

# Curriculum Vitae for Courtney A. Hofman

Laboratories of Molecular Anthropology and Microbiome Research | Department of Anthropology  
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## Appointments

Department of Anthropology, University of Oklahoma	2016-
<i>Assistant Professor</i>	
Laboratories of Molecular Anthropology and Microbiome Research, University of Oklahoma	2016-
<i>Co-Director</i>	
Department of Anthropology, National Museum of Natural History, Smithsonian Institution	2015-
<i>Research Associate</i>	
Max Planck Institute for the Science of Human History	2017
<i>Visiting Researcher</i>	
Laboratories of Molecular Anthropology and Microbiome Research, University of Oklahoma	2015-2016
<i>Post-doctoral Research Associate</i>	
University of Maryland, College Park, <i>Graduate Dean's Dissertation Fellow</i>	2014-2015
Center for Conservation and Evolutionary Genetics, Smithsonian Conservation Biology Institute	
<i>Pre-doctoral Fellow, Research Student</i>	2009-2015
Department of Anthropology, National Museum of Natural History, Smithsonian Institution	
<i>Pre-doctoral Fellow, Research Student, Intern</i>	2009-2015
University of Maryland, College Park, <i>Instructor</i>	2011-2012

## Education

University of Maryland	Ph.D. in Anthropology	2015
University of Maryland	Master in Applied Anthropology	2011
University of Notre Dame	Biology, B.S.	2009
University of Notre Dame	Honors Anthropology, B.A.	2009

## Research Interests

Ancient DNA, microbiomes, genomics, historical ecology, translocations, conservation genetics, high-throughput DNA sequencing, bioinformatics, human-environment interactions, and science education

## Publications

### *Published*

- 2020 L.N. Pott\*, R.M. Austin, A.R. Eller, **C.A. Hofman**, S.B. Sholts. Population-level assessment of atlas occipitalization in artificially modified crania from pre-Hispanic Peru. *PLoS One*. (\*undergraduate author) doi: 10.1371/journal.pone.0239600
- 2020 Erlandson, J.M., T.J. Braje, A.F. Ainis, B.J. Culleton, K.M. Gill, **C.A. Hofman**, D.J. Kennett, L.A. Reeder-Myers, T.C. Rick. Maritime Paleoindian technology, subsistence, and ecology at an ~11,700 year old Paleocoastal site on California's Northern Channel Islands, USA. *PLoS One*. doi: 10.1371/journal.pone.0238866
- 2020 Mychajliw, A.M., T.C. Rick, N.D. Dagtas, J.M. Erlandson, B. Culleton, M. Buckley, **C.A. Hofman**. Biogeographic problem-solving reveals the Late Pleistocene translocation of a short-faced bear to the California's Channel Islands. *Scientific Reports*. doi: 10.1038/s41598-020-71572-z

