopes and burial patterns. In *Mobility and Migration in Ancient Mesoamerican Cities*, MC Arnauld, C Beekman, & G Pereira (Eds), pp. 23-42. University Press, Colorado.
- Hoggarth, J, C Freiwald, & J Awe. 2021. Evidence for Classic and Postclassic population movement at Baking Pot, Belize. In *Mobility and Migration in Ancient Mesoamerican Cities*. Edited by MC Arnauld, C Beekman, & G Pereira (Eds), pp.43-58. University Press, Colorado.
- Freiwald, C, C Halperin, C Dubois-Francoeur, C Schlinsog, & K Bauer. 2021. A Microscopic View of Needle and Perforator Production at Ucanal, Guatemala. In *Bones at a Crossroads: Integrating Worked Bone Research with Archaeometry and Social Zooarchaeology*, M Wild, B Thurber, S Rhodes, & C Gates-St. Pierre (Eds), pp. 171-188. Sidestone Press.
- Halperin, C, C Freiwald, & G Iannone. 2020. Introduction to the Special Section in *Ancient Mesoamerica: Borders, Frontiers, and Boundaries in the Maya World: Concepts and Theory*. *Ancient Mesoamerica*, 31(3), 453-460.
- Freiwald, C, K Miller Wolf, T Pugh, A Rand, & P Fullagar 2020. Early colonialism and population movement at the Mission San Bernabé, Guatemala. *Ancient Mesoamerica*, 31(3), 543-553.
- Price, TD, V Tiesler, P Zabala, A Coppa, C Freiwald, H Schroeder, & A Cucina. 2020. Home is the Sailor. Investigating the origins of the inhabitants of La Isabela, the first European settlement in the New World. *Current Anthropology*, 61(5).
- Brown, MK & C Freiwald. 2020. Potluck: Building community and feasting amongst the Middle Preclassic Maya. In *From Feast to Famine*, edited by T Ardren, pp. 25-46. University of Texas Press.
- Freiwald, C. 2020. Migration and mobility among the ancient Maya. In *The Maya World*, S Hutson & T Ardren (Eds), pp. 203-222. Routledge Press.
- Rand, A, V Matute, V Grimes, C Freiwald, & J Żrałka. 2020. Prehispanic Maya diet and movement at Nakum, Guatemala: A multi-isotopic approach. *Journal of Archaeological Science: Reports*, 32C.
- Freiwald, C, B Woodfill, & R Mills. 2019. An isotopic investigation of salt and its implications for exchange and mobility in Mesoamerica. *Journal of Archaeological Science: Reports*, 27, 101990.
- Price, TD, V Tiesler, & C Freiwald. 2019. Origins of the sacrificial victims in the Sacred Cenote, Chichén Itzá, Mexico. *American Journal of Physical Anthropology* 170(1), 1-18.
- Freiwald, C, A Novotny, & K Green Mink. 2019. Mobility among the Maya of the Belize Valley. *Research Reports in Belize Archaeology*, 16, 91-100.

- Lytle, W, MK Brown, R, Horowitz, & C Freiwald. 2019. Late Classic burials and eccentric caches from Structure D-6 at Xunantunich. *Research Reports in Belize Archaeology*, 16, 123-132.
- Freiwald, C, & K Miller Wolf (guest editors). 2019. Considering conservation of human skeletal remains in archaeological contexts. In Curating the Past: The Practice and Ethics of Skeletal Conservation Special Issue of *Advances in Archaeological Practices*, 7(1), 3-9.
- Freiwald, C. 2019. Excavation and curation strategies for complex burials in tropical environments. In Curating the Past: *Advances in Archaeological Practices*, 7(1), 10-22.
- Powless, P, C Freiwald. 2019. The challenges of dealing with multiple sets of human remains in the cultural resource management setting where tribal resources are limited. *Advances in Archaeological Practices*, 7(1), 55-59.
- Miller Wolf, K, & C Freiwald. 2018. Re-interpreting ancient Maya mobility: A strontium isotope baseline for western Honduras. *Journal of Archaeological Science: Reports*, 20, 799-807.
- Rice, P, A Boileau, L Cecil, S deFrance, C Freiwald, N Meissner, T Pugh, D Rice, & M Yacubic. 2018. Zacpetén Structure 719: Activities at a Contact Period *Popol Nah* before rapid abandonment. *Ancient Mesoamerica*, 29(1), 137-155.
- Freiwald, C, & T Pugh. 2018. The origins of Early Colonial Cows at San Bernabé, Guatemala: Strontium isotope values at an early Spanish Mission in the Petén Lakes region of northern Guatemala. *Environmental Archaeology: The Journal of Human Paleoecology*, 23(1), 278-284.
- Awe, J, CE Ebert, C Freiwald, & K Green. 2017. The dead do tell tales: Unraveling the case of Cahal Pech's Jane or John Doe. *Research Reports in Belizean Archaeology*, 14, 213-225.
- Wrobel, GD, C Freiwald, S Gibbs, A Michaels, & J Awe. 2017. Social identity and geographic origin of Maya burials at Actun Uayazba Kab, Roaring Creek Valley, Belize. *Journal of Anthropological Archaeology*, 45, 98-114.
- Pugh, TP, K Miller, C Freiwald, & PM Rice. 2016. Technologies of domination at Mission San Bernabé, Petén, Guatemala. *Ancient Mesoamerica*, 27(1), 49-70.
- Patterson, E, & C Freiwald. 2016. Migraciones regionales en las Tierras Bajas Centrales: Nuevos valores de isótopos de estroncio en La Corona y El Perú-Waka'. In *XXVI Simposio de investigaciones arqueológicas en Guatemala*, edited by B Arroyo, L Méndez Salinas, and G Ajú Álvarez, pp. 797-807. Instituto de Antropología e Historia Asociación Tikal, Guatemala City.
- Wrobel, G, C Helmke, C Freiwald, & J Awe. 2014. A case study of reverential cave use from Je'reftheel, Central Belize. In *The Bioarchaeology of Space and Place: Ideology, Power and Meaning in Maya Mortuary Contexts*, GD Wrobel (Ed), pp. 77-106. Springer Press.
- Freiwald, C, J Yaeger, J Awe, & J Piehl. 2014. Isotopic insights into mortuary treatment and origin at Xunantunich, Belize. In *The Bioarchaeology of Space and Place: Ideology, Power and Meaning in Maya Mortuary Contexts*, GD Wrobel (Ed), pp.107-141. Springer Press.
- Freiwald, C, DW Mixter, & N Billstrand. 2014. Burial practices at Actuncan, Belize: A seated burial and ongoing analysis from the 2001-2013 field seasons. *Research Reports in Belize Archaeology*, 11, 95-110.
- Freiwald, C. 2011. Patterns of population movement at Xunantunich, Cahal Pech, and Baking Pot during the Late and Terminal Classic (AD 600-900). *Research Reports in Belize Archaeology*, 9, 89-100.
- Freiwald, C. 2010. Dietary diversity in the Upper Belize River Valley: Interpreting Late Classic foodways using chemistry and zooarchaeology at Xunantunich. In *Pre-Columbian Foodways: Interdisciplinary Approaches to Food, Feasting, and Festivals in Ancient Mesoamerica*, JE Staller & M Carrasco (Eds), pp. 399-420. Springer Verlag, New York.
- Yaeger, J, & C Freiwald. 2009. Complex Ecologies: Human and Animal Responses to Ancient Landscape Change in Central Belize. *Research Reports in Belizean Archaeology*, 8, 83-92.

