

RAQUEL E. FLESKES

CURRICULUM VITAE

Dartmouth College, Department of Anthropology
Raquel.E.Fleskes@dartmouth.edu • www.raquelfleskes.com • [@dna_historical](https://twitter.com/dna_historical)

I am an anthropological geneticist investigating the population histories of colonial North America using ancient DNA. Specifically, my research examines European and African descendant population histories using a community-participatory framework and interprets findings by contextualizing them with bioarchaeological and archival evidence.

PROFESSIONAL APPOINTMENTS

- Assistant Professor** 2023 - Present
Dartmouth College, Hanover NH
Department of Anthropology
- National Science Foundation Social Behavioral and Economic Sciences Post-Doctoral Fellow** 2021 - 2023
University of Connecticut, Storrs, CT
Advisor: Dr. Deborah Bolnick
Project: “*Genomic Structure of Founder Events in the 17th Century Chesapeake*”

EDUCATION

- Ph.D., University of Pennsylvania, Philadelphia, PA** 2021
Doctorate in Philosophy in Biological Anthropology
Thesis Advisor: Dr. Theodore Schurr, Department of Anthropology
Thesis: “*Ancient DNA Perspectives on 17th & 18th Century Eastern North America: Insights into European Colonization and the African Diaspora*”
- B.A., University of Maryland, College Park, MD** 2014
Bachelor of Arts in Anthropology with Honors
Thesis Advisor: Dr. Jenn Shafer, Department of Anthropology
Honors Thesis: “*Facilitating a Deep Learning Approach for University Students in an Interdisciplinary Lab Setting: A Case Study Approach to the Formulation of the Introduction to Ecological and Evolutionary Laboratory Course at the University of Maryland*”

PUBLICATIONS

Journal Manuscripts (Peer Reviewed):

- 2023 **Fleskes, R. E.**, Cabana, G. S., Gilmore, J., Juarez, C., Karcher, E., Oubré, L., Mishoe, G., Ofunniyin, A. A., Schurr, T. G. Community Engaged Ancient DNA Project Reveals Diverse Origins of 18th Century African and African descendants in Charleston, South Carolina. *Proceedings of the National Academy of Sciences of the United States of America*. 120(3), e2201620120. <https://doi.org/10.1073/pnas.2201620120>

- 2023 **Fleskes, R. E.**, Owsley, D. W., Bruwelheide, K. S., Griffith, D. R., Cabana, G. S., & Schurr, T. G. Historical genomes elucidate European settlement and the African diaspora in Delaware Report Historical genomes elucidate European settlement and the African diaspora in Delaware. *Current Biology*, 33, 1-9. <https://doi.org/10.1016/j.cub.2023.04.069>
- 2022 **Fleskes, R. E.**,* Bader, A. C.,* Tsosie, K. S., Wagner, J. K., Claw, K. G., Garrison, N. A. Ethical Guidance in Human Paleogenomics: New and Ongoing Perspectives. *Annual Review of Genomics and Human Genetics*. <https://doi.org/10.1146/annurev-genom-120621-090239>
*Both authors contributed equally
- 2021* **Fleskes, R. E.**, Ofunniyin, A. A., Gilmore, J. K., Poplin, E., Abel, S. M., Bueschgen, W. D., Juarez, C., Butler, N., Mishoe, G., Oubré, L., Cabana, G. S., & Schurr, T. G. Ancestry, Health, and Lived Experiences of Enslaved Africans in 18th Century Charleston: An Osteobiographical Analysis. *American Journal of Biological Anthropology*, 175(1), 3-24. <https://doi.org/10.1002/ajpa.24149>
*Selected as the Editor's Choice Article
- 2019 **Fleskes, R. E.**, Bruwelheide, K. S., West, F. L., Owsley, D. W., Griffith, D. R., Barca, K. G., Cabana, G. C., Schurr, T. G. Ancient DNA and bioarchaeological perspectives on European and African diversity and relationships on the colonial Delaware frontier. *American Journal of Biological Anthropology*, 170(2), 232–245. <https://doi.org/10.1002/ajpa.23887>

Book Chapters (Peer-Reviewed):

- 2022 **Fleskes, R.**, A Place through Time: Avery's Rest and the Emergence of Delaware from colonial Frontier to Borderland Space. In: Liebeknecht, B. and Barile, K., editors. *The Bulletin of the Archaeological Society of Delaware*.
- 2022 **Fleskes, R.** & Schurr, T., Ancient DNA at Avery's Rest. In: Liebeknecht, B. and Barile, K., editors. *The Bulletin of the Archaeological Society of Delaware*.
- 2018 Owsley, D., Bruwelheide, K., Barca, K., Reidy, S., **Fleskes, R.** *Lives Lost: What Burial Vault Studies Reveal About Eighteenth-Century Identities*. In: Stone P, editor. *Bioarchaeological Analyses and Bodies: New Ways of Knowing Anatomical and Archaeological Skeletal Collections*. Cham: Springer. Pp. 111-145.

