

# Sarah E. Walters

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Trained anthropologist, researcher, and human geographer – supporting critical missions that employ the geospatial sciences to enhance human security across the globe – with more than ten years of professional experience conducting scientific research and analysis, anthropological research, mining data, and leveraging geospatial models. Formally educated in cultural, archaeological, and biological sub-fields of anthropological methods and theory. Goals for future work include innovating novel applications for further incorporating human cultural data into existing geospatial distribution models and systems.

## EDUCATION

**M.A. Anthropology** – University of Tennessee (UTK), Knoxville (2016)

**B.A. Anthropology** – Louisiana State University (LSU), Baton Rouge (2009)

## PROFESSIONAL EXPERIENCE

### Co-PI (September 2023 – Present)

Population Density Tables (PDT) Project  
Oak Ridge National Laboratory (ORNL) – Oak Ridge, TN

Supervisor: Marie L. Urban

External responsibilities as Co-PI

- Attend and participate in meetings with current and prospective project sponsors, managers, and stakeholders.
- Regularly collaborate with sponsors to develop new tools and capabilities to provide increased user access to the breath of data collected within the PDT system.
- Update sponsors regarding project progress and new developments on a weekly cycle, as well as developing monthly project highlights.
- Lead out the development, evaluation, and delivery of the annual dataset and associated report to project sponsors.

Internal responsibilities as Co-PI

- Lead the PDT team in the day-to-day workflow and activities, as well as directing weekly team meetings.
- Lead out the development of new facility types and models for PDT, as well as directing specific research threads (e.g. PDT365 – PDT applied to a calendrical cycle to better capture variability of human activity patterns).
- Lead and participate on Human Geography Group and Division-level hiring committees.
- Assist with the planning and disbursement of financial resources for the FY.
- Provide guidance and interface requests from both the PDT sponsor and internal team to the PDT development team during weekly meetings.

## Associate Research Scientist (August 2020 – Present)

Population Density Tables (PDT) Project  
Oak Ridge National Laboratory (ORNL) – Oak Ridge, TN

Supervisor: Marie L. Urban

Provide supervisory support for PDT.

- Assist with the development of the PDT annual dataset delivery and associated sponsor report.
- Responsible for maintaining data standards and quality through the oversight and review of PDT observations.
- Provide mentorship and guidance to new team-members, which includes providing information on the project and system, advising on specific research and professional development, as well as technical support and troubleshooting.
- Serve as an account manager for PDT, ensuring site security throughout the approval process, approving ~10-15 account requests monthly, and working directly with user community to provide technical support.
- Organize PDT interface development tasks and requests, ensure completion, and provide updates and training, as necessary, to team members and external systems users.
- Maintain a running database of laboratory equipment and property for the team, ensuring each member has access to adequate tools and technology.

Provide research and development of the PDT system.

- Primary responsibility is the development of building-level observations of activity and use for more than 60+ facility types, globally.
- Responsible for identifying and gathering demographic data, as well as integrating national and subnational census data to inform PDT occupancy models.
- Identify areas within PDT that may be improved or streamlined through a system modification or a change in workflow.
- Lead the continuous development(s) of the PDT interface, in conjunction with project sponsors and internal team members, to include the new PDT Spatial Viewer (released Fall 2019).
- Represent ORNL at academic conferences and symposia (e.g. American Association of Geographers, and the American Geophysical Union).

Participate in collaborative efforts.

- Key PDT support for delivering data to the ORNL LandScan HD and LandScan Global datasets (>15 datasets in FY 23).
- Key member of the multidisciplinary team that is currently developing a new approach to feature detection and counting through the Feature Extraction Tool – a CNN-based algorithm using deep-learning to automate the identification and quantification of features such as cemeteries, ports, or tents using high-resolution satellite imagery.
- Collaborating with the Critical Resilience Infrastructure Group to review, update, and expand existing models for the PDT Transportation facility types, with a current focus on how to accurately estimate occupancy for Ports when data availability is limited.