**Publications in progress**

- Freiwald, C et al. Submitted. The Social Lives of Domesticated Animals at the Maya Site of Ucanal, Guatemala. Special edition of *Journal of Environmental Archaeology*.
- Manin, A. et al. Ready to re-submit. Ancient dog mitogenomes demonstrate the delayed spread of dogs toward South America correlated with the adoption of agriculture.
- Freiwald, C, A Rand, S Skaggs, & T Powis. Ready to re-submit. Understanding ‘local’: Mobility and diet at Pacbitun using strontium, oxygen, sulfur, carbon, and nitrogen isotope values. *International Journal of Bioarchaeology*.
- H. Goudiaby, C. Freiwald, J. Hiquet, J. Sion, & P. Nondédéo. Submitted. Historical trajectories and individual lives: Cultural and isotopic approaches to funerary contexts at Naachtun (Guatemala).
- Rand, A, & C Freiwald. In review. Reconstructing the isotopic life histories of the Nakum Maya. In Nakum monograph (title pending).
- Hughes, C, J Lindo, T Pugh, C Marshall, R Malhi, KA Miller Wolf, & C Freiwald. In review. Assessing ancestry at San Bernabé: Insights from an ancient DNA feasibility study. In *Colonialism at Tayasal, Petén, Guatemala*, edited by T Pugh. University of Colorado Press.
- Freiwald, C & Y Shiratori. In review. Changes and continuity in animal use in early Colonial households at San Bernabé, Tayasal, Guatemala. In *Colonialism at Tayasal, Petén, Guatemala*, edited by T Pugh. University of Colorado Press.
- Belanich, J, C Freiwald, J Yaeger, K Brown, J Awe, H Jordan, et al. In prep. The DNA of Maya dental health: Bacteria and the oral microbiome.
- Hoggarth, J, CE Ebert, BJ Culleton, JJ Awe, SFM Breitenbach, C Freiwald, C Helmke, J Walden, RA Guerra, K Green, A McKeown, DJ Kennett. In prep. Dynamics of the Maya collapse in the Belize Valley.
- Patterson, E, C Freiwald. In prep. Regional population movement in the central lowlands: Isotopes and elements at La Corona and El Perú-Waka’. To be submitted to *Latin American Antiquity*.

**OTHER PUBLISHED WORKS AND MEDIA**

- Spring 2023 Milk Street Radio podcast
- Fall 2022 TED Instagram
- Fall 2021 Undocumented Migration Project *Hostile Terrain '94* display and yearlong programming
- April 2021 TED Radio Hour Carolyn Freiwald <https://www.npr.org/2021/04/30/992035103/carolyn-freiwald-what-can-our-teeth-tell-us-about-where-we-come-from>
- Feb. 2021 TED featured talk [go.ted.com/carolynfreiwald](https://go.ted.com/carolynfreiwald)
- Meiggs, DC, & C Freiwald. 2014, 2018. Bioarchaeological approaches to human migration. In *Encyclopedia of Global Archaeology*, edited by A Simon & C Wells, pp. 3583-3545. Springer-Verlag.
- Freiwald, C. Archaeological chemistry. 2010. *Imagine* 18(2):18-19. Johns Hopkins University Center for Talented Youth.
- Freiwald, C. 2007. *Trachte Photo Gallery*. <http://www.madisonpreservation.org/galleries>.
- Clados, C, C Freiwald (Ed.). 2004. *Reconstructing the Pre-Columbian World*.
- Freiwald, C. 2004. Downtown Madison Loses One Building after Another. *Isthmus* 3/5/04.

**BOOK ESSAY REVIEWS**

- Freiwald, C. 2010. Dietary, Environmental, and Societal Implications of Ancient Maya Animal Use in the Petexbatun: A Zooarchaeological Perspective on the Collapse by Kitty F. Emery. Reviewed in the *SAS Bulletin Newsletter for the Society for Archaeological Sciences* 33(4):28-29.

