



Fields of Conflict

CONFERENCE 2018 PEQUOT MUSEUM

10th Biennial International Conference • 26 - 30 September 2018
Mashantucket Pequot Museum & Research Center

PRELIMINARY SCHEDULE



MASHANTUCKET PEQUOT MUSEUM & RESEARCH CENTER
110 PEQUOT TRAIL, MASHANTUCKET, CONNECTICUT 06338 USA

MASHANTUCKET PEQUOT MUSEUM & RESEARCH CENTER

MISSION STATEMENT

The Mashantucket Pequot Museum & Research Center (MPMRC), part of the government of the Mashantucket Pequot Tribal Nation, is a non-profit educational institution that seeks to further knowledge and understanding of the richness and diversity of the indigenous cultures and societies of the United States and Canada.

To accomplish this mission, the Mashantucket Pequot Museum & Research Center conducts and supports research and the development of ethnographic, archival, library, and archaeological collections and provides programs and exhibits that encourage interaction with and among indigenous peoples, the general public, and the scholarly community.

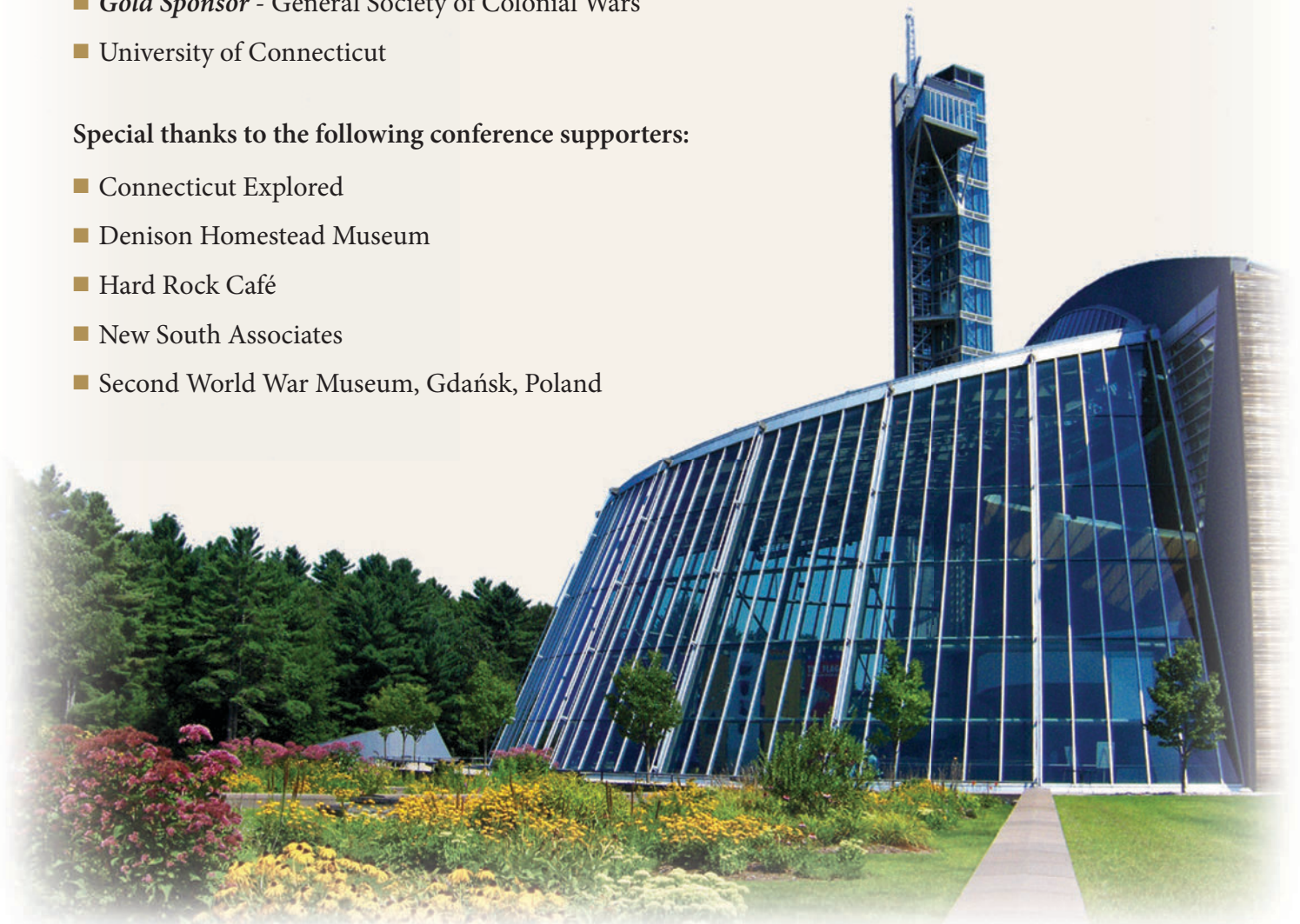
CONFERENCE SPONSORS

The Fields of Conflict 2018 conference has been made possible by:

- *Grant* - U.S. National Park Service, American Battlefield Protection Program
- *Gold Sponsor* - General Society of Colonial Wars
- University of Connecticut

Special thanks to the following conference supporters:

- Connecticut Explored
- Denison Homestead Museum
- Hard Rock Café
- New South Associates
- Second World War Museum, Gdańsk, Poland





Fields of Conflict
CONFERENCE 2018 PEQUOT MUSEUM

WELCOME ADDRESS

The Fields of Conflict, Provisional Working Group, welcomes you to the Tenth Biennial Fields of Conflict Conference hosted by the Mashantucket Pequot Museum & Research Center.

For the next four days you will be surrounded by some of the best and brightest of conflict archaeologists from across the globe. Like all great ideas, Fields of Conflict (FOC) was born in a pub in 1998 when co-founders Phil W. M. Freeman and Anthony "Tony" Pollard pondered the idea of gathering battlefield archaeologists together to discuss issues unique to their subject. With a call for papers, they were overwhelmed at the response, and since that first meeting in Glasgow, Scotland, in 2000, Fields of Conflict has grown exponentially. This tenth meeting includes some 90 papers from 17 countries.

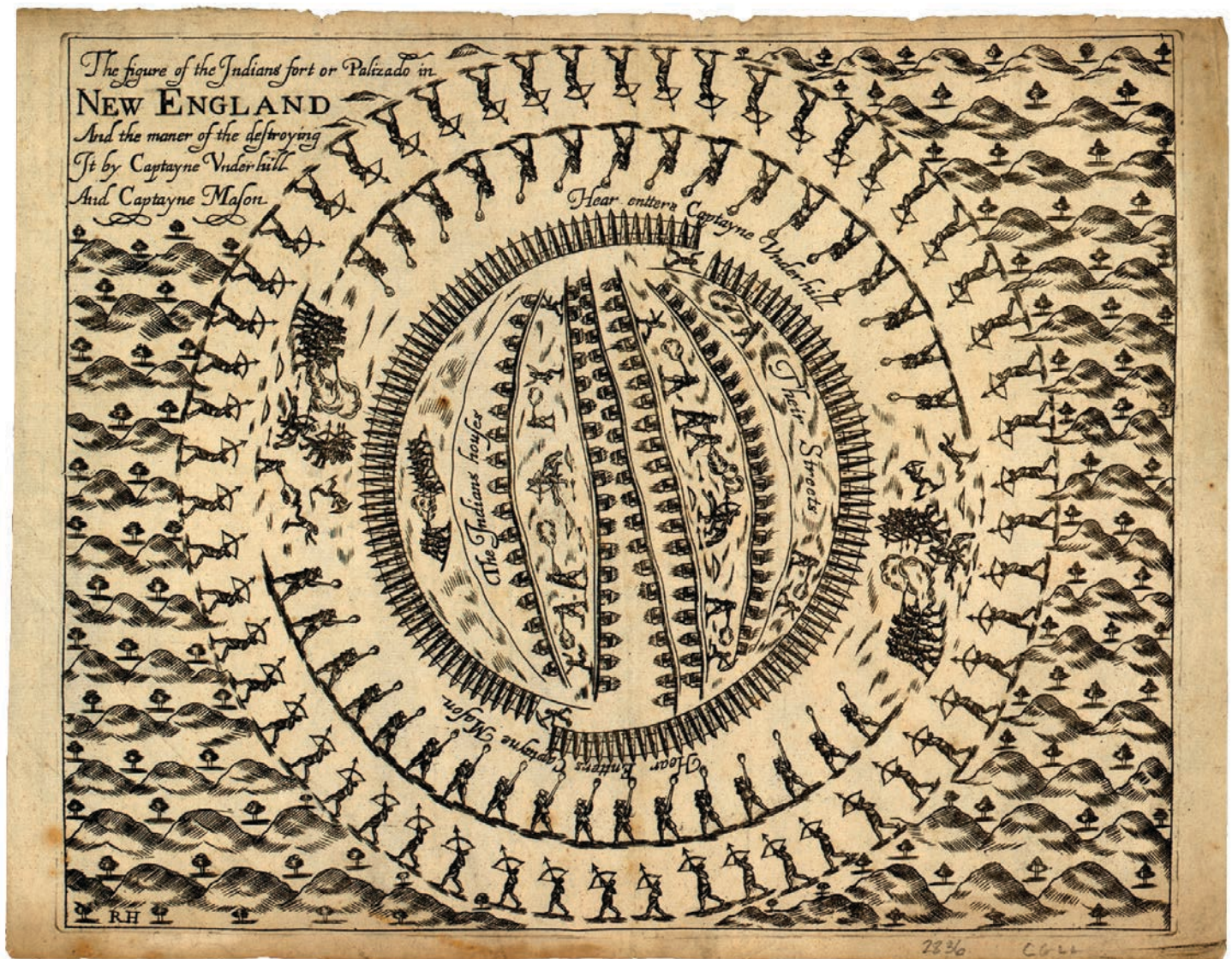
With a great venue like the museum and research center, we are excited to be a part of this edition of FOC 2018 and look forward to meeting old friends and making new. Please take a moment to thank our hosts and introduce yourselves to us at the center.

**Joanna Ball • Charles M. Haecker • Doug D. Scott
Damian Shiels • Michelle D. Sivilich • Steven D. Smith**



On behalf of the Mashantucket Pequot Tribe, I would like to thank all of you for participating in the 2018 FOC Conference. In the ten years that we have been conducting research on seventeenth century Native-Colonial conflicts we have come to appreciate how important battlefield studies are for understanding the past. Many of you have graciously provided help and guidance to us in various forms over the years and we continue to learn from your research. We are very proud and excited to host the conference, and I am looking forward to meeting all of you.

**Kevin McBride
Director of Research
Mashantucket Pequot Museum & Research Center**



This European engraving presents a stylized view of the assault on the fortified Pequot village at Mystic. The image was made in 1638 to illustrate an account written by Captain John Underhill — one of the leaders of the attack on May 26, 1637, in which as many as 600 Pequots were killed.



SESSION PROTOCOL

Because of the number of presentations, we have felt it necessary to have concurrent sessions Thursday through Saturday to accommodate all of the excellent papers.

As such, it is extremely important to adhere precisely to the time frame allowed for each paper.

Each presenter will be allotted exactly 20 minutes to present and will be alerted by the session chair at the five minute mark, and will be alerted at the two- and one-minute intervals.

The session chairs' responsibility will be to introduce the presenters, follow the prearranged schedule and help facilitate the discussion in the 10 minute Q&A at the end of each session. Following the Q&A there will be a 10 minute break and a prompt start time for the upcoming session.

Please be respectful to the presenters and the audience by turning off or silencing all electronic devices.

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Conical Point on display in the Pequot War Gallery, MPMRC.

CONFERENCE ORGANIZERS

Co-Chairs

Kevin McBride
Ashley Bissonnette
David Naumec

Organizer

Michael Derderian

Advisory Committee

Joanna Ball
Charles M. Haecker
Doug D. Scott
Damian Shiels
Michelle D. Sivilich
Steven D. Smith

PRELIMINARY SCHEDULE OF EVENTS

WEDNESDAY • SEPTEMBER 26, 2018

- 9:00-4:00PM Registration: Group Entrance, Mashantucket Pequot Museum & Research Center
- 10:00-12:00PM Archaeology lab tours and tour of Monhantic Fort Site (Pequot fortified village ca. 1675-1680)

AFTERNOON SESSION • WEDNESDAY, SEPTEMBER 26TH

- 1:00-1:30PM **Welcome Address:** Rodney Butler, Tribal Chairman, Mashantucket Pequot Tribal Nation and Kevin McBride, Director of Research, Mashantucket Pequot Museum & Research Center, Steven D. Smith, Member, Fields of Conflict Committee
- Surveying the Field II: A Further Look into the Future of Conflict Archaeology**
Session Chairs: Michelle D. Sivilich, *University of South Florida* & Carl Drexler, *University of Arkansas*
- 1:30-1:50PM **Between the Lines: The Archaeology of the Siege of Petersburg**
Presenters: Philip Shiman, *Historian*, David Lowe, *U.S. National Park Service*, Julia Steele, *U.S. National Park Service*
- 1:50-2:10PM **Excavating KOCOA: The Past, Present, and Future of American Conflict Archaeology's Favorite Tool**
Presenter: Carl Drexler, *University of Arkansas*
- 2:10-2:30PM **The Materiality of Roman Battle: Applying Conflict Archaeology Methods to the Roman World**
Presenter: Joanne E. Ball, *University of Liverpool*
- 2:30-2:40PM Break
- 2:40-3:00PM **Conquest vs. Conflict in the American Southwest: Archaeology, Indigenous Perspectives, and the Pueblo Revolt of 1680**
Presenter: Matthew Liebmann, *Harvard University*
- 3:00-3:20PM **The Second Battle of Princeton: Field Notes from Compliance Archeology at Conflict Sites**
Presenters: Matthew Palus and Lyle C. Torp, *Ottery Group*
- 3:20-3:40PM **Marching Into The Future of Seminole War Studies**
Presenter: Michelle D. Sivilich, *University of South Florida*
- 3:40-3:50PM Q&A
- 4:00-5:00PM Fields of Conflict business meeting & award ceremony

EVENING EVENTS • WEDNESDAY, SEPTEMBER 26TH

- 5:30-7:00PM The Grill at Two Trees (cash bar and hors d'oeuvres)



Musket Balls on display in the Pequot War Gallery, MPMRC.