Opinion Pieces & Blog Posts:

- 2020 **Fleskes, R. E.**. *The Tip of the Iceberg: Structural Violence in the Archaeological Record*. The Thinking Republic Magazine.
- 2020 **Fleskes, R. E.**, Joanna Gilmore, J., Grant Mishoe, G., La'Sheia Oubré, L., and Schurr, T. *Stories about the Anson Street Ancestors and the Legacy of Dr. O*. The Gullah Society Blog.

Under Review and In Preparation:

- In Review* Gilmore, J., Ofunniyin, A., Oubré, L., **Fleskes, R.**, Schurr, T.. "The Dead have been Awakened in the Service of the Living" – Activist Community-Engaged Archaeology in Charleston, SC. In review at *American Antiquity*.

In Preparation **Fleskes, R.**, Honap, T., Johnson, S., Gilmore, J.^{4,5}, La'Sheia Oubré, L., Ofunniyin, A., Lewis, C., Schurr, T. Oral Microbial Diversity in 18th Century African individuals from South Carolina. To be submitted to the *Communications Biology* by September 2023.

In Preparation **Fleskes, R.**, Gilmore, J. K., Oubré, L., Mishoe, G., Ofunniyin, A. A., Cabana, G. C., Schurr, T. G. Bringing Science to the Public: Using Videography for Community Engagement in Ancient DNA Research for the Anson Street African Burial Ground Project. To be submitted to the *American Journal of Biological Anthropology* by December 2023.

In Preparation **Fleskes, R.**, Gilmore, J. K., Oubré, L., Ofunniyin, A. A., & Schurr, T. G. The Anson Street African Burial Ground Project and Its Contributions to African American History in Charleston. In: Blakey, M. & Rain, A., editors. *Beyond the African Burial Ground*. Vernon Press. To be submitted in 2023.

GRANTS & FELLOWSHIPS

Fellowships:

2021-2023	[\$138,000.00]	Post-Doctoral Fellowship, National Science Foundation (SPRF-FR): "Genomic Structure of Founder Events in the 17th Century Chesapeake", #2105384. [PI: Fleskes , Co-PI: Dr. Deborah Bolnick]
[Declined]	-	Postdoctoral Fellowship at the Society of Fellows, Dartmouth College
2020-2021	[\$30,568.00]	SAS Dissertation Completion Fellowship, University of Pennsylvania
2019-2020	[\$26,797.00]	Wolf Humanities Center Graduate Research Assistantship, University of Pennsylvania
2018-2019	[\$26,797.00]	Benjamin Franklin Fellowship, University of Pennsylvania.
2014-2018	[\$107,188.00]	Francis E. Johnston Fellow, University of Pennsylvania
2012-2013	[\$12,000.00]	National Science Foundation's Research Experience for Undergraduate Sites (REU); Smithsonian Institution's Museum Conservation Institute

Research Grants:

2022	[2,000.00]	"DNA Extraction from Clay Tobacco Pipestems." Postdoc Seed Award, the University of Connecticut. [PI: Fleskes].
2018	[\$32,200.00]	"Doctoral Dissertation Research: Genetic Diversity of the Colonial Chesapeake: Insights into Kinship and the Trans-Atlantic Colonization of the United States." National Science Foundation (NSF-DDRIG), #1825583. [PI: Dr. Theodore Schurr, Co-PI: Fleskes]
2018	[\$24,037.95]	"Ancient and Modern DNA Diversity in African-Americans: Insights into the African Diaspora and Charleston's Historic Past." National Geographic Society, #NGS-52378R-18. [PI: Dr. Ade Ofunniyin, Co-PI: Fleskes]
2018	[\$7,530.00]	"Genetic Diversity in the African-American Community of Charleston, South Carolina." National Geographic Society, #EC-52936R-18. [PI: Oduwole, Co-PI: Fleskes]
2017	[\$9,946.00]	"Importance of Kinship in the 17th Century Chesapeake Colonial

		Frontier: Insights into Mitochondrial relatedness and diversity at Patuxent Point.” National Geographic Society, #HJ-056ER-17. [PI: Fleskes]
2017	[\$1,432.00]	University of Pennsylvania, Dept. of Anthropology Summer Field Funds
2016	[\$2,500.00]	University of Pennsylvania, Dept. of Anthropology Summer Field Funds

Travel & Technology Grants:

2020	[\$500.00]	University of Pennsylvania, Spring 2020 Technology Grant
2020	[\$500.00]	American Association of Physical Anthropologists (AAPA) Pollitzer Student Travel Award
2017	[\$1,050.00]	University of Pennsylvania, Museum of Anthropology and Archaeology Student Field Funds
2017	[\$280.00]	University of Pennsylvania, Graduate and Professional Student Assembly Student Travel Funds
2016	[\$1,050.00]	University of Pennsylvania, Museum of Anthropology and Archaeology Student Field Funds

HONORS & AWARDS

- 2022 Outstanding Trainee Presentation for a Post-Doctoral Fellow in Anthropological Genetics, *American Association of Anthropological Genetics*.
- 2021 Outstanding Trainee Presentation for a Graduate Student in Anthropological Genetics, *American Association of Anthropological Genetics*.
- 2020 Pollitzer Student Travel Award, *American Association of Physical Anthropologists*.
- 2015 High Pass on First Year Doctoral Examinations.
- 2013 Student Paper Prize. *Anthroplus Conference*, University of Maryland, College Park MD.

