

Dr. Nora A. Reber

University of North Carolina Wilmington

Anthropology

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Education

Harvard University

Ph. D., 2001 *Maize Detection in Absorbed Pottery Residues: Development and Application*

A.M., 2001

Beloit College, Bachelor's of Science (Archaeology and Chemistry), 1995

Appointments

University of North Carolina at Wilmington

Professor 2020-present

Department Chair, Anthropology, 2010-2018

Associate Professor, 2008-2020

Assistant Professor, 2003-2008

Lecturer, 2001-3

Harvard University, Assistant Head Teaching Fellow, 1998

Cahokia Palisade Project, Field School Supervisor, 1998-9

Harvard University Teaching Fellow, 1998-9

Current Research Interests

Rice plantations in the Lower Cape Fear region

The African Diaspora and identity formation in coastal North Carolina

Analysis of absorbed and visible archaeological residues through gas chromatography/mass spectrometry

Form/function relationships in pottery

Light stable isotope analysis

The rise of complexity in the American Bottom

Identification of maize and the Black Drink in residues

RESEARCH

Peer-Reviewed Publications

In press Reber, E.A. *An Archaeologist's Guide to Organic Residues in Pottery*. Archaeology of Food series. University of Alabama Press. Expected publication date June 2022.

2021 Reber, E.A. Comparison of Neutral Compound Extraction from Archaeological Residues in Pottery Using Two Methodologies: A Preliminary Study. *Separations* 8(1):6.

2020 Reber, E.A., Kelly, J, Boswell, E., C.S. Lane. Molecular evidence of changing foodways across the Mississippian transition at the George Reeves site (11S650). *Southeastern Archaeology* 39:2: 71-88.

2019 Reber, E. A., Kerr, M., Whelton, H., Evershed, R. P. Lipid Residues from low-fired pottery. *Archaeometry* 61(1): 131-144.

2018 Reber, E. A. (2018). Gas Chromatography-Mass Spectrometry (GC-MS): Applications in Archaeology. In E. Christian Wells (Ed.), *Encyclopedia of Global Archaeology*. New York, NY: Springer.

2015 Reber, E. A., Baumann, T., Monaghan, W., Noakes, K. (2015). Absorbed residue analysis of a Mississippi Plain jar from Angel Mounds (12Vg1): lipid distribution revisited. *Advances in Archaeological Practice*, 3(1), 29-49.