### **Post Master's Research Associate (July 2017 – August 2020)**

Population Density Tables (PDT) Project

Oak Ridge Institute for Science and Education (ORISE) – Oak Ridge, TN

Mentor: Marie L. Urban

Provided both research and development of the PDT system.

- Primary responsibility was the development of building-level observations of activity and use – using open-source data – for more than 60+ facility types, globally.
- Responsible for identifying and gathering demographic data, as well as integrating country-level Census data into the PDT interface.
- Identified areas within PDT that could be improved or streamlined through a system modification or a change in workflow.
- Assisted in the development of the new PDT Spatial Viewer (released Fall 2019).
- Represented ORNL at academic conferences and symposia (e.g. American Association of Geographers, and the American Geophysical Union).

Participated in collaborative efforts.

- Key member of the team that began developing the Feature Counting Tool (FCT) – CNN-based algorithms used to automate the identification and quantification of cemeteries and burials using satellite imagery.

Provided supervisory support for PDT.

- Responsible for the independent review and publication of PDT building-level observations to the PDT system.
- Helped train new PDT team-members, which included providing information on the project and system, advising on specific research, as well as technical support and troubleshooting.
- Maintained a Trello board for all development team requests.
- Maintained a running database of laboratory equipment and property for the team.

### **Analyst (February 2021 – March 2022)**

World Spatiotemporal Analytics and Mapping Project (WSTAMP)

Oak Ridge Institute for Science and Education (ORISE) – Oak Ridge, TN

Supervisor: Robert Stewart, Ph.D.

Served as an independent analyst.

- With no prior experience with WSTAMP, I acted as an external user of the WSTAMP interface, advising the team and providing directed feedback on the functionality of the existing system.
- Offered suggestions for improvements to the WSTAMP interface to improve ease of use and accessibility of the data, resulting in several significant changes to the user interface.

Developed case studies using WSTAMP data and analytical toolkit.

- Asked to develop case studies using WSTAMP as examples for external users as to how the extensive data in the system could be applied to real world issues.
- Developed two examples, one looking at the inverse incidence of COVID-19 and Malaria throughout Sub-Saharan Africa, and the other exploring increased instances of conflict across several countries.
- Presented both case studies to the WSTAMP project sponsors, receiving commendation from the sponsors for the COVID-19 study.
- Additionally, identified several new national and regional datasets for inclusion in the WSTAMP data repository.

### **Research Lead, Population Density Tables (March 2019 – February 2022)**

PlanetSense Point of Interest (POI) Quality Assurance Quality Control (QA/QC) Project  
Oak Ridge Institute for Science and Education (ORISE) – Oak Ridge, TN

Supervisors: Kelly Sims and Kevin Sparks

Served as the PDT research lead.

- Assisted in the development of the POI QA/QC process used to validate the accuracy of the >210 million points of interest collected by PlanetSense.
- Resulted in the QA/QC process being applied to more than 100k POIs.

### **Research Associate (March 2020 – May 2020)**

Joint DOE Laboratory Plan for Pandemic Modeling & Analysis Capability Phase 1 (SARS-CoV-2 Project)  
Oak Ridge Institute for Science and Education (ORISE) – Oak Ridge, TN

Supervisors: Robert Stewart, Ph.D. and Jason Kaufman

Data collection team member.

- Responsible for identification and daily data capture from State Health Department websites, in support of SARS-CoV-2 Pandemic research.
- Responsible for adapting various categories of data to fit the standard template used for the project.
- Assisted the data curation project lead in reviewing the validation and accuracy of submitted data spreadsheets for other team members and was tasked to provide leadership and direction to the rest of the manual data curation team whenever the data curator was not present.
- Provided daily collated results to the automated data curation team through a GitHub repository.

### **Secretary (August 2018 – August 2019)**

East Tennessee Chapter, American Society for Photogrammetry and Remote Sensing (ASPRS)

Primary record-keeper and chapter organizer for the 2018-2019 year.

- Created and disseminated monthly meeting agendas for both Officer and Chapter meetings.
- Was responsible for taking monthly minutes and capturing attendance at all meetings.
- Preserved all chapter records, both physically and electronically.
- Also helped arrange multiple outreach events with local middle-school STEM students.