RESEARCH PROJECTS & PROTOCOLS

Research Projects:

- 2022 – Present **Milwaukee County Cemetery Project** (Role: PI)
Methods: Ancient DNA, Community Engagement.
Collaborators: The Descendant Community of the Milwaukee County Grounds Cemeteries, The University of Tennessee.
- 2022 – Present **Cahow Seabird Project** (Role: Research Collaborator)
Methods: Ancient DNA
Collaborators: CariGenetics, Jamestown Rediscovery Foundation, University of Connecticut.
- 2022 – Present **DNA Extraction from Clay Tobacco Pipestems** (Role: PI).
Methods: Ancient DNA
Funding Resources: University of Connecticut.
Collaborators: Dr. Sarah Sportman, Dr. Kevin McBride, University of Connecticut.
- 2021 – Present **First African Baptist Church Project** (Role: Research Collaborator)
Methods: Ancient DNA, Community Engagement.
Collaborators: Williamsburg Foundation, Let Freedom Ring! Foundation, William & Mary, University of Connecticut.
- 2020 – Present **Jamestown 1607 Burial Ground Project** (Role: PI).
Methods: Ancient DNA, Community-Engagement.

Funding Resources: NSF.

Collaborators: Jamestown Rediscovery Foundation, University of Connecticut.

2019 – Present **St. Mary’s Basilica Project** (Role: Research Collaborator).

Methods: Ancient DNA, Community Engagement.

Collaborators: Fairfield Foundation, Virginia Department of Historic Resources, University of Pennsylvania.

2017 - Present **Anson Street African Burial Ground Project** (Role: co-PI).

Methods: Ancient DNA, Dental Calculus, Community Engagement.

Funding Resources: National Geographic, University of Pennsylvania.

Collaborators: The Gullah Society, College of Charleston, University of Tennessee, University of Oklahoma, University of Pennsylvania.

2016 – Present **Colonial Chesapeake DNA Project** (Role: PI).

Methods: Population Genetics, Community Engagement.

Funding Resources: NSF, National Geographic, University of Pennsylvania.

Collaborators: St. Mary’s Historical Society, Smithsonian Institution, Maryland Historic Trust, University of Tennessee, University of Pennsylvania.

Institutional Review Board Protocols:

2021 – Present The University of Connecticut, IRB #7, Protocol #H21-0143. “*Genomic Structure of Founder Events in the 17th Century Chesapeake*”. PI Fleskes, Co-PI Bolnick.

2018 – Present The University of Pennsylvania, IRB #8, Protocol #829343, “*Enhancing African Descendant Identity through Community Engagement and DNA Analysis*”. PI Schurr, Co-PI Fleskes.

2017 – Present The University of Pennsylvania, IRB #8, Protocol # 825389, “*Genetic Ancestry of the Colonial Chesapeake: Insights into the Trans-Atlantic Colonization of the United States*”. PI Schurr, Co-PI Fleskes.

Research Reports & Sampling Permits:

- 2023 **Fleskes, R.** Pilot DNA, Oral Microbial, and Isotopic Testing of the Archaeological Individuals from the 2013 Cohort of the Milwaukee Poor Farm Cemetery. Submitted as part of the Descendant Community of the Milwaukee County Grounds Cemeteries, Inc Response to The Request for Proposal from the Wisconsin State Historical Society.
- 2023 **Fleskes, R.** Tentative Proposal for DNA Testing of the Archaeological Individuals Disinterred from the Milwaukee Poor Farm Cemetery for the Purposes of Genomic Descendant Identification and Reburial. Submitted to *The Descendant Community of the Milwaukee County Grounds Cemeteries, Inc.*
- 2023 **Fleskes, R.** Scope of Work for Destructive Genomic Analysis of Human Remains Recovered from the Powder Magazine Courtyard Site in Williamsburg, Virginia. Submitted to *The Colonial Williamsburg Foundation.*
- 2022 **Fleskes, R.** Scope of Work for Genomic Analysis of Human Remains Recovered from the First African Baptist Church in Williamsburg, Virginia. Submitted to *The Colonial Williamsburg Foundation.*
- 2022 **Fleskes, R. & Bolnick, D.** Scope of Work for Genomic Analysis of Human Remains Recovered from the Canterbury Site. Submitted to *The Archaeological Society of Connecticut.*
- 2022 **Fleskes, R. & Bolnick, D.** Scope of Work for Genomic Analysis of Human Remains Recovered from the Salisbury Site. Submitted to *The Archaeological Society of Connecticut.*
- 2021 **Fleskes, R.** Sampling Permit Application for Genomic Analysis of Human Remains Recovered from the Basilica of St. Mary of the Immaculate Conception, Norfolk, Virginia. Submitted to *Fairfield Foundation.*

- 2019 **Fleskes, R.** Request for Destructive DNA Analysis of the Avery's Rest (7SG57) Skeletal Series. Submitted to the *Smithsonian Institution's* Anthropology Sampling Committee
- 2018 **Fleskes, R.** Amendment for Additional DNA Sampling of Patuxent Point (18CV271-05)
- 2017 **Fleskes, R.** Application for Genetic Sampling on Patuxent Point Osteological Material. Submitted to the *Maryland Historic Trust's* Advisory Committee on Archeology.