- 2020 Dávalos L.M., R.M. Austin, M.A. Balisi, R.L. Begay, **C.A. Hofman**, M.E. Kemp, J.R. Lund, C. Monroe, A.M. Mychajliw, E.A. Nelson, M.A. Nieves-Colón, S.A. Redondo, S. Sabin, K.S. Tsosie, J.M. Yracheta. Pandemics' historical role in inequality. *Science* doi: 10.1126/science.abc8953
- 2020 Fagernäs, Z., M.I. Garcia Collado, J. Hendy, **C.A. Hofman**, C. Speller, I. Velsko, C. Warinner. A unified protocol for simultaneous extraction of DNA and proteins from archaeological dental calculus. *Journal of Archaeological Science*. doi: 10.1016/j.jas.2020.105135
- 2020 Borry, M., B. Cordova, A. Perri, M.C. Wibowo, T. Honap, W. T. Jada Ko, J. Yu, K. Britton, L. Girdland Flink, R.C. Power, I. Stuijts, D. Salazar Garcia, **C.A. Hofman**, R.W. Hagan, T. Samdapawindé Kagone, N. Meda, H. Carabin, D. Jacobson, K. Reinhard, C.M. Lewis, Jr., A. Kostic, C. Jeong, A. Herbig, A. Hübner, and C. Warinner. CoproID predicts the source of coprolites and paleofeces using microbiome composition and host DNA content. *PeerJ*. doi: 10.7717/peerj.9001
- 2020 Eller A.R, B. Pobiner, S. Friend\*, R.M. Austin, **C.A. Hofman**, and S.B. Sholts. A Chomped Chimp: New evidence of tooth marks on an adult chimpanzee (*Pan troglodytes verus*). *American Journal of Physical Anthropology*. (\*undergraduate author) doi:10.1002/ajpa.24049
- 2020 Der Sarkissian, C., P. Möller, **C.A. Hofman**, P. Ilse, T.C. Rick, T. Schiøtte, M.V. Sørensen, L. Dalén, L. Orlando. Unveiling the Ecological Applications of Ancient DNA from Mollusk Shells. *Frontiers in Ecology and Evolution*. doi:10.3389/fevo.2020.00037
- 2019 Hagan, R. W., **C.A. Hofman**, A. Hübner, K. Reinhard, S. Schnorr, C.M. Lewis, Jr., K. Sankaranarayanan, C. Warinner. Comparison of extraction methods for recovering ancient microbial DNA from paleofeces. *American Journal of Physical Anthropology*. doi: 10.1002/ajpa.23978
- 2019 Schnorr, S.L., **C.A. Hofman**, S.R. Netshifhefhe, F.D. Duncan, T.P Honap, J. Lesnik, C.M. Lewis. Taxonomic features and comparisons of the edible fungus-farming termite microbiome and implications for human evolution (*Macrotermes falciger*; *M. natalensis*). *BMC Microbiology*. (19) 164 doi: 10.1186/s12866-019-1540-5
- 2019 Austin, R.M.\*, S. Sholts\*, L. Williams, L. Kistler, **C.A. Hofman**. Opinion: To curate the molecular past, museums need a carefully considered set of best practices. (\*co-first authors). *Proceedings of the National Academy of Sciences*. doi: 10.1073/pnas.1822038116
- 2019 **Hofman, C.A.**, and C. Warinner. Ancient DNA 101: An introductory guide in the era of high-throughput sequencing. *SAA Record*. 19(1): 18-25.
- 2019 Rick, T.C., **C.A. Hofman**, L. Reeder-Myers. Why Translocate? Evaluating the Reasons for Ancient Human Translocation of Wildlife to California's Islands. In *An Archaeology of Abundance: Re-evaluating the Marginality of California's Islands*, edited by Kristina Gill, Mikael Fauvelle, and Jon Erlandson.
- 2018 Ziesemer, K.A., J. Ramos-Madrigal, A.E. Mann, B.W. Brandt, K. Sankaranarayanan, A.T. Ozga, M. Hoogland, **C.A. Hofman**, D.C. Salazar-García, B. Frohlich, G.R. Milner, A.C. Stone, M. Aldenderfer, C.M. Lewis, Jr., C.L. Hofman, C. Warinner, H. Schroeder. The efficacy of whole human genome capture on ancient dental calculus and dentin. *American Journal of Physical Anthropology*. doi: 10.1002/ajpa.23763
- 2018 Lindo, J., R. Haas, **C.A. Hofman**, M. Apata, M. Moraga, R. Verdugo, J.T. Watson, C. Viviano Llave, D. Witonsky, E. Vargas Pacheco, C. Beall, C. Warinner, J. Novembre, M. Aldenderfer, A. Di Rienzo. The genetic prehistory of the Andean highlands 7,000 Years BP though European contact. *Science Advances* (4)11. doi: 10.1126/sciadv.aau4921
- 2018 **Hofman, C.A.**, T.C. Rick, J.M Erlandson, L. Reeder-Myers, A.J. Welch, M. Buckley. Collagen Fingerprinting and the Earliest Marine Mammal Hunting in North America. *Scientific Reports* (8)10014 doi: 10.1038/s41598-018-28224-0
- 2018 Hendy, J., C. Warinner, A. Bouwman, M. Collins, S. Fiddymment, R. Fischer, R. Hagan, **C.A. Hofman**, M. Holst, E. Chaves, L. Klaus, G. Larson, M. Mackie, K. McGrath, A. Mundorff, A.