**STUDENT PUBLICATIONS**

- Craze, A, M Brandon. 2019. Scanning electron microscopy and elemental analysis of clay from the Copperbelt Province of Zambia. *University of Mississippi Undergraduate Research Journal*.

**TECHNICAL REPORTS**

- Freiwald, C & M Perry (with N Wilcox & M Murray). 2022. IMLS Interim Performance Report December 2022. Submitted to the Institute of Museum and Library Services.
- Freiwald C. 2022. Los animales de Ucanal: los resultados preliminares. In *Proyecto Arqueológico Ucanal: 6ta Temporada del Campo Año 2022*, edited by Christina Halperin and José Garrido López. IDAEH, Guatemala City, Guatemala.
- Freiwald, C (with T Boudreaux). 2021. IMLS Interim Performance Report December 2021. Submitted to the Institute of Museum and Library Services.
- Freiwald, C et al. 2019. Chac II, Becan, Oxkintok, Palenque, Chichen Itza, and Caucel. Submitted to the National Institute of Anthropology and History, Merida, Mexico.
- Freiwald, C. 2019. Xunantunich, San Lorenzo, Buenavista, and Arenal osteology MVPP and MVAP 2018 field report. Submitted to J Yaeger and K Brown, University of Texas at San Antonio.
- Freiwald, C. 2019. Contributor (faunal analysis) to *The Caste War, the San Pedro Maya, and British Honduras* (provisional title). MC Church, JR Yaeger, CA Kray, and RM Leventhal. Colorado University Press.
- Freiwald, C et al. 2019. Reconstructing life histories using DNA and bone chemistry. In *New Salem Cemetery Project*. Center for Archaeological Research (edited by Project PI T Boudreaux).
- Freiwald, C. 2018. *Mobility and diet in the Belize River Valley: A resource guide*. Belize Valley Archaeological Reconnaissance Project, edited by C Ebert and J Hoggarth. <https://www.bvar.org>.
- Freiwald, C. 2018. *New interpretations on mobility and diet at Xunantunich and San Lorenzo*. Report submitted to the Mopan Valley Preclassic Project.
- Freiwald, C. 2018. The status of marine shell and other fauna at Actuncan. In *Actuncan Archaeological Project: The 2017 Field Season*, edited by D Mixer. IOA, Belmopan, Belize.
- Freiwald, C. 2018. *Mobility and diet at Chicoloapan Viejo: A preliminary study*. Report submitted to S Clayton, UW-Madison, for the National Science Foundation/INAH, Mexico City, Mexico.
- Freiwald, C, C Dubois-Francoeur, & RA Bigué. 2018. Análisis preliminar de la fauna de Ucanal (Temporada 2016 - 2017). In *Proyecto Arqueológico Ucanal: 3ra Temporada del Campo Año 2017*, edited by Christina Halperin and José Garrido López. IDAEH, Guatemala City, Guatemala.
- Freiwald, C, K Miller, & T Pugh. 2017. *¿Quién está enterrado en la misión San Bernabé? Un estudio de isotópica y biológico de un de las primeras misiones coloniales en el Petén, Guatemala*. IDEAH, Guatemala City, Guatemala.
- Landau, K. with C Freiwald. 2016. *Maintaining the State: Centralized Power and Ancient Neighborhoods in Copán, Honduras*. PhD dissertation, Department of Anthropology, Northwestern University.
- Patterson, E, & C Freiwald. 2016. *Análisis de isótopos estables: Redes de migración: La Corona muestras exportado en 2013 y 2014*. IDEAH, Guatemala City, Guatemala.
- Freiwald, C. 2016. *La fauna de Nixtun Ch'ich'*. IDEAH, Guatemala City, Guatemala.
- Patterson, E, & C Freiwald. (2015). *Análisis de isótopos estables: Redes de migración: El Perú-Waka' muestras exportado en 2013 y 2014*. IDEAH, Guatemala City, Guatemala.
- Freiwald, C, with GT Austin & N Billstrand. 2015. Life and death at Actuncan: An examination of burial treatment and taphonomy. In *Actuncan: Report of the 2014 Field Season*, edited by LJ LeCount. IOA, Belmopan, Belize.
- Simova, B, with C Freiwald and N Billstrand 2014. Continuing excavations at Structure 73. In *Actuncan: Report of the 2013 Field Season*, edited by LJ LeCount. IOA, Belmopan, Belize.
- Freiwald, C, & N Billstrand. 2014. Burial 11 in Structure 41 at Actuncan, Belize. In *Actuncan: Report of the 2013 Field Season*, edited by LJ LeCount. IOA, Belmopan, Belize.
- Freiwald, C. 2013. Los recursos lacustres y fluviales de Tayasal y la misión San Bernabé. In *Proyecto Arqueológico Tayasal: Informe presentado al Instituto de Antropología e Historia de la cuarta temporada de investigaciones 2012*, edited by T Pugh. IDEAH, Guatemala City, Guatemala.