Visiting Researcher:

- 2022 Visiting Researcher at the **Laboratories of Molecular Anthropology and Microbiome Research at the University of Oklahoma**. January 3-25.
- 2020 – 2021 Visiting Student in the **Henn Lab at the University of California, Davis**. September - June.
- 2018 – 2019 Visiting Researcher at the **Ancient DNA Laboratory at The University of Tennessee**. September 1 – August 16.

PRESENTATIONS

Invited Conference Presentations:

- 2022 **Fleskes, R.**, Critical Translation and Transparency in Community Centered Ancient DNA Research: Insights from the Anson Street African Burial Ground Project. *91st Annual Meeting of the American Association of Biological Anthropologists*. Denver CO, April 25.
- 2022 **Fleskes, R.**, Ancient DNA & Genealogy: Where Two Worlds Collide. *East Coast Genetic Genealogy Conference*. Baltimore MD, April 23.
- 2020 **Fleskes, R.**, A Historical Genomics Approach using Ancient DNA & Bioarcheology to the Study of Colonial America*. *9th Annual World Archaeological Congress*, Prague Czech Republic, July 5-10. (*canceled due to COVID-19)
- 2019 **Fleskes, R.**, Colonization on the Delaware Frontier: Insights from Avery's Rest. *Delaware Valley Archaeology and History Symposium*, Dover DE, December 7.

Invited University & Society Presentations:

- 2022 **Fleskes, R.**, Avery's Rest: Ancient DNA Insights into Kinship and Ancestry in 17th Century, *The Archaeological Society of Connecticut 2022 Spring Meeting*, South Windsor CT, May 7.
- 2022 **Fleskes, R.**, The Anson Street African Burial Ground Project: History, Achievements and Future Directions, *The Medical University of South Carolina*, Charleston SC, May 1.
- 2022 **Fleskes, R.**, Historical Genetics: Application of Ancient DNA to the Study of Colonial North America. *The University of Connecticut and Stony Brook University Joint Archaeology Colloquium Series*. February 17.
- 2021 **Fleskes, R.**, The Anson Street African Burial Ground Project: Ancient DNA Ethics & Considerations. *American Society for Human Genetics*, Responsible Research on Ancient DNA Panel. March 8.
- 2020 **Fleskes, R.**, Historical Genetics: Insights from Ancient DNA to the Study of Early Colonial America. *West Chester University, Anthropology & Sociology Department Colloquium Series*. November 16.
- 2020 **Fleskes, R.**, Ancient DNA & Colonial North America. *National Geographic Society*, Washington D.C., February 28.
- 2020 **Fleskes, R.**, Ancient DNA in Colonial North America: Patuxent Point and the Anson Street Burial Project. University of Pennsylvania, *New Avenues in Archaeological Science**. (*canceled due to COVID-19)
- 2019 **Fleskes, R.**, Avery's Rest: Bioarcheological Perspectives. *Archaeological Society of Delaware Annual Meeting*, Felton DE, June 15.

- 2018 **Fleskes, R.**, Avery's Rest: A Multi-Method Investigation of Kinship & Lifeways in the 17th century Chesapeake. *The University of Tennessee, Department of Anthropology*, Knoxville TN, February 19.
- 2017 **Fleskes, R.**, DNA & the Peopling of the Caribbean. *Pre-Columbian Society*. University of Pennsylvania, Philadelphia PA, February 11.

Conference Presentations:

- 2023 **Fleskes, R.** "Ways of Knowing: Ancient DNA & Community Reflection". *108th Association for the Study of African American Life and History Annual Conference*, Jacksonville FL, September 22.
- 2023 Arencibia, V. **Fleskes, R.**, Guraieb, S., Zilio, L., Avena, S., Zangrando, A., Tessone, A., Livia Kozameh, L., Goñi, R., Lia, V., Cabana, G., Dejean, C.. Human Population Dynamics In Southern Patagonia During The Late Holocene: Contributions From Whole Mitochondrial Genomes. National Biological Anthropology Conference in Cordoba, Argentina.
- 2023 **Fleskes, R.**, Johnson, S., Honap, T., Gilmore, J., Oubré, L., Ofunniyin, A., Lewis, C., Schurr, T. Oral Health and Microbiome Diversity in 18th Century African Descended Individuals from Charleston, South Carolina, *92nd Annual Meeting of the American Association of Biological Anthropologists*. Reno NV, April 21.
- 2022 Arencibia, V., **Fleskes, R.**, Zilio, L., Avena, S., Guraieb, S., Lia, V., Cabana, G., Cristina Dejean, C. Population dynamics of Patagonian groups during the late Holocene: contributions through ancient mitochondrial genomes from the northern coast of Santa Cruz (Argentina). *16th Meeting of the Latin American Association of Biological Anthropology*, San Palo Brazil, November 9.
- 2021 **Fleskes, R.**, Brown, D., Schurr, T. Ancient DNA Research during a Global Pandemic: Insights from Fieldwork at St. Mary's Basilica in Norfolk, VA. *54th Annual Conference on Historical and Underwater Archaeology*. January 8.
- 2020 **Fleskes, R.**, Ofunniyin, A., Gilmore, J., Cabana, G., Schurr, T. African Mitogenome Diversity in 18th Century Charleston, South Carolina*. *89th Annual Meeting of the American Association of Physical Anthropologists*. Los Angeles LA, April. (*presented at the 2021 Virtual Conference)
- 2020 **Fleskes, R.**, Cabana, G., Schurr, T. Genomic Insights into 17th century Maryland Kinship and Labor at Patuxent Point*. *85th Annual Meeting of the Society for American Archaeology*. Austin TX, April 24. (*canceled due to COVID-19)
- 2019 **Fleskes, R.** Historical Genetics: A Multidisciplinary Investigation of Frontier Lifeways in the Chesapeake. *Meeting of the American Society for Ethnohistory*. State College PA, September 28.
- 2018 **Fleskes, R.**, West, F., Cabana, G., and Schurr, T. Ancient DNA Perspectives on Kinship & Racialized Labor on a 17th century Delaware Frontier Site. *83rd Annual Meeting of the Society for American Archaeology*. Washington D.C., April 11-15.
- 2017 **Fleskes, R.**, West, F., Cabana, G., and Schurr, T. Ancient DNA Analysis of a Late 17th Century Plantation Site in Delaware Yields Considerable Matrilineal Diversity and Relatedness in Early Colonists. *86th Annual Meeting of the American Association of Physical Anthropologists*. New Orleans LA, April 19-22.
- 2016 **Fleskes, R.**, Vilar, M., Melendez, C., Schurr, T. Genetic Diversity of A2 and C1 Haplotypes in Puerto Rico: Implications for Initial Migration and Settlement Patterns of the Caribbean. *85th Annual Meeting of the American Association of Physical Anthropologists Annual Conference*. Atlanta GA, March 27-30.
- 2013 Moini, M., **Fleskes, R.**, Rollman, C. Effect of Aging and Radiation on Museums' Proteinaceous Specimens at Molecular Levels. *61st American Society for Mass Spectrometry Conference on Mass Spectrometry and Allied Topics*. Minneapolis MN, June 9-13.
- 2013 **Fleskes, R.**, Moini, M. Protein Deterioration Over Time in Ancient Bone Specimens. *Anthroplus Conference*. University of Maryland, College Park MD, April 13.

- 2013 **Fleskes, R.**, Moini, M. Biological Clocks: High Throughput Identification of Deterioration Markers and Dating of Museums' Proteinaceous Specimens. *8th Annual ACC Meeting of the Minds*. Wake Forest University, Winston-Salem NC, April 6.

Conferences & Panels Organized:

- 2023 "Community Engaged Activist Archaeology: the Anson Street African Burial Ground Project" *108th Association for the Study of African American Life and History Annual Conference*, Jacksonville FL. September 22. [Role: **Panel Co-Organizer & Presenter**].
- 2021 "May Their Hearts be Perfectly at Peace: The Anson Street African Burial Project". Executive Panel Session. *American Anthropological Association Annual Meeting*, Baltimore MD, November 19. [Role: **Panel Co-Organizer & Presenter**].
- 2020 "Forging Kinships". *Graduate Symposium for the Wolf Humanities Center Annual Forum on Kinship*. University of Pennsylvania, Philadelphia PA, February 21. [Role: **Primary Conference Organizer**].

Contributing Panelist:

- 2022 Panelist. Anthropological Perspectives on Biology of Race and Racism Panel for the *Diversity, Equity, and Inclusion Summit at Rowan University*. April 28.
- 2021 Panelist. Anthropological Perspectives on the Biology of Race and Racism Panel. *Department of Anthropology & Sociology, Rowan University*. March 19.

Keynote Speaker (Public Events):

- 2022 **Fleskes, R.**, The Science of Making Science Accessible: DNA and Community Building. *Virginia Association for Science Teacher's Annual Professional Development Institute Conference*. Williamsburg VA, November 11.
- 2022 **Fleskes, R.**, The DNA of History: Further Results from the Chesapeake Ancestry Project. Annual General Meeting and Dinner at the *St. Mary's Historical Society*. Leonardtown MD, May 13.

TEACHING EXPERIENCE

Primary Instructor of Record:

- 2020 DNA & Human Society, University of Pennsylvania, Penn Summer College Prep Series. [online].
- 2019 Introduction to Human Evolution, Department of Anthropology, University of Pennsylvania.
- 2019 DNA & Human Society, University of Pennsylvania, Penn Summer College Prep Series.
- 2017 Human Variation, Department of Sociology & Anthropology, Rowan University.

Independent Studies

- 2021 Anson Street African Burial Ground Project: Molecular Applications in Colonial Health & Disease. Independent Study. Student: Shriya Amin, Clemson University. [online].