### **Field Technician (Summer 2017)**

University of Tennessee, Archaeological Research Laboratory (ARL) – Knoxville, TN

Supervisor: Howard Cyr

Invited to participate in Phase 3 archaeological excavations on the University of Tennessee campus.

- Responsible for excavation, artifact identification and collection, photographing and recording each archaeological unit, and for capturing detailed, accurate records of the excavation process.
- Helped to educate early-career archaeologists in basic field techniques.

### **Field Director, Archaeological Technician, and GIS Technician (September 2013 – February 2015)**

AMEC Foster Wheeler Environment & Infrastructure, Inc. – Knoxville, TN

Supervisor: Jennifer Stone

Lead archaeological excavations throughout the Southeastern United States.

- Directed multiple crew members in archaeological survey, both Phase 1 and Phase 2.
- Interfaced with landowners as part of site access and worked with state and county construction crews to avoid and preserve known archaeological sites.
- Assessed recovered artifacts for provenience and temporal association.
- Captured regular location data using Trimble handheld GPS devices.
- Considered personnel health, safety, and welfare.

Responsible for conducting research, in-field excavations, laboratory processing, artifact curation, and the authorship of technical reports.

- Conducted site research prior to excavations at State Historic Preservations Offices (SHPO), as well as at local museums and historic societies.
- Conducted excavations, while maintaining photographic and paper records.
- Identified, processed, and curated artifacts.

Key member of a United States Air Force-funded AFFF research project team.

- Conducted research and environmental assessment of both active and decommissioned US Air Force bases for past uses of AFFF fire-fighting foams.
- Interview current and retired fire chiefs at multiple facilities.
- Presented recommendations to the US Air Force based on research.

Product creation.

- Regularly produced technical reports for both clients and for preservation at the SHPO.
- Made use of GPS locational data collected during excavations to produce ArcGIS site maps for clients, technical reports, and for the SHPO.
- Created a public outreach brochure and associated posters for the National Park Service as part of an Environment Impact Assessment (EIA) site mitigation project.

### **Laboratory and Field Supervisor (Summer 2010 and Summer 2012)**

The Bells Bend Archaeological Project – Nashville, TN  
University of Tennessee, Department of Anthropology

PI/Supervisor: David G. Anderson, Ph.D.

Directed in-field excavation and laboratory processing.

- Supervised archaeological research both in-field and at the on-site laboratory.
- Directed the processing and cataloging of artifacts to include stringent Paleoethnobotanical processing methodologies, maintained project paperwork.
- Considered personnel safety, health, and welfare to include working with local law enforcement to ensure a safe environment for our staff, as well as the protection of archaeological sites in the area.

Led outreach and volunteer events.

- Main liaison for volunteers and general public interest in the research being conducted at Bells Bend.
- Worked with local residents to gather information on known site location, and to also understand and avoid site looting efforts that were undertaken during the excavation season.
- Created and led events that allowed local children and public to get involved in laboratory processing at the site.

### **Field Supervisor (Summer 2008 – Summer 2012)**

The Topper Archaeological Site – Martin, SC  
University of South Carolina, South Carolina Institute for Archaeology and Anthropology

PI/Supervisor: Albert C. Goodyear, Ph.D.

Directed in-field excavation and laboratory processing.

- Supervised staff, students, and volunteers during summer field excavations over a period of five years.
- Responsible for the collection, identification, and organization of artifacts and associated materials, to include paper field records and site photographs.
- Maintained personnel safety and excavation unit integrity in a challenging, delicate, and dynamic environment.

Educated avocational archaeologists and the general public.

- Taught excavation and site reporting methods.
- Participated in multiple educational film projects with various institutions, including PBS and The University of South Carolina.

### **Field Technician (Summer 2011)**

The Debra L. Friedkin Archaeological Site – Florence, TX  
Texas A & M University

PI/Supervisor: Michael Waters, Ph.D.

Invited to participate in a Phase 3 archaeological excavation.

