**PHYLLIS S. JOHNSON**

Department of Anthropology

University of Kentucky

phyllis.s.johnson@uky.edu

(615) 587-0717

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EDUCATION**

**PhD, Vanderbilt University** August 2021

Department of Anthropology

Dissertation: *Beyond the Commoner/Elite Divide: Illuminating Classic*

*Maya Multi-Agent Production Systems at Tamarindito, Petén, Guatemala*.

Advisor: Dr. Markus Eberl

Certificate in Latin American Studies July 2021

**M.A., University of Tennessee** August 2009

Department of Anthropology

Thesis: *Usewear Analysis of Flake Tools from the Townsend Project*

*(Sites 40Bt89, 40Bt90, 40Bt91, and 40Bt94), Blount County, Tennessee.*

Advisor: Dr. Boyce Driskell

**B.A., Wright State University** March 2007

Department of Sociology and Anthropology

Advisor: Dr. Robert Riordan

**RESEARCH INTERESTS**

Computational Archaeology, Lithic Analysis, Dynamic Image Analysis, Machine Learning, Deep Learning, Agent-based Modeling, Experimental Archaeology, Cultural Resource Management, Decolonizing Methodologies, Mesoamerican Archaeology, North American Archaeology

**PROFESSIONAL EXPERIENCE**

**2021-present University Postdoctoral Research Fellow, Anthropology, University of Kentucky**

2021 Archaeologist, Ancient Artifacts Machine Learning Project, Vanderbilt University

2019-2021 Editorial Assistant, Ancient Mesoamerica

2019-20 Research Assistant, Department of Anthropology, Vanderbilt University

2017-19 Archaeologist, Tamarindito Archaeological Project

2016-present Archaeological Consultant, Brockington and Associates, Inc., Nashville, TN

2011-2016 Archaeologist/Project Manager, Brockington and Associates, Inc., Elizabethtown, KY

2009-2010 Field Director, Dayton Society of Natural History, Dayton, OH

2008-2009 Lithics Analyst, Archaeological Research Lab, University of Tennessee, Knoxville, TN

2007 Archaeological Intern, Dayton Society of Natural History, Dayton, OH

**PUBLICATIONS**

**Peer-Reviewed Journal Articles**

**Johnson, Phyllis S.**

2022 Examining Gender Disparities in Computational Archaeology. *Journal of Computer Applications in Archaeology* (Accepted pending revisions).

**Johnson, Phyllis S.**, Markus Eberl, Michael McBride, and Rebecca Estrada Aguila

2021 Dynamic Image Analysis as a Method for Discerning Microdebitage from Soil Samples. *Lithic Technology* 46(2):111-118.

**Johnson, Phyllis S.,** James C. Pritchard, and Eric C. Poplin

2016 In Much Smaller Things Forgotten: a Case for Microartifact Analysis in CRM. *Southeastern*

*Archaeology* 35(1):1-13.

**Book Chapters**

Driskell, Boyce, Jeremy Sweat, Katherine McMillan, Stephen Carmody, **Phyllis Rigney** and Erik Johanson.

2012 *Stone Implements from Cherokee Contexts at the Townsend Sites*. In “The Cherokees of Tuckaleechee Cove.” Edited by Jon Marcoux. University of Michigan, Museum of Anthropology.

**Bulletin Contributions**

**Johnson, Phyllis S.**

2019 IAOS Sponsored SAA Session: Advances in Obsidian Studies in the Old and New Worlds.

*IAOS Bulletin* 61(1):7-8.

**Publications Under Review**

**Johnson, Phyllis S.**, Markus Eberl, Rebecca Estrada Aguila, Michael McBride, and Jesse Spencer-Smith

n.d. Distinguishing Between Microdebitage Material Types using Dynamic Image Analysis and Deep Learning. *Journal of Archaeological Science: Reports* (Submitted December 2021).

**Johnson, Phyllis S.**

n.d. Centering and Applying Indigenous Approaches to Decolonization in Cultural Resource Management. *Transforming Archaeology* (Submitted August 2021).

Markus Eberl, Charreau S. Bell, Jesse Spencer-Smith, Mark Raj, Amanda Sarubbi, **Phyllis S. Johnson**, Amy E. Rieth, Umang Chaudhry, Rebecca Estrada Aguila, Michael McBride

n.d. Machine Learning-Based Identification of Lithic Microdebitage. *Journal of Computer Applications in Archaeology* (Submitted October 2021).