Guest Lecturer

- 2022 Living World in Archaeological Science, Department of Anthropology, The University of Pennsylvania.
- 2021 DNA Reveals Hidden Stories, Montgomery College.
- 2021 Introduction to Bioarcheology, Department of Sociology & Anthropology, The College of Charleston.
- 2021 Introduction to Archaeology, Department of Anthropology, University of Pennsylvania.

2018 Becoming Human, Department of Anthropology, University of Pennsylvania.

Graduate Teaching Assistant:

2017, 2018 Becoming Human, Department of Anthropology, University of Pennsylvania.
 2016 Sex and Human Nature, Department of Anthropology, University of Pennsylvania.
 2015 Introduction to Human Evolution, Department of Anthropology, University of
 Pennsylvania.

Course Development Research:

2012 - 2014 *Undergraduate Honors Thesis:* Introduction to Biological Anthropology Laboratory
 Course Development. University of Maryland, Department of Anthropology. Supervisor:
 Dr. Jenn Shafer.

Undergraduate Teaching Assistant:

2014, 2015 Introduction to Ecological and Evolutionary Anthropology, Department of Anthropology,
 University of Maryland.
 2013 Introduction to Biological Anthropology, Department of Anthropology, University of
 Maryland.

STUDENT TRAINING & MENTORSHIP EXPERIENCE

Genomics Laboratory Training:

2022 – Present Genetic Methods Training for University of Connecticut Doctoral Student, Urvi Kaul.
 2022 Ancient DNA Sample Preparation and Extraction Methods Training for University of
 Connecticut Doctoral Student, Corrin Laposki.
 2019 Ancient DNA Library Preparation Methods for University of Tennessee Masters Student,
 Anne Riley Smith.
 2018 Ancient DNA Extraction Methods for University of Pennsylvania Faculty Member.
 2018 Mitochondrial DNA Methods for College of Charleston Undergraduate Student, Adeyemi
 Oduwole.
 2017 Mitochondrial DNA Methods for University of Maryland Undergraduate Student, Hope
 Loiselle.

Bioinformatics Training:

2022 – Present Ancient DNA Bioinformatics Training for University of Connecticut Doctoral Student,
 Christina Balentine.
 2021 – 2022 Undergraduate Student Research and Bioinformatics Training for Clemson University
 Student, Shyria Amin.
 2021 Ancient DNA Bioinformatics and Methods Training for Universidad de Buenos Aires
 Doctoral Student, Valeria Arenibia.

Field Methods Training:

2022 – Present Masters Student Research for Chesapeake Ancestry Project for Monmouth Student,
 Victora Sharp.
 2020 Contamination Prevention for Ancient DNA Sample Collection in Burial Contexts for
 archaeological staff at the Fairfield Foundation.

MEDIA COVERAGE

Research Project Coverage:

- 2023 **UConn Today**, [“DNA Study of Remains at Delaware Site Finds Kinship Among European Settlers, African Slaves”](#), August 2.
- 2023 **The Washington Post**, [“36 bodies were found in unmarked colonial graves. DNA is revealing their stories”](#), January 9.
- 2023 **Williamsburg Yorktown Daily**, [“Analysis Ties Remains at Historic Site to the First Baptist Church Community”](#), April 7.
- 2023 **The Washington Post**, [“Lost graves reveal story of African American church in Williamsburg”](#), April 6.
- 2023 **The Associated Press**, [“Their stories were lost to slavery. Now DNA is writing them”](#), March 28.
- 2023 **Penn Today**, [“Whole-genome analysis offers clarity about remains of 36 enslaved Africans in 18th-century Charleston”](#), January 24.
- 2022 **The Charleston City Paper**, [“Charleston leaders announce plans for Anson Burial Memorial”](#), October 12.
- 2022 **The Washington Post**, [“In graves of a lost Black cemetery, hope for links to family history”](#), October 5.
- 2022 **The Virginia Gazette**, [“Samples in hand, long process of learning about Williamsburg’s First Baptist graves begins”](#), August 6.
- 2022 **CNN**, [“Colonial Williamsburg tells the story of early American settlers. But in 1956 it paved over Black history to make a parking lot”](#), August 7.
- 2022 **The Post and Courtier**, [“DNA studies of the Gaillard gravesite remains reveal compelling new information”](#). May 6.
- 2022 **The Virginia Gazette**, [“First Baptist Church descendants opt to open 3 graves; work soon to begin on uncovering”](#). March 16.
- 2021 **The Virginia Gazette**, [“First Baptist Church descendants meet with experts, discuss future of historic burials found at dig site”](#). November 8.
- 2020 **Penn Today**, [“Uncovered burial ground reveals history of 36 enslaved Africans in 18th-century Charleston.”](#) October 20.
- 2020 **The Catholic Virginian**, [“Discoveries could aid in discovering development of Church in Norfolk.”](#) June 10.
- 2019 **Forbes Magazine**, [“DNA Analysis from Colonial Delaware Skeletons Reveals Beginnings of American Slave Trade”](#). December 19.
- 2019 **National Geographic Magazine**, [“Digging for the life stories of long-forgotten slaves”](#). December 11.
- 2019 **The Post and Courtier**, [“Tears and celebration mark Charleston reburial of skeletal remains of 36 people”](#). May 4.
- 2019 **ABC 4 News**, [“DNA reveals long history of African-Americans found in downtown Charleston”](#). May 5.
- 2019 **News Channel 2**, [“DNA Research of African Remains Found at Gaillard Center to be revealed Wednesday”](#). February 27.
- 2018 **The Post and Courier**, [“Thanks to DNA research, 80 Charlestonians of African descent may learn more about their roots”](#). August 1.
- 2018 **Charleston City Paper**, [“Gullah Society hosts DNA workshop this Saturday as part of Anson Street Burials project”](#). May 16.
- 2017 **The Washington Post**, [“An archaeological dig unearths one of the earliest slave remains in Delaware.”](#) December 5.