- Provided project support in the form of in-field archaeological excavation, artifact recovery and documentation, soil mapping and assessment, and artifact processing, identification, and organization.

### **Graduate Research Assistant (January 2010 – May 2011)**

University of Tennessee, Department of Anthropology – Knoxville, TN

Supervisor: Mark Freeman

Supported the National Park Service database collection effort.

- Responsible for the collection of National Park Service data and images and their incorporation into a single accessible large data repository.
- Included the modification of some images to remove provenience or accession data through Adobe Photoshop.
- Also responsible for directly interfacing with National Park Service Park Superintendents and their staff to acquire additional data and information in support of this research project.

### **Field Technician (Fall 2009)**

University of Tennessee, Archaeological Research Laboratory (ARL) – Knoxville, TN

Supervisor: Michael Angst

Provided in-field excavation.

- Provided project support in the form of in-field, Phase 1 archaeological excavation, artifact recovery and documentation, soil mapping and assessment, as well as artifact processing, identification, and organization.

### **Supervisor, Archaeological Field School (Summer 2007)**

The Morganza Elementary Archaeological Project – Morganza, LA  
Louisiana State University (LSU)

PI/Supervisor: Kira Blaisdell Sloan, Ph.D.

Directed in-field excavation.

- Provided supervisory project support in the form of directing students in archaeological excavation, artifact recovery and documentation, soil mapping and assessment, as well as artifact processing, identification and organization.

### **Archaeological Field Intern (Summer 2007; paid)**

The Topper Archaeological Site – Martin, SC  
University of South Carolina, South Carolina Institute for Archaeology and Anthropology (SCIAA)

PI/Supervisor: Albert C. Goodyear, Ph.D.

Provided both in-field and laboratory support.

- Provided project support in the form of in-field archaeological excavation, artifact recovery and documentation, soil mapping and assessment, as well as artifact processing, identification and organization.

## AWARDS

### ORNL Service Award (2023)

Recognized by the ORNL Geospatial Science and Human Security Division for providing enthusiastic support of peers and colleagues, success as a reviewer of documents, presentations, and other artifacts for publication in peer-reviewed platforms.

### Distinguished Innovation (2023)

Award presented to the Population Density Tables Project Team by the ORNL National Security Science Directorate in recognition of novel advancements in the temporal reporting of building occupancy to improve decision makers' ability to detect the possibility for civilian casualties.

### Your Science in a Nutshell Competition – Finalist (2022)

Selected as a finalist in the 2022 Your Science in a Nutshell Competition, an annual competition supported by the Department of Energy and held at Oak Ridge National Laboratory. The competition involves Early Career Scientists providing an overview of their current research in two minutes using no more than two slides to Laboratory leadership, colleagues, and peers.

### Graduate Student Senate Travel Award (2013)

Awarded by The University of Tennessee (UTK) Graduate Student Senate (GSS) to offset conference travel costs for the PaleoAmerican Odyssey Conference in Santa Fe, NM.

The UTK Department of Anthropology also provided matching funds to support this GSS Travel Award.

### Patricia Black Archaeological Research Award (2012)

Awarded by The University of Tennessee Department of Anthropology to offset the costs of Accelerated Mass Spectrometry (AMS) dating for master's thesis research.

## SELECT PUBLICATIONS

P.A. Dias, T. Kobayashi-Carvalhaes, **S. Walters**, T. Frazier, C. Woody, S. Guggilam, D. Adams, A. Potnis, and D. Lunga (2023)

*Chapter 13: GeoAI for Humanitarian Assistance.* In HANDBOOK OF GEOSPATIAL ARTIFICIAL INTELLIGENCE  
CRC Press, Taylor & Francis Group

M. Urban, J. Moehl, P. Dias, J. Tuccillo, A. Reith, K. Sims, **S. Walters**, J. Arndt, A. Potnis, and D. Lunga (2023)

*Towards Rapid Response Updates of Populations at Risk.* IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS) INTERNATIONAL SYMPOSIUM ON GEOSCIENCE AND REMOTE SENSING (IGARSS)