- Reber, E. A. Absorbed residue analysis of pottery sherds from the Graveline Site. Graveline: A Late Woodland Platform Mound on the Mississippi Gulf Coast, edited by J.H. Blitz and L.E. Downs, pp. 55-66. Jackson, Mississippi: Mississippi Dept of Archives and History Archaeological Report Series 34.
- 2013 Hart, J. P., W. A. Lovis, G. R. Urquhart, and E. A. Reber. Modeling Freshwater Reservoir Offsets on Radiocarbon-Dated Charred Cooking Residues. *American Antiquity* 78(3), 536-552.
- Baumann, T. E., Gerke, T. L., Reber, E. A. Sun Circles and Science: Negative Painted Pottery from the Angel Site (12Vg1). *Midcontinental Journal of Archaeology*, 38(2), 219-244.
- Reber, Eleanora A. Applications of Gas Chromatography (GC-MS) in Encyclopedia of World Archaeology, edited by Christian Wells.
- 2012 Reber, E. A., Kerr, M. T. The Persistence of Caffeine in Experimentally Produced Black Drink Residues. *Journal of Archaeological Science*, 39(7), 2312-2319.
- 2010 Reber, Eleanora A., Blitz, John H., Thompson, Claire E. Direct Determination of the contents of a ceramic bottle from the Moundville site, Alabama. *Midcontinental Journal of Archaeology*, 35(1): 37-56.
- 2008 Reber, Eleanora A. and John Hart. "Pine resins and pottery sealing: analysis of absorbed and visible pottery residues from central New York state," in *Archaeometry* 50(6): 999-1017.
- Hart, John P, Eleanora A. Reber, Robert G. Thompson, and Robert Lusteck. "Taking variation seriously: Testing the steatite mast-processing hypothesis with microbotanical data from the Hunter's Home site, New York," in *American Antiquity* 73(4): 729-741.
- Reber, Eleanora A. and John Hart. "Visible clues: The analysis of visible pottery residues from New York state with Gas chromatography/mass spectrometry," in *Current Northeast Paleoethnobotany II*, edited by John P. Hart. New York State Museum Bulletin 512.
- 2007 Reber, Eleanora A. "Analysis of botanical remains: organic residue analysis," in *Encyclopedia of Archaeology*, edited by Deborah M. Pearsall.
- Reber, Eleanora A. "The well-tempered pottery analysis: residue and typological analysis of potsherds from the Lower Mississippi Valley," in *Theory and Practice of Archaeological Residue Analysis*, edited by H. Barnard and J. Eerkens, *BAR International Series* 1650: 148-160.
- 2006 Reber, Eleanora A. and Richard P. Evershed. "Ancient Vegetarians? Absorbed pottery residue analysis of diet in the Late Woodland and Emergent Mississippian periods of the Mississippi Valley" in *Southeastern Archaeology* 25(1): 111-120.
- Reber, Eleanora A. "A Hard Row to Hoe: Changing Maize Use in the American Bottom and Surrounding Areas," in *Histories of Maize: Multidisciplinary Approaches to the Prehistory, Biogeography, Domestication, and Evolution of Maize*, edited by John Staller, Robert Tykot, and Bruce Benz, pp. 235-248.
- 2004 Reber, Eleanora A., Stephanie N. Dudd, Nikolaas J. van der Merwe, and Richard P. Evershed. "Direct detection of maize processing in archaeological pottery through compound-specific stable isotope analysis of *n*-dotriacontanol in absorbed organic residues" in *Antiquity* 78(301): 682-691.
- Reber, Eleanora A. and Richard P. Evershed. "Identification of maize in absorbed organic residues: a cautionary tale" in *Journal of Archaeological Science*, 31(4): 399-410.
- Reber, Eleanora A. and Richard P. Evershed. "How did Mississippians prepare maize? The application of compound specific carbon isotopic measurements to absorbed pottery residues from several Mississippi Valley sites," in *Archaeometry* 46(1): 19-33.

- 1998 Galloy, Joseph M., Ronald L. Sanders, Brant Vollman, James Fitzsimmons, Eleanora A. Reber, Kathryn E. Parker, Eve Hargrave and Kristin Hedman. "Summary Report on 1995 Excavations at the Barton Site (23SL69), St. Louis County, Missouri," in *Missouri Archaeologist* 59: 99-124.