**Publications in Preparation**

**Johnson, Phyllis** and Markus Eberl

n.d. Using Tiny Artifacts to Answer Big Questions: Machine Learning, Microdebitage, and Household Spaces at Tamarandito, Guatemala. *North American Archaeologist* (To be Submitted May 2022).

Eberl, Markus, **Phyllis S. Johnson**, and Rebecca Estrada Aguila

# n.d. Studying Lithic Microdebitage with a Dynamic Image Particle Analyzer. *North American Archaeologist* (To be Submitted May 2022).

**Johnson, Phyllis S.** and Markus Eberl

n.d. Sourcing Obsidian from a Non-Elite Lithic Workshop at Tamarindito using Portable X-Ray

Fluorescence. *Journal of Archaeological Science* (To be Submitted June 2022).

Markus Eberl, Larisa D.G. DeSantis, **Phyllis S. Johnson**, and Tiffiny A. Tung

n.d.Diet at the End of Life. Death and Dying at Tamarindito during the Maya Collapse. *Journal of Archaeological Science*.

Tung, Tiffiny, **Phyllis S**. **Johnson**, and Markus Eberl

n.d. Stable Isotope Analysis of Diet and Geographic Origin at the Late Classic Maya Capital of

Tamarindito, Petén, Guatemala. *PLoS One*.

**Non-Archaeological Publications**

DeSantis, L.R.G., Alexander, J., Biedron, E.M., **Johnson, P.S**., Frank, A.S., Martin, J.M., Williams, L.

2018 Effects of Climate on Dental Mesowear of Extant Koalas and Two Broadly Distributed

Kangaroos throughout Their Geographic Range. *PLoS ONE*.

**Selected Technical Reports**

**Johnson, Phyllis S.**

2015 Section 110 Phase I Archaeological Survey of Seven U.S. Army Facilities in Tennessee. Prepared for 81st Regional Support Command.

2015 Section 110 Phase I Archaeological Survey of Nine U.S. Army Facilities in Kentucky. Prepared

for 81st Regional Support Command.

2015 2014-2018 US Army Reserve Integrated Cultural Resource Management Plan (ICRMP) Update,

Kentucky. Prepared for 81st Regional Support Command.

2015 2014-2018 US Army Reserve Integrated Cultural Resource Management Plan (ICRMP) Update,

Tennessee. Prepared for 81st Regional Support Command.

2014 Phase II Archaeological Evaluation of Sites 15BU696, 15BU697, 15BU725, and 15BU728,

Bullitt County, Kentucky. Prepared for ICI Services Corporation.

2013 Phase II Archaeological Evaluation of Site 15MD543, an Early/Late Archaic Lithic Workshop in

Hunting Area 13a, Fort Knox. Meade County, Kentucky. Prepared for ICI Services Corporation.

2013 Phase I Historic Properties Survey of 352 Acres in Support of Development and Revitalization of

Infantry Training Facilities at Fort Knox, Hardin County, Kentucky. Prepared for ICI Services

Corporation.

2012 Phase I Archaeological Survey of 20 Acres in Support of Tennessee Stampings Wetland

Mitigation in Sumner County, Tennessee. Prepared for CEC, Inc.

2012 Phase I Archaeological Site Detection Survey of 591 Acres in Support of Development and

Revitalization of Infantry Training Facilities in Hunting Areas 14, 15, and 29 at Fort Knox, Hardin and Meade, Kentucky. Prepared for the U.S. Army Corps of Engineers, Mobile District.

2011 Phase II Archaeological Testing at Site 40SV110, Sevier County, Tennessee. Prepared for

Tennessee Department of Transportation.

Driskell, Boyce N., Katherine M. Barry, Jeremy Sweat, Edward W. Wells III, Stephen B. Carmody, **Phyllis Rigney**, and Erik Johanson

2011 Stone Implements and Artifacts. In *Archaic and Woodland Occupations in the Tuckaleechee Cove, Blount County, Tennessee*, by Kandace D. Hollenbach and Stephen J. Yerka. Technical reportprepared by the Archaeological Research Laboratory, University of Tennessee, for the FederalHighway Administration and the Tennessee Department of Transportation, pp. 168-254.

Driskell, Boyce N., Katherine M. Barry, Jeremy Sweat, Edward W. Wells III, Stephen B. Carmody, **Phyllis Rigney**, and Erik Johanson

2011 Stone Implements and Other Artifacts. In *The Mississippian Period Occupation of Tuckaleechee*

*Cove, Blount County, Tennessee,* by Shannon D. Koerner and Lynne P. Sullivan*.* Technical report prepared by the Archaeological Research Laboratory, University of Tennessee, for the Federal Highway Administration and the Tennessee Department of Transportation, pp. 117-159.