- Mixer, D, & C Freiwald. 2013. Excavations at Group 8. In *Actuncan: Report of the 2012 Field Season*, edited by LJ LeCount. IOA, Belmopan, Belize.
- Freiwald, C, & D Micklin. 2013. Burial practices at Group 1. In *Actuncan: Report of the 2012 Field Season*, edited by LJ LeCount. IOA, Belmopan, Belize.
- Freiwald, C. 2013. Recording and excavation techniques for comingled burials. In *Actuncan: Report of the 2012 Field Season*, edited by LJ LeCount. IOA, Belmopan, Belize.
- Freiwald, C. 2012. Appendix VI: Human skeletal remains, independent report #5. In *The Integration and Disintegration of Ancient Maya Urban Centres: Charting Households and Community at Buenavista del Cayo, Belize*, pp. 664-668. PhD dissertation by M Peuramaki-Brown, Department of Anthropology, University of Calgary.
- Freiwald, C. 2012. Osteological and contextual analysis of Callar Creek human remains from Structure 14. Report submitted to S. Kurnick for dissertation research.
- Freiwald, C. 2012. Woodland faunal use at 21CP68, Montevideo, MN. Report of 2011 excavations by Great Lakes Archaeological Research Center, edited by J. R. Haas.
- Freiwald, C. 2011. Plains Woodland subsistence strategies at Site 32RY473, Ramsey County, North Dakota. In *Phase III Mitigation for Archaeological Site 32RY473, Ramsey County, North Dakota*, edited by J. R. Haas.
- Freiwald, C. 2012. Actuncan burials: The 2011 field season. In *Actuncan 2011 Field Report*, edited by L LeCount and A Keller. IOA, Belmopan, Belize.
- Freiwald, C. 2011. Cambios y estabilidad en el uso de animales en Tayasal: Resultados iniciales. In *Proyecto Arqueológico Tayasal: informe preliminar presentado al Instituto de Antropología e Historia de Guatemala*, edited by Timothy Pugh. IDAEH, Guatemala City.
- Freiwald, C. 2008. City of Madison Landmark Nomination: Schubert Building (1908). <http://legistar.cityofmadison.com/attachments/23fdd85c-6928-4c22-985a-8303f2b7cb2a.pdf>.
- Freiwald, C. 2005. City of Madison Landmark Nomination: Suhr Building (1885-1887). [http://www.cityofmadison.com/planning/landmark/nominations/166\\_125StateStreet.pdf](http://www.cityofmadison.com/planning/landmark/nominations/166_125StateStreet.pdf).

#### FELLOWSHIPS, AWARDS, AND GRANTS

- 2023 NAGPRA Consultation/Documentation Grant (\$85,580)
- 2023 UM Senior Research Faculty Grants for Research and Creative Achievement (\$5,000)
- 2023 UM Critical Thinking Redesign faculty development grant (\$1,000)
- 2023 UM ORSP Travel Grant (\$600)
- 2023 Southeastern Conference Faculty Travel Grant University of Florida Department of Anthropology
- 2021-2024 Save America's Treasures grant (ST0318001218 2019-2024) management of archaeological collections and curation. PIs C Freiwald, J Tune (\$500,000 with UM match of \$500,000)
- 2021-2024 NSF Award 2116597 *MRI: Acquisition of an Advanced FTIR Imaging Microscope for Multidisciplinary Research and Training in the State of Mississippi*. PIs J Cizdziel, C Freiwald, et al. (\$217,163)
- 2020 UM Critical Thinking Redesign faculty development (team) grant (\$4,000)
- 2019 UM College of Liberal Arts Mike L. Edmonds New Scholar Award (\$1,000)
- 2019 SMBHC summer stipend, *Human Mobility* course (\$5,000)
- 2019 Excellence in Community Engagement Award Recipient (\$5,000), PI J Skipper
- 2016-2018 SSHRC Insight Grant (\$96,632) *Cosmopolitanism in the wake of Classic Maya political collapse: Ucanal, Petén, Guatemala*. PI C Halperin, Senior Personnel C Freiwald et al.
- 2018, 2022 UM travel grant (\$700, \$633)
- 2017 UM Summer Research Grant (\$7,860) DNA of paleopathogens to identify ancient Maya diseases
- 2015 Hurricane Creek, MS faunal analysis (\$2,491) Co-PI Jay Johnson. Zooarchaeological analysis
- 2015 UM ORSP Investment Grant (\$4,239) Archaeological chemistry: Migration and trade in Mesoamerica
- 2015 UM Summer Research Grant (\$9,412) Tayasal, Guatemala analyses of marine fauna

- 2014 Graduate Women in Science Nell Mondy Fellowship (\$8,525) Migration, diet, and dynasty at the sites of La Corona and El Perú -Waka', Guatemala
- 2014 OSRP Faculty Travel Support Grant (\$1,500) International Council of Archaeozoology Conference, San Rafael, Argentina
- 2014 UM Summer Research Grants (\$9,412) Tayasal Archaeological Project changing catchments and culinary patterns before, during, and after the arrival of the Spanish
- 2013-2014 Southeastern Conference Faculty Travel Grant (\$1,000) University of Florida Department of Anthropology zooarchaeology research and bioarchaeology presentation
- 2010-2012 NSF Grant #BCS 0917918 Senior Personnel. PI T Pugh Pathways of power and the Colonial process in the Petén, Guatemala
- 2009-2010 UW-Madison College of Letters and Sciences Teaching Fellow
- 2009-2010 SDE/GWIS Eloise Gerry Fellowship Sigma Delta Epsilon Graduate Women in Science national research scholarship
- 2009-2010 UW-Madison Vilas International Travel Award (\$1000)
- 2008-2009 Ruth Dickie Scholarship UW-Madison Graduate Women in Science research scholarship
- 2007 Miller Prize in Anthropology, UW-Madison
- 2006-2009 UW-Madison Anthropology Department Travel Grant
- 2005 Nave Summer Research Grant, isotopic baseline information Chiapas, Mexico
- 2003-2005 Foreign Language and Area Studies fellowships (FLAS, Spanish, Yucatec Maya)