Reports

- 2022 Analysis of Twelve Absorbed Residues from 15MD475 and 15MD476. UNCW Residue Lab, 41. UNCW Anthropological Papers series 55.
- 2021 Analysis of Six Absorbed Residues from 22TL1453. UNCW Residue Lab, 39. UNCW Anthropological Papers series 52.
- Analysis of 12 Absorbed Residues from the Stallings Island Culture. UNCW Residue lab, 40. UNCW Anthropological Papers series 53.
- Analysis of Residues Eight Sherds from 9TO302, Project 5661B. UNCW Residue Lab, 38. UNCW Anthropological Papers series 51.
- 2020 Preliminary Report on the 2019 UNCW Summer Excavations at Orton Plantation (31BW787). Wilmington, NC. Preliminary report to funding agency.
- Analysis of Absorbed Residues from Two Fragments of a Ceramic Vessel from 31Mg356. UNCW Residue Lab, 37. UNCW Anthropological Papers series 50.
- Analysis of Seven Absorbed Residues Submitted from 31CD968. Papers of the UNCW Residue Lab, 36. UNCW Anthropological Papers series 49.
- Analysis of Nine Absorbed Residues Submitted from 31CD967. Papers of the UNCW Residue Lab, 35. UNCW Anthropological Papers series 48
- Analysis of Forty Absorbed Residues from Kaminaljuyu, Guatemala. Papers of the UNCW Residue Lab, 34. UNCW Anthropological Papers series 47.
- 2019 Analysis of Ten Absorbed Residues Submitted from Sites 38AK155 and 38AK757. Papers of the UNCW Residue Lab, 33. UNCW Anthropological Papers series 46.
- Analysis of Fifteen Absorbed Residues Submitted from 12D29. Papers of the UNCW Residue Lab, 32. UNCW Anthropological Papers series 45.
- Residue Analysis on 3 potsherds and 1 soil sample from the South Bank site." Papers of the UNCW Residue Lab, 31. UNCW Anthropological Papers series 44.
- 2018 Preliminary Report on the 2018 UNCW Summer Excavations at Orton Plantation (31BW787). Wilmington, NC. Preliminary report to funding agency.
- Analysis of Twenty-Five Absorbed Residues Submitted by the Kansas University Natural History Museum. Papers of the UNCW Residue Lab, 30. UNCW Anthropological Papers vol. 42.
- Analysis of Ten absorbed Residues from Pile Mound, 40Fn180. Papers of the UNCW Residue Lab, 29. UNCW Anthropological Papers vol. 41.
- Analysis of Four Absorbed Residues from Site #31GF466. Papers of the UNCW Residue Lab, 28. UNCW Anthropological Papers vol. 40.

- Analysis of Nine Absorbed Residues from the 31CE802 Data Recovery. Papers of the UNCW Residue Lab, 27. UNCW Anthropological Papers vol. 39.
- 2017 Report on an Archaeological Investigation into the Remains of Buchoi Plantation, Brunswick River Park, Belville, NC. Papers of the UNCW Archaeological Field School 3. UNCW Anthropological Papers vol. 38.
- Analysis of Ten Absorbed Residues from Hiwassee Island Pottery. Papers of the UNCW Residue Lab 26. UNCW Anthropological papers vol. 35.
- Analysis of Six Possible Visible Residues from Historic artifacts at the Dover Bridge Dr site 18TA315. Papers of the UNCW Residue Lab 25. UNCW Anthropological Papers vol. 34.
- 2016 Analysis of 17 Sherds from the Louisiana Gulf Coast: The Effects of the Deepwater Horizon Oil Spill and Subsequent Clean-up On Absorbed Pottery Residue Analysis. UNCW Anthropological Papers vol. 33.
- Nondestructive Residue Analysis of a Shell Cup from the Corbin-Tucker Site. UNCW Anthropological Papers vol. 32.
- Beaman, T.E., V. Melomo, J.M. Compton, J.L. Gabriel, M.T. Kerr, D.J. Polito, E.A. Reber, A.D. Salisbury, H.P. Smith and L.F. Stine. 'At Night We Sleep in a Shanty I have Constructed of Planks, Logs, and Sand...on a Pile of Pine Straw': Archaeological Excavations of the Fort Anderson Overflow Barracks Area West of Battery A (31Bw376**12) and Metal Detector Survey of a Suspected Barracks Area West of Battery B (31Bw376**7) at Brunswick Town/Fort Anderson State Historic Site. Wake Technical Community College, Durham NC.
- 2015 Residue Analysis of Three Visible Residues from Late Prehistoric Pottery in Northwestern North Carolina. UNCW Anthropological Papers vol. 31.
- Archaeological Report on the Excavation of Human Remains from the 320 Chestnut area. Eleanora Reber and John Padgett. UNCW Anthropological Papers vol. 30.
- Reber, Eleanora.A. Analysis of Visible Residues from the Levanna Site, New York state. Wilmington, NC: UNCW Anthropological Papers vol. 29.
- 2014 Reber, Eleanora A. Residue Analysis of Residues from Deer Run, Lover's Leap, and Quenneville-Offlimits #1 Sites. Wilmington, NC: UNCW Anthropological Papers vol. 28.
- Reber, Eleanora A. Absorbed residue analysis of 11 pottery samples with matching soil analyses from 38DR83, the Lord Ashley site. Wilmington, NC: UNCW Anthropological Papers vol. 27.
- Reber, Eleanora A. Report on an Archaeological Survey at Halyburton Park, New Hanover County, North Carolina. UNCW Anthropological Papers 26.
- Reber, Eleanora A. Report on a Limited Archaeological Excavation at the Brunswick River Park. UNCW Anthropological Papers 25.
- 2013 Reber, Eleanora A. Gas Chromatographic-Mass Spectrometric Analysis of Extracts from AR2 and a Lanolin Standard. Wilmington, NC: UNCW Anthropological Papers 22.
- Reber, Eleanora A. Residue analysis of 7 samples from the Audrey N site, Illinois. UNCW Anthropological Papers 23.
- Reber, Eleanora A. Residue Analysis of Ten Soil Samples from 38AK46, an Archaic site in a Carolina Bay. UNCW Anthropological Papers 24.