8:00-4:00PM Registration: Group Entrance, Mashantucket Pequot Museum & Research Center

MORNING SESSIONS • THURSDAY, SEPTEMBER 27TH

Methods In Conflict Archeology

Session chair: Jennifer F. McKinnon

8:30-8:50AM ***The Netherlands During the Napoleonic Era (1794-1815). Using Detector Finds to Shed Light on an Under-Researched Period***
Presenter: Vincent van der Veen, *Vrije Universiteit Amsterdam*

8:50-9:10AM ***"St Kilda at War" and the Historic Aircraft Archaeology Survey Project [HAASP]: Current Results and Future Planning Research***
Presenter: Terence Christian, *Temple University*

9:10-9:30AM ***Musket Balls from the Boston Massacre - Are They Authentic?***
Presenters: Dan Sivilich, *BRAVO* and Joel Bohy, *Skinner Auctions*

9:30-9:50AM ***Revisiting the US Military 'Levels of War' Model as a Conceptual Tool in Conflict Archaeology: A Case Study of WW2 Landscapes in Normandy, France***
Presenters: David G. Passmore, *University of Toronto*, David Capps Tunwell, *Université de Caen-Normandie*, Stephan Harrison, *Exeter University*

9:50-10:00AM Break

10:00-10:20AM ***Experimental Firing, and Analysis of Impacted 17th-18th Century Lead Bullets***
Presenter: Colin Parkman, *University of Huddersfield*

10:20-10:40AM ***A Decade of Community-Based Projects in the Pacific on WWII Conflict Sites***
Presenters: Jennifer F. McKinnon, *UNESCO*, Toni L. Carrell

10:40-11:00AM ***Avocational Detectorists and Battlefield Research: Potential Data Biases***
Presenter: Christopher T. Espenshade, *Archaeologist*

11:00-11:20AM ***Potential Applications for Forensic Ballistics within Twentieth Century Conflict Archaeology***
Presenter: Steven Elliott, *University of Huddersfield*

11:20-11:50PM Q&A

Maritime Conflict Archeology

Session chair: Timothy J. Abel

8:30-8:50AM ***Battle of The Java Sea: Past and Present Conflicts***
Presenters: Martijn Manders and Robert de Hoop, *Cultural Heritage Agency of the Netherlands*

8:50-9:10AM ***"Baggensstäket 1719: The Assault on The Redoubt That Never Existed"***
Presenter: Tomas Englund, *Maritime Archaeological Research Institute*

9:10-9:30AM ***A Battleship In The Wilderness: The Story of the Chippewa and Lake Ontario's Forgotten War of 1812 Naval Shipyard***
Presenter: Timothy J. Abel

9:30-9:50AM ***Westerplatte – The Symbol***
Presenter: Grzegorz Berendt, *University of Gdańsk*

9:50-10:00AM Q&A

10:00-12:00PM **Poster Session**
(*Please refer to following page for a list of poster topics and presenters)



12:00-1:30PM

Lunch (box lunch or lunch on your own)



POSTER SESSION (THURSDAY • 10:00AM-12:00PM)

Time in the Battle. Could We Measure It? Case of Archeological Investigation at Ordon's Redoubt in Warsaw, Poland

Presenters: Witold Migal and Michał Paczkowski

Archaeological Patterns of Pueblo-Spanish Conflict at Sevilleta Pueblo, New Mexico, circa 1581-1681

Presenters: Chris Adams, U.S. Forest Service, Michael Bletzer and Charles Haecker, Advanced Metal Detecting for the Archaeologist

Revolutionary War and War Of 1812 Battlefield GIS Mapping Project

Presenters: Joshua Anderson and Michael Jacobson, Binghamton University

Everlasting Tragedy

Presenter: Sara Abriola, Eastern Connecticut State University

Locating Indigenous Sites in a 17th Century Battlefield: A Preliminary Study of Pequot Domestic Sites in Southern CT

Presenter: Megan Willison, University of Connecticut

Shooting the Past: Colonial and Revolutionary War Firearms Live Fire Experiments and the Role of Validation Studies in Interpreting the Past

Presenter: Douglas D. Scott, Colorado Mesa University, University of Nebraska-Lincoln

Discovering Lexington's Lost Battle — How a Community Came Together to Uncover a Hidden Truth About the First Battle of the American Revolution

Presenters: James Hollister, Joel Bohy, Bill Rose and Margaret Watters Wilkes, U.S. National Park Service

Complexity of the Archaeological Inventory: Battlefield Mapping, Interpretation, and Recording

Presenter: David Lowe, U.S. National Park Service

Geologic conditions Affecting Tunnel construction at the 1864 Battle of the Crater, Petersburg, Virginia

Presenters: C. R. Berquist, Jr., Julia Steele, U.S. National Park Service, Christopher Bailey, M.E. Occhi, Peter J. Berquist, and D. Shockley

The Accidental Fort at Jamestown

Presenters: David Givens, Jamestown Rediscovery, Kym Hall, William Griswold, U.S. National Park Service. Margaret Watters Wilkes, Daniel Welch and Peter Leech, U.S. National Park Service

Conflict and Community Health: Bridging the Gap between Archaeology and Public Health

Presenter: Tiffany Lazur, Eastern Connecticut State University

The French Assault on Fort Necessity, Reconstructing the Battle through Metal Detection

Presenter: Matthew Bjorkman, Michael Whitehead, and Ben Ford, Indiana University of Pennsylvania

Growing Up Chippewa

Presenter: Kelly Baratko, Eastern Connecticut State University

Musket Ball Analysis of the 17th Century Pequot War in Southern New England

Presenter: Srishti Sadhir, University of Connecticut

Deciphering the Battlefields of Block Island 1500-1713

Presenter: Michael Derderian, U.S. National Park Service, Mashantucket Pequot Museum & Research Center

American Fuel Supply Operations during WWII in mainland Europe

Presenters: David Capps-Tunwell MBE, Université de Caen-Normandie and David Passmore, University of Toronto

AFTERNOON SESSIONS • THURSDAY, SEPTEMBER 27TH

Indigenous Colonial Conflicts Archeology

Session chair: Kevin McBride, University of Connecticut, Mashantucket Pequot Museum & Research Center

1:30- Keynote Address

2:00PM *The 1777 Battle of Oriskany and The Iroquois Civil War: A Mohawk Perspective*

Presenter: Doug George-Kanentiio, Mohawk Nation

2:00- *Landscapes of War: Indigenous Resistance to Settler Colonialism in the Oregon Territory 1855-56*

2:20PM Presenter: Mark Tveskov, Southern Oregon University

2:20- *One Battle, Many Cultures: Vazquez De Coronado and The "Tiguex War" of 1540-1542*

2:50PM Presenter: Matthew F. Schmader, University of New Mexico

"The Search For Chicasa: A Desoto-Chickasaw Battle, March 4, 1541"

2:50- Presenters: Chester DePratter, James B. Legg, Steven D. Smith, University of South Carolina, Charles Cobb, University of Florida, Brad R. Lieb, Chickasaw Nation Heritage Preservation Division, Edmond Boudreaux, University of Mississippi

- 3:10-3:30PM ***Defending Southern Inuit Territory***
Presenter: Greg Mitchell
- 3:30-3:50PM ***The Hours After the Massacre: The English Allied Withdrawal from Mistick Fort***
Presenter: David Naumec, *Mashantucket Pequot Museum & Research Center, Clark University*
- 3:50-4:10PM ***Under Documented 17th Century Colonial-Native Battlefields***
Presenter: Kevin McBride, *University of Connecticut, Mashantucket Pequot Museum & Research Center*
- 4:10-4:50PM ***Castles, Conflict and Social Theory – Introducing a Native Welsh Narrative to the Archaeological Record of Twelfth-Century Gwynedd – a Landscape Approach***
Presenter: Jacqueline Veninger, *University of Connecticut*
- 4:50-5:10PM Q&A

EVENING EVENTS • THURSDAY, SEPTEMBER 27TH

- 5:10-6:10PM Matches Café, Lake Of Isles (cash bar and hors d'oeuvres)



Turtle Pipe by Josh Carter on display in
“Katahshayooókanun Mákoóókanash” — Our Family Gifts:
a Pequot Art Exhibit in the Mashantucket Gallery, MPMRC

FRIDAY SEPTEMBER 28, 2018

- 8:00-4:00PM Registration: Group Entrance, Mashantucket Pequot Museum & Research Center

MORNING SESSIONS • FRIDAY, SEPTEMBER, 28TH

Memory and Legacy

Session chair: Ashley Bissonnette, *Mashantucket Pequot Museum & Research Center, Eastern Connecticut State University*

- 8:30-8:50AM ***Healing Heritage Through Decolonization in Indigenous New England Seaboard Museums***
The Mashpee Wampanoag Museum: Identity, Past and Present
Presenter: E. Smith Umland, *Wheaton College, Mashantucket Pequot Museum & Research Center*
- 8:50-9:10AM ***Exploring the Indigenous Experience of Saipan in World War II***
Presenter: Stephanie Soder, *East Carolina University*
- 9:10-9:20AM Break

Battlefield Studies

Session chair: David Naumec, *Mashantucket Pequot Museum & Research Center, Clark University*

- 8:30-8:50AM ***Vepryk - The Politics Of History and Battlefield Archaeology***
Presenter: Adrian Mandyz, *Morehead State University*
- 8:50-9:10AM ***Archaeology of Modern Conflict: ‘The War After The War’ In Lithuania and Battle Oo Užpelkiai Forest, 1949***
Presenter: Gediminas Petrauskas, *National Museum of Lithuania*
- 9:10-9:30AM ***Archaeology of The Spanish Civil War: The Battle at Monte Bernorio***
Presenters: Jesús F. Torres-Martínez, Manuel Fernández-Götz, *University of Edinburgh*, Alicia Hernández-Tórtolas, *Antxoka Martínez-Velasco*

- 9:20-9:40AM ***Contested Heritage; Collecting and Memorializing Material Culture of the Zimbabwe War of Liberation***
Presenter: Njabulo Chipangura, *National Museums and Monuments of Zimbabwe*
- 9:40-10:00AM ***The Archaeology of the Frontier War in Northeast Australia: A Case Study in Meaningful Engagement with Indigenous Australians***
Presenters: Bryce Barker, *University of Southern Queensland*, Col McLennan, *Jangga People of the Central Queensland Highlands*, Jangga Prescribed Body Corporate, Les Harrigan, *Rinyirru Aboriginal Corporation*, Vincent Harrigan, *Dikarrba Balganwarra Dhuppiwarra, Dharrba Warra*, Lynley Wallis, *Universit of Notre Dame Austrailia*, Heather Burke, *Flinders University of South Australia*, Noelene Cole, *James Cook University*, Elizabeth Hatte, *Larry Zimmerman, Indiana University-Purdue University*, Iain Davidson, *University of New England, Austrailia*
- 10:00-10:20AM ***Death and Burial? The Disposal of the Dead from Battles in England, 1400-1685***
Presenter: Sarah Taylor, *University of Huddersfield*
- 10:20-10:40AM Q&A
- 10:40-10:50AM Break

American Revolutionary War

Session chair: Steven D. Smith, *University of South Carolina*

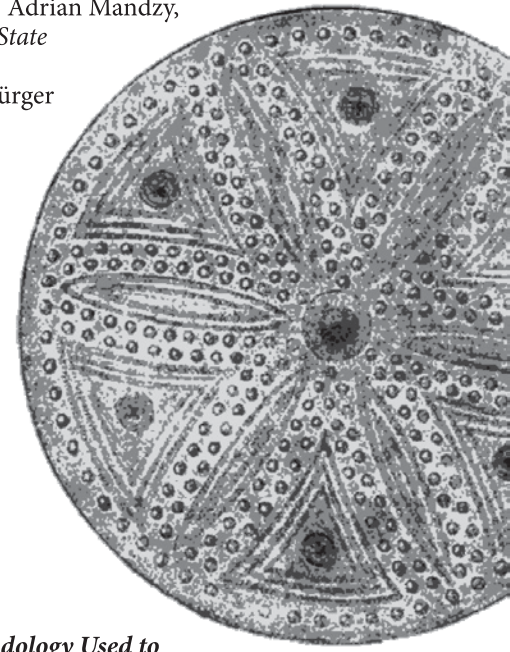
- 10:50-11:10AM ***"Running The Gauntlet: Locating The Battle Of Parker's Ferry, South Carolina"***
Presenters: Steven D. Smith, James B. Legg, Brian Mabelitini, *University of South Carolina*
- 11:10-11:30AM ***"In The Morning We Began To Strip And Bury The Dead:" A Context For Burial Practices During The American Revolution***
Presenters: Robert A. Selig, *U.S. National Park Service*, Wade P. Catts, *South River Heritage Consulting, LLC*
- 11:30-11:50AM ***Historical Narrative And Cultural Landscape Analysis – Revealing The American War Of Independence Battle of Chelsea Creek***
Presenter: Victor T. Mastone, *Salem State University, Massachusetts Board of Underwater Archaeological Resources*
- 11:50-12:00PM Q&A

- 9:30-9:50AM ***Leipzig and The Battle Of Nations***
Presenters: Adrian Mandzy, *Morehead State University*, André Schürger

- 9:50-10:00AM Break

- 10:00-10:20AM ***The Methodology Used to Identify The Battle Site of Fulford (1066ad)***
Presenter: Chas Jones, *Independent Researcher*
- 10:20-10:40AM ***The Battle of Alcala La Vieja, Location And Understanding of A Medieval Battle***
Presenters: Mario Ramírez Galán, Rafael Montalvo Laguna, *University of Portland*, María Benítez Galán
- 10:40-11:00AM ***The Study of Military Archaeology***
Presenter: Zhao Congcang, *Northwestern University, Xian, Shaanxi*

- 11:00-11:20AM ***The Battle Of Cheriton: The Analysis of Lead Finds From An English Civil War Battlefield***
Presenter: Kevin Claxton, *University of York*
- 11:20-11:40AM ***City Walls in the Levant: Physical and Intangible Muslim and Christian Defense in the Medieval Mediterranean***
Presenter: Amanda Charland, *Independent Researcher*
- 11:40-12:00PM ***Native American Fortifications during the Conflicts of European Settlement***
Presenter: Jason Warren, *U.S. Cyber Command*
- 12:00-12:10PM Q&A



12:00-1:30PM
Lunch (box lunch or lunch on your own)

AFTERNOON SESSIONS • FRIDAY, SEPTEMBER 28TH

“Of War, But Not At War:” Conflict Archaeologies of Prisoner of War, Internment and Labor Camps

Session chair: Ryan McNutt, *University of Glasgow*

1:30-1:50PM ***Grey Ghosts: Searching Confederates at Camp Lawton, Georgia, USA***
Presenter: Ryan McNutt, *University of Glasgow*

1:50-2:10PM ***Form over Watype: Ceramics from Idaho's Kooskia Internment Camp, a World War II Japanese American Internment Camp***
Presenter: Stacey Camp, *Michigan State University*

2:10-2:30PM ***'Life in the Bag: Scenes from a WWII POW Camp in Scotland'***
Presenter: Iain Banks

2:30-2:40PM Break

2:40-3:00PM ***Archaeological Investigations of a Civil War Prison Camp Site (9PR26) at Blackshear, Georgia***
Presenter: Colin Partridge, *Georgia Southern University*

3:00-3:20PM ***Public Engagment with POW Sites: The Camp Lawton Archaeological Project***
Presenters: Rhianna Bennett, *Georgia Southern University* & Ryan McNutt, *University of Glasgow*

3:20-3:40PM ***“Andersonville All Over Again”: An Archaeological Comparison of Union POWs and Their Confederate Guards during the American Civil War***
Presenter: Lance Green, *Wright State University*

3:40-3:50PM Q&A

Roman Conflict Archeology

Session chair: Luis Berrocal-Rangel, *University of Madrid*

1:30-1:50PM ***The Ancient Conflict Landscape Of Kalkriese (Varus Battle 9 Ad): New Insights Into The Course of The Battle and The Post-Battle Processes***
Presenters: Achim Rost, *Osnabrück University*, Susanne Wilbers-Rost, *Museum and Park Kalkriese*

1:50-2:10PM ***Indigenous Resistance And Imperial Violence: Reassessing The Archaeology of The Roman Conquest In Western Europe***
Presenters: Manuel Fernández-Götz, *University of Edinburgh* and Nico Roymans

2:10-2:30PM ***Beneath Rust And Dust, A Study Of Warfare Interactions. The Use Of 3d Technology To Approach The Warfare Practices And Exchanges In Western Europe During The Last Centuries BC.***
Presenter: Alexandre Bertaud, *University Bordeaux Montaigne*

2:30-2:50PM ***The Lusitanian Wars, A Faceless Conflict Of The 2nd Century BC In Western Iberia From An Archaeological Approach.***
Presenter: Luis Berrocal-Rangel, *University of Madrid*

2:50-3:00PM Q&A

Material Culture

Session chair: Linda Naunapper, *University of Chicago*

3:00-3:20PM ***The Social Significance of Weapons – Taking Chinese Bronze Weapons as an Example***
Presenter: Guo Yanli, *The Museum of Shaanxi Normal University*

3:20-3:50PM ***Battlefield, Home Front, Factory, Forced Labor Camp***
Presenters: André Schürger, *Lawrence Babits, First Maryland Infantry, US Army*

3:50-4:10PM ***Conflict on Two Continents: Archaeology and the Culture History of frontier New France***
Presenter: Linda Naunapper, *University of Chicago*



4:10-
4:30pm

Assessing Optimal Lethality of Early Eighteenth Century Hand Grenades

Presenter: Stephen Lacey

4:30-
4:50PM

Elemental Analysis of 18th Century Cast Iron Projectiles: Georgia and South Carolina Evidence

Presenter: Daniel Elliott, LAMAR Institute

4:50-
5:00PM

Q&A

**EVENING EVENTS
FRIDAY, SEPTEMBER 28TH**

5:00-
7:00PM

Hard Rock Café, Foxwoods Resort Casino
(cash bar and hors d'oeuvres)

SATURDAY • SEPTEMBER 29, 2018

8:00-4:00PM

Registration: Group Entrance, Mashantucket Pequot Museum & Research Center

MORNING SESSIONS • SATURDAY, SEPTEMBER, 29TH

Battlefield Preservation

Session chair: American Battlefield Protection Program (ABPP) Staff

8:30-
8:50AM

Welcome: Introduction to the American Battlefield Protection Program Path to Preservation