- Radini, H. Rao, C. Trachsel, I. Velsko, C. Speller. Proteomic Evidence of Dietary Sources in Ancient Dental Calculus. *Proceedings B* (285)1883. doi: 10.1098/rspb.2018.0977
- 2018 Mann, A.E., S Sabin, K. Ziesemer, Å.J. Vågane, H. Schroeder, A.T. Ozga, K. Sankaranarayanan, **C.A. Hofman**, J. Fellows Yates, D.C. Salazar-García, B. Frohlich, M. Aldenderfer, M. Hoogland, C. Read, G. Milner, A.C. Stone, C.M. Lewis, Jr., J. Krause, C. Hofman, K. Bos, C. Warinner. Differential preservation of endogenous human and microbial DNA in dental calculus and dentin. *Scientific Reports* (8)19822 doi: 10.1038/s41598-018-28091-9.
- 2018 Shirazi, S., T.C. Rick, J.M Erlandson, **C.A. Hofman**. A Tale of Two Mice: A Trans-Holocene Record of *Peromyscus nesodytes* and *P. maniculatus* at Daisy Cave, San Miguel Island, California. *Holocene*, (28)5:827-833. doi: 10.1177/0959683617744266
- 2017 Morales-Arce, A.Y., **C.A. Hofman**, A. Duggan, M.A. Katzenberg, G. McCafferty, C. Warinner. Successful reconstruction of whole mitochondrial genomes from ancient Central America and northwestern Mexico. *Scientific Reports*, (7)18100. doi: 10.1038/s41598-017-18356-0
- 2017 **Hofman, C.A.** and T.C. Rick. Ancient Biological Invasions and Island Ecosystems: Tracking Translocations of Wild Plants and Animals. *Journal of Archaeological Research*. doi: 10.1007/s10814-017-9105-3
- 2017 **Hofman, C.A.\***, C. West\*, S. Ebbert, S. Shirazi, S. Dunning, J.E. Maldonado Integrating archaeology and ancient DNA analysis to address invasive species colonization in the Gulf of Alaska. *Conservation Biology*, (31)5:1163-1172. (\*co-first authors) doi: 10.1111/cobi.12865
- 2017 West, C.F., S.M. Dunning, S. Ebbert, **C.A. Hofman**, P.A. Saltonstall, J. Withrow. Archaeology and Invasive Species Management: The Chirikof Island Project. *Journal of Island and Coastal Archaeology*. 12:133-137. Doi: 10.1080/15564894.2016.1172383
- 2016 Ozga, A.T., M.A. Nieves-Colón, T.P. Honap, K. Sankaranarayanan, **C.A. Hofman**, G. Milner, C.M. Lewis, Jr., A.C. Stone, C. Warinner. Successful enrichment and recovery of whole mitochondrial genomes from ancient human dental calculus. *American Journal of Physical Anthropology*, 160:2,220-228. doi:10.1002/ajpa.22960
- 2016 **Hofman, C.A.**, T.C. Rick, J.E. Maldonado, P.W. Collins, J.M Erlandson, W.C. Funk, R.C. Fleischer, C. Smith, T.S. Sillett, K.Ralls, W. Teeter, R. Vellanoweth, S.D. Newsome. Tracking the diet of an island canid across 7300 years of human cultural and environmental change. *Quaternary Science Reviews*. 146:147-160.
- 2016 Jeong C., A.T. Ozga, D. Witonsky, H. Malmström, H. Edlund, **C.A. Hofman**, R. Hagan, M. Jakobsson, C.M. Lewis, Jr., M. Aldenderfer, A. Di Rienzo, C. Warinner. Long-term genetic stability and a high altitude East Asian origin for the peoples of the high valleys of the Himalayan arc. *PNAS*, 113:27:7485-7490.
- 2016 Rick, T.C., L. Reeder-Myers, **C.A. Hofman**, D. Breitburg, R. Lockwood, G. Henkes, L. Kellogg, D. Lowery, M. Luckenbach, R.L. Mann, M. Ogburn, M.J. Southworth, J. Wah, J. Wesson, A.H. Hines. Millennial-Scale Sustainability of the Chesapeake Bay Native American Oyster Fishery. *PNAS*. 113:23, 6568–6573. **Awarded 2017 Smithsonian Secretary's Research Award and 2016 NMNH Science Achievement Award**
- 2016 Funk, W.C, R.E. Lovich, P.A. Hohenlohe, **C.A. Hofman**, S.A. Morrison, T.S. Sillett, C.K. Ghalambor, J.E. Maldonado, T.C. Rick, M.D. Day, N.R. Polato, S.W. Fitzpatrick, T.J. Coonan, K.R. Crooks, A. Dillon, D.K. Garcelon, J.L. King, C.L. Boser, L.M. Lyren, E.E. Boydston, N. Gould, W.F. Andelt. Drift drives divergence: genomic analysis of the evolutionary mechanisms causing genetic differentiation in the island fox (*Urocyon littoralis*). *Molecular Ecology*, 10:2176-2194.
- 2015 **Hofman, C.A.**, T.C. Rick, R.C. Fleischer, J.E. Maldonado. Conservation Archaeogenomics: Ancient DNA and Biodiversity in the Anthropocene. *Trends in Ecology and Evolution*, 30:9,540-549.

- 2015 Hawkins, M, **C.A. Hofman**, T. Callicrate, M. McDonough, M. Tsuchiya, E. Gutierrez, K. Helgen, J.E. Maldonado. In Solution Hybridization for Mammalian Mitogenome enrichment: Pros, Cons, and Challenges Associated with Multiplexing Degraded DNA. *Molecular Ecology Resources*, 16:5,1173-1188.
- 2015 **Hofman, C.A.**, T.C. Rick, M. Hawkins, W.C. Funk, K. Ralls, C. Boser, P.W. Collins, T.J. Coonan, J.L. King, S.A. Morrison, S.D. Newsome, T.S. Sillett, R.C. Fleischer, J.E. Maldonado. Mitochondrial genomes suggest rapid evolution of dwarf California Channel Islands foxes (*Urocyon littoralis*). *PLOS One* 10:2.
- 2014 Rick, T.C., T.S. Sillett, C.K. Ghalambor, **C.A. Hofman**, K. Ralls, R.S. Anderson, C. Boser, T.J. Braje, Cayan, T. Chesser, P.W. Collins, J.M. Erlandson, K.R. Faulkner, W.C. Funk, R. Fleischer, A. Huston, J.L. King, L. Laughrin, K. McEachern, J.E. Maldonado, D.R. Muhs, S.D. Newsome, L. Reeder-Myers, C. Still, S.A. Morrison. Ecological Change on California's Channel Islands from the Pleistocene to the Anthropocene. *BioScience*, 64:8, 680-692.
- 2014 **Hofman, C.A.**, T.C. Rick. The Dogs of CA-SRI-2: Osteometry of *Canis familiaris* from Santa Rosa Island, California, USA. *Ethnobiology Letters* 5, 65-76.
- 2012 Rick, T.C., **C.A. Hofman**, T.J. Braje, J.E. Maldonado, T.S. Sillett, K. Danchisko, J.M. Erlandson. Flightless ducks, giant mice, and pygmy mammoths: Late Quaternary extinctions on California's Channel Islands. *World Archaeology* 44:1, 3-20.