- 2012 Reber, Eleanora A. *Absorbed Residue Analysis of 21 Sherds from the El Chorro de Maita site, Holguin, Cuba* (vol. 21). Wilmington, NC: UNCW Anthropological Papers.
- Reber, Eleanora A. *Gas Chromatographic-Mass Spectrometric Analysis of Extracts from AR2 and a Lanolin Standard* (vol. 20, pp. 15). Wilmington, NC: UNCW Anthropological Papers.
- Reber, Eleanora A. *Absorbed Residue Analysis of 10 Pottery Sherds from 8SU377* (vol. 19). Wilmington, NC: UNCW Anthropological Papers.
- Reber, Eleanora A. *Absorbed Residue Analysis of 22 Weeden Island Plain and Wakulla Check Stamped Sherds from 8GD106* (vol. 18, pp. 34). Wilmington, NC: UNCW Anthropological Papers.
- 2011 Reber, Eleanora A. and Matthew T. Kerr *Absorbed Residue Analysis of 11 sherds and 1 soil sample from the Graveline Mound site, Mississippi* (vol. 17, pp. 35). Wilmington, NC: UNCW Anthropological Papers.
- 2010 Reber, Eleanora A., Huie, Patience *Absorbed Residue Analysis of 22 Pottery Sherds from PO-29, Ponce, Puerto Rico* (vol. 16, pp. 38). Wilmington, NC: UNCW Anthropological Papers.
- Reber, Eleanora A. *Preliminary Study of Absorbed Residues from Angel Mounds* (vol. 14, pp. 33). UNC Wilmington Anthropological Series.
- Reber, Eleanora A. *Absorbed and Visible Lipid Residue Analysis of 6 sherds from the El Chorro de Maíta site, Holguín, Cuba* (vol. 15, pp. 31). Wilmington, NC: UNCW Anthropological Papers.
- 2009 Reber, Eleanora A. "Testing Variation: Visible Residue Analysis from Seven Northeastern Pots" a report submitted to the New York State Museum and the Universite de Montreal. UNCW Anthropological Papers 13, Papers of the UNCW Archaeology Residue Lab 8.
- Reber, Eleanora A. "Absorbed residues from a Chronological Series of Pottery from South Carolina" a report submitted to S & ME, Inc. UNCW Anthropological Papers 12, UNCW Archaeology Residue Lab, 7.
- Reber, Eleanora A. "Absorbed and Visible Residues from Site 11 PI1771, Pike County, Illinois" a report submitted to the URS Corporation. UNCW Anthropological Papers 11, Papers of the UNCW Archaeology Residue Lab 6.
- Reber, Eleanora A. "Colonoware Residues from the Dean Hall Site" a report submitted to Brockington and Associates. UNCW Anthropological Papers 9, Papers of the UNCW Archaeology Residue Lab 5.
- 2008 Reber, Eleanora A. "Fishing for Residues: Absorbed Pottery Residue Analysis of Thirty-Seven Sherds from North Carolina" a report submitted to New South Associates. UNCW Anthropological Papers 8, Papers of the UNCW Archaeology Residue Lab 4.
- 2006 Reber, Eleanora A. "Just Scraping the Surface: Visible Pottery Residue Analysis of Thirty-Four Samples from Central New York State" a report submitted to the New York State Museum. UNCW Anthropological Papers 5, Papers of the UNCW Archaeological Residue Lab 3.
- 2005 Reber, Eleanora A. "Pining for Maize: Absorbed Pottery Residue Analysis of Twelve Sherds from Upstate New York" a report submitted to the New York State Museum. UNCW Anthropological Papers 4, Papers of the UNCW Archaeological Residue Lab 2.
- 2003 Reber, Eleanora A. "The Fragrant Blob: possible origins of a fragrant essence extracted from a pumice fragment at the site of Cumae/Isis" a report submitted to Nancy Pinto-Orton, of the University of Pennsylvania Museum, UNCW Anthropological Papers 3, Papers of the UNCW Archaeological Residue Lab 1.