Presenter: ABPP Staff

8:50-
9:10AM

Mapping Battlefields with GIS and GPS-Inventory and History for a Military Terrain Components of Battlefield Archeological and Cultural Landscapes

Presenter: ABPP Staff

9:10-
9:30AM

Preservation Planning: Elements of the Effective Battlefield Plan Registering your Battlefield

Presenter: Elizabeth Vehmeyer, U.S. National Park Service

9:30-
10:00AM

Break

Health & Trauma

Session chair: Ashley Bissonnette, Mashantucket Pequot Museum & Research Center, Eastern Connecticut State University

8:30-
8:50AM

Trauma and Fracture on the Neolithic Ages Skeletons from Wanggou Site in Zhengzhou, Henan, China

Presenter: Yan Qi-peng, Shaanxi Normal University

8:50-
9:10AM

A Possible "Ritual" Killing from Farmington, Connecticut

Presenters: Nicholas F. Bellantoni, Connecticut State Museum of Natural History and Archaeology Center, University of Connecticut, Kristen Hartnett-McCann, Chief Medical Examiner, Gerald J. Conlogue, Quinnipiac University, Jaime M. Ullinger, Rachel O'Neill, Bo Reese, Julianna Crivello, Gabrielle Hartley

9:10-
9:30AM

Ritual and Raiding: Recording Interpersonal Violence in California

Presenter: Joseph B. Curran, Tetra Tech

9:30-
9:50AM

Facing the Unseen Enemy: The Experience of the First World War Underground Soldiers

Presenter: Anthony Byledbal, GUARD Archaeology

9:50-
10:00AM

Break

Battlefield Preservation

Session chair: TBA

- 10:00-10:20AM **Archaeology and 3d Documentation: New Technologies to Preserve and Promote Archaeological Heritage**
Presenter: Yves Ubelmann, ICONEM
- 10:20-10:40AM **The Importance of Cultural Preservation During Modern Conflict in the Middle East**
Presenter: Jacklyn Rogers, Dickinson College
- 10:40-11:00AM **Political Conflict in Yemen and its Impact On Monuments**
Presenter: Mohamed Ahmed Abd El-Rahman Ibrahim Enab, Fayoum University
- 11:00-11:20AM **It Takes a Village: Community Based Preservation of Revolutionary War Battlefields in New York State**
Presenters: Michael Jacobson, Brian Grills and Nina Versaggi, Binghamton University
- 11:20-11:30AM Q&A

- 10:00-10:20AM **A Hell of Disfiguring Violence: The Trauma and Consequences of Colonial Wars**
Presenter: Ashley Bissonnette, Mashantucket Pequot Museum & Research Center, Eastern Connecticut State University
- 10:20-10:50AM **Historical Trauma in New London County CT: Generational Impacts on Youth Substance Abuse and Mental Health Trends**
Presenters: Angela Rae Duhaime, Eastern Connecticut State University, SERAC, Christine Miskell, SERAC, Scott Barton
- 10:50-11:10AM **Becoming Evil: The Psychology of Perpetrator Behavior in Fields of Conflict**
Presenter: James Waller, U.S. Cyber Command
- 11:10-11:30AM **Inter-generational Trauma, Justice, and the Armenian Genocide**
Presenter: Marian Mesrobian-MacCurdy, University of Massachusetts Amherst, University of Massachusetts Institute for Interdisciplinary Studies
- 11:30-11:50AM Q&A

12:00-1:30PM

Lunch (box lunch or lunch on your own)

12:30-1:30PM

Film session “Amazigh Cultural Preservation Through Film and Forum: Conflict and Commemoration”
(see next page for details)

AFTERNOON SESSIONS • SATURDAY, SEPTEMBER 29TH

Northeast Region U.S. National Park Service Projects

Session chair: Margaret Watters Wilkes, U.S. National Park Service

- 1:30-1:50PM **Conflict Stewardship In The Northeast Region National Park Service**
Presenters: Margaret Watters Wilkes, U.S. National Park Service, James W. Kenrick
- 1:50-2:10PM **Dividends For our Investment: Applying Conflict Research Methodology Within The Arpa Program In The Northeast Region**
Presenter: William A. Griswold, U.S. National Park Service
- 2:10-2:30PM **Declaring Slow Violence And Native American Presence In The Northeast's National Parks**
Presenter: David Goldstein, U.S. National Park Service

American Civil War

Session chair: Lawrence Babits, First Maryland Infantry, U.S. Army

- 1:30-1:50PM **Digging In: Combat Engineering and the Rise of the Entrenched Battlefield in the American Civil War**
Presenters: Philip Shiman, Historian, David Lowe, U.S. National Park Service, Julia Steele, U.S. National Park Service
- 1:50-2:10PM **‘...A Fine Rifled Cannon From Liverpool’ An Archaeological Biography Of (Four) Fawcett Preston Cannon Made For The Confederacy**
Presenter: Peter Norris, University of Liverpool, Ordnance Society
- 2:10-2:30PM **Diversion or Massacre: A Cautionary Tale**
Presenter: Lawrence Babits, First Maryland Infantry, U.S. Army

SATURDAY, SEPTEMBER 29TH • LUNCH FILM SCREENING & SESSION

Amazigh / Berber Cinema as Window onto the Past and Future: Lunch-time Showing and Discussion

Participants: Lucy R. McNair, Associate Professor, LaGuardia Community College, CUNY
Habiba Boumlik, Associate Professor, LaGuardia Community College, CUNY
Yahya Laayouni, Associate Professor, Bloomsbury University

Coordinating members of the New York Forum of Amazigh Film (NYFAF):

<http://www.lpac.nyc/berber-film-festival-2017-7fd9>

NYFAF mission: The annual New York Forum of Amazigh Film (NYFAF) is a showcase of contemporary feature, documentary, and short films by and about the Amazigh or Berber people of North Africa and in the diaspora. NYFAF's mission is to create a space where filmmakers, artists, and scholars, whose work focuses on indigenous Amazigh identity and culture, can gather yearly to share their knowledge and enthusiasm with a diverse audience and foster dialogue across local, transnational, and Global issues. Stretching from the Canary Islands to the oasis of Siwa in Egypt, Amazigh societies have endured for thousands of years and today more than ever seek to represent their past, present and future through visual means. Through pre- and post-screening Q & As, live performances, and exhibitions of art and artifacts, the New York Forum of Amazigh Film engages students, faculty and community participants in experiential global learning as it seeks to disseminate Amazigh cinema and promote an understanding of the unique history, culture, and language of Amazigh peoples in North Africa and in the diaspora.

For the *Fields of Conflict Conference* we propose to show two short films from Tunisia and the Canary Islands that seek to represent the distant past in order to imagine a sustainable future. The showings will be introduced and followed by discussion on the question of contemporary indigenous films as a place for conflict representation and active commemoration. **Bring your lunch and discover a creative entrance into North African indigenous memory and contemporary conflicts.**

Selected Films: *Pulsation*, by Tunisian filmmaker Iskandar Tlili (short, Tunisia, 2017, 3 min). Old age, female power and powerlessness, the ancient past and the speeding present. A young Amazigh filmmaker observes an elderly Amazigh woman in search of his own art.

Mah, by Canarian filmmaker Armando Ravelo (short, Canary Island, 2016, 26 min). Set in the spectacular forests of the Canary Islands before the European conquest, *Mah* tells the story of an indigenous mother who faces the greatest test of her life as she seeks to protect and preserve her way of life. In Spanish with English subtitles.

Note: Amazigh cinema engages with the memory and current elements of indigenous life and often the traumatic encounters among peoples who today identify as Amazigh. Through fantasy, lyricism, and historical reenactment, they dramatize the individual and collective choices that have led to cultural resiliency. Yet the films, from the Canary Islands, Morocco, Algeria, Tunisia, Libya and Egypt as well as from diasporic communities, are widely divergent in their relation to pre- history, to gender representation, and to contemporary artistic and political contexts.

2:30-
3:00PM

Break

3:00-
3:20PM

"On Great Fields, Something Stays"
Archaeology And Prescribed Burning On Little Round Top, Gettysburg National Military Park
Presenter: Joel Dukes, U.S. National Park Service

2:30-
2:50PM

**"150 Years After The Battle of Franklin:
Archaeological Investigations of The Federal
Defensive Lines And Carter Hill Cotton Gin"**
Presenter: Nathan Allison

2:50-
3:10PM

The Oft Forgotten but Indispensable State:
Evaluating Florida Civil War Archaeology
Presenters: Janene Johnston, Brianna Patterson,
University of West Florida

3:10-
3:30PM

Q&A



3:20-3:50PM ***The Archaeology Of Mutiny: Excavations At The Connecticut Line's 1779-1780 Camp, Morristown, New Jersey***
Presenter: Casey Hanna, Monmouth University

3:50-4:10PM ***"...Also Attacked, Tho. Partially": The Right Flank of Burgoyne, New Archeological Evidence, Saratoga National Historical Park***
Presenters: Matthew Kirk, Hartgen Archeological Associates, Justin DiVirgilio, Hartgen Archeological Associates, Elizabeth Gregory, Hartgen Archeological Associates, Adam Lusier, Hartgen Archeological Associates, Schenectady County Community College

4:10-4:20PM ***Parker's Revenge Revealed***
Presenter: Margaret Watters Wilkes, U.S. National Park Service

4:20-4:45PM Q&A

Fortifications

Session chair: Kevin McBride, University of Connecticut, Mashantucket Pequot Museum & Research Center

3:30-3:50PM ***Hypothetic Reconstruction of The Development of The Defensive Structures of The Middle Town of Rohantyn In 15-17th Centuries***
Presenter: Mykola Bevz, Lviv Polytechnic National University in Lviv, Ukraine, Lublin University

3:50-4:10PM ***Frontier Warfare In The Argentine Pampas From An Archaeological Perspective: Late Sixth Century Military Sites In Carlos Casares County, Buenos Aires Province, Argentina.***
Presenters: Juan B. Leoni, National Council for Scientific and Technological Investigations, Universidad Nacional de Rosario, Diana S. Tamburini, Universidad Nacional de Rosario, Teresa R. Acedo, Patrimonio Museos y Turismo, Graciela Scarafia, Universidad Nacional de Rosario

4:10-4:30PM ***Archaeological and Historical Project "Redoubt of Ordon"***
Presenter: Wojciech Borkowski

4:30-4:50PM ***Fort Nya Goteborg and The Printzhof (36de3): Archaeology and Ethnohistory of The First European Structure Built In Present Pennsylvania***
Presenter: Marshall Joseph Becker

4:50-5:00PM Q&A

EVENING EVENTS • SATURDAY, SEPTEMBER 29TH

REGISTRATION ENDS THURSDAY, SEPTEMBER 13

Use the following link to register
for the evening events:

[Pequot Museum/Events/FOC/
Register/BanquetDinner](https://www.pequotmuseum.org/Events/FOC/Register/BanquetDinner)

5:00-6:00PM **Cocktail Hour:**
Gathering Space
Mashantucket Pequot Museum & Research Center
(hors d'oeuvres and cash bar)

6:00-7:00PM **Keynote Speaker:**
Discovering the wrecks of the Lusitania, Bismarck, USS Yorktown and PT-109
Dr. Robert T. Ballard, USN, ret.
and Professor of Oceanography
at the University of Rhode Island

7:00-9:00PM **Banquet Dinner:**
Gathering Space
Mashantucket Pequot Museum & Research Center



SUNDAY • SEPTEMBER 30, 2018

OPTIONAL SUNDAY FIELD EXCURSION
SEPTEMBER 30TH • 9:00AM – 5:00PM

The Field Excursion is Free. Registration for Sunday is open to the **first 38 individuals**. Join MPMRC Research Staff for a tour of Revolutionary War Fort Griswold and the Battle of Groton Heights (September 6, 1781).

ITINERARY*

8:30-9:00AM Registration at Mashantucket Pequot Museum & Research Center

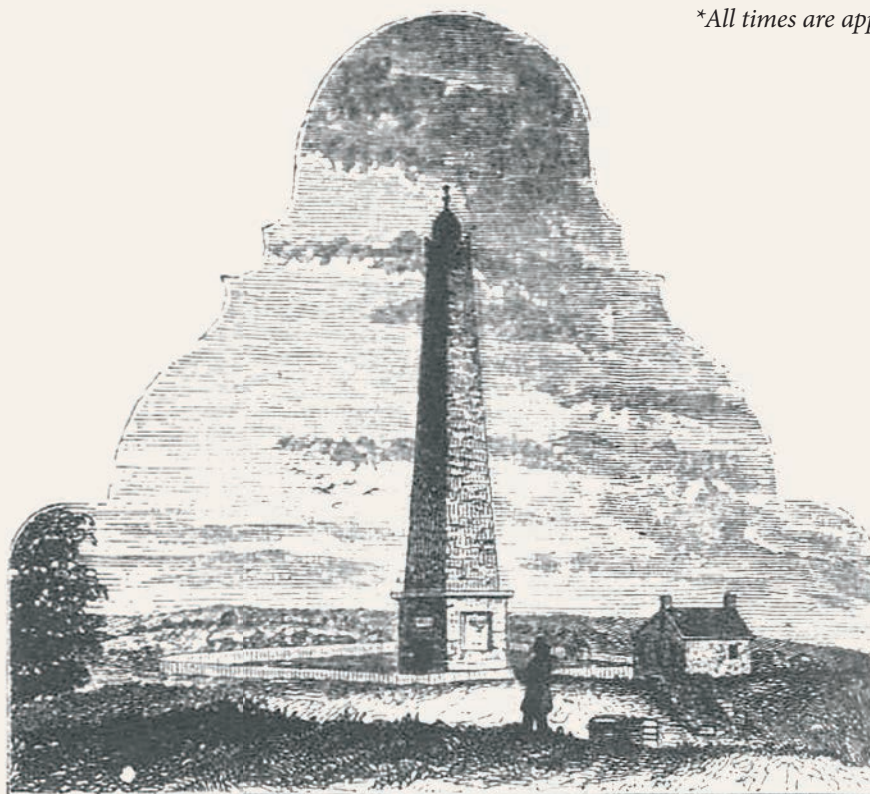
9:30-11:30PM **Fort Griswold Battlefield State Park**
Park Ave & Monument St, Groton, CT 06340

Guided and Self-Guided tour of Fort Griswold, one of the best surviving examples of an American Revolutionary War fortification. On September 6, 1781, General Benedict Arnold led 1,600 British troops, splitting the force between New London and Groton Heights. During the Battle of Groton Heights, 800 British troops suffered nearly 200 casualties storming Fort Griswold and upon the American surrender, massacred 88 of the 165 defenders and mortally wounding 36 more. In 1830 a 135 foot tall Groton Monument and Monument House Museum were erected in honor of the American defenders of Fort Griswold.

12:00-1:30PM Lunch at **Flanagan's**, 360 CT-12, Groton, CT 06340

2:00PM Arrive back at Mashantucket Pequot Museum & Research Center

**All times are approximate*



ABSTRACTS

Surveying the Field II: A Further Look into the Future of Conflict Archaeology

Between the Lines: The Archaeology of the Siege of Petersburg
Philip Shiman, Marine Corps University, **David Lowe**, U.S. National Park Service Cultural Resources GIS, **Julia Steele & Alexis Morris**, Petersburg National Battlefield

This paper focuses on the physical record of the Petersburg campaign in the final year of the American Civil War as it relates to the “no man’s land” between the major lines of fortifications. We explore picket lines and posts, saps, covered ways, tunnels, sharpshooter posts, fields of fire and organized observation from signal stations as the sides try to sense advantageous moves and countermoves. Placement of observation points and use of cover shift as the combatants confront different obstacles and terrain features and react to the enemy’s attempts to manage the same challenges. We use every tool in the modern arsenal to analyze the territory between the lines-map and photographic analysis, LIDAR, GPS and excavation – and find the associated archeological record.

Excavating KOCO: The Past, Present, and Future of American Conflict Archaeology’s Favorite Tool
Carl Drexler, Arkansas Archeological Survey

Over the past twenty years, conflict archaeologists working in the United States have embraced KOCO, the U.S. military’s tool for terrain analysis. This has generated structured, systematic efforts to understand past tactical and strategic decisions made by military commanders and opened the door for non-specialists to familiarize themselves with the field. While there is much to celebrate in this, uncritical acceptance of KOCO and other pieces of modern military theory both ignore these theories’ development and some significant issues created by bringing them into archaeological research.