### **Grants and Fellowships**

- 2020 Assessing anthropogenic impacts on mammalian oral microbiomes with dental calculus. Co-PI with PI Sabrina Sholts (SI), Andrea Eller (SI) and Rita Austin (OU). Smithsonian National Museum of Natural History Research Core Grant Program for Science (\$69,985)
- 2020 OU Junior Faculty Fellowship (\$7000)
- 2020 Ed Cline Faculty Development Award (\$2,500)
- 2019 DDIG: Prevalence and Preservation of Dental Calculus at the National Museum of Natural History: Implications for Biomolecular Preservation in Museums. PI with Co-PI Rita Austin (OU). National Science Foundation-Biological Anthropology BCS 1920152 (\$30,735)
- 2019 Investigating effects of human captivity on the oral microbiota of a "weed" macaque. Co-PI with PI Sabrina Sholts (SI), Andrea Eller (SI) and Rita Austin (OU). Smithsonian National Museum of Natural History Research Small Grant Program for Science (\$5,210)
- 2019 DNA Contamination, Degradation, Damage, and Associated Microbiomes: A Comparative Analysis through Massive Parallel Sequencing and Capillary Electrophoresis. Co-PI with PI Cara Monroe (OU) and Co-PI Brian Kemp (OU). National Institutes of Justice (\$493,109)
- 2019 OU Junior Faculty Fellowship (\$7000)
- 2018 NSF-MRI: Acquisition of an Inductively Coupled Plasma Mass Spectrometer (ICP-MS) System to Enable Elemental Analysis in Research, Training and Education. Senior Personnel with PI M.A. Nanny (OU), Co-PI J. Kelly, Co-PI R. Ramesh, Co-PI I. Sellers, Co-PI J Vogel (\$396,778)
- 2018 DDIG: Dietary and sociocultural change and the human oral microbiome. Co-PI with LaShanda Williams (Rutgers) and Siobian Duffy (Rutgers). National Science Foundation Dissertation Improvement Grant. BCS 1826220 (\$22,243)
- 2018 OU Social Aeroecology Faculty Fellowship (\$19,650)
- 2018 OU Presidential International Travel Fellowship (\$1500)
- 2017 OU Presidential Dream Course. Spring 2018 course selected for supplemental funding for invited speakers and course enrichment (\$20,00)

- 2016 Evidence-based experimental pathogen identification in human dental calculus. PI with Co-PI C. Warinner (OU) and Co-PI Molly Zuckerman (MSU). National Science Foundation-Biological Anthropology (\$64,468)
- 2014-2015 Graduate Dean's Dissertation Fellowship. University of Maryland (\$25,000 stipend)
- 2014 Jacob K. Goldhaber Travel Grant. For travel to Society of American Archaeology meetings (\$400)
- 2014 AWS in Education Research Grant Award. Amazon Web Services (\$1000)
- 2013 Hunter-Gatherers, Archaeogenomics, and the Evolutionary History of the Foxes of California's Channel Islands. Co-PI with PI P. Shackel. National Science Foundation Dissertation Improvement Grant Award BCS 1338773 (\$24,500)
- 2013 AMS Radiocarbon Dating and the Origins of the Island Fox (*Urocyon littoralis*) on California's Channel Islands. Co-PI with T.C. Rick and J.E. Maldonado. Smithsonian Small Grant (\$5000)
- 2013 Biodiversity, Genomics, and Human Ecology of California's Channel Islands. Co-PI with T.C. Rick, T. Chessier, R.C. Fleischer, J.E. Maldonado, K. Ralls, T.S. Sillett. Smithsonian Institution (\$100,000 includes stipend for Pre-doctoral fellowship)
- 2012 Smithsonian Pre-doctoral Fellowship (\$30,000 stipend and \$1000 in research funds)
- 2012 Archaeogenomics, Conservation, and Extinction of Mammals and Birds on California's Channel Islands, Co-PI with T.C. Rick, R.C. Fleischer, J.E. Maldonado, K. Ralls, T.S. Sillett. Smithsonian Institution (\$15,000)
- 2012 Ancient Biological Invasions? Hunter-Gatherers, Paleogenomics, and 'Endemic' Mammals of California's Channel Islands. Cosmos Club Foundation (\$2300)
- 2011 Ancient Biological Invasions? Hunter-Gatherers, Paleogenomics, and "Endemic" Mammals of California's Channel Islands. Co-PI with J.E. Maldonado and T.C. Rick. Smithsonian Institution Next Generation Sequencing Small Grants Program (\$6500)
- 2011 Smithsonian Next Generations Sequencing Training Grant for travel to the Paleogenomics Workshop (\$1200)
- 2011 Jacob K. Goldhaber Travel Grant. For travel to Society of American Archaeology meetings. University of Maryland (\$800)
- 2008 Learning Beyond the Classroom Grant to attend the World Archaeological Congress, Dublin June 29th-July 4th, 2008 (University of Notre Dame) (\$1250)
- 2008 Nanovic Institute Grant to attend a field school in Archaeology at the necropolis of Pintia, University of Valladolid, Spain and the Cultural Landscapes of Coastal Ireland project. June and July 2008 (University of Notre Dame) (\$4000)
- 2008 President Allocation Grant for Study Abroad Students provided to travel to Istanbul and Jordan while studying in Egypt (University of Notre Dame) (\$650)