R. Stewart, J. Piburn, **S. Walters**, J. Kaufman, E. Ezell, D.H. Anderson, D. Axley, J. Grant, B. Eaton, A. Sorokine, and G. Simpson (2021)

*A Taxonomic Classification Approach for Global Spatio-Temporal Data*  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA SPATIAL DATA SCIENCE SYMPOSIUM, SHORT PAPER PROCEEDINGS

D. Lunga, R. Dhamdhare, **S.E. Walters**, L.N. Bingham Bragg, N. Makkar and M.L. Urban (2020)

*Learning to Count Grave Sites for Cemetery Observation Models with Satellite Imagery*  
IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS) GEOSCIENCE AND REMOTE SENSING LETTERS

### S.E. Walters (2016)

*Deeply Rooted: A Feasibility Study Testing the Potential for AMS Dating Through Paleoethnobotanical Recovery Methods at the Topper Site (38AL23)*

UNIVERSITY OF TENNESSEE, KNOXVILLE, Master's Thesis



D.T. Anderson, A.M. Smallwood, A.C. Goodyear, and **S.E. Walters (2016)**  
*The Paleoindian and Early Archaic Hilltop Occupations at the Topper Site*  
TENNESSEE ARCHAEOLOGY, VOLUME 8(1-2), Pages 102-113  
Tennessee Council for Professional Archaeology

## SELECT REPORTS

M. Urban, **S. Walters**, C. Woody, S. Basford, A. Iman, E. Axley, A. Roy, A. Cunningham, J. Piburn, and R. Stewart (2023)  
*Population Density Tables (PDT) Annual Release Report*. SPONSOR REPORT - ORNL/SPR-2023/2903

M. Urban, **S. Walters**, and C. Woody (2022)  
*Population Density Tables (PDT) Annual Release Report*. SPONSOR REPORT - ORNL/SPR-2022/2592

M. Urban and **S. Walters (2021)**  
*Population Density Tables (PDT) 2021 Annual Release Report*. Sponsor Report - ORNL/SPR-2021/1796

J.E. Brown and **S.E. Walters (2014)**  
*Archaeological Survey of Proposed Raw Transmission Water Pipeline, Cherokee County, Georgia*  
Submitted to the Cherokee County Water and Sewerage Authority

J.E. Brown and **S.E. Walters (2014)**  
*Environmental Assessment, Selmer North Solar Farm, Selmer, McNairy County, Tennessee*  
Submitted to the Tennessee Valley Authority

J.E. Brown and **S.E. Walters (2014)**  
*Phase I Archaeological Survey of Proposed Solar Farm Construction in Bethel Springs, McNairy County, Tennessee*  
Submitted to the Tennessee Valley Authority

J.E. Brown and **S.E. Walters (2014)**  
*Phase I Archaeological Survey of Proposed Solar Farm Construction in Selmer, McNairy County, Tennessee*  
Submitted to the Tennessee Valley Authority

J.E. Brown and **S.E. Walters (2013)**  
*Phase II Archaeological Survey of Proposed 54 Acre Expansion at the Mountain Home National Cemetery, Johnson City, Tennessee*  
Submitted to the Department of Veterans Affairs, National Cemetery Administration, Washington, DC

## SELECT PRESENTATIONS

**S. Walters**, M. Urban, L. Bragg, and Z. Palmer (2023)  
*Spatializing the Culture Surrounding Death to Capture Patterns of Life: Informing the High-Resolution Population Modeling of Cemeteries*  
SOUTHERN DEMOGRAPHIC ASSOCIATION (SDA) ANNUAL MEETING, San Antonio, TX

C. Melton, D. Adams, **S. Walters**, and C. Christopher (2023)  
*The Pressing Water Data Challenge (Poster)*  
GLOBAL WATER CHALLENGE - ORNL CLIMATE SECURITY WORKSHOP SERIES, Oak Ridge, TN

M. Urban, J. Moehl, P. Dias, J. Tuccillo, A. Reith, K. Sims, **S. Walters**, J. Arndt, A. Potnis, and D. Lunga (2023)  
*Towards Rapid Response Updates of Populations at Risk*  
INTERNATIONAL GEOSCIENCE AND REMOTE SENSING SYMPOSIUM (IGARSS), Pasadena, CA