The Materiality of Roman Battle: Applying Conflict Archaeology Methods to the Roman World
Joanne E. Ball, University of Liverpool

In the last three decades, a methodology for studying the archaeology of battle has spread from the study of late-C19th black powder battlefields, with sites from prehistory through to the Falklands War now encompassed within a single discipline. Each historical era has required changes to the methodological foundation, adapting to period-specific issues with both the materiality of conflict and the quality of extant historical documentation, to produce new insights into both individual engagements and the nature of warfare more widely. There are significant challenges for adapting battlefield archaeology to the classical Roman period, particularly the unsuitability of the historical sources and the prevalent use of iron in Roman military equipment. Nevertheless, substantial assemblages survive on a number of Roman battle sites, particularly from engagements other than pitched field battle. The artifacts found have provided a basis to reconstruct individual engagements, plot the movement of the Roman army in a campaign of conquest, and have identified sites which were undocumented in the historical record. However, Roman battlefield archaeology has, so far, largely failed to engage with many of the theoretical developments made in the discipline more widely. As such, Roman antiquity risks becoming a sub-discipline of battlefield archaeology, doing little more than creating a geographic

catalogue of individual known conflict sites. This paper explores how battlefield archaeology methodology has been adapted to fit the parameters of Roman battle, and what challenges still remain. It also considers the future of Roman battlefield archaeology, and both how and why the discipline is significant to conflict studies.

Conquest vs. Conflict in the American Southwest: Archaeology, Indigenous Perspectives, and the Pueblo Revolt of 1680
Matthew Liebmann, Harvard University

In recent years, Southwestern archaeologists have paid particular attention to the conflicts surrounding the Pueblo Revolt of 1680 and the Spanish Reconquest of New Mexico (1692-1694). Yet rarely have they situated these studies within the realm of Conflict Archaeology. This paper questions the reasons behind this dearth of engagement with Conflict Archaeology, paying particular attention to the influence of Indigenous and descendant communities in structuring this research. With case studies focusing on the conflicts of the Spanish Reconquest of 1694 at three Pueblo mesa-top communities, this paper investigates the potential benefits and drawbacks of a Conflict Archaeology framework for collaborative archaeological research projects in the American Southwest.

“The Second Battle of Princeton”: Field Notes from Compliance Archeology at Conflict Sites
Matthew Palus & Lyle C. Torp, The Ottery Group

Archeological investigations at military sites and battlefields in the United States frequently take place in the context of compliance associated with threats to resources, at the intersection of development and heritage management. Conflict Archeology is distinctive in its landscape scale, which often exceeds the appetites of individual development or infrastructure projects, and the degree to which conflict sites can be cherished, the continuing, dynamic relevance of historical conflict. Disturbance of sites of conflict for development is frequently controversial, sometimes defined by extended struggle and oppositional relationships. These oppositions may have as much to do with other values as with concern over archeological sites, for instance conservation of open space and other resources. The conflict associated with archeology at Maxwell’s Field in Princeton shadowed a plan to construct faculty housing at the Institute for Advanced Study, with opposition by the Princeton Battlefield Society, the National Trust for Historic Preservation, and other groups between 2003 and 2017. Vast resources were expended as consultation was usurped by court battles, where despite the characterization of the historic landscape as sacred blood-soaked soil, legal arguments focused on technical aspects of zoning regulations rather than archeological significance and the value of heritage. Other plans attract little conflict, and are no less challenging. Research carried out in this applied context brings certain challenges that are explored through a series of cases where archeologists confronted project parameters that would limit the value of resulting data, or even the viability of the archeological endeavor.

Marching into the Future of Seminole War Studies
Michelle D. Sivilich, Gulf Archaeology Research Institute

Gulf Archaeology Research Institute has over 20 years of studying the Seminole Wars (1816-1858) in Florida. Yet this largely overlooked, and somewhat forgotten, asymmetrical war has much to offer in the development of new approaches

to studying Conflict Archaeology. This paper seeks to explore new methodologies for a more holistic approach to looking at conflict. Our focus has been to understand why this war dragged on unsuccessfully for almost fifty years. We have utilized excavations, archival records, post returns, and interactive maps to create a more nuanced approach that recognizes the differences in terrain use and tactics between soldiers and Seminoles. America at this time is still a young country deciding between a standing army or a militia. Troops and officers from a variety of backgrounds and countries arrive in Florida to fight an equally diverse Native American adversary. Incongruences in the approaches to the conflict by both sides make interpretation less than cut and dry. Understanding such differences may ultimately assist in understanding the nature, extent, and outcomes in this unique Florida war.

Methods in Conflict Archeology

The Netherlands during the Napoleonic Era (1795-1814). Using Detector Finds to Shed Light on an Under-researched Period
Vincent van der Veen, Portable Antiquities of the Netherlands, Vrije Universiteit Amsterdam

Research on the Napoleonic-era has traditionally been driven by historians. As a result, we have much detailed information on the organization of the Napoleonic armies and on individual battles, but very little on the armies' day-to-day activities. Archaeology is ideally suited to fill in this gap. Unfortunately, the Napoleonic period is not commonly appreciated as an "archaeological period" by Dutch academics and archaeological professionals alike. There is, however, a large dataset yet to be mined that can greatly expand our knowledge of the day-to-day activities of the Napoleonic armies: the collections of amateur metal detectorists. By analyzing the objects found by these private individuals, combined with written sources, it has already been possible to reconstruct the date and nature of two military camps near Bussum and Eindhoven. In addition, when these finds are recorded into the nationwide database, PAN (Portable Antiquities of the Netherlands), it will be possible to formulate broader syntheses that surpass the site level. One approach that will be touched upon is the distribution of regimental uniform buttons, which can tell us about the movement of troops.

Musket Balls from the Boston Massacre - Are They Authentic?
Dan Sivilich Battlefield Restoration & Archaeological Volunteer Organization (BRAVO), **Joel Bohy** Director of the Historic Arms & Militaria at Skinner Auctions

In 1940 a picture frame containing two musket balls and two notes handwritten in quill pen were donated to the Massachusetts Historical Society in Boston by one W. F. Meredith. They are reported to be the only remaining artifacts from the March 5,

1770 Boston Massacre. They are so iconic, that at one time they were loaned to the Hoover Presidential Library and Museum in Iowa. According to the notes, one went through the shutter of Edward Payne's house and the other broke the small bone in his arm and lodged in a door post. He lived across the street from the Custom House where the British soldiers fired from and was a witness to the event. Payne testified during the subsequent trial of Captain Thomas Preston, the British officer who was present at the massacre. But the question is – are they authentic? To date, there has not been a connection established between W. F. Meredith and the Payne family. The Massachusetts Historical Society granted the authors and a team of experts unprecedented access to these two artifacts. This paper will discuss the forensic analyses that were conducted to attempt to answer that question.

Revisiting the US Military 'Levels of War' Model as a Conceptual Tool in Conflict Archaeology: A Case Study of WW2 Landscapes in Normandy, France

David G. Passmore, University of Toronto Mississauga, **David Capps Tunwell**, Université de Caen-Normandie, **Stephan Harrison**, University of Exeter

This paper adapts US military concepts of 'battlespace' and the 'levels of war' (strategy, operations and tactics) to WW2 landscapes revealed by LiDAR-derived digital elevation models in forests of the Lower Seine valley near Rouen. Here, as in many forested areas of northwest Europe, the increasingly widespread availability of LiDAR data is presenting conflict archaeologists and heritage managers with the challenge of evaluating a vastly enhanced dataset of extant WW2 features. In some areas these landscapes include readily-identified features such as fixed fortification lines or military infrastructure. Elsewhere, however, landscapes may have witnessed multiple actions over a range of timescales and involving one, or a combination of ground combat, artillery strikes and aerial bombing. In such cases the context and significance of craters, earthworks and other features may be much more difficult to interpret and assess. Case studies from the Lower Seine valley illustrate firstly how earthworks and projectile craters have been mapped and interpreted using a combination of LiDAR, GIS and documentary data including war diaries, wartime crater analyses and aerial photographs. Secondly, features are located within a framework differentiating the hierarchy of strategic, operational and tactical levels of war conducted by both German and Allied forces. The value of this 'levels of war' approach as a conceptual tool has been proven in analysis of 19th century North American Great Plains battles (Bleed and Scott, 2011) and here we argue it is also well-suited to assessing the context and significance of WW2 conflict landscapes, including those arising from aerial bombing. It is therefore likely to be of wider utility in emerging conflict landscapes of this period in other areas of Europe and beyond.

Experimental Firing and Analysis of Impacted 17th-18th Century Lead Bullets

Colin Parkman, University of Huddersfield

The analysis of spherical lead bullets recovered from early modern battlefields (1500-1815) has produced valuable data



regarding battle location and the extent of the action. Previous experimentation and analysis of individual bullets demonstrate that diagnostic traits can be transferred to the surface of the bullet, such as evidence from the manufacture, loading and firing of the bullet. However, the nature of impacted bullets and their potential to retain characteristic evidence from the impact surface have yet to be systematically addressed within Conflict Archaeology. This thesis examines the nature of bullet impact evidence through a series of proof of concept experimental firing trials. The aim is to create a reference collection of known bullet impacts which can be used as a comparative tool against archaeologically recovered bullets to aid in the interpretation of battlefield bullet assemblages. To complete this aim, a reproducible experimental firing methodology was created using knowledge gained from ballistics and previous experimental firing trials, combined with military treatises and scientific publications contemporary to the early modern period to identify and define experimental variables and parameters. An external ballistic trajectory modeling program was created to enable a more regimented experimental firing program that would compensate for musket inaccuracy, although with limitations. Experimental designs were created by examining the reconstructed historic landscape from two case study battlefields to identify common landscape features in which bullets may have impacted during battle. Experimental firing was conducted over sterile and stony ground surfaces as well as numerous wooden targets to establish a baseline of known bullet impacts. The results from the experimental firing demonstrate that bullets that impacted the ground surface retain distinct diagnostic characteristics that can be easily identified within bullets from archaeological assemblages. However, the distinctive characteristics identified on bullets that impacted wooden targets were not observed on archaeologically recovered bullets.

A Decade of Community-Based Projects in the Pacific on WWII Conflict Sites

Jennifer F. McKinnon, East Carolina University, Ships of Exploration and Discovery Research, Inc., **Toni L. Carrell**, Ships of Exploration and Discovery Research, Inc.

Ships of Exploration and Discovery Research, Inc. (Ships), in partnership with Flinders University and now East Carolina University's Program in Maritime Studies, has been conducting underwater archaeological investigations of WWII battlefields in the Pacific for over ten years. Over the course of that time, Ships has been fortunate enough to receive several American Battlefield Protection Program (ABPP) grants in support of documenting and preserving WWII battles in the Northern Mariana Islands of Saipan and Tinian and the Republic of Palau at Peleliu. The experience of working on more recent conflict sites has led Ships' researchers to examine and test ABPP's core terrain analysis program KOCOAS as it applies to those battles that involve not only land, but waterborne, amphibious, and aerial components. This paper will present an overview of the archaeology conducted thus far in the Pacific. It will highlight some achievements, challenges, and findings and include a discussion of community-based approaches to working with

non-combatant Indigenous groups. Finally, it will discuss a plan to update ABPP's Submerged Battlefield Protection Manual to include more modern battlefield considerations as well as updates in theoretical and methodological approaches.

Avocational Detectorists and Battlefield Research: Potential Data Biases

Christopher T. Espenshade, New South Associates, Inc.

It has become increasingly common to include avocational detectorists in battlefield research. Despite the many positives of such public involvement, archaeologists should recognize the potential biases that may be introduced through avocational participation. Using a case study from Bennington Battlefield (American Revolution), the biases are introduced, and recommendations are suggested for mitigating the biases. This paper will use new data from August 2017 to elaborate on the arguments presented in Espenshade's (2017) article in *Advances in Archaeological Practice*. There were significant differences in the types of items recovered from the same collection grid by the avocational detectorists and, subsequently, by professional archaeologists in a class of Advanced Metal Detecting for the Archaeologist. The presentation will be of interest to all considering the incorporation of avocational detectorists into their battlefield research efforts. The paper does not advocate against the participation of avocational detectorists, but rather suggests that the archaeologists must be aware of potential biases in the resultant data, and should take steps to minimize the bias.

Potential Applications for Forensic Ballistics within Twentieth Century Conflict Archaeology

Steven Elliott, University of Huddersfield

Conflict Archaeology remains a diverse multifaceted discipline covering a large timespan. However, the twentieth century receives much less coverage and numerous avenues of investigation remain unexplored. Research covering the interpretation of impact scars, craters and forensic ballistics are limited and normally focussed solely on aerial bombing. Nonetheless, battlefields by their very nature are damaged during conflict and this overlooked source must now be addressed to provide for a more comprehensive analysis. In order to understand the evidence found in the landscape we must understand how it is created, this is particularly true of impact scars as successful interpretation may facilitate a better understanding of the placement of combatants within the landscape. By a process of experimental testing using period firearms, discharged against a selection of normal building material, such as stone, brickwork and metal girders, we are attempting to replicate this evidence and categorize these by calibre, shape, angle, and depth. Then using trajectory rod analysis as found in forensic ballistics and crime scene investigation, establish the degree to which impact scars may be interpreted to trace the line of flight of a projectile. Thereby pinpointing potential search areas for targeted detecting surveys and enabling us to identify the firing position by recovering cartridges left by the firer. This paper attempts to address these shortfalls, and suggests ways in which impact

scars and penetrations may be evaluated. Thereby, allowing better placement of units and individuals positions within the landscape in order to challenge existing interpretations.

Maritime Conflict Archeology

Battle of the Java Sea: Past and Present Conflicts

Martijn Manders & Robert de Hoop, Cultural Heritage Agency of the Netherlands (RCE)

The three Dutch naval ships, *HNLMS De Ruyter*, *HNLMS Java* and *HNLMS Kortenaer* went down in the Battle of the Java Sea on 27 February 1942, claiming the lives of 915 sailors. In November 2016 an international diving team from the Karel Doorman Foundation discovered that the shipwrecks had disappeared. This created tension between the government of Indonesia and those countries that had lost ships in the archipelago, especially the Netherlands. This in turn created an unprecedented media attention on this matter. The management and protection of shipwrecks from the Second World War is very complicated, because of the different values that different stakeholders attach to it. These different values played a major role during the joint Dutch-Indonesian investigation that followed after the notification that the three Dutch shipwrecks had disappeared from the bottom of the Java Sea. Relatives and survivors reacted very emotionally upon hearing the news, and the media made a lot of statements regarding this case which made the issue even more political than it already was. In the meantime scientists had to evaluate the data that was present on its own merits. The questions in this process rises: what prevails? What is more important in the management and preservation of battlefields and the sites and objects within? Is it the scientific information, the experience or the commemorative value? Safety maybe? Or even the economic value of wrecks? Can we even answer that question? And if not, can we then manage? This paper will address and discuss these complex issue.

“Baggensstaket 1719: The Assault on the Redoubt that Never Existed”

Tomas Englund, Maritime Archaeological Research Institute (MARIS), Södertörn University

This paper is a part of the work for my Ph.D. Dissertation. In 1719, a division of Russian galleys made an amphibious operation at the narrow strait at Baggensstaket closed to Stockholm. Three Russian battalions were released at both sides of the strait to capture the redoubts and destroy the sunken cargo vessels that prevented the galleys to advance further into Stockholm. The operation resulted in engagement with Swedish forces positioned to defend Baggensstaket. In the Swedish historiography the battle on the northern side of the strait, it is dramatically described as 3,000 Russian soldiers who tried to capture the redoubt (equipped with guns) in order to destroy the sunken cargo vessels, connected to the redoubt. To increase the knowledge of the event, the entire battlefield was investigated and defined using archaeological methods with a surprising result. The redoubt and the flat ground in front of it was completely lacking any battle related objects. The battlefield was instead found further away at the slopes in front of the redoubt. Projectiles were found at the slopes fired from the Swedish galleys, and analyzing their shooting sectors, it shows that an existing redoubt would have been placed in the way. The redoubt can hardly have existed during the battle and must have been constructed at a later date. Due to heavy fire from the galleys, the Russians didn't reach the sunken cargo vessels.