#### **Invited Talks and Guest Lectures**

- 2020 "Ancient Invasive Species?" Invited talk at Temple University, Department of Anthropology, Philadelphia, PA. Jan 27, 2020
- 2017 "The Archaeology of Microbes" Invited talk at Boston University, Department of Archaeology, Boston, MA. Nov 29, 2017
- 2017 "Ancient Biomolecules: From the Lab to the Field" Invited guest lecture in Archaeological Science (undergrad) at Boston University, Department of Archaeology, Boston, MA. Nov 28, 2017
- 2017 "Archaeogenomics in the Anthropocene: Mammals, Microbes and More" Invited guest lecture in Intro to Anthro (undergrad) at the University of Oklahoma, Department of Anthropology, Norman, OK. Oct 6, 2017
- 2017 "Ancient Invasive Species? Historical Ecology of Translocated Animals" Seminar at the University of Oklahoma, Department of Biology, Norman. OK. Sept 20, 2017

- 2017 “Ancient DNA and Proteomics for Archaeologists” Invited guest lecture for researchers at Teotihuacan excavations, Teotihuacan, Mexico. July 25, 2017
- 2017 “Conservation archaeogenomics in the Anthropocene” Invited talk at Max Planck Institute for the Science of Human History, Department of Archaeology, Jena, Germany. May 29, 2017
- 2015 “Archaeogenomics in the Anthropocene,” Invited talk at the Research Centre for Biodiversity and Genetic Resources (CIBIO), Porto, Portugal. Sept 28, 2015
- 2015 “Molecular Methods and Conservation for Anthropologists,” Guest lecture in Ecological and Environmental Anthropology class (undergrad) at UMD. June 3, 2015
- 2014 “Ancient Invasive Species? The Origins of the Endemic Mammals of Catalina Island,” Invited talk at the Catalina Island Conservancy Research Symposium. Nov. 14, 2014
- 2014 “Molecular Methods for Archaeologists,” Guest lecture in Archaeological Science class (grad) at Boston University. Nov. 11, 2014
- 2014 “Ancient Invasive Species? Historical Ecology and Origins of the California Channel Island Mammals,” Invited talk at Max Planck Institute of Evolutionary Anthropology, Leipzig. May 16, 2014
- 2014 “Archaeogenomics and Translocations,” Guest lecture in Archaeological Science classes at Boston University. April 8, 2014
- 2013 “Non-Invasive and Ancient DNA Approaches to Animal Translocations on California’s Channel Islands,” Invited lecture at the Smithsonian’s Non-Invasive Genetics Course, June 4, 2013
- 2012 “Archaeogenomics, Translocations and Conservation Biology,” Guest lecture in Cultural Ecology course (undergrad), George Washington University. Oct. 4, 2012

### **Podium Presentations**

- 2019 Tracking animal biographies through ancient DNA in Classic Mesoamerica. **C.A. Hofman**, R. Singleton, N. Dagtas, K. Hughes (undergrad), N. Sugiyama. Paper at the American Society of Mammalogy. Washington, DC June 28-July 2, 2019.
- 2019 Expectations and challenges in rescuing ancient and degraded DNA. **C.A. Hofman** Talk at Evolution. Providence, RI June 21-25, 2019. Session Co-Organizer.
- 2019 California Channel Islands Micromammals: A Story of Invasion and Extinction. **C.A. Hofman**, T.C. Rick, N. Dagtas, J. Erlandson, K. Hughes, S. Shirazi, R. Singleton, J. Maldonado. Paper at the Society for American Archaeology Meeting. Albuquerque, NM April 22-26 2019.
- 2018 ALIENS: Archaeology of Invasive Species. **C.A. Hofman**, K. Hughes (undergrad), T. Rick. Paper at the European Archaeology Association Meeting. Barcelona, Spain Sept. 5-9, 2018.
- 2018 Strategies for Understanding Biomolecular Preservation in Archaeological Collections. R. Austin, **C.A. Hofman**, S. Sholts. Paper at the Society for American Archaeology Meeting. Washington, DC April 11-15, 2018. Session Co-Organizer
- 2017 Ancient Invasive Species: Insights, Collaboration, and Policy. C. West, **C.A. Hofman**. Paper at Association for Environmental Archaeology Fall Meeting, Edinburgh, Scotland, Dec 2, 2017
- 2016 Collagen Fingerprinting Reveals Earliest Marine Mammal Hunting the Americas. **C.A. Hofman**, T.C. Rick, S. Shirazi, L. Reeder-Myers, J.E. Maldonado, M. Buckley. Talk at the California Island Symposium. Ventura, CA. October 4-6, 2016
- 2016 Tracking Translocations: Interdisciplinary approaches to animal translocations on the California Channel Islands,” **C.A. Hofman**, T.C. Rick, S. Shirazi, J.E. Maldonado. Talk at the American Society of Mammalogists meeting. Minneapolis, MN. June 24-28, 2016
- 2016 “Archaeogenomics, and the Mammals of California’s Channel Islands,” **C.A. Hofman**, T.C. Rick, S. Shirazi, J.E. Maldonado. Paper at the Society for American Archaeology Meetings. Orlando, FL. April 6-10, 2016