Quotes and Comments:

- 2022 **Science**, [“Jamestown colonists may have kept, eaten indigenous American dogs”](#), March 31

Television Interviews:

- 2023 **The Washington Post**, [“36 bodies were found in unmarked colonial graves. DNA is revealing their stories”](#), January 9.
- 2019 [ABC 4 News](#), Charleston SC. May 6.
- 2021 WHYY’s You Oughta Know, [Archeological discovery at Avery's Rest](#). Television Segment. March 2.

Podcast Interviews:

- 2021 The Saving Delaware History Podcast, [Avery's Rest: The 17th century Chesapeake Ancestry Project](#). Podcast Interview. January 1.
- 2019 College of Charleston, African American Studies Program *Port of Entry* Podcast, [“DNA doesn’t lie”](#).

COMMUNITY OUTREACH & ENGAGEMENT

Planned Outreach Programs:

- 2023 Avery’s Rest Site Investigation: *Engagement & Consultation with Descendants and Community Stakeholders*, Fall 2023 - Present
- 2021 Anson Street African Burial Ground Project Fall 2021 Webinar Series. September – December.

Outreach Presentations and Events:

- 2023 “Findings from the Ancient DNA Investigation of Avery’s Rest”. Lewes DE. August 2.
- 2023 “Ancient DNA Results: Historic First Baptist Church of Williamsburg on Nassau Street”. Williamsburg, VA, April 6.
- 2023 DNA Studies on Individuals Recovered at Avery’s Rest, Updated Information, Archaeological Society of Delaware, Sussex Chapter, Dover DE, March 9.
- 2022 [We Carry the DNA of Our Ancestors: A Genetics & Genealogy Workshop](#), William & Mary Summer Sankofa Series [online], August 11.
- 2022 “Ancient DNA at Jamestown”. Presentation to the Board of the Jamestown Society [online], August 5.
- 2022 “Learning About Ancestry”, Truth Rising: Honoring African Presence in Charleston Community Event. Charleston, SC. May 2.
- 2022 First Baptist Church Descendant Community Human Remains Discussion: Part 2, Williamsburg VA, March 12.
- 2022 Anson Street African Burial Ground Project Reanimation!, Charleston SC, February 26.
- 2021 “DNA Analysis of Human Remains”. First Baptist Church Descendant Community Human Remains Discussion. Williamsburg VA, October 30.
- 2021 “Ancient DNA in the Colonial Chesapeake” Jamestown Rediscovery Foundation. September 30.
- 2021 “Anson Street Ancestors DNA Project Update”. Anson Street African Burial Ground Project Fall 2021 Webinar Series #2.
- 2021 “Community DNA Research Project Update”. Anson Street African Burial Ground Project Fall 2021 Webinar Series #1.
- 2020 [“Avery’s Rest – A look into the DNA Investigations.”](#) Delaware Historical and Cultural Affairs [online], September 28.
- 2020 [“Digging Delaware Interview Series.”](#) Delaware Archaeological Society [online]. August 3.
- 2020 “Chesapeake DNA Study: Project Updates and DNA Testing Results”. Leonardtown MD, February 29.
- 2019 Meeting Street Academy 4th and 5th grade Classroom Presentation. Charleston SC, September 13.
- 2019 North Charleston High School Forensics Classroom Presentation. Charleston SC, September 11.

- 2019 Cape Henry Collegiate 3rd grade Classroom Visit. Virginia Beach VA, May 24.
- 2019 Portsmouth Public School 4th grade Classroom Visit. Virginia Beach VA, May 24.
- 2019 “Understanding DNA Extraction”. Charleston SC, May 7.
- 2019 “Anson Street Burial Project: Ancient DNA Update”. Charleston SC, February 27.
- 2018 “Project Update: DNA Analysis of the Anson Street Burials”. Charleston SC, November 7.
- 2018 “Ancient DNA & African American History”. Charleston SC, May 19.
- 2018 “Visualization of DNA: Insight into Objectification & Impact on Identity”, Teen Science Café hosted by the University of Pennsylvania, April 25.
- 2016 “Genetics and Race”. University of Pennsylvania Public Classroom Lecture Series, October 24.