Driskell, Boyce N., Katherine M. Barry, Jeremy Sweat, Edward W. Wells III, Stephen B. Carmody, **Phyllis Rigney**, and Erik Johanson

2010 Stone Implements from Cherokee Contexts at the Townsend Sites, In *The Cherokees of Tuckaleechee Cove, Blount County, Tennessee,* by Jon Marcoux. Technical report prepared by the ArchaeologicalResearch Laboratory, University of Tennessee, for the Federal Highway Administration and theTennessee Department of Transportation, pp. 241-270. (Published as University of MichiganMuseum of Anthropology Memoir 52.)

**GRANTS AND FELLOWSHIPS**

2020 Tarkington Scholarship, Graduate School, Vanderbilt University ($5,000)

2020 Russell G. Hamilton Graduate Leadership Development Institute Dissertation Enhancement

Grant ($2000)

2020 Department of Anthropology Professional Development Grant ($1,000)

2020 RPW Professional Fellowship, Robert Penn Warren Center, Vanderbilt University ($1,000)

2019 Russell G. Hamilton Graduate Leadership Development Institute Dissertation Enhancement

Grant ($1338)

2019 Vanderbilt University Graduate School Travel Grant ($500)

2019 Department of Anthropology Professional Development Grant ($434)

2018 Mellon Digital Humanities Graduate Fellowship, Digital Humanities Center, Vanderbilt

University ($26,000)

2018 Humanities Intensive Training and Teaching (HILT) Scholarship, ($250)

2018 Department of Anthropology Professional Development Grant ($800)

2018 Jacobi Bursary, Lithic Studies Society (£250)

2018 Department of Anthropology Professional Development Grant ($1,600)

2017 Digital Humanities Summer Institute Grant, Vanderbilt University ($1,500)

2017 Department of Anthropology Summer Research Grant ($3,000)

2017 Rust Family Foundation Archaeological Research Grant ($3,500)

2017 CAA International Digital Archaeology Conference, Travel Grant ($240)

2017 HASTAC Scholars Program, The Wond’ry, Vanderbilt University ($500)

2016 Teaching Assistantship, Dept. of Anthropology, Vanderbilt University ($142,000)

2016 Harold Stirling Vanderbilt Scholarship, Vanderbilt University ($12,000)

**CONFERENCE ACTIVITY**

**Conference Presentations** (\*invited and/or competitively selected)

2022 \*What Machine and Deep Learning Can Contribute to our Understanding of Ancient Societies. Faculty Lightning Talk, Commonwealth Computational Summit. April 12-13, 2022.

2022 Using Tiny Artifacts to Answer Big Questions: Microdebitage and Ritual Spaces at the Classic Maya Capital of Tamarindito. Society for American Archaeology, March 30-April 3, 2022.

2021 \*Using Tiny Artifacts to Answer Big Questions. Presented at the University of Kentucky

Symposium of Postdocs, September 28, 2021, Lexington, KY. (*1 of 5 postdocs selected*)

2019 Potential Applications for Agent-Based Models in Obsidian Studies. Presented at the Society for

American Archaeology, April 10-14, 2019, Albuquerque, NM.

2018 Issues of Post-Depositional Movement at Archaeological Sites: a Mesoamerican Perspective.

Presented at the SECOLAS Conference, March 8-11, 2018, Vanderbilt University, Nashville.

2017 How Can Something So Small Cost So Much? Cost- and Time-Efficiency in Microartifact

Analysis. Presented at the CAA Conference on Digital Archaeologies and Material

Worlds (Past and Present), March 14-17, Atlanta, Georgia.

2015 Assessing Mobility at 15McN15: A Late Paleoindian/Early Archaic Period Retooling Station.

Presented at the Southeastern Archaeology Conference, November 18-21, Nashville, TN.

2013 \*The Practicality of Microartifact Analysis in a CRM Context: A Case Study from Meade

County, Kentucky. Presented at the Society for American Archaeology Conference, April

7, Honolulu, Hawaii.

2011 The Function of Flake Tools from the Townsend Project (Sites 40BT89, 40BT90, 40BT91, and

40BT94), Blount County, Tennessee. Poster Presented at Tennessee Archaeology meeting,

January 21-24, Nashville, Tennessee.

2011 The Function of Blades from the Townsend Project, Blount County, Tennessee. Poster Presented

at Southeastern Archaeological Conference, November 2-5, Jacksonville, Florida.

**Organized Sessions**

2022 New Directions in Microdebitage Analysis. Co-organized with Markus Eberl. Society for American Archaeology. March 30-April 3, 2022.