- 2015 “Tracking Translocations: Interdisciplinary approaches to animal translocations on the California Channel Islands,” **C.A. Hofman**, T.C. Rick, J.E. Maldonado. Paper at the Society for American Archaeology Meetings. San Francisco, CA April 16-19, 2015. Session Co-organizer
- 2014 “Nanopore DNA Sequencing at the Center for Conservation and Evolutionary Genetics (CCEG),” S. Shirazi and **C. Hofman**. Paper at the Smithsonian Conservation Biology Institute Student Research Symposium. Front Royal, VA. August 11, 2014
- 2014 “Archaeogenomics and Conservation of the Channel Islands Fox,” **C.A. Hofman**. Paper at the Smithsonian Conservation Biology Institute Student Research Symposium. Front Royal, VA. August 11, 2014
- 2014 “Mitochondrial Genomes and radiocarbon dating reveal rapid evolution of dwarf California Channel Islands foxes (*Urocyon littoralis*),” **C.A. Hofman**, T.C. Rick, M. Hawkins, W.C. Funk, K. Ralls, C. Boser, P.W. Collins, T. Coonan, J.L. King, S.A. Morrison, S.D. Newsome, T.S. Sillett, R.C. Fleischer, J.E. Maldonado. Lightning talk at Evolution. Raleigh, NC. June 20-14, 2014
- 2014 “Evolutionary History of the Island Fox Based on Complete Mitochondrial Genomes,” K. Ralls, **C.A. Hofman**, T.C. Rick, M. Hawkins, W.C. Funk, C. Boser, P.W. Collins, T.J. Coonan, J.L. King, S.A. Morrison, S.D. Newsome, T.S. Sillett, R.C. Fleischer, J.E. Maldonado. Paper at the Integrated Island Fox Recovery Team. Ventura, CA. June 17-18, 2014
- 2013 “Archaeogenomics and Conservation of the Endangered Island Fox,” **C.A. Hofman**, T.C. Rick, P.W. Collins, R.C. Fleischer, W.C. Funk, S.D. Newsome, K. Ralls, J.E. Maldonado. Paper at the Society of Ethnobiology meetings. Denton, May 15-18, 2013
- 2013 “Archaeogenomics and Ancient Animal Translocations on California’s Channel Islands,” **C.A. Hofman**, T.C. Rick, P.W. Collins, J.M. Erlandson, R.C. Fleischer, S.D. Newsome, K. Ralls, J.E. Maldonado. Paper at the Society for American Archaeology meetings. Honolulu, April 3-7, 2013. Session Co-organizer
- 2012 “Non-Invasive Genetic Sampling Approaches to Understanding Channel Island Deer Mice Origins,” **C.A. Hofman**, T.C. Rick, J.E. Maldonado. Paper at the California Island Symposium, Ventura, Oct. 23-26, 2012
- 2012 “Ancient Biological Invasions? Hunter-Gatherers, Archaeogenomics, and Channel Islands Mice,” T.C. Rick, **C.A. Hofman**, J.M. Erlandson, J.E. Maldonado. Paper at the Society for California Archaeology Meetings, San Diego. March 29-April 1, 2012
- 2011 “Human Impacts on the Environment: Archaeology, Ancient DNA and California’s Channel Islands,” **C.A. Hofman**. Paper at the Dept. of Anthropology, UMD Annual Colloquium. March 11, 2011
- 2010 “Ancient DNA and Archaeology: A Case Study from the California Channel Islands,” **C.A. Hofman**. Paper at the AnthroPlus Student Conference, University of Maryland. March 6, 2010

### **Conference Posters**

- 2020 Captive management and sacrificial power: Using ancient genomics to study golden eagle sacrifice in Teotihuacán. R. Singleton, N. Dagtas, K. Hughes, M. Judkins, R. Van Den Bussche, N. Sugiyama, **C.A. Hofman**. Latin American and Caribbean Section (LACA) section of the Society for Conservation Biology Meeting. Virtual. Nov 9-13
- 2019 “EMPHASIS: Environmental Mismatch in Primates and Humans, Anthropogenic Impacts and Settings Survey” A.R. Eller, S.A. Canington, R.M. Austin, **C.A. Hofman**, and S.B. Sholts. American Association of Physical Anthropology Annual Meeting. Cleveland, OH Mar 27-30, 2019
- 2019 “Chimp Chomp: A rare case of possible predation on an adult chimpanzee (*Pan troglodytes verus*)” (*Undergraduate Symposium Poster*) S.R. Friend, B. Pobiner, A.R. Eller, R.M. Austin, **C.A. Hofman**, and S.B. Sholts. American Association of Physical Anthropology Annual Meeting. Cleveland, OH. Mar 27-30, 2019