Mutli-Media Community Engagement Outreach Projects:

- 2022-2023 Creation of 3D Model and Interactive Lab Tour of the University of Connecticut’s Ancient DNA Lab in collaboration with the Jamestown Rediscovery Foundation.
- 2018-2019 Use of Go-Pro to Film Ancient DNA Methods for Community Engagement.

SERVICE

External Conference, Grant or Manuscript Reviewer:

- 2023 International Society for Biomolecular Archaeology
- 2022 National Geographic Society Research Grants
- 2022 *Frontiers in Genetics*
- 2021-2023 *American Journal of Physical Anthropology*

Departmental Service:

- 2023 Indigenous Archaeology Faculty Hire Search Committee, Dartmouth College.
- 2017 Graduate Student Representative. Biological Anthropology Faculty Hire Search Committee, University of Pennsylvania.

Educational Programs

- 2019 National Geographic Human Journey Challenge, February – May.

PROFESSIONAL AFFILIATIONS

- American Association of Anthropological Genetics
- American Association of Biological Anthropologists
- American Anthropological Association
- American Society for Ethnohistory
- Society of American Archaeology
- Association for the Study of African American Life and History

ACADEMIC DEVELOPMENT COURSES

Professional Development:

- 2023 Cathy Mazak’s Navigate: Your Writing Roadmap Course

Teaching Development:

- 2023 Dartmouth College Faculty Teaching Orientation

SKILLSETS

Molecular Wet Lab Skills:

Sample Preparation:	Destructive & Minimally Destructive Approaches, Bleach Pre-treatment, Sampling Grinding. Sample Types: Petrous, Teeth, Metacarpal/tarsals, Ribs, Dental Calculus, Salvia, Buccal swabs.
DNA Extraction:	Ancient DNA Destructive and Minimally Destructive Extraction (Dabney et al. 2013; Harney et al. 2021), Buccal/Saliva Extraction (Qiagen Kit).
Library Preparation:	Double Stranded (BEST Method), Single Stranded (SRSLY Method).
Enrichment:	Whole Genome and 1240K (MyBaits).
Quantification & Visualization:	Qbit, Nanodrop, TapeStation, Agarose Gel Electrophoresis, Quantitative PCR, Pippin Prep.
Amplification & Sequencing:	PCR, Sanger Sequencing, Sample Pooling for Next-Generation Sequencing.

Set Up of Ancient & Modern Genomic Laboratories:

2021 – 2022	Finalized set up of UConn Ancient & Modern DNA Laboratories; involving post-construction lab design, equipment purchasing and installation, cleaning protocol setup, and stocking of lab supplies.
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Bioinformatics:

Coding Languages (Proficient):	Bash/Linux, R, Python. Host (local computer) and Remote Server (UConn, UC Davis) Access.
Programs (Main Packages):	PLINK, ADMIXTURE, EIGENSOFT, samtools, ADMIXTOOLS, mapdamage, ect.
Data Types:	Ancient Human Genomic (Next-Generation Sequencing), Oral Microbiome (Next-Generation Sequencing), Mitochondrial DNA Control Region (Sanger Sequencing).

Online Bioinformatics Training:

2022	AGAR Workshop on Computational Genetics. Hosted by: Dr. Tim Webster, Dr. Alan Rogers. Online, non-credit course funded by the NSF. July 27 – 29.
2022	<i>Population Genomics using Ancient DNA Data</i> . Instructors: Dr. Eduardo G. Amorim, Diana Cruz-Davalos. Online, non-credit course by Physialia. January 31 – February 4.
2021	<i>Command Line in Linux</i> . Online, non-credit course by Coursera Project Network through Coursera.
2017	<i>Python for Genomic Data Science</i> . Online, non-credit course by Johns Hopkins University through Coursera.
2017	<i>Genomic Data Science with Galaxy</i> . Online, non-credit course by Johns Hopkins University through Coursera.
2017	<i>Introduction to Genomic Technologies</i> . Online, non-credit course by Johns Hopkins University through Coursera.

Previous Research Experience:

- 2015 **Human Mitochondrial DNA Diversity in Puerto Rico.** University of Pennsylvania; Supervisor: Dr. Theodore Schurr.
- 2014 **Human Osteology.** Smithsonian Institution's National Museum of Natural History; Supervisor: Dr. Douglas Owsley.
- 2012 – 2013 **Paleoproteomics.** National Science Foundation's Research Experience for Undergraduate Sites (REU) at the Smithsonian Institution's Museum Conservation Institute; Supervisor: Dr. Mehdi Moini.

Spoken Languages: English (Fluent), Spanish (Basic to Conversational).

REFERENCES

Dr. Theodore Schurr
Professor
Department of Anthropology
University of Pennsylvania
tgschurr@sas.upenn.edu

Dr. Deborah Bolnick
Professor
Department of Anthropology
University of Connecticut
deborah.bolnick@uconn.edu

Dr. Graciela Cabana
Associate Professor
Department of Anthropology
University of Tennessee
gcabana@utk.edu

Dr. Douglas Owsley
Curator of Biological Anthropology
National Museum of Natural History
Smithsonian Institution
owsleyd@si.edu