A Battleship in the Wilderness: The Story of the Chippewa and Lake Ontario's Forgotten War of 1812 Naval Shipyard

Timothy J. Abel, New York State Archaeological Association, Eastern States Archaeological Federation and the New York Archaeological Council

During the campaign of 1814, the navies of Britain and the United States were deadlocked in an epic struggle for control of Lake Ontario. With the launch of *Superior* in September, they controlled the lake for about one month. In October, the British launched the 102-gun *St. Lawrence*, elevating the threat to a new high. To counter, the US Navy commissioned the construction of two new first rates and a frigate over the winter of 1814-1815. There was a problem, however. The existing shipyard at Sackets Harbor only had room enough to build one of the first rates in time for the spring sailing season. Commodore Isaac Chauncey decided to build the *New Orleans* at Sackets Harbor. The other ship, *Chippewa*, was to be constructed nearby at a new shipyard called Storrs Harbor. Construction began on the two ships in January 1815, but with the war ending just a few weeks later neither were completed. Storrs Harbor was maintained by the Navy for several decades after the war, but falling into ruin. The *Chippewa* and its shipyard were scrapped in 1833. Recent historical and archaeological research has now revealed the location and unknown details of Lake Ontario's forgotten naval station.

Westerplatte – The Symbol

Grzegorz Berendt, Deputy Director of the Museum of the Second World War in Gdańsk

The German attack on the Polish Military Transit Depot on Westerplatte, Free City of Danzig, marked the beginning of World War II – the global conflict of an unprecedented scale that brought about the death of millions. Westerplatte, however, is important not only in view of the symbolic date, 1st September 1939, it is primarily remembered as an account of 220 Polish soldiers who for seven days valiantly defied overwhelmingly superior German forces. On 1st September 1939 at 4:48 am, the battleship *Schleswig-Holstein* began its bombardment of Westerplatte. At the same time, the Polish garrison was attacked by the SS-Heimwehr Danzig company and a company of marines from the battleship. Greatly outnumbered and outgunned, the Poles surrendered after a seven-day siege. Though the Battle of Westerplatte had little impact on the outcome of the Polish-German war, the prolonged defense of this symbolic place significantly bolstered the Polish morale, and the defense of Westerplatte became known as ‘Polish Thermopylae.’ The talk on Westerplatte will present a compact historical overview of Westerplatte during the siege in 1939 and in post-war years while highlighting its importance as one of the most prominent battlefields in history.

Battlefield Preservation

Archaeology and 3D Documentation: New Technologies to Preserve and Promote Archaeological Heritage

Yves Ubelmann, Iconem

The world's cultural heritage is more at risk than ever. Conflicts and wars damage and eventually destroy our most valuable historical and cultural sites. By combining the large-scale scanning capacities of drones and the photorealistic quality of 3D Iconem we can create digital copies of heritage sites and record them for future generations. Based on several case studies, we will look at the technology behind these digital preservation initiatives and at the different types of documentation and experience they provide.

This documentation is crucial to academics, archaeologists, architects, to monitor the condition of the sites and prevent further degradation. Iconem's team developed and applied, in partnership with local archaeological teams and researchers, tools to help quickly document sites under various situations and answer problems faced by archaeological teams – summarized as multi-scale, multi-temporal, collaborative and remote assessment approaches. While photogrammetry has always been considered as an interesting asset in archaeological missions (Reeves, 1936), the method has remained hardly accessible until recently. Archaeologists seem to have a growing interest for the technique since the arrival of automatic approaches, popularized by a growing amount of software whose features evolve rapidly. The documentation work can today be performed from a distance, on sites unreachable from the ground. For example, following the dramatic conflict in Syria, and its consequences on heritage, Iconem took the initiative to help Syrian archaeologists document the damages. We suggest to use as case studies the Afghan site of Mes Aynak, a Buddhist site located 30km from Kabul, and the “Syrian Heritage” Project.

The Importance of Cultural Preservation during Modern Conflict in the Middle East

Jacklyn Rogers, Peacekeeping and Stability Operations Institute (PKSOI), U.S. Army War College

Historic sites are often destroyed during conflicts. Neither collateral damage to historical sites nor the intentional destruction of religious figures or art, known as iconoclasm, are new occurrences. Instances of iconoclasm have been recorded as far back as the Byzantine Empire (330-1453). However, the motivation and means of destruction have evolved since ancient times to also encompass secular sites and artifacts. Understanding the cultural role that these sites play offers insight into the tactics of militant groups such as ISIS and demonstrates the important role historic sites play in stability operations. This paper examines ISIS's destruction of Palmyra, Syria as a case study. Palmyra is an example of how ISIS has moved away from the textbook definition of iconoclasm; their actions are not based purely on religious motivations. The destruction of this historic site and museum reveal that ISIS uses these occasions to eliminate cultural history while demonstrating their destructive capabilities. Palmyra is also an example of the significant damage that can be caused by modern explosives and the challenges that presents to those evaluating the site. Statements and actions of people who worked at the site or felt a cultural connection to it demonstrate why saving cultural heritage should be made a priority during stability operations. Finally, the international collaboration between museums to save and share the story of Palmyra is an exemplary model of the actions both military personnel and historians need to take to mitigate the loss of history to conflict in the future.

Political Conflict in Yemen and its Impact on Monuments Archeological and Historical Study

Mohamed Ahmed Abd El-Rahman Ibrahim Enab, Fayoum University

Yemen has witnessed many political and religious differences throughout history. These differences have lead to many disputes that negatively affected life in Yemen. Nowadays, conflict arises between Shiite Houthi rebels and Yemeni authority. Several historical monuments across Yemen have suffered damage since the start of this conflict such as the Al Ashrafiya Mosque, the National Museum in Ta izz, the Al-Ordi Ottoman historical compound in Sana'a, and historical buildings in shibam kokban and Dhamar. I will discuss the history and reasons of conflict

in Yemen and its impact on Islamic monuments. I will also compare the original examples of these monuments and what it has become now due to damage and the role of international organizations concerned with Cultural Heritage in preservation and maintenance in Yemen. This paper will discuss the importance of preserving the cultural heritage of Yemen and document the historical buildings which have been vandalized.

It Takes a Village: Community Based Preservation of Revolutionary War Battlefields in New York State

Michael Jacobson, Brian R. Grills & Nina M. Versaggi, Binghamton University

The inclusion of community is vital for the protection of historic sites. However, issues related to historic struggles as well as present day property rights and economic development can present obstacles for integrating communities into a preservation project. As part of its ongoing Revolutionary War research, Binghamton University's Public Archaeology Facility (PAF) has actively sought public engagement and outreach. Such engagement has often involved us in contentious debates between landowners, preservation groups, and descendent communities. In this paper, we discuss the examples of how our research integrated with outreach in researching and preserving the New York Revolutionary War battlefields of Fort Anne, and the two battles related to the Sullivan-Clinton Campaign-Chemung and Newtown. In this paper, we discuss the specific preservation contexts of these battlefields and the associated stakeholders and the steps used in moving beyond research to community engagement. Using innovative techniques for research analysis and the presentation of research results, PAF has developed new methods of community engagement that help to integrate various community views and interests related to the histories and landscapes of these battlefields.

“St Kilda at War” and the Historic Aircraft Archaeology Survey Project [HAASP]: Current Results and Future Research Planning

Terence Christian, Temple University

St Kilda's position 110 miles off mainland Scotland placed it in an opportune location as a reference point for aircraft and ships conducting navigation exercises, anti-submarine missions, maritime interdiction, or convoy protection duties. The “St Kilda at War” survey project is a non-invasive cultural resource identification, characterization, and mapping programme focused on the 20th century terrestrial military history of the St Kilda archipelago. Centred on World War I and World War II historic resources, this paper reports on past field season results and on-going historical research conducted as part of the “St Kilda at War” survey project. Primary focus is given to the 15 May 1918 bombardment of Hirte by German U-boat SM U 90 and to the Second World War aircraft which came to grief on the islands. In addition, a brief introduction to the Historic Aircraft Archaeology Survey Project [HAASP] is given. The HAASP project—of which “St Kilda at War” forms one of five feeder projects—is a characterization and mapping research programme for aircraft wreck sites located within National Trust for Scotland properties. Mobilising the Phased Aviation Archaeology Research [PAAR] Methodology, the 15 HAASP sites will provide a comprehensive historical and archaeological inventory of endangered, nationally important aircraft wreck sites via professional–community historical research collaboration.

Indigenous Colonial Conflicts Archeology

Landscapes of War: Indigenous Resistance to Settler Colonialism in the Oregon Territory 1855-56

Mark Tveskov, Southern Oregon University

The wars of American imperialism in the North American West have been crafted in historical memory through the tropes of Manifest Destiny, where intrepid pioneers overcome a variety of morally dark forces that include the depredations of indigenous people. In this telling, the U.S. Army serves as paternalistic and heroic force, arriving just in time to rescue pioneers from behind encircled wagons. I interrogate this trope through the Conflict Archaeology of the Rogue River War that took place in the Oregon Territory during the Gold Rush of the 1850s. Research into battlefields as well as forts, homesteads, and massacre sites uncover a landscape of war that embroiled women, men and children as well as traditional combatants in a complicated and ambiguous series of events that saw Indigenous people fighting a guerilla campaign against the settlers and the United States Army. At the same time, in this immediate pre-Civil War era, the settler militias were contesting—sometimes at the point of a gun—against the federal troops over issues of states' rights. Rather than a clean tale of moral victory of good over evil, the Rogue River War resembled instead more complex colonial conflicts such as more recently fought in Vietnam, Iraq, and Afghanistan.

One Battle, Many Cultures: Vazquez de Coronado and the "Tiguex War" of 1540-1542

Matthew F. Schmader, University of New Mexico

From 1540 until 1542, Francisco Vázquez de Coronado led his famed expedition from Nueva España (now México) into the American Southwest. The huge expeditionary force was one of the largest ever organized by the Spanish Crown in their centuries-long colonization of the "New World." Nearly 350 European men-at-arms were supported by an estimated 1,200 to 2,000 Mexican indigenous soldiers (called *indios amigos*) from a wide variety of ethnic groups. The expedition arrived in the Río Grande valley, or "Tiguex province," by fall of 1540 and hostilities broke out into a series of skirmishes called the "Tiguex War" – the earliest named war in United States history. The largest Río Grande village, named Piedras Marcadas, has been intensively studied over the past decade. Geophysics surveys have identified hundreds of buried adobe rooms along with 1,100 sixteenth-century European metal artifacts including ammunition, personal items, and much fragmentary material. This assemblage has several concentrations indicating battle-related activities, tactics, and actions. These concentrations contain artifacts referable to the many cultures involved in the fighting including Europeans, Mexican fighters, and native ancestral Puebloan defenders. This mixture of materials uniquely blends medieval-period European technology with native weaponry from indigenous cultures of Mexico and the American Southwest

"The Search for Chicasa: A DeSoto-Chickasaw Battle, March 4, 1541"

Steven D. Smith, Chester DePratter & James B. Legg, South Carolina Institute of Archaeology and Anthropology, **Charles Cobb**, Florida Museum of Natural History, **Brad R. Lieb**, The Chickasaw Nation, **Edmond Boudreaux**, University of Mississippi

In 1539 Hernando de Soto, a Spanish Conquistador, landed in Florida with 600 soldiers and priests to explore and conquer the southeastern US for Spain, searching for treasure. Their journey left a trail of destruction that profoundly impacted Native

Americans across the Southeast, including the ancestors of the historic Chickasaw Nation. In 1541 Soto's entrada entered the modern state of Mississippi and arrived at the town of Chicaça, home of the Chicasas, and ancestral home of the Chickasaws. After a stay of several months, DeSoto decided to move on. The Chicasas, frustrated by the entradas' request for slaves, surrounded DeSoto on the night of March 4, attacked and set fire to the village. A fierce but quick battle raged before the Chicasas withdrew. Archaeologists and historians have studied and debated the route of the de Soto entrada since the 19th century. Recent discoveries have suggested that the town of Chicasa is near Starkville, Mississippi. This paper relates the research being conducted by archaeologists from the South Carolina Institute of Archaeology and Anthropology, University of Florida, University of Mississippi, and the Chickasaw Nation to find Chicasa. This research includes not only historical and archaeological analysis but also pXRF metal analysis and comparative collections analysis of 16th century Spanish assemblages across the Southeast.

Defending Southern Inuit Territory

Greg Mitchell, NunatuKavut Community Council, (ret.)

Nothing is more germane to human existence than putting yourself in harm's way to defend your homeland. Eighteenth century Inuit, in southern Labrador and northern Newfoundland, had been described as 'wild,' 'demons,' 'villains,' 'devils' and 'sauvages.' Because they were defending themselves by conflict, and would often keep the spoils of war, they were said to be greedy and treacherous thieves who didn't even live in southern Labrador. These notions were considered acceptable until recently. From current archaeological evidence, we know that Inuit occupation in southern Labrador, during the sixteenth through eighteenth centuries, was year round and permanent in a typical northern forager lifestyle. This paper reviews what Inuit may have viewed as a 'colonial war' in the Northwest Atlantic during the time of the French and Indian Wars and Pontiac's Rebellion (1754-1766). The paper examines the nature of Inuit defense of their homeland from very recently discovered archival materials. Several attempts were made by Europeans to end this 'guerilla warfare' through treaty processes. We have little record of southern Inuit perspectives on these attempts. Most clashes were very well planned and implemented by the Inuit. Inuit men were victors in many of their fights; but ultimately they changed strategies in 1765 and entered into a Peace and Friendship Treaty relationship with the British in their un-surrendered land. Some of their descendants are fighting with Canada today for that same land, thankfully without the physical violence.

The Hours After the Massacre: The English Allied Withdrawal from Mistick Fort

David Naumec, Mashantucket Pequot Museum & Research Center

The Battle of Mistick Fort (May 26, 1637), historically known as the "Mystic Massacre," is well documented but what is universally forgotten is that the most intensive combat of the Pequot War occurred in the hours after the battle. Later that day English Allied forces fought for their lives during a nine mile western march to their ships in Pequot Harbor (present-day New London Harbor). The Battle of the English Withdrawal began following the destruction of Mistick Fort including nearly ten hours of heavy fighting between English Allied and Pequot Allied forces over six-miles of difficult terrain. Determined Pequot forces maintained close contact launching dozens of pitched attacks costly ambushes. This was the largest combat action of the entire Pequot War with at least 700 combatants engaged over hundreds

of acres. The English reported that they inflicted more casualties during their withdrawal from Mistick than during the assault on the fort. The loss of an estimated 400-500 Pequot fighting men during the Mistick Campaign was a devastating blow to the community and proved to be the turning point of the war. English commander, Captain John Mason, conceded that he had only ten unwounded men left under his command, suggesting the English themselves suffered over 70% casualties in both killed and wounded. Ironically, this important engagement is also the least reported on. The Mashantucket Pequot Museum & Research Center completed two American Battlefield Protection Program funded surveys of the site constituting 2/3 of the withdrawal route. The resulting archaeological assemblage of hundreds of muskets balls, arrow points, firearm parts, Native and European personal equipment has become the single most informative "narrative" of this critical engagement. This unique and important site illustrates the evolution in the complexity and effectiveness of military strategy, tactics, and armaments employed by both Pequot and English Allied forces during the war. This battlefield survey has redefined the history of the Mistick Campaign and have challenged the paradigm of skulking way of war attributed to Native combatants in the Northeast.

Under Documented 17th Century Colonial-Native Battlefields

Kevin McBride, Mashantucket Pequot Museum Research Center, University of Connecticut

Seventeenth century Colonial-Native battlefields can present unique challenges to battlefield archaeologists in their efforts to locate and interpret the battlefield. Colonial records or narratives describing battlefield locations and events are often incomplete, contradictory, or nonexistent. In addition most Colonial battle narratives describe the battle only from the Colonial perspective, and rarely if ever do Native perspectives inform the battle narrative. As a result the material culture associated with the battle event often plays a larger role in battlefield reconstruction than in later battlefields from the eighteenth and nineteenth centuries. This paper will provide examples from several case studies from the Pequot (1636-1637) and King Philip's (1675-1676) Wars that rely heavily on recovered battle-related objects to fill in the many gaps in the historical record and to gain a perspective on the movements, tactics, and weapons of the Native American combatants.