- 2018 "Human Skeletal Remains and Biomolecular Preservation at the Smithsonian Natural History Museum." R.M. Austin, S. Sholts, L. Williams, M. Zuckerman, C. Warinner, **C.A. Hofman**. Poster at the International Symposium for Biomolecular Archaeology. Jena, Germany Sept 18-21, 2018-  
**Student Poster Award Winner**
- 2018 "Reconstructing the Killer Whale Oral Microbiome." **C.A. Hofman**, M. Etnier, N. Kilic, R.M. Austin, K. Sankarnarayanan. Poster at the International Symposium for Biomolecular Archaeology. Jena, Germany Sept 18-21, 2018
- 2018 "Biomolecular Preservation in Dental Calculus from the Teotihuacan Ritual Landscape." S. Wright, K. Hughes (undergrad), N. Kilic, N. Sugiyama, **C.A. Hofman**. Poster at the International Symposium for Biomolecular Archaeology. Jena, Germany Sept 18-21, 2018
- 2018 "Reconstructing the Killer Whale Oral Microbiome." **C.A. Hofman**, M. Etnier, N. Kilic, R.M. Austin, K. Sankarnarayanan. Poster at the Society for Molecular Biology and Evolution Meeting. Yokohama, Japan. July 8-12, 2018
- 2018 "Exploring the Biological Heritage of Enslaved People at James Madison's Montpelier Through Ancient DNA Analysis." S. Wright, C. Monroe, M. Furlong, M. Reeves, T. Honap, R.M. Austin, **C.A. Hofman**. Poster at the Society for American Archaeology Meeting. Washington, DC April 11-15, 2018
- 2018 "Aliens: A Tool for Documenting the Archaeology of Invasive Species." **C.A. Hofman**, K. Hughes (undergrad). Poster at the Oklahoma Archaeology Conference, Norman, Oklahoma, Mar 1-3, 2018
- 2018 "Demystifying Teotihuacan through the Microbiome." S.L. Wright, K. Hughes, N.D. Kilic, N. Sugiyama, **C.A. Hofman**. Poster at the Oklahoma Archaeology Conference, Norman, Oklahoma, Mar 1-3, 2018
- 2018 "Assessing dental calculus preservation in museum collections." R.M. Austin, **C.A. Hofman**, S. Sholts. Poster at the Oklahoma Archaeology Conference, Norman, Oklahoma, Mar 1-3, 2018
- 2017 "Aliens: A Tool for Documenting the Archaeology of Invasive Species." **C.A. Hofman**, K. Hughes (undergrad). Poster at the Association for Environmental Archaeology Fall Meeting, Edinburgh, Scotland, Dec 2-4, 2017
- 2017 "Biomolecular Archaeology: New Insights from the Past" **C.A. Hofman**, BM Kemp, CM Lewis, C Warinner, K. Sankarnarayanan. c Vancouver, CA. March 29-April 2 2017
- 2016 "Ancient Invasive Species? The Origins of the Endemic Mammals of the California Channel Islands" **C.A. Hofman**, T.C. Rick, S. Shirazi, J.E. Maldonado. Poster at the International Symposium on Biomolecular Archaeology. Oxford, England. Sept 14-16, 2016
- 2016 "Ancient dental calculus as a reservoir of whole human mitogenomes," A.T. Ozga, M.N. Colon, T. Honap, K. Sankarnarayanan, **C.A. Hofman**, G. Milner, C. Lewis, A. Stone, C. Warinner. Poster at the American Association of Physical Anthropology Meetings. Atlanta, GA. April 13-16, 2016
- 2016 "Using Environmental DNA to Examine Human-Animal Interactions on the California Channel Islands," S. Shirazi, **C.A. Hofman**, T.C. Rick, J.E. Maldonado. Poster at the Society for American Archaeology Meeting. Orlando, FL. April 6-10, 2016
- 2014 "Ancient DNA and the Origin of the Catalina Island Ground Squirrel," **C.A. Hofman**, M. Phuong, W. Teeter, J.L. King, T.C. Rick, J.E. Maldonado. Poster at the Society for American Archaeology Meetings. Austin, TX. April 23-27, 2014
- 2011 "Ancient Biological Invasions? Hunter-Gatherers, Ancient DNA, and "Endemic" Mammals of California's Channel Islands," Poster at the Paleogenomics Workshop, Corsica. Oct. 17-21, 2011
- 2011 "Ancient Stowaways: Ancient DNA Analysis of Deer Mice from Daisy Cave, San Miguel Island, CA," Poster at the Society for American Archaeology Conference, Sacramento. March 30-April 3, 2011