#### **GRADUATE STUDENT GRANTS**

- 2019 Graduate Student Research Grant (\$1,000) Rachel Smith, Jacob Harris
- 2019 Summer Graduate Research Assistantship (\$2,500) Jacob Harris
- 2016 Summer Graduate Research Assistantship (\$2,500) Stephanie Orsini
- 2015 Graduate Student Research Grant (\$1,000) Spencer Oliver
- 2014 Graduate Student Research Grant (\$1,000) Nicholas Billstrand

#### **FIELD PROJECTS (ACTIVE IN 2023)**

- 2016-present Mopan Valley Archaeological Project (J Yaeger), Mopan Valley Preclassic Project (MK Brown) Bioarchaeologist, Archaeometry
- 2015-present Proyecto Arqueológico Ucanal (C Halperin) Zooarchaeologist
- 2011-present Actuncan Archaeological Project, Belize (L LeCount) Bioarchaeologist, Archaeometry

#### **INVITED PRESENTATIONS**

- 2023 Mobile Maya Conference, Dec 7-8. Paris, France
- 2021 UM Department of GGE Bertolet Seminar Series *Science you can eat* (1/31/22)
- 2013-2023 University of Wisconsin–Madison Medical School *The people and history of Belize*
- 2019 Departments of Geological Sciences and Anthropology, University of North Carolina at Chapel Hill Isotopes and Archaeology: Migration, trade, and warfare in Mesoamerica (10/9/19)
- 2019 Department of Anthropology Brown bag talk, UW-Madison Isotopes and Archaeology: Migration, trade, and warfare in Mesoamerica (11/8/19)
- 2016 Graduate Women in Science National Conference. Senior thesis student poster (A Leavitt, C Freiwald, E Patterson, P Fullagar, D Dettman, TD Price, 6/25/16)
- 2016 UM/UMMC Research Day 3-minute research presentation (3/6/16, Jackson, MS)
- 2015 Maya week at The University of Southern Mississippi Migration, culture change, and the arrival of the Spanish in the last independent Maya Kingdom (10/1/15, Hattiesburg, MS)
- 2015 UM-Mississippi State 2<sup>nd</sup> annual Anthropology Lecture Series *Maya burials and beliefs: Funerary treatment in a Classic Maya household* (3/15, Starkville, MS)
- 2015 Archaeological Institute of America Annual Meeting *Mapping Maya migration networks during the*

*Classic Period* (1/15, New Orleans)

- 2014 Tulane Maya Symposium and Workshop, Middle American Research Institute On the Maya trail: Ancient travelers, epic voyages. *Mapping Maya Migration Networks during the Classic Period* (2/14)
- 2013 Fall 2013 Anthropology Program DCS Sponsored Archaeology Talk CUNY Graduate Center, New York). *Burial customs of the Classic Maya: A 1300-yr-old burial ground at Actuncan, Belize* (10/13)
- 2013 University of Mississippi Department of Sociology and Anthropology Fall Lecture Series *Burial customs of the Classic Maya: A 1300 yr-old household burial ground at Actuncan, Belize* (10/13)
- 2013 Rochester Institute of Technology, Rochester, NY. *Maya migration networks: Reconstructing population movement in the Belize River Valley during the Late and Terminal Classic* (1/13)
- 2012 Washington University in St. Louis, MO. *Maya migration networks: Reconstructing population movement in the Belize River Valley during the Late and Terminal Classic* (12/12)
- 2011 University of Mississippi Department of Sociology and Anthropology *Maya migration networks: Reconstructing population movement in the Belize River Valley* (12/11)
- 2011 UW-Madison Department of Anthropology Brown Bag Lecture Series *Sitio arqueológico Tayasal: The Itzá Maya, Spanish animals, and archaeology in Guatemala* (9/11)
- 2005 Anthrocircle Spring Seminar Madison, WI *Reconstructing Classic Maya Animal Use: A Zooarchaeological Study from Belize* (4/05)

**CONFERENCE PRESENTATIONS**

- 2023 Simposio de Investigaciones Arqueológicas en Guatemala (remote July 2023) Shiratori, Y & C Freiwald *Nixtun Ch'ich' Postclassic fauna*
- 2023 Society for American Archaeology (April, 2023) Portland, OR. Multiple presentations.
- 2022 Simposio de Investigaciones Arqueológicas en Guatemala (July 2022). McNeil et al. Tikal offerings.
- 2022 Society for American Archaeology (April, 2022) Chicago, IL. Multiple presentations.
- 2021 Society for American Archaeology (remote April 2021) Chicoloapan symposium
- 2020 Chicoloapan symposium (Feb. 19-23, Madison, WI)
- 2019 III Simposio Internacional de los Mayas en Japón. Okayama University, Japan (Dec. 10-16, 2019) *Baseline strontium isotope ratios in Mesoamerica* Freiwald, C, TD Price.
- 2019 *Archaeology meets archaeometry*. Worked Bone Research Group, International Council on Zooarchaeology (Oct. 7-9, 2019) *Bone tool production at Ucanal, Guatemala*. Freiwald, C, C Dubois-Francoeur, J Harris, C Halperin
- 2019 Early Urbanism, Land Use, and Community Life: Archaeological and Paleoenvironmental Research at Chicoloapan symposium (May 5-12, Paris, France) *Epiclassic diet and origin at Chicoloapan Viejo*. Freiwald, C, S Weeden
- 2019 Society for American Archaeology, Albuquerque, NM. Freiwald, C Crossing Borders (session co-organizer) What Isotope Geochemistry Reveals about the Ancient Maya; Dani-Flynn, Y, K Miller Wolf, C Halperin, C Freiwald *Isotopic Analysis and Social Identities from Classic Period (ca. 300-900 CE) Burials at the Maya Site of Ucanal, Petén, Guatemala*; Lytle, W, R Horowitz, C Freiwald and MK Brown *Ritual Deposits within the Eastern Pyramidal Structure at Group D, Xunantunich – Belize: The Undiscussed Paperwork of Archaeology: Applications, Waivers, and Contracts*
- 2018 Bioarchaeology Symposium, Universidad autonoma de Yucatan (Oct. 30-Nov. 4, 2018, Merida, Mexico) Freiwald C. *Esmalte, huesos, e isótopos: estudios en la química arqueológica*
- 2018 Belize Archaeology Symposium (June 26-29, 2018, San Ignacio, Belize) Freiwald et al. *Mobility and Molecules among the Maya of the Belize Valley: New Techniques, New Knowledge, and New Directions*
- 2018 Society for American Archaeology annual meeting (April 2018, Washington, DC) Alsgaard et al. *Hunter Gatherer Archaeology*, Freiwald et al. *Palimpsest urbanism*, Ebert et al. *Using Stable Isotopes to Explore Ancient Farming and Herding Practices*, Patterson, E, C Freiwald, *La Corona Archaeological Project*
- 2017 South Central Maya Conference (October 2017, New Orleans, LA) *The Biogeochemistry of San*