Castles, Conflict, and Social Theory- Introducing a Native Welsh Narrative to the Archaeological Record of Twelfth-Century Gwynedd – A Landscape Approach

Jacqueline Veninger, University of Connecticut

The endemic challenges present in the study of many colonial native conflicts are also extant in the Welsh and Anglo-Norman conflicts of the mid-twelfth. These include the absence of Welsh agency from the medieval archaeological record and an Anglo-Norman bias in contemporary chronologies which led to a proliferation of modern misunderstandings and oversimplifications of the native Welsh experience. The culmination of this has had lasting effects on the conceptualization and creation of modern identities. The methodological toolbox of battlefield archaeology has the ability to overcome many of these challenges, often reinstating a native narrative in the archaeological or historical context. Yet, battlefield archaeology has been slow to expand beyond its methodological pursuits, with many investigations having little or no theoretical orientation (Scott, Babits and Haecker 2009: 1). This paper explores theoretical outlets for conflict scholarship, via the application of landscape studies, giving consideration to the thematic functions

of: memory, identity, social order and transformation (Knapp and Ashmore 1999: 13). The research presented will seek to demonstrate the importance of constructing a cross-cultural Conflict Archaeology theoretical framework that moves beyond the description of events to explain the significance of the actions for the role they played in agency, social structural change and modern identity. This will be demonstrated using a case study of the colonial conflicts of Owain Gwynedd and Henry II during the mid-twelfth century, focusing in particular on the role of the castle as an indicator of social change in the medieval Welsh theater of war. Concepts of traditional ceremonial landscapes of conflict will also be explored.



Poster Session

Time in the Battle. Could We Measure It? Case of Archeological Investigation at Ordon's Redoubt in Warsaw, Poland

Witold Migal & Michal Paczkowski, State Archaeological Museum in Warsaw

The last chapter of the Polish-Russian War (1830-1831) was the capture of Warsaw on the 6th of September 1831. During the battle, one of the famous episodes was connected with defending two fortified redoubts. One of them was called The Ordon's Redoubt, after the name of commander of artillery – Julian Ordon. Although the siege lasted only two hours, the heroic fight was perpetuated by the famous romantic poet Adam Mickiewicz, and is well known among Polish society. By chance, the place of the formal fortification is free of buildings and is now possible to access. During the archaeological excavation the outlines of the fortifications were discovered, including wolf pits containing common graves of soldiers, accompanied by small items of everyday as well as of a military character including a number of gunflints. One of the most spectacular discoveries, was the relation stored in the layers of *trou de loup*. We have opportunity to compare the stratigraphical sequence with written sources making it possible to identify detail episodes, so we could date a single layer even up to several minutes. The second method was to compare original gunflint with experimental ones. Based on the experiment consisting in shooting a certain number of shots with the similar type of gunflint with was used during the Ordon's Redoubt Siege. We focused on traces of striking or gunpowder traces, and were able to estimate the maximal number of effective shots. Results of archaeological excavations are an outstanding addition to knowledge about the Battle of Ordon's Redoubt and animates the story.

American Fuel Supply Operations during WWII in Mainland Europe

David Capps-Tunwell, Université de Caen-Normandie, Conflict Landscapes Research, **David Passmore**, University of Toronto Mississauga, Conflict Landscapes Research

Fuel supplies to Allied armies advancing through NW Europe following the Normandy Campaign in August 1944 were

sustained not only by the famous Red Ball Express truck convoys but also by fuel pipeline systems constructed by the American Corps of Engineers. These extensive feats of military engineering included the Major System pipeline that was eventually to stretch 900 km from the port of Cherbourg to Frankfurt. Here we present the first documented archaeological evidence of large-scale earthworks associated with fuel tank farms located at intervals along the Major System pipeline route. Many of these sites were in forest settings that have ensured their preservation to the present day and are the focus of an ongoing investigation using archival sources, aerial photography and field survey. Evidence from two tank farm sites in the Forêt domaniale de Perseigne near Alençon and a small woodland near Chartres illustrate the scale and character of these facilities and stand as testament to the scale and contribution of pipeline engineering to the Allied war effort. The former site is also contrasted within the landscape by a nearby German fuel depot. These landscapes and the potential for further discoveries add an Allied component to the emerging Conflict Archaeology literature around WW2 military logistics in NW Europe that to date has been focused on the German supply infrastructure.

Musket Ball Analysis of the 17th Century Pequot War in Southern New England

Srishti Sadhir, University of Connecticut

This poster will analyze a sample of musket balls (n=30) from Site 59-40, a key location along the route of English Withdrawal from the Battle of Mistick Fort on May 26, 1637. This battle constitutes a part of the Pequot War (September 1636 – August 1637). Utilizing “Colonial Era Firearm Bullet Performance: A Live Fire Experimental Study for Archaeological Interpretation” by Scott et al. 2017, a new method of analysis is applied to battlefield research. The poster will focus on the *Lead Deformation Index* developed by Scott et al. 2017 and the examination of musket ball impact characteristics to craft a comprehensive view of conflict in 17th century New England. Battlefield archaeology techniques are used to interpret ammunition from historical conflicts. Sivilich 1996 forms the basis of musket ball analysis using physical features such as deformations, impressions, and residues left from musket ball casting, firing, or impact. The Lead Deformation Index is applied in determining velocities of impacted shots. The correlation of the index with traditional bullet impact analysis informs trajectories, objects of impact, and tactics of the English Withdrawal. Most of the shots represented in this sample impacted at high velocities. The most common type of deformations seen include scarring from sand or gravel, irregular depressions, and ramrod marks. Many of these high velocity-impacted musket balls also bear the impression of tree bark. This confirms that guerrilla tactics were being utilized for ambushing and counterattacking during the withdrawal with utilization of the landscape. The Lead Deformation Index also provides a reliable quantitative method of analyzing otherwise qualitative musket ball characteristics.

Archaeological Patterns of Pueblo-Spanish Conflict at Sevilleta Pueblo, New Mexico, circa 1581 – 1681

Chris Adams, Gila National Forest Heritage Program, U.S. Forest Service, **Charles Haecker**, U.S. National Park Service (ret.) Advanced Metal Detecting for the Archaeologist (AMDA), **Michael Bletzer**

Sevilleta Pueblo (aka Tzelaqui), one of over 20 Ancestral Piro-speaking pueblos within New Mexico's central Rio Grande Valley and adjacent Salinas Basin, entered Spanish recorded history in the late 1500s. An archaeological research project at Sevilleta

Pueblo has identified major room blocks, a visita mission church, a Spanish compound of uncertain function, and a burnt kiva. The pueblo was abandoned in 1681. To date, sample metal detection surveys have produced over 600 metallic artifacts, reflecting both domestic and combat activities during the later 1500s and 1600s. Of note are multiple artifact clusters comprised of chain mail rings, dropped and fired lead balls and scatter shot, as well as European clothing- and equestrian-related metal objects. Artifact patterning indicates one or more hostile encounters took place at the pueblo over time, including one in which the Spanish utilized two ravines to screen their lines of approach. Once in position, the attackers could suddenly rush the pueblos nearby entryways that led into interior plazas. Domestic- and combat-related artifacts are intermixed within these plazas.

Revolutionary War and War of 1812 Battlefield GIS Mapping Project

Joshua Anderson, Michael Jacobson, Public Archaeology Facility, Binghamton University (SUNY)

Communities and local stakeholders often do not have a complete picture of the battlefields and their boundaries within their region. Urban development and reshaped terrain have often masked the physical reminders of these events. Information on these battlefields is available but is often held by experts or dispersed within primary sources located in libraries and archives. The American Battlefield Protection Program (ABPP) at the National Park Service has consolidated much of this information in their archives and initiated a partnership with the Civil War Trust (CWT) to standardize the data and make it accessible to the public. The goal of the partnership's battlefield mapping project is to take existing data and create maps that define the boundaries of battlefields and depict the features that define the battlefield landscape. Working with ABPP and CWT, Binghamton University's Public Archaeology Facility has developed a series of maps related to the Revolutionary War and War of 1812 based on ABPP's archives. The maps show the movements of troops and the positions they occupied projected onto modern topographic maps. These maps are tools the public and stakeholders can use to preserve the history around them and adds a point of contact between these communities and the preservation resources at ABPP and CWT.

Everlasting Tragedy

Sara Abriola, Eastern Connecticut State University

This poster features the immediate and long-term consequences that the Native Americans have faced and are still facing in relation to colonial war trauma. The immediate consequences include dislocation, disease, injury, and death. Long-term factors consist of suicide, violence, poverty, and overall mental health stability. Throughout my research I also looked at the current health statistics regarding Native Americans throughout the United States, the health information includes rates of suicide, domestic violence, substance abuse and overall health profile of Native communities. The poster also includes relevant resources for educators and the Native American community.

Locating Indigenous Sites in a 17th Century Battlefield: A Preliminary Study of Pequot Domestic Sites in Southern CT

Megan Willison, University of Connecticut

One of the most iconic moments of the Pequot War was the massacre at Mystic Fort, an event which occurred on May 26, 1637 and took the lives of hundreds of Pequot men, women, and children. Immediately following the massacre, the English retreated back to their ships and were followed by returning

Pequot warriors. Throughout the process of documenting this retreat route, to later be called the Battle of the English Withdrawal, Kevin McBride discovered multiple seventeenth century Pequot domestic sites. This poster will discuss the methodology and diagnostic artifacts which led to the discovery of these sites in addition to a preliminary analysis and discussion of the sites in question and their material assemblages. This research has implications for (1) demonstrating the utility of combining metal detecting and standard archaeological procedures and (2) showcasing a new method that can be utilized to discover indigenous sites during periods of early European contact.

Physically Modeling the Battle of the Crater: Gaining a New Perspective on the Events of 30 July 1864

Adrian Mandzy, Anthony Albrecht, Nathaniel Baker, Sydney Hackworth & Christopher Linneman, Morehead State University

The Battle of the Crater, fought on 30 July 1864, is one of the most important military engagements of the American Civil War. The Civil War Sites Advisory Commission lists the engagement as a Class A, Decisive Battle having a "direct, observable impact on the direction, duration, conduct, or outcome of the war" (1993, Technical Volume I: Appendixes: 189). In 2015, students from Morehead State University and the Battlefield Restoration and Archaeological Volunteer Organization (BRAVO) worked together with the Petersburg National Park and conducted a metal detecting survey of the Crater Battlefield. To help analyze the recovered artifacts, a 3D model of the project area was created in the spring of 2018 by Morehead State University students. The use of this model allowed us to 1) extrapolate lines of sight, 2) determine advances on the battlefield by using expended ordinance to determine the maximum distance from which a projectile was fired, and 3) the density of troop concentrations and their interrelationship with the landscape. The creation of this physical model provides us with a new perspective on the Battle of the Crater, allowing us to postulate the limit of the Union advance.

Shooting the Past: Colonial and Revolutionary War Firearms Live Fire Experiments and the Role of Validation Studies in Interpreting the Past

Douglas D. Scott, Colorado Mesa University, **Joel Bohy** Director of the Historic Arms & Militaria department at Skinner Auctions, **Bill Rose** U.S. Navy (ret.), **Charles Haecker**, U.S. National Park Service (ret.) Advanced Metal Detecting for the Archaeologist (AMDA), **Patrick Severts**

This poster presentation highlights the results of a live fire experiment with Colonial and Revolutionary War firearms. The study is an outgrowth of conversations associated with the recovery of fired and dropped Colonial and British musket balls from the Parker's Revenge site, Minute Man National Historical Park. The fight was part of the April 19, 1775 battle that began the Revolutionary War. Conflict Archaeology has grown as a sub-discipline in the last 30 years. It now has a rich theoretical basis grounded in Military Terrain analysis and the Anthropological theories of war and warfare. However, most of our material culture finds are still interpreted using typologies created in the field of military material culture collecting or from those established by relic collectors. The discipline has not taken full advantage of validation studies. This paper continues one type of validation study, controlled live fire experiments. The experimental work highlights Colonial era shoulder arms and associated recovered spherical lead balls. The results demonstrated some surprising results, but largely, validated predicted exterior ballistic bullet

performance at different velocities. Among the study outcomes was the complete affirmation of the Sivilich formula to determine deformed spherical ball caliber. Another outcome is the creation of a Lead Bullet Deformation Index that allows ball velocity at the time of impact to be approximated. A surprising result was the imprinting of cloth fabric weave on balls as they passed through uniform cloth.

Parker's Revenge Revealed: One of the First Battles of the American Revolution, It Takes a Community

Margaret Watters Wilkes, Northeast Region U.S. National Park Service Archaeological Site Management, **Joel Bohy** Historic Arms & Militaria department at Skinner Auctions, **William Rose**, **James Hollister**, U.S. National Park Service

Given the NPS funding structure, shrinking budgets, and increased demands on limited resources how can Parks engage in long-term, cutting edge archaeological investigations? Community engagement. Working with a core group of park volunteers and their dedicated Friends group, the Minute Man National Historical Park developed a project design for exploring the eastern end of the Park to locate and map the little-known battle between the British Regulars and the Lexington Militia as the Regular column returned to Boston from Concord on April 19th, 1775. The Northeast Regional Archaeology Program worked with the Park and their Friend group to identify and hire a project archaeologist. Together they developed a plan for archaeological investigations that were grounded in the support and participation of the public. The Parker's Revenge Archaeological Project was an effort achieved through community engagement. Over 1,500 volunteer hours were dedicated by the local reenactment, academic, and professional communities. The Park friends group funded the work through skilled management and successful fundraising. Strategic media engagement, public talks, and donors raised the awareness of not only the project, but the use of archaeological methods for identifying evidence of the battle - to an international audience. Over 100 members of the public attended an introductory talk by the project archaeologist followed by alive-fire reenactment on the battlefield, narrated by the Park education coordinator. Experiencing the battle, the tactical engagement interpreted through the archaeological investigations, for the first time since 1775, "...truly raised the hair on the back of my neck." (Meg Watters Wilkes, Project Archaeologist)

Complexity of the Archaeological Inventory: Battlefield Mapping, Interpretation, and Recording

David Lowe, U.S. National Park Service

The National Park Service uses service-wide based inventory software for mapping archaeological sites, cultural landscapes, and historic structures. While many archaeological sites can be relatively easily mapped, characterized and entered into the NPS Archaeological Site Management Inventory System (ASMIS), complex battlefield landscapes pose a challenge to this rather one-dimensional system. Over the past 20 years, work with battlefield mapping and archaeological feature characterization at National Historical Battlefields through the Northeast Region has provided a number of different challenges, some of which remain unresolved for characterization in service-wide inventory databases. Today battlefield mapping across thousands of acres relies in part on base map feature interpretation using a combination of aerial photography and high resolution LiDAR. Visual feature inspection confirming remotely sensed data, combined with historic documentation (map, photographic, documentary) provides in-depth interpretive tools for site

interpretation. While individual Park GIS and archaeological databases have the flexibility to customize database specifications and mapping protocol; service-wide inventories don't. Current discussions between park archaeologists, historians, regional and national ASMIS coordinators and GIS specialists are working to better understand the challenges posed for entering complex battlefield site information into ASMIS and are working to seek satisfactory solutions.

Repatriating Indigenous Medicines Used in Colonial Traumas
Mariana Serrano, Eastern Connecticut State University

Historically, native healing practices have served as relevant and effective methods of treatment for various health conditions and even in traumatic battlefield wars. Historical trauma has influenced many of the healing practices that native communities have adapted and practiced for centuries. The Pequot War and King Philip's War are both prime examples of events in New England that involved thousands of combatants who fought several battles with only hundreds escaping from bloody firearm attacks. Natives have successfully acquired the understanding of common healing tactics using mixed herbs, roots, natural plants and healing ceremonies or rituals to restore health amongst their affected communities. These traditional remedies were used to treat illness, disabilities, and trauma wounds inflicted during combat. The herbs and other natural products used in remedies were generally gathered from community gardens or from their surrounding environment during warfare. However, sometimes items were not available locally and were traded amongst tribes. Despite the effects of colonialism, many of the various healing practices have been passed down orally from generations to generations with little to no documentation in historical writing. This has led to many healing remedies that were used to remain a mystery. This research aimed to investigate ethnomedicine practices used by New England natives while representing the significant use of specific local natural plant resources and evidence of their healing properties during historical traumatic events.