**S. Walters** and M. Urban (2023)  
*Ambient Population Density Estimation Applied to a Calendrical Cycle – Population Density Tables (PDT) 365*  
AMERICAN ASSOCIATION OF GEOGRAPHERS (AAG) ANNUAL MEETING, Denver, CO

**S. E. Walters (2022)**

*A Matter of Life and Death: An Interdisciplinary Approach for the Population Modeling of Cemeteries*  
DOE ORNL - YOUR SCIENCE IN A NUTSHELL COMPETITION, Oak Ridge, TN

**S. Walters, Z. Palmer, S. Peterson, and M. Urban (2022)**

*All Hands on Deck: Refining High-Resolution Activity Models for Port Facilities*  
AMERICAN ASSOCIATION OF GEOGRAPHERS (AAG) ANNUAL MEETING, New York, NY (Virtual)

R. Stewart, J. Piburn, **S. Walters**, J. Kaufman, E. Ezell, D. Anderson, A. Axley, J. Grant, and A. Sorokine (2021)

*A Taxonomic Classification Approach for Global Spatio-Temporal Data*  
UCSB SPATIAL DATA SCIENCE SYMPOSIUM, Santa Barbara, CA

**S.E. Walters, L.N. Bingham Bragg, R. Dhamdhare, and D. Lunga (2020)**

*Lifting the Veil: A Mixed Methods Approach for the Population Modeling of Cemeteries*  
AMERICAN ASSOCIATION OF GEOGRAPHERS (AAG) ANNUAL MEETING, Denver, CO  
(presentation accepted, however conference cancelled due to SARS-CoV-2 Pandemic)

L.N. Bingham Bragg, **S.E. Walters**, R. Dhamdhare, D. Lunga, and M.L. Urban (2019)

*Using Cultural Knowledge to Develop Population Density Estimates for Cemeteries*  
AMERICAN ASSOCIATION OF GEOGRAPHERS (AAG) ANNUAL MEETING, Washington, DC

**S.E. Walters, M.L. Urban, and K.A. Sparks (2018)**

*What the People are Within, the Buildings Express Without: Understanding Facility-Use Variability on a Global Scale – A case study of educational facilities in Somalia (Poster)*  
AMERICAN GEOPHYSICAL UNION (AGU) ANNUAL MEETING, Washington, DC

**S.E. Walters (2018)**

*Systemic Expansion of PDT to Incorporate Heritage Sites as Potential Indicators of Social and Political Change in Movement and Landscape*  
UNIVERSITY OF TENNESSEE GEOGRAPHY RESEARCH SYMPOSIUM, Knoxville, TN

**S.E. Walters (2014)**

*Tell Me What You Ate, and I'll Tell You Who, What, and When You Were: Paleoethnobotanical Analysis Along the Savannah River*  
SOCIETY FOR AMERICAN ARCHAEOLOGY (SAA), Austin, TX

D.T. Anderson, A. Smallwood, A.C. Goodyear, and **S.E. Walters (2013)**

*Dating Clovis in the Southeast: The Hillside Clovis Occupation at the Topper Site*  
Invited; SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE (SEAC) ANNUAL MEETING, Tampa, FL

**S.E. Walters and S.C. von Gunter (2013)**

*The Secret Life of Carbonized Plant Remains: A Guide to Dating in the Age of Clovis*  
Invited; PALEOAMERICAN ODYSSEY CONFERENCE, Santa Fe, NM

A. Smallwood, A.C. Goodyear, D.T. Anderson, D.S. Miller, and **S.E. Walters (2013)**

*Dating the Hillside Clovis Occupation of the Topper Site, Allendale County, South Carolina*  
Invited; PALEOAMERICAN ODYSSEY CONFERENCE, Santa Fe, NM

**S.E. Walters (2012)**

*Tell Me What You Ate and We'll Tell You Who, What, and When You Were: A Broader Look at the Benefits of Paleoethnobotanical Study*  
SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE (SEAC) ANNUAL MEETING, Baton Rouge, LA