### **Selected Public Outreach**

- 2019 Society for American Archaeology Online Seminar Series entitled “Ancient DNA 101: What you need to establish a successful project.” December 3, 2019
- 2019 Anadarko STEAM camp - Kiowa Tribe and Wichita and Affiliated Tribes Higher Education Program visit to OU (June)
- 2018 Sooner Rotary Club invited speaker. A Dog’s Tail: How we ended up with Fido. April 17, 2018
- 2018 Community meeting with the Montpelier Descendent Community to present findings of ancient DNA study
- 2017 Society for American Archaeology Online Seminar Series entitled “Ancient DNA 101: What you need to establish a successful project.” December 12, 2017
- 2017 Island Visions project- Featured scientist in children’s book on California Channel Islands ecosystems
- 2017 California Channel Islands research was highlighted in Illumina’s “Adventures in Genomics” web series and has more than 50,000 views on YouTube.
- 2016 Laboratories of Molecular Anthropology and Microbiome Research was featured in September 2016 issue of Archaeology Magazine.
- 2016 “Tracking the origins and diet of the island fox across 7300 years of human cultural and environmental change. Talk at the Integrated Island Fox Recovery Team, Santa Barbara, CA June 14-15, 2016
- 2015 “Archaeology and Conservation: The Chirikof Island Project,” research highlight in The Current, vol. 3:1, biannual island and coastal archaeology interest group, coauthored with C. West and S. Ebbert
- 2015 “Archaeology and Invasive Species: The Chirikof Island Project” blog post for the Aleutian Islands Working Group, June 2015, co-authored with C. West
- 2015 Oklahoma Educators Evolve Workshop
- 2015 “The Origins of the Island Fox” blog post for the Friends of the Island Fox, Channel Islands Park Foundation. March 2015
- 2009-2015 Public tours and special events at the Center for Conservation and Evolutionary Genetics (CCEG) and at the National Zoo
- 2013 “Interdisciplinary Approaches to Understanding the Antiquity and Distribution of the Island Fox,” Talk at the Integrated Island Fox Recovery Team, Ventura, CA. June 11, 2013
- 2013 “Genome Geek” public program at the National Museum of Natural History. July 13, 2013
- 2013 Decoding the Past: Using DNA in Archaeology. Invited public lecture at the St. Augustine Lighthouse Museum, Florida. February 23, 2013
- 2012 “The Scientist Is In” public lecture series at the National Museum of Natural History. Nov. 14, 2012

### **Archaeological Field Projects**

- 2020 Jack and Laura Dangermond Preserve, Santa Barbara, California, survey
- 2019 San Miguel Island, Channel Islands National Park, survey
- 2015 Kodiak Alaska: Alutiiq Museum’s Community Archaeology Project
- 2014-2015 Rappahannock River, VA: Reconnaissance and survey of shell midden sites
- 2013 Santa Cruz Island, Nature Conservancy: Survey and excavation of sites under the threat of erosion
- 2012 Santa Rosa Island, Channel Islands National Park, CA: Mapping and excavations at several Paleocoastal sites

2011-2012 Edgewater, MD: Archaeological and ecological research at the Smithsonian Environmental Research Center

2010 Fishing Bay, MD: Survey and excavation of shell midden sites

2008 Clifden, Ireland: Survey of as part of Cultural Landscapes of the Irish Coastline project

2008 Pintia, Spain: Field school excavation of Iron Age cremation burials

### **Courses Taught**

#### *University of Oklahoma*

Anth 1113 General Anthropology	F16, S19
Anth 1913 Plagues and People	F16, F17, F18
Anth 3203 Biological Anthropology	F19, S20
Anth 4953 Dogs: From Feral to Friend (Presidential Dream Course)	S18
Anth 4953/5790 Molecular Anthropology	F20

#### *University of Maryland*

Anth 220 Biological Anthropology (lecture and lab)	F11, S12
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### **Professional Service**

#### *Committees (Ongoing)*

2020- Department of Anthropology, Research Liaison  
2019- Department of Anthropology Curriculum Committee  
2019- Department of Anthropology, Development and Outreach Committee  
2017- 2020 Department of Anthropology Theme Planning Committee  
2017- OU Consolidated Core Steering Committee

#### *Committees (Past)*

2017-18 Member of Department of Biology Search Committee  
2016 Awards Committee, Department of Anthropology  
2013-2015 Organized and co-founded monthly Smithsonian Conservation Biology Institute Women in Science Discussion Group

#### *Peer Review*

Canadian Research Council, Canadian Journal of Zoology, Ethnobiology Letters, Forensic Anthropology, Genes, Journal of Island and Coastal Archaeology, Journal of Archaeological Science, Journal of Ethnobiology, Marsden Fund, MDPI Biology, Molecular Ecology Resources, Molecular Biology and Evolution, Nature Protocols, National Science Foundation, PLOS One

#### *Editorial Board*

2020- Journal of Ethnobiology

#### *Other*

2020- The Nature Conservancy Technical Advisory Committee for Channel Islands Gap Assessment

### **Professional Memberships**

Society for American Archaeology (2010-present)  
Society for Molecular Biology and Evolution (2015-present)  
American Association of Physical Anthropologists (2015-present)  
American Society of Mammalogists (2015-present)