- 2001 Reber, Eleanora A. "Report on a preliminary project on the identification of maize in absorbed pottery residues from sites throughout the New World," in *Archaeological Data Recovery Excavations and Monitoring New Jersey Route 29, City of Trenton, Mercer County, New Jersey, Volume V: Supplementary Technical Materials*. Hunter Research, Inc.
- 1997 Fitzsimmons, James and Eleanora A. Reber. "Faunal remains analysis," Appendix E in *Late Prehistoric Life Along the Missouri River I: The Barton Site (23SL60)*, edited by Joseph M. Galloy. Hanson Engineers Inc.

Selection of Presentations Given

- 2022 Reber, Eleanora A. Southeastern Archaeological Conference Annual Meeting, Durham, NC, "It's Complicated: Preliminary Archaeological Description of Two Houses Used by Enslaved and Freed Africans in the Lower Cape Fear River"
- 2019 Reber, Eleanora A. "The Chemical Trowel: Using absorbed pottery residue analysis to interpret pottery use at Brunswick Town-Fort Anderson." An invited talk as part of the NC Office of State Archaeology 2019 Lecture Series 'Trowel Blazers: Women Making History'.
- 2018 Reber, E. A., Southeastern Archaeological Conference Annual Meeting, Augusta, GA, "Barking up the Right Tree?: The Puzzling Case of Conifer Resin in Pottery from the George Reeves site (11S650)".
- Reber, Eleanora A., Society for American Archaeology Annual Meeting, Washington DC, "From General to Specific: Targeting freshwater resources in pottery residues using compound-specific isotope analysis."
- 2017 Reber, Eleanora A., Mark Rees, and Sam Huey, Society for American Archaeology Annual Meeting, Vancouver, BC, "Cautious Vs. Interesting: Cultural Interpretation of Absorbed Organic Pottery Residues."
- 2016 Reber, Eleanora A. and Didi el-Behaedi (Student author), Society for American Archaeology Annual Meeting, Orlando, FL, "In Their Cups?: Background Lipids in Shell as a Basis for Analyzing Shell Cup Residues."
- Knoll, R. A., Ghoneim, E., Reber, E. A., Nooner, S., Marsan, Y., Melomo, V., Beaman, T., Association of American Geographers Annual Meeting, San Francisco, CA, "Ground Penetrating Radar Survey at Selected Historical Archaeological Sites on the Lower Cape Fear River, North Carolina", published in proceedings.
- 2015 Reber, Eleanora A., "Wine or Wax?: Organic Residue Analysis on pottery from Nahal Tillah, an Early Bronze I site in the Southern Levant." Paper presented at the 80th Annual Meeting of the Society for American Archaeology, San Francisco, CA.
- 2013 Reber, Eleanora. A., American School of Oriental Research Annual Meeting, "Layers of Meaning: Absorbed residue formation and interpretation," American School of Oriental Research, Baltimore, MD.
- Reber, Eleanora A., Southeastern Archaeological Conference Annual Meeting, "Sealing, Flavoring, Trade Item, Incense?: The role of Conifer Resin in the Pre-Columbian Caribbean," Southeastern Archaeological Conference, Tampa, FL.
- 2012 Reber, E. A., Society for American Archaeology Annual Meeting, "Background Residues: Pottery Firing and Lipid Persistence," Paper presented at the 77th Annual Meeting of the Society for American Archaeology, Memphis, TN.
- Kerr, Matthew T. and Eleanora A. Reber, Society for American Archaeology Annual Meeting, "The Brunswick Town-Fort Anderson Project:A Baseline Study of Absorbed Pottery Residues from 31BW376**12." Paper presented at the 77th Annual Meeting of the Society for American Archaeology, Memphis, TN.