- Bernabe* (with K Miller Wolf).
- 2017 Society for American Archaeology annual meeting (March 2017, Vancouver, BC) Session organizer (with K Miller Wolf) *Curating the Past: The Practice and Ethics of Skeletal Conservation*. Paper presented (with L Halverson) *A step-by-step guide to excavating burials, or how a bioarchaeologist can be in two (or three) places at once*.
- 2016 Society for American Archaeology annual meeting (April 2016, Orlando, FL) Freiwald, C, T Pugh. *Strontium isotope values for early Colonial cows at San Bernabé, a Spanish mission in the Petén Lakes region of Guatemala*. Patterson, E, and C Freiwald. *Mobility in the central Maya lowlands: Strontium, oxygen, and carbon isotope values from La Corona and El Perú-Waka'*. Orsini, S, C Freiwald, K Prufer. *Changing Food Choices from Paleoindian to Classic Maya Periods: A zooarchaeological analysis*. Austin, TG, C Freiwald, H Niles, T Pugh. *Animal Use at Nixtun-Ch'ich': Preclassic Canids, Postclassic Crocodiles, and Contact Period Cows*
- 2015 Intercontinental Conference of the Americas (July 2015, San Salvador) *Identity and Migration in the Belize Valley during the Classic and Postclassic Periods*. J Hoggarth, C Freiwald, J Awe
- 2015 Simposio de Investigaciones Arqueológicas en Guatemala (July 2015, Guatemala City) Patterson, E, C Freiwald. *Migraciones regionales en las Tierras Bajas Centrales: nuevos valores de isótopos de estroncio en La Corona y El Perú-Waka'*.
- 2015 Society for American Archaeology annual meeting (April 2015, San Francisco, CA) Freiwald, C, K Miller, T Pugh. *The effect of missionization on the Itza Maya from isotopic and biodistance evidence*.
- 2015 The Midwest Conference on Mesoamerican Archaeology and Ethnohistory (March 2015, Murfreesboro, TN) *Burial practices in the Americas: Funerary treatment and taphonomy in a Classic Maya household*.
- 2014 12<sup>th</sup> International Council on Archaeozoology (Sept. 2014, San Rafael, Argentina) Freiwald, C, MK Brown. *Preclassic Animal Use at Blackman Eddy, Belize*
- 2014 Society for American Archaeology annual meeting (April 2014, Austin, TX) *Classic to Postclassic Household and Community Dynamics at Baking Pot, Belize* (Hoggarth, J, C Freiwald, A Novotny, J Awe); *Mobility and Migration over Mesoamerica in Classic and Postclassic Times* (Freiwald, C, K Miller, TD Price, J Burton, P Fullagar, C Wells); *Recent Work at Nixtun Ch'ich' and Tayasal, Peten, Guatemala* (Shiratori, Y, C Freiwald, T Pugh)
- 2013 American Anthropological Association annual meeting (Nov. 2013, Chicago) *The meaning of Maya migration: Bone chemistry and burial treatment in the eastern lowlands*.
- 2013 Belize Archaeology and Anthropology Symposium (July 2013, San Ignacio, Belize) *An Actuncan burial ground: A biocultural analysis of funerary treatment and taphonomy*.
- 2013 Society for American Archaeology annual meeting (April 2013, Honolulu, HI) *Urban and rural population movement patterns during the Late and Terminal Classic in the Belize River Valley*.
- 2013 American Chemical Society national meeting (April 2013, New Orleans, LA) Miller, K, C Freiwald, *identifying ancient population movement in Honduras using strontium and oxygen isotopes: New values and interpretations*.
- 2012 Society for American Archaeology annual meeting (April 2012, Memphis) Freiwald, C, S Ambrose. *Adult and childhood diet in the Belize River Valley: Classic Maya dietary differences seen through isotope assays*.
- 2011 Society for American Archaeology annual meeting (April 2011, Sacramento) Freiwald, C, J Yaeger, J Awe, C Helmke, J Garber, J Piehl. *Local nobility, imported ceramics: Isotopic insights into mortuary treatment and political authority in the UBRV*.
- 2010 American Anthropological Association annual meeting (Nov. 2010, New Orleans) *Reconstructing population movement in the Belize River Valley during the Late and Terminal Classic: An isotopic and contextual model of Ancient Maya migration*.
- 2010 11<sup>th</sup> International Council for Zooarchaeology (Aug. 2010, Paris) Freiwald, C, J Yaeger, TD Price, JH