Geologic Conditions Affecting Tunnel Construction at the 1864 Battle of the Crater, Petersburg, Virginia

C. R. Beroust, Jr., J. Steele, Christopher Bailey, M.E. Occhi, Peter J. Berquist, and D. Shockley

The Virginia Division of Geology and Mineral Resources has been creating detailed geologic maps in eastern Virginia over the past decade and Colonial National Historical Park and parts of the Richmond National Battlefield Park have been included in this work. The mapping has been partly supported by the USGS/AASG Statemap Program. Some initial work was recently completed in Petersburg National Battlefield. On July 30, 150 years ago, Union troops with Pennsylvania coal mine experience had completed a tunnel underneath Confederate defenses at Petersburg, Virginia and detonated 8000 pounds of gunpowder inside the end of the tunnel. This resulted in a massive crater, great loss of lives, and a disastrous outcome for the Union. We placed three auger borings adjacent to this tunnel to define stratigraphy, and understand and explain problems with its construction. Initial digging of the tunnel began in the wet shelly sands of the Pliocene marine Yorktown Formation. Collapse and other difficult mining conditions forced the decision to angle the tunnel upwards and hopefully into more stable material. The mining then encountered lenticular-bedded sandy clays of the Late Pliocene marginal-marine Cold Harbor Formation, material more competent than the Yorktown sediments, and the tunnel was successfully completed. This 500-foot long tunnel to

penetrate fortified positions was not unique to standoff warfare that occurred through the ages, though it was exceptionally long; geologic conditions in the Petersburg area permitted this strategy. Confederate forces responded in less than a week by placing powder in tunnels they had countermined under Union lines a short distance to the north of "The Crater" and detonating smaller-volume explosives with mediocre results. Recent auger drilling coincides with the 150th anniversary of tunnel construction and the battle of "The Crater." Now, with partial funding from the National Park Service, we are expanding geologic mapping into Petersburg National Battlefield. The anticipated new geologic mapping information should support resource management for the Park and is expected to enhance interpretive programs for visitor experiences.

The Accidental Fort at Jamestown

David Givens, Jamestown Rediscovery, **Kym Hall, William Griswold, Margaret Watters Wilkes**, Northeast Region U.S. National Park Service Archaeological Site Management, **Daniel Welch, Peter Leach**, University of Connecticut

The Northeast Region Archaeology Program (NRAP) is working with Colonial National Historical Park (COLO) on a collaborative project with the Jamestown Rediscovery project (JR) on the Angela Site, a Civil Rights Initiative to archaeologically investigate one of the first documented African female slaves named Angela, in the English Colonies at Jamestown. During the first phase of investigations NRAP conducted geophysical surveys over the 17th-century lot of Captain William Pierce, the documented owner of Angela. Colonial records indicate Pierce's 1619 patent was a seven-acre parcel located within "New Towne," the expansion of James Fort in the first quarter of the 17th century. The town grew into "James Cittie," the seat of government until removal to Williamsburg in 1699. During the second Anglo Dutch War, Governor William Berkeley ordered a fortification be implemented at the eastern end of the town to provide safe harbor from Dutch privateers. Construction started on the earthen fort in 1665 and was completed by 1667. Fading into history, the only mention of the "ye old fort" references the two eastern-most bastions as boundaries of land patents in the 17th and early 18th centuries. The placement of the fort within the emerging colonial landscape embodies notions of fear and conflict at Jamestown in the first few decades of the nascent town. Thought to be located on the southernmost portion of Pierce's early 17th-century lot, previous open-area excavations failed to positively identify the full extent of the fort. In March of 2017 NRAP and JR archaeologists were joined by ground penetrating radar (GPR) manufacturer Geophysical Survey Systems, Inc (GSSI) to field test their new hyper-stacking GPR system. With permissions from COLO and appropriate permitting, the team surveyed the purported location of the 17th-century fortification. The results of the survey and how the findings help to define the colonial landscape are the subject of this presentation.

Conflict and Community Health: Bridging the Gap between Archaeology and Public Health

Tiffany Lazur, Eastern Connecticut State University

Archaeology can be used as a tool to create a more inclusive history telling every side of the story and promoting historical preservation while addressing the health of the community. By bringing the past to life through archaeology, communities have more of a desire to protect and encourage their history and create venues for public health promotion. Health disparities arise during times of conflict; a major one being lack of education. By uncovering where past communities resided, where battles



took place, various artifacts, and outreach to the public for support and involvement, much can be unveiled. My poster includes my internship work at the Mashantucket Pequot Museum & Research Center under the supervision of Dr. Ashley Bissonnette, as part of the American Battlefield Protection Program project funded by the National Park Service, focusing on the Battlefields of King Phillip's War (1675-1677). The purpose of the community assessment surveys we distributed to Montague, Gill, and Greenfield residents in regards to The Battle of Great Falls (May 16, 1676) project, is to assess the community and identify community needs that can be intertwined with historical preservation initiatives. From that data we can plan strategies for the community/with the community to improve our strategies for historical preservation and community conversations. With our guidance, it is ultimately up to the community which direction they want to go in and how they will carry on with historical preservation, maintaining community health, and education after the project ends. From the early feedback, we can identify many town assets, community needs, and the want to make community changes.

The French Assault on Fort Necessity, Reconstructing the Battle through Metal Detection

Matthew Bjorkman, Michael Whitehead & Ben Ford,
University of Pennsylvania

In partnership with the National Parks Service, the Cooperative Ecosystem Study Units Network and Advanced Metal Detecting for the Archaeologist, Indiana University of Pennsylvania recently conducted a metal detection survey at Fort Necessity National Battlefield, Fayette County, Pennsylvania. Fort Necessity was a hastily fortified storehouse located within a historically significant landscape known as Great Meadows. On July 3 1754, British Colonial forces led by George Washington defended Fort Necessity against a small army of French soldiers and French-allied Native Americans. The Battle of Fort Necessity was a significant event in the life of Washington and was one of a series of diplomatic and military incidents leading to the outbreak of the French and Indian War. Metal detection at Great Meadows has provided evidence of firing positions of French and Native forces during the battle. The archaeological data support previous scientific research pertaining to the location of the 18th century tree line, and enables a more informed reconstruction of the chronology of the battle.

Growing Up Chippewa

Kelly Baratto, Eastern Connecticut State University

Throughout the course of history, indigenous peoples have been subject to discrimination, struggling to protect their rights that maintain their freedom. Occupying Eastern Canada

to Midwestern United States, the Anishinaabeg were forced westward to avoid conflicts with the League of the Iroquois only to engage in territorial wars with the Sioux for 80 years. Defeated alongside French allies during the Seven Years' War, the Chippewa again feared being displaced and resisted American expansion. Despite cession treaties, continued exploitation of their land led to the creation of sustainable reservations. Personal accounts capture anecdotal experiences that describe the hardships and blatant discrimination many of these native ethnic groups frequently encounter. As a member of the second largest group of American Indians in North America, my stepfather is now proud to express his Chippewa heritage. This was not always the case, where in his hometown of Buffalo, New York, he faced the trials and tribulations that coincided with the negative perception of what it meant to be Native American during the 1960's. The son of a council member at Walpole Island First Nation Reserve, he was never taught the native Algonquian language, Ojibwe, as an act of protection from his father. Solely based on the color of his skin, he became a constant target for crime and abuse as he watched others like him turn to a life of dependency or fall victims to violence. Fear became a mindset, instilled by racism, and restricted cultural traditions to be passed on to future generations.

Deciphering the Battlefields of Block Island 1500-1713

Michael Derderian, Mashantucket Pequot Museum Research Center

Block Island was involved in multiple military engagements and occupations spanning from pre European contact to the War of 1812. Thirteen miles to the South of mainland Rhode Island is Block Island, the remoteness of the Island essentially transformed the Island into a frontier at sea during the 16th and 17th centuries. Due to relatively small size of the Island only being three miles wide and seven miles long, it becomes increasingly difficult to differentiate between each colonial war. Over the past decade a number of archeological surveys on Block Island have been conducted. Inconsequently, material culture including musket balls, along with an assortment of gun flints has been discovered. Three separate engagements from the Pequot War, King William's War and Queen Anne's War took place on the Island. By comparing modern terrain features with contemporary narratives it becomes possible decipher the location of each battlefield. Both authors note unique terrain features which give clues to the location of each engagement. The objective of this poster is to demonstrate that multiple engagements, spanning different wars, in a relatively small location can be differentiated with the use of KOCO Analysis. This methodology will help in identify multiple battlefield sites in a relatively small area.

Memory and Legacy

Healing Heritage Through Decolonization in Indigenous New England Seaboard Museums The Mashpee Wampanoag Museum: Identity, Past and Present

E. Smith Umland, Wheaton College

In this paper the Mashpee Wampanoag museum is used as a way of interpreting Native identity in all its complexities. Situated in Exeter, Rhode Island, this small museum's story is at once unique and exactly like all the others. The Mashpee Wampanoag community was the victim of one of the final battles with the English in King Philip's War. The treatment of the community during the war and in their defeat set the scene for their place in the colonized world. After a devastating loss left them with a scattered community, no land, and the inability to govern themselves, the community started to fight legal battles for their identity, ending with an intense trial in 1977 to see if they were "really" Native, according to the government. The trial is a representation for a people that must reconcile a pre-colonial identity destroyed by war with an imposed colonial one. After being forced through genocide, it can be difficult to understand how Natives are neither old-world (extinct or lost in the past), nor new-world ("Americanized" casino owners), but some combination of both, who are seeking to reconcile and connect with their lost past and move into a decolonized and post-colonial future.

Exploring the Indigenous Experience of Saipan in World War II **Stephanie Soder**, East Carolina University

During World War II in the Pacific, the Battle of Saipan became one of the pivotal successes of the United States (U.S.) military to turn the tide of war. Unfortunately, this success came at a cost to the residents of the islands, and while the Japanese civilian experience has been studied, the indigenous experience has been pushed to the side. After securing the island from Japanese forces, the U.S. military separated civilians from prisoners of war within a holding camp known as Camp Susupe. The Chamorro and Carolinian indigenous civilians stayed within these camps for two years until released on 6 July 1946. The intent of this research is to explore the untold stories of the Chamorro and Carolinian civilians particularly through their survival during the battle and their experiences in the U.S. military holding camp. A Phase I archaeological survey, collection of civilian oral histories regarding the camps, and archival research form the basis of this research. This will serve to fill the academic gap regarding the Battle of Saipan, one of the largest battles in the Pacific to include civilians, and contribute to the fields of community and indigenous archaeology within a conflict archaeological framework.

Contested Heritage: Collecting and Memorialising Material Culture of The War

Njabulo Chipangura, WITS University, National Museums & Monuments of Zimbabwe

Zimbabwe was a British colony formerly called Rhodesia, which obtained its independence in 1980 after a protracted liberation war (1976-1979). The National Museums and Monuments of Zimbabwe (NMMZ) have of late, been involved in exhumation projects in a bid to understand the painful histories of this liberation struggle. In this paper, I am going to speak on how NMMZ has championed the process of re-inscribing and recognizing the suffering of people on the landscape where the war was fought through declaring and making these spaces liberation war heritage sites. The main argument that I am going to

present in this paper will be drawn from the recent exhumations, identification and reburial processes through which the dead were summoned from their graves and monumentalized as a 'new' form of heritage in the post-colonial nation. I will use examples drawn from three exhumations projects that I participated in as an archaeologist in Eastern Zimbabwe between 2013 and 2015. Ironically, these exhumations have been contested and regarded by the community as despicable and a sign of disrespecting the dead. The collecting of material culture from the mass graves by archaeologists for further analysis at the museum was viewed as unethical act of 'robbing' the dead. Sharing this part of contested histories of collecting the mosaics of the liberation struggle will allow me to reflect upon some of the ethical considerations involved in collecting human remains. The difficult histories associated with the war of liberation, coupled with the need to memorialize these places through proper archaeological research has opened public debate with dissonant views on the necessity of such a process.

The Archaeology of the Frontier War in Northeast Australia: A Case Study in Meaningful Engagement with Indigenous Australians

Bryce Barker, University of Southern Queensland, **Col McLennan**, Elder of the Jangga People of the Central Queensland Highlands and the CEO of the Jangga Prescribed Body Corporate, Australia, **Les Harrigan**, Traditional Owner for parts of southern Cape York Peninsula and the Support Officer of the Rinyirru Aboriginal Corporation, Australia, **Vincent Harrigan**, Traditional Owner of the Dikarrba, Balganwarra, Dhuppiwarra and Dharrba Warra clans on the east coast of Cape York Peninsula in Queensland, Australia, **Lynley Wallis**, University of Notre Dame Australia, **Heather Burke**, Flinders University, **Noelene Cole**, James Cook University, **Elizabeth Hatte**, Director of Northern Archaeology Consultancies in Townsville, **Larry Zimmerman**, Indiana University-Purdue University, **Iain Davidson**, University of New England

Since the 1980s, the archaeological profession in Australia has undergone a fundamental shift in how they engage with Aboriginal communities and the types of projects that have been pursued. Nowhere has this been more apparent than in the realm of frontier conflict. In spite of the fact that the violence associated with the British colonisation of Australia is rarely acknowledged officially, massacre narratives are central to Aboriginal oral history and cultural identity. As communities and researchers have developed new engagement practices and methodologies, opportunities have arisen for Aboriginal communities to help set research priorities. We are currently engaged with Aboriginal communities across northeast Australia to investigate the archaeology of the Native Mounted Police, the key paramilitary force operating in the state from 1849-1904 to eliminate Aboriginal resistance and presence. In this paper we discuss the complexities of undertaking research in this highly politicised part of history that has intergenerational and ongoing implications. We present a model for culturally sensitive engagement beyond superficial consultation that brings an Indigenous voice to the frontier war in Queensland.

'Death and Burial? The Disposal of the Dead from Battles in England, 1400-1685'

Sarah Taylor, Huddersfield University

One of the central, unanswered questions for many battlefield archaeologists has been: 'where are the mass graves?' This paper, presenting the findings from my Ph.D., will address this question

by looking into the historical accounts of a number of battles from a wide period of English history, in combination with reports of battle burials in order to see what light they can shed on the subject. The common assumption has been that the dead were buried on the centre of the battlefield, but this paper will show that a more subtle, nuanced understanding is required for the burial location of the dead. The historical evidence suggests, for example, that the issue of consecrated ground for the pre-reformation period was important, thus at the three battlefields in the study where the dead were explicitly buried on the battlefield, chapels were also founded (in two cases over the graves of the dead) to commemorate and intercede for the souls of the dead. Status also appears to have been an important factor, with the high-status likely to have been removed from the battlefield for burial. This paper will cover how and where the dead are likely to have been disposed of, as well as looking at who was responsible for disposing of the bodies and what factors had an impact on the treatment of the dead. This research is important as it will help battlefield archaeologists to understand where battle mass graves are likely to be found.

Battlefield Studies

Archaeology of the Spanish Civil War: The Battle at Monte Bernorio (Palencia, Spain)

Jesús F. Torres-Martínez, Complutense University of Madrid, **Manuel Fernández-Götz**, University of Edinburgh, **Alicia Hernández-Tórtoles**, Complutense University of Madrid, **Antxoka Martínez-Velasco**

The archaeology of the Spanish Civil War (1936-1939) has experienced an important development over the last decade. Several field projects have studied aspects such as mass graves, forced labour camps, and battlefields. In this paper, we present a case study from the so-called “North Front” (Frente Norte). The impressive mountain of Monte Bernorio, situated at the foothills of the Cantabrian Mountains, controls one of the main communication routes between the central Spanish plateau (Meseta) and the Cantabrian Sea. Due to this strategic position, the site has played an important military role during two main war episodes separated by nearly 2000 years: the Roman conquest of northern Iberia under Emperor Augustus in the 20s BC, and the Spanish Civil War in the years 1936-1937. The ongoing archaeological excavations and surveys are uncovering abundant remains of trenches, battering positions, barracks and munition belonging to the Civil War period, when Bernorio was a highly disputed position in the confrontation between “Republicans” and “Nationalists.” Adopting an interdisciplinary approach, the paper will combine archaeological evidence, oral history, written documents and photographic material that shows light on one of the main episodes of Franco’s conquest of northern Spain.