2019 Advances in Obsidian Studies of the Old and New Worlds. Co-organized with Yuichi Nakazawa.

Society for American Archaeology. April 10-14, 2019.

2013 SAA Student Speed Mentoring Session. Co-organized as part of Committee on the Status of

Women in Archaeology

**Invited Talks**

2021 Computational Approaches to Stone Tool Production. Department of Anthropology, University of Kentucky, Lexington.

2019 Social Structure and Household Tool Production: Obsidian Blade Production at Tamarindito.

Presented at the August Meeting of P.E.O. International, Murfreesboro, TN.

2017 Stone Tool Production of the Common Folk: Studying the Maya at Tamarindito, Guatemala.

Presented at the August Meeting of the Rutherford County Archaeological Society,

Murfreesboro, TN.

**TEACHING EXPERIENCE**

**Pedagogical Certifications**

2020 Specialization in Online Teaching, Center for Teaching, Vanderbilt University

2019 Certificate in College Teaching, Center for Teaching, Vanderbilt University

**Instructor of Record**

2021 Cultural Resource Management: Applied Archaeology in the US, Vanderbilt University

2006 UVC 101: First-Year Seminar, Wright State University

**Teaching Assistant**

2018 Teaching Assistant, Genetics in Society, Vanderbilt University

2017 Lead Teaching Assistant, Introduction to Archaeology, Vanderbilt University

2017 Teaching Assistant, Culture and Power in Latin America, Vanderbilt University

2016 Teaching Assistant, Introduction to Archaeology, Vanderbilt University

**Guest Lecturer**

2021 Digital Archaeology, Vanderbilt University

2019 Native North Americans, Vanderbilt University

2018 Native North Americans, Vanderbilt University

Paleoecological Methods, Vanderbilt University

Genetics in Society, Vanderbilt University

2016 Environmental Anthropology, Vanderbilt University

**Elementary Education**

2018 Adventures in Archaeology, Programs for Talented Youth, Vanderbilt

Archaeological Explorations, Program for Talented Youth, Vanderbilt

2019 Tennessee Archaeology, Programs for Talented Youth, Vanderbilt

Archaeological Explorations, Programs for Talented Youth, Vanderbilt

**PROFESSIONAL MEMBERSHIPS**

Association of Archaeological Wear and Residue Analysts

Computer Applications and Quantitative Methods in Archaeology

International Association for Obsidian Studies

Kentucky Organization of Professional Archaeologists

Lithics Studies Society

Register of Professional Archaeologists

Sigma Xi

Society of American Archaeology

Southeastern Archaeology

Tennessee Council for Professional Archaeology

**ADDITIONAL TRAINING**

2021 SEC Emerging Scholars for Future Faculty (*1 of 10 selected from University of Kentucky)*

2021 Summer Institute on Computational Social Science, Northwestern University

2019 Course in Image Analysis Using Python, HILT Conference, IUPUI

2018 Course in Machine Learning, Digital Humanities Summer Institute, Victoria University

2017 Digital Humanities Bootcamp, Center for Digital Humanities, Vanderbilt University

2013 Section 106 Training for Project Managers, Ohio Department of Transportation

2012 Section 106 Essentials, Advisory Council on Historic Preservation

2012 Advanced Section 106 Training, Piedmont Institute

**SERVICE**

2022-25 **Committee Member**, Meeting Safety Committee, Society for American Archaeology

2021-22 **Secretary**, Society of Postdoctoral Scholars, University of Kentucky

2020-21 **Graduate Program Liaison**, Vanderbilt Anthropology Graduate Student Association

2019-20 **Reviewer**, Digital Humanities Quarterly

2019-20 **Co-President**, Vanderbilt Anthropology Graduate Student Association

2019 **Committee Member**, SAA Task Force on Sexual and Anti-Harassment

2019 **Associate Editor**, Journal of Lithic Studies

2019 **Reviewer**, Association for Computers and the Humanities Conference

2019 **Brown Bag Coordinator**, Vanderbilt Anthropology Graduate Student Association

2017 **Reviewer**, Experiencing Archaeology: A Laboratory Manual of Classroom Activities,

Demonstrations, and Minilabs for Introductory Archaeology, Berghahn Books

2016-17 **Secretary**, Vanderbilt Anthropology Graduate Student Association

2013-14 **Demonstrator**, Stone Tool Analysis, Living Archaeology Weekend

2013-16 **Committee Member**, Kentucky Archaeology Month Steering Committee

2013-15 **Committee Member**, SAA Committee on the Status of Women in Archaeology