S.C. von Gunter and **S.E. Walters (2011)**

*Presence/Absence Study for the Recovery of Carbonized Plant Remains from the Topper Site (38AL23) Allendale County, South Carolina*  
SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE (SEAC) ANNUAL MEETING, Jacksonville, FL

D.G. Anderson, D.S. Miller, T. Pertierra, D.T. Anderson, T. Bissett, S. Carmody, T.A. Hadlett, E.N. Johanson, A.M. Smallwood, and **S.E. Walters (2011)**

*The 2010 Cumberland River/Midsouth Paleoindian Survey Project: Exploring Human Occupation and Climate Change in the Late Pleistocene and Holocene Eras*

23<sup>RD</sup> ANNUAL MEETING ON CURRENT RESEARCH IN TENNESSEE ARCHAEOLOGY (CRITA), Nashville, TN

D.G. Anderson, D.S. Miller, T. Pertierra, D.T. Anderson, T. Bissett, S. Carmody, T.A. Hadlett, E.N. Johanson, A.M. Smallwood, and **S.E. Walters (2010)**

*Cumberland River/Midsouth Paleoindian Survey Project: Summer 2010 Research*

ANNUAL MEETING OF THE SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE (SEAC), Lexington, KY

**S.E. Walters** and A.J. Naunheimer (2010)

*A Lithic Analysis of the Wingos Quarter Site, Bedford County, Virginia*

MIDDLE ATLANTIC ARCHAEOLOGICAL CONFERENCE (MAAC), Ocean City, MD

## DATASETS

### Population Density Tables (PDT)

2023 PDT Static Snapshot Dataset (in association with annual release report ORNL/SPR-2023/2903)

2022 PDT Static Snapshot Dataset (in association with annual release report ORNL/SPR-2022/2592)

2021 PDT Static Snapshot Dataset (in association with annual release report ORNL/SPR-2021/1796)

### LandScan HD

2023 Ukraine v3.0, China v1.0, Ethiopia v2.0, Türkiye v1.0, Poland v1.0, Slovakia v1.0, Belarus v1.0, Moldova v1.0, Hungary v1.0, Egypt v2.0, South Sudan v2.0, Sudan v1.0, Syria v2.0

2022 Ukraine v1.0, Ukraine v2.0, Honduras v1.0, China v1.0, North Korea v2.0

### LandScan Global

2023 Global Population Demographic Update Dataset

2022 Global Population Demographic Update Dataset

2021 Global Population Demographic Update Dataset

### World SpatioTemporal Analytics and Mapping Project (WSTAMP)

2022 V2.7.6 (Cleanup)

2021 V2.6 (Network Tools), V2.7 (Multivariate Trends), V2.7.5 (UI Redesign)

## SKILLS & QUALIFICATIONS

Extensive experience in:

- Effectively leveraging open-source research methods
- Writing academic papers and technical reports (public, private, and academic sectors)
- Presenting at professional / academic conferences and meetings (presentations and posters)
- Conducting and managing research projects
- Leading and directing group efforts
- Mentoring new team members
- ESRI ArcGIS Desktop
- Maxar/Digital Globe EnhancedView Web Hosting Service (EVWHS)
- Microsoft Office Suite
- Adobe Software
- Conducting archaeological survey (all phases)

Working knowledge of:

- QGIS
- GitHub
- Ubuntu

Adept at conducting public outreach efforts, to include the development and implementation of written and graphic materials.

## PROFESSIONAL AFFILIATIONS, MEMBERSHIPS, AND CERTIFICATIONS

American Geophysical Union (AGU)

American Association of Geographers (AAG)

Southern Demographic Association (SDA)

Registered Professional Archaeologist (RPA No. 42997323) – Issued August 2016

## SERVICE

Board Member – American Association of Geographers, Student Paper Award Committee (2023-2024)

Civility Judge – Tennessee Science Bowl (2022 - 2023)

Secretary – East Tennessee Chapter of the American Society for Photogrammetry and Remote Sensing (2018-2019)