- Burton. *Late Classic Maya resource management: A case study from the Belize River Valley; Zooarchaeology in modern settings: The life and death of the Galapagos Sea Lion (Z. wollebaeki)*. Poster, with EE Pilleart
- 2010 Belize Archaeology Symposium (July 2010, Belize City) *Population movement in the Belize River Valley: An isotopic analysis of migration and its meaning among the Late Classic Maya*.
- 2010 Central States Anthropological Society (March 2010, Madison, WI) *Identity and population movement in the Belize River Valley: A contextual and isotopic analysis of migration and its meaning among the Late Classic Maya*
- 2010 Society for American Archaeology annual meeting (April 2009, Atlanta) *Identity and the non-local population of Xunantunich, Belize: A Contextual Isotopic Analysis*
- 2009 Belize Archaeology Symposium (July 2008, Belize City) *Complex ecologies: Human and animal response to ancient change in central Belize*. Co-author J. Yaeger
- 2008 Society for American Archaeology annual meeting (March 2008, Vancouver) Poster session: *Classic Maya migration networks: Methods for studying population movement in Belize*. Co-author TD Price
- 2007 Chacmool Conference (Nov. 2007, University of Calgary) *Mobile Maya Menus: Complications in Interpreting Classic Period Diet*
- 2007 Society for American Archaeology annual meeting (April 2007, Austin) *Identifying environmental and hunting practices in the Upper Belize River Valley*
- 2007 Midwest Mesoamerican Conference (March 2007, Chicago) *Colonialism and integration: A zooarchaeological analysis of the subsistence practices of the San Pedro Maya*
- 2006 International Council for Zooarchaeology (August 2006, Mexico City) *Interpreting missing patterns: Maya Zooarchaeology from Xunantunich, Belize; Identifying environmental and hunting practices at San Lorenzo, Belize using strontium, carbon, and oxygen isotopes* (with co-author J Yaeger)
- 2005 Midwest Mesoamerican Conference (March 2005, Bloomington, IN) *An interpretation of faunal remains at Group B, Xunantunich: A preliminary report*

#### CORE CURRICULUM

- ANTH 101 Introduction to Anthropology
- ANTH 304 Introduction to Biological Anthropology
- ANTH 405/630 Human Osteology
- ANTH 344/644 Stones and Drones: Science in Archaeology
- ANTH 320 Archaeozoology: Animal Use in History
- ANTH 326 Archaeology of Maya Civilization
- ANTH 351 Human Mobility: Studies in Migration
- ANTH 604/605 Professional Development Seminars
- ANTH 607 Introduction to Biocultural Anthropology
- ANTH 609 Graduate Research Methods

#### STUDENT ADVISING

##### PH.D. CO-SUPERVISOR

- Memorial University, Newfoundland: Co-supervisor Asta Rand (2021) *Modeling a Sulfur Baseline in Mesoamerica for Diet and Migration*
- University of Texas at San Antonio: Committee member Whitney Lytle (2020)
- Washington University: Committee member Diana Fridberg (2015)

##### UNIVERSITY OF MISSISSIPPI MA ADVISOR

- Kasey Corey (expected 2025) Health and Migration at Lower Dover, Belize
- Mina Brandon (expected 2024) Ancient Maya health
- Nikki Wilcox (2023) *Bioarchaeology of Childhood, Ambergris Caye, Belize*
- Rachel Smith (2020) *Isotopic Analysis of Human Migration among the Ancient Maya of Ambergris Caye, Belize*

- Jacob Harris (2020) *Maya Bone Tool Technologies at Ucanal, Guatemala*  
 Caitlin Stewart (2019) *Minimum Number of Individuals: A Methodological Comparison using Human Remains from Caves Branch Rockshelter in the Cayo District of Belize*  
 Stephanie Orsini (2016) *Paleoindian to Postclassic Zooarchaeological Analysis of Bladen, Belize Faunal Assemblage*  
 Nicholas Billstrand (2016) *Linearly Stressed to Death: Early Childhood Stress as a Contributor to Regional Variability in Late and Terminal Classic Maya Mortuary Profiles*  
 Morgan Isaacs (2016) *Dating Techniques at Caves Branch, Belize*  
 Hanna Stewart (2014) *From the Mouths of Mississippians: Determining Biological Affinity between the Oliver Site (22-Co-503) and the Hollywood Site (22-Tu-500)*  
 Whitney Broughton (2014) *Childhood Growth in an Oneota Community: Examining Long Bone Growth Differences in the Juveniles at Norris Farms 36*  
 University of Mississippi MA committee: Cal McGehee (2023), Raychel Durdin (2021), Daniel Shawl (2021), Paul Martin (August 2015)  
 Trent University MA committee: Olivia Molica-Lazzaro (2023), Arianne Boileau (2014)  
 University of Texas at Arlington MA committee: Destiny Micklin (May 2015)

## HONORS COLLEGE UNDERGRADUATE THESIS ADVISOR

- Camille Kelly (expected 2024) *Maya Dental Decoration*  
 Antosia Briggs (2023) *Historical Archaeology: The Chalmer's Institute, Mississippi's First University*  
 Kaitlyn Cash (2023) *Aging an Ancient Maya Population from Actuncan, Belize using Dental X-Rays*  
 Natalie Clark (2022) *Stature estimates of the Classic Period Maya from Chac Balam and San Juan, Ambergris Caye, Belize*  
 Skyler McCoy (2020) *aDNA of the ancient Maya microbiome at Xunantunich and San Lorenzo, Belize*  
 Sloan Weeden (2020) *Epiclassic Mobility and Diet at Chicoloapan Viejo, Valley of Mexico*  
 Honors Thesis committee: Alexandra Gochenauer (2017), Monalisa Heng, MyKayla Williamson, Sara Grevy, Cedric Cornelius Jr., Kanazsha Cooper (2022)