- 2011 Reber, Eleanora A., and Matthew T. Kerr 2011 Diagenesis and Soil-Sherd Interactions in Experimentally Produced Black Drink Residues. Paper presented at the 76th Annual Meeting of the Society for American Archaeology, Sacramento, CA.
- 2010 Baumann, T. E., Gerke, T. L., Marshall, J., Reber, E. A., Cahokia Conference 2010, "The Manufacture and Use of Negative Painted Pottery at the Angel Site," Cahokia Mounds State Historic Site, Cahokia Mounds, Collinsville, IL.
- Reber, Eleanora A., Society for American Archaeology Annual meeting, "Absorbed Residue Analysis from the George Reeves site (11S650), an Emergent Mississippian blufftop settlement," Society for American Archaeology, St. Louis, MO.
- 2008 Reber, E. A., Southeastern Archaeological Conference 65th Annual Meeting, "Nuts to Us! Detecting Nut Processing through Absorbed Residue Analysis," Southeastern Archaeological Conference, Charlotte, NC. (November 13, 2008).
- "Nuts to Us! Detecting Nut Processing through Absorbed Residue Analysis," by Eleanora A. Reber, a paper presented at the Southeastern Archaeological Conference in Charlotte, NC.
- 2007 "A North American Southeast Native Source of Caffeine: *Ilex vomitoria* and the 'Black Drink,'" an invited presentation and paper by Eleanora A. Reber at the Eastern Analytical Symposium and Exposition, Somerset, NJ.
- 2005 "The Well-Tempered Pottery Analysis: Residue and Typological analysis of potsherds from the Lower Mississippi Valley," by Eleanora A. Reber in *The Theory and Practice of Archaeological Residue Analysis*, a symposium at the Society for American Archeology Meetings, Salt Lake City.
- 2004 "The Dohack phase at the George Reeves site (11 S 650): twenty-four years later," by Eleanora A. Reber in *The Changing Mississippian: Recent research on Mississippian sites in the American Bottom and Beyond*, a symposium at the Joint Meeting of the Southeastern Archaeological Conference and Midwestern Archaeological Conference, St. Louis Missouri.

TEACHING EXPERIENCE

University of North Carolina Wilmington

ANT 105, Intro To Anthropology
 ANT 207, General Archaeology
 ANT 308, Ancient Egypt, Mesopotamia, and More
 ANT 311, Field School in Archaeology
 ANT 312, Collapse: The Fall of Complex Civilizations
 ANT 375 Archaeological Science
 ANT 411 Advance Field Methods in Archaeology
 ANT 440, Seminar in Southeastern Archaeology
 ANTL 207, Archaeology Lab

Harvard University

B-29, Human Behavioral Biology, Assistant Head Teaching Assistant
 B-29, Human Behavioral Biology, Teaching Assistant
 SO-50, Urban Revolutions: Archaeology and the Investigation of Early States, Teaching Assistant

Professional Service and Memberships

Editorial Board, *Journal of Archaeological Science: Reports*
 Reviewer, National Science Foundation,
 Register of Professional Archaeologists (2016-present)

Southeastern Archaeological Conference. (September 2000 - Present).

Society for Archaeological Sciences (2001-present)

Society of American Archaeologists. (March 1998 - Present).

American Anthropological Association. (2000 - Present).

Cahokia Mounds Museum Society. (1998 - Present).

Associate Editor for Archaeological Chemistry, SAS Bulletin, Society for Archaeological Sciences. (August 2002 - 2010).