## FORENSIC CHEMISTRY UNDERGRADUATE PROJECTS

- Natalee Medders, Avery McNeil, Abby Johnson, Catherine Becker (no date yet)  
 Emma Routier (expected 2024) *FTIR assessment and isotopic assessment of Classic Maya migration at Chac Balam, Belize*  
 Emilie Mai (expected 2024) *FTIR assessment and isotopic assessment of Classic Maya migration at Chac Balam, Belize*  
 Ann Marie Brown (2023) *Age estimation of archaeological Maya dogs using pulp cavity closure ratios*  
 Kristin Jerich (2023) *Forensic use of water and oxygen isotopes in Colombia*  
 Eden Irwin (2023) *Archaeological age-at-death assessment using X-Ray technologies at Chicoloapan Viejo, Mexico*  
 Lexi Obman (2022, committee) *DNA extraction modern canids*  
 Brody Borden (2022) *Oxygen isotope applications for forensic cases, Jalisco, Mexico*  
 Guinnivere Gruber (2021) *Analysis of Salts using Powder X-ray Diffraction*  
 Nicolas Martini (2021) *Analysis of Edible Clay Using X-ray Diffraction (XRD)*  
 Arieana Mareasno (2021) *Chemical Analysis of Edible Clays from the Middle East Region using X-Ray Diffraction*  
 Jacob Himmelreich (2021) *Chemical Analysis of Southern U.S. Clays used in Geophagy, By XRD*  
 Kathleen Hutchcraft (2021) *Chemical Analysis of Edible Clays by X-Ray Diffraction*  
 Kathryn Baxter (2021) *Edible clays of Africa and Mississippi*  
 Mina Brandon (2020) *Compound Analysis of Edible Clays via X-ray Diffraction*  
 Amelia Craze (2019) *Application of EPA Method 1340A: Bioavailability of Lead in Sample of Clay Marketed for Consumption*

- Rebecca Pfeiffer (2017) *Isotope Geochemistry of Maya Dogs*  
 Acacia Leavitt (2016) *Identifying Migration Using Elemental and Isotopic Variables from El Perú-Waka' and La Corona, Guatemala*  
 Shelby Hilton (2016) *Finding Patterns of Migration from Elemental Analysis of Tooth Enamel*  
 Jasmine Cross (2016) *Isotopic and Elemental Analysis of Tooth Enamel at the Maya site Cahal Pech, Belize*  
 Lindsay Brown and Kendall Wontor (2016) *Developing a Method of RNA Extraction in Teeth for the Purpose of Sex Determination*, with Dr. Murrell Godfrey  
 Heidi Witteveen (2014) *Modern and Ancient DNA Techniques: Extracting DNA from Actuncan, Belize Tooth Dentin*, with Dr. Murrell Godfrey  
 Melissa Quartarone (2014) *The Potential uses for Trace Element Analysis of Tooth Enamel in Past Populations*

#### PROFESSIONAL SERVICE

- April 2018-present Behind the Big House excavations, Holly Springs, MS  
 Spring 2023 SSHRC Doctoral award review committee  
 Spring 2022 Lamar Hall stone tool production display  
 Sept-Oct 2020 *Migrants in the Mid-South*. University of Mississippi library display  
 Sept. 2020 *Archaeological Science: Our Teeth Tell (Migration) Tales*. Science Café, with L O'Donnell  
 Oct. 2020 Hispanic Heritage Month Celebration: A showcase of research presentations  
 Feb. 2020 TEDx University of Mississippi Speaker *The Story of Human Migration: Your Life in a Tooth*  
 April 2019 Sheegog Plantation tour/history of slavery tour development  
 April 2018 Campus tour/history of slavery with Leigh McWhite and Andrew Marion  
 April 2018-19 Slave Dwelling Project sleepover at Rowan Oak, with History, African American Studies, and Anthropology department undergraduates and Joseph McGill  
 Oct. 2017 This is your life, in a tooth. Science Café, Oxford, MS.  
 Oct. 2017 Campus Twilight Tour, University of Mississippi library and historic architecture tour  
 Sept. 2017 Angela Dassow (Carthage College) Memphis Zoo research trip and campus event  
 Feb. 2017 Maya Week with A Tokovinine (University of Alabama), K Miller Wolf, M Wolf (East Indiana University)  
 Feb. 2016 UM Slavery Research Group Joseph McGill campus visit  
 Spring 2016 Reviews for Graduate Women in Science and UM ORSP IG Round 2 research grants  
 Nov. 2015 Drs. Zachary Throckmorton (LUM) and Juliet Brophy (LSU) Meet *Homo naledi*  
 2009-2010 Graduate Women in Science, UW-Madison Beta Chapter Scholarship seminar competition  
 2005-2008 UW-Madison Zoological Museum, Zooarchaeology instructor and collections staff  
 2004-2005 Geology Museum, University of Wisconsin-Madison, volunteer  
 2002-2003 Anthropology Brown Bag lunch series lecture co-organizer

#### NON-ACADEMIC PROFESSIONAL EXPERIENCE

- 1998-2011 Deloitte Consulting/Probys Solutions, Software testing manager  
 2002 Hudson Institute, consultant  
 1995-1997 State of Wisconsin, Public assistance program policy and software specialist  
 1990-1995 Dane County Human Services, Public assistance case worker

#### PROFESSIONAL MEMBERSHIPS

- Society for American Archaeology (SAA), American Association of Physical Anthropologists (AAPA), International Council for Archaeozoology (ICAZ), Graduate Women in Science (GWIS-Beta Chapter), American Association of University Women (AAUW)