Archaeology of Modern Conflict: ‘The War After the War’ in Lithuania and Battle of Užpelkiai Forest, 1949

Gediminas Petrauskas, National Museum of Lithuania

In 1944, after Lithuania was occupied by the Soviet Union for the second time, Lithuanians began a partisan war. In 1944–1953, more than 20,000 freedom fighters were killed, about 140,000 people were arrested and imprisoned in forced labor camps, and 118,000 persons were exiled to Siberia. In 1949, Meeting of Lithuanian Partisan Commanders was held, and Union of Lithuanian Freedom Fighters was established. As a result, a political declaration that proved the continuance of Lithuania’s statehood and struggle for independence was signed. The Užpelkiai Forest battle of August 13, 1949 plays a key role

in the narrative of Lithuanian Partisan Commanders. During the battle five freedom fighters were killed, two of whom were signatories of the 1949 Declaration. The battle had a strong effect on the leadership and the Lithuanian Partisan War in general. Soviet security files, documents and recollections of partisans who had participated in the combat provide important data of the battle. However, the exact location of the Užpelkiai Battle site has not been located so far. The paper examines the data of the field research conducted in Užpelkiai Forest in 2014–2017. By analyzing archival data, the cartography, narratives of surviving witnesses, and archaeological data, a comprehensive battlefield of the Užpelkiai Battle is presented. Based on the field research data, the analysis of armament and war strategy, the details of the battle, the deployment of Soviet soldiers and Lithuanian partisans, their fighting scenes are reconstructed. The author discusses the methodology of battlefield analysis, argues the concept of modern Conflict Archaeology.

Vepryk - The Politics of History and Battlefield Archaeology **Adrian Mandzy**, Morehead State University

The siege and capture of the town of Vepryk during the Great North War (1700-1721) involved relatively few troops and was of limited strategic importance. In the decades that followed, the newly proclaimed Russian Empire often repeated the tale of how the brotherly Orthodox Slavs worked together against the “Western Invader.” During the Soviet period, the tale of “brotherly nations” was continuously underlined by the state through parades, books, literature, films, and public monuments. The defense of Vepryk became one of the central ideological themes within the Russian historiography of the Great Northern War, as it highlighted the Ukrainian people’s fidelity to Moscow. In the modern town of Vepryk, a Soviet-era monument commemorates the event and a small parcel of land is commonly referred to as the remains of the old Russian fortress. However, new research and a battlefield survey suggests that the engagement did not occur at this location, but rather a few kilometers away. In 2008, during the author’s work at the 1709 Poltava Battlefield, a group of local metal detectorists took the author, along with Ukrainian and Swedish scholars, to Vepryk. Within a wooded area outside of town, we mapped the remains of an earthen wall, fragments of exploded hand grenades and musket balls. The recovered grenade fragments appear to be Swedish, which suggests that the battle for Vepryk extended beyond the current settlement. If this interpretation is accurate, then contact between the local Ukrainian population and the Muscovite garrison was more limited than previously argued.



Leipzig and the Battle of Nations

Adrian Mandzy, Morehead State University, **André Schürger**

Within the span of the last thirty years, battlefield archaeology has established itself as a growing field of study. Much of this research has been area specific, focusing predominantly on North America and Western Europe, with the overwhelming emphasis being on Great Britain. Throughout Central and Eastern Europe, battlefield archaeology is still within its infancy and is conducted by only a handful of individuals. To illustrate the potential battlefield archaeology has on furthering our interpretation of past events, as well as the need to protect battlefields as archaeological resources, a joint research project was initiated in the summer of 2017 to study the largest Napoleonic battle ever fought – Leipzig. Also known as the Battle of Nations, this engagement was fought in eastern Germany in 1813 and changed the future of the continent. The defeat of Napoleon at Leipzig directly led to his resignation in Paris a few months later and his first exile to Elba. Historically, the importance of the battle was recognized by the major powers who took part in destroying the “Corsican Usurper” and continues to be commemorated through reenactments, public monuments and celebrations. Yet for all of its historical importance, the battlefield has escaped any serious academic archaeological study. Though much of the fighting occurred in urban areas, parts of the battlefield remain agricultural and are well suited for conducting a metal detecting survey. Our initial research focuses on the southeast corner of the battlefield, where the Austrians and Russians launched their attack on the French line.

The Methodology Used to Identify the Battle Site of Fulford (1066AD)

Chas Jones, Independent researcher

A formal method was prepared and subsequently followed which sought to maximize the chance of identifying an event whose location was unknown and which lasted a matter of hours but took place almost 1000 years ago. The iterative method, that constantly revisited the early literary sources to refocus the investigations, culminated in four seasons excavations after a decade investigating the landscape and surface finds. The project covered an extensive area, including all alternative sites that had been suggested. The benefits that result from investigating what emerged as the surrounding area will be explained. This allowed the project to conclude it had not found ‘the most likely’ but the only possible site for the battle. A peer-reviewed paper proposing the site’s registration was lodged with Historic England last year. This location is supported by several new classes of find that were identified, which will be discussed. The finds were unexpected and have a possible relevance to research on other sites of this era. Some can argue that this does not amount to archaeological proof so the restrictions such as pedantry imposes on battlefield research will be addressed.

The Battle of Alcala la Vieja: Location and Understanding of a Medieval Battle.

Mario Ramírez Galán, University of Portland, **Rafael Montalvo Laguna**, University of Alcalá, **María Benítez Galán**, CSIC (Centro Superior de Investigaciones científicas/Superior Center of scientific researches)

The battle and siege of Alcala la Vieja took place in Alcala de Henares (Spain) in the XII century. It has been a forgotten military engagement by archaeologists and researchers. Until now, there has not been any attempt to study this battle. We have started to research the battle development to find out more about this historical fact. Our project started with the goal of knowing

more about the siege, the battle, and the military context, but after the analysis of the written sources, we saw several elements that did not make sense. For that reason, we looked into these incongruities to give this research a new perspective. In order to evaluate those elements, we have used GIS to carry out several visibility studies to understand the most significant positions on the battlefield and see the role that they had. Through physical analysis, we have studied the best position to establish the medieval siege engines because we disagree with the historical sources about the establishment of them. Additionally, we have visited the place and found archaeological materials which proved the presence of activity from the Middle Ages. Finally, we have used aerial photographs and Lidar images to evaluate the landscape. We have found a possible archaeological feature in one of the most important locations on the battlefield. Our duty is showing a right interpretation of the military engagement to correct the historical sources.

The Study of Military Archaeology

Zhao Congcang, Northwestern University, Xi'an, Shaanxi

This paper is composed of three parts: “the definition of military archaeology,” “the object of study of military archaeology,” and “the characteristics of military archaeology.” Military archaeology is a branch of archaeology which is the main object of study of ancient military remains, it not only pays attention to material remains, but also focuses on the interaction between ancient military thoughts and material remains, so as to explain the rule of ancient military development and its relationship with the evolution of human history. The research of military archaeology is very rich. Relics related to the ancient military are the object the research, and include the weapons, war relics, ancient relics of the ancient city defense frontier, ancient military logistics remains, etc. Military archaeology plays a special role in revealing and restoring the history, understanding and interpretation of ancient military thought in the history of the restoration and development of ancient military affairs.

The Battle of Cheriton: the Analysis of Lead Finds From an English Civil War Battlefield

Kevin Claxton, University of York

The Battle of Cheriton in 1644 was the first major victory for the Parliamentarians in the English Civil War and turned the tide of the war against the Royalists. However, despite its importance in English history, the Battle of Cheriton has not received the attention of scholars in the way that battles such as Marston Moor, Edgehill, and Naseby have. Only one historian has studied the battle, and the exact site of the battlefield has been disputed. The area of the battlefield was subject to extensive amateur metal-detecting and a large number of artifacts recovered, but until now only a fraction of the Cheriton battlefield assemblage has been studied. This paper discusses the analysis of the complete assemblage, including the methodology used, with the aim of gaining a new understanding of the events of the battle. This paper presents the results of the analysis, which confirm the site of the battlefield and shed new light on the interpretation of the events of the battle. The paper also presents the potential for further research using this collection, and the impact this study can have on the local community and the protection of the battlefield site as an area of historical importance.

City Walls in the Levant: Physical and Intangible Muslim and Christian Defense in the Medieval Mediterranean

Amanda Charland, Independent Researcher

City walls, often considered second-rate defensive structures,

traditionally receive perfunctory analysis. The pre-conceived and accepted roles of city walls, broadly that of protection and practicality, bias interpretations toward military function. Much, if not all, of the decorative and non-defensive evidence is ignored or disregarded as irrelevant in these military readings. Military interpretations are further influenced by a focus on Frankish material rather than the sites' full biographies; eurocentrism in city wall research often disregards pre-existing Muslim architectural elements as well as subsequent architectural reuses, alterations, and destructions. This paper addresses identified biases and expands existing analyses by exploring the function of city walls found within the Latin Kingdom of Jerusalem. Particular attention is given to an examination of Ascalon's Muslim and Christian walls (1150-1153 and 1153-1187, respectively) from both a social and a military perspective. Using the theoretical concepts of biography and memory, Fatimid inscriptional evidence, Frankish primary source information, and surviving mosque and church structures either incorporated into the city walls themselves or located in close proximity, it is argued that the urban fortifications were used for more than physical defense. City walls were also viewed as religious structures providing intangible forms of protection for both medieval Muslim and Christian occupants.

Native American Fortifications during the Conflicts of European Settlement

Jason Warren, U.S. Cyber Command, Department of Defense, United States

Native American groups all along the eastern seaboard utilized advanced fortifications to defend territory, resources, and most critically, people. While historians have detailed the adaptation of native fortifications, they have overlooked the extent and rapidity of these military modifications. I intend briefly to elucidate this process of change. Still relevant for today is the danger in underestimating an adversary's ability to adapt, just as the colonists did here with the Indians.

American Revolutionary War

"Running the Gauntlet: Locating the Battle of Parker's Ferry, South Carolina"

Steven D. Smith, James B. Legg & Brian Mabelitini, South Carolina Institute of Archaeology and Anthropology

On August 30, 1781, General Francis Marion set up an ambush in a wooded swamp a mile down the road from Parker's Ferry, South Carolina, hoping to entrap a body of British troops on their way to join a band of Loyalists camped at the Ferry. A Loyalist patrol from the ferry camp came down the road and spotted Marion's men, but the noise of that encounter was heard by the British and drew their mounted Queen's Rangers up the road and into the trap. Unable to turn around on the narrow road while Marion's militia blazed away from the woods, the Rangers were forced to run the Gauntlet through Marion's ambush. Or were they? Archaeological evidence points toward a different interpretation. Since 2004 the South Carolina Institute of Archaeology and Anthropology has been attempting to make sense of the contradictory historical and archaeological record of this poorly documented battle of the American Revolution, located in a swamp with heavy understory. A 2015 American Battlefield Protection grant has greatly assisted in this research.

"In the Morning We Began to Strip and Bury the Dead:" A Context for Burial Practices During the American War for Independence

Robert A. Selig, Independent Historian, **Wade P. Catts**, South

River Heritage Consulting

Following almost any military engagement, wounded soldiers in various stages of mutilation littered not only the battlefield site proper but could frequently be found for miles around. Interspersed with them lay the corpses of men who were killed in the battle or had died during the pursuit of the enemy. Yet methods of battlefield cleanup, such as taking care of the wounded and disposal of corpses, are topics rarely covered in written accounts of battles and their aftermath during the American War for Independence. Treatment of the dead and wounded following battles of the American War for Independence varied according to a range of factors. The location of the battle, weather, time of year, who controlled the battlefield, how much time was available for battlefield cleanup, the character of the surrounding community, and the customs and attitudes regarding the dead of those responsible for burial all influenced the ways corpses were treated. Utilizing historical documentation and archaeological examples derived from several Revolutionary War battlefields in the northern and middle Atlantic regions, including Princeton, Bennington, Hubbardton, Brandywine, Paoli, and Red Bank, this paper offers a historical and archaeological context for eighteenth century battlefield burial practices.

Historical Narrative and Cultural Landscape Analysis – Revealing the American War of Independence Battle of Chelsea Creek

Victor T. Mastone, Massachusetts Board of Underwater Archaeological Resources

Overshadowed by the iconic battles at Concord/Lexington and Bunker Hill, the Battle of Chelsea Creek is often overlooked as part of the siege of Boston. On May 27-28, 1775, American militia forces raided British forage and supplies on the northern shore of Boston Harbor. A running engagement with British marines and armed vessels ensued. The British forces were unsuccessful; a major result of the battle was the capture and destruction of the schooner HMS *Diana*. Today, the area is a heavily modified urban-industrial landscape. With funding from the National Park Service's American Battlefield Protection Program, a geospatial and temporal assessment of the location, extent, and preservation potential of the Chelsea Creek battlefield and its associated cultural resources was undertaken. By re-examining the documentary record and using GIS analysis, a digital elevation model, and a military terrain model (KOCO), this investigation created a high resolution spatial and temporal dataset of Boston's historical landscape during the time of the American Revolution.

"Of War, But Not At War:" Conflict Archaeologies of Prisoner of War, Internment and Labor Camps

Grey Ghosts: Searching for Confederates at Camp Lawton, Georgia, USA American Civil War, POW Archaeology
Ryan McNutt, Georgia Southern University

The sites of former prisoner of war camps were transitory, ephemeral and temporary places, existing in a liminal state during warfare—neither civilian, nor combatant, guards and prisoners experienced the camps in an indeterminate state, engaged and connected to the conflict emotionally, while removed and distanced physically. Yet, this ephemeral nature makes prisoner of war camps—as well as other sites of interment—ideal sites to examine myriad aspects of human behavior, such as issues of power and dominance. Moreover, especially for American Civil War POW camps, a comparison between the historical and archaeological evidence for dominant

and subordinate, POWs and Confederate, can reveal some key aspects about past experiences, and present interactions. Camp Lawton was a Confederate camp for Union POWs that was built in 1864, inhabited for six weeks, and abandoned in advance of Sherman's march to the sea. Previous research has documented dense deposits of archaeological material related to the POW occupation; however, until recently, areas related to Confederate guard occupation were unknown. For a holistic comparison of the lived experiences of POWs and guards at the camp, Confederate assemblages are essential for answering questions about treatment of POWs, access to goods and resources, and the social relationship between the dominant and the subordinate, and how these were negotiated. This paper summarizes recent research and excavations of Confederate areas, explores the results, and offers some initial comparisons between excavated assemblages to begin to untangle the liminal nature of groups at war, but not in war.

Form over Watype: Ceramics from Idaho's Kooskia Internment Camp, a World War II Japanese American Internment Camp
Stacey Camp, Michigan State University

Ceramics recovered from Idaho's Kooskia Internment Camp, a World War II internment Camp that imprisoned a predominantly Japanese American population, provide insight into how prisoners adapted their dietary preferences and needs amid unjust incarceration. An analysis of ceramics found during excavations of a trash dump associated with prisoners at the Kooskia Internment Camp suggest that a ceramic's watype such as stoneware, improved whiteware, and porcelain; and the ceramic's place of production such as the United States or Japan - were less important than the ceramic's vessel form. The preponderance of institutional whiteware bowls found at Kooskia along with archival and photographic evidence of prison food practices provide evidence that Japanese Americans were able to access some of the foods to which they had been accustomed prior to their imprisonment during World War II. Thus, while prisoners were consuming foods in predominantly Euro-American manufactured vessels, they were able to maintain some of their pre-World War II food practices because of the availability of institutional whiteware bowls at internment camps.

'Life in the Bag: Scenes from a WWII POW Camp in Scotland'
Iain Banks

Archaeological Investigations of a Civil War Prison Camp Site (9PR26) at Blackshear, Georgia
Colin Partridge, Georgia Southern University

In the closing months of 1864 Confederate authorities were forced to evacuate the large stockade prisoner of war camps at Millen and Andersonville, Georgia in the face of General Sherman's 'march to the sea.' While attempting to evade Union forces, approximately 5,000 POWs were sent along the Atlantic and Gulf railroad in south east Georgia, stopping just outside of

the town of Blackshear. The prisoners were then marched into the woods and put under guard where they remained for several weeks before being moved again. An intensive archaeological survey across the prison site looks to reveal evidence of the lived experiences of both the POWs and guards who once occupied the area. Due to the chaotic nature of these evacuations little evidence of the layout of the camp or the daily routines of the prisoners can be found in the historic record. Because the camp was established as a temporary stop along the railroad no stockade or earth works were constructed to contain the prisoners, which would require a change in the prisoner guard dynamic. Evidence of this change may be represented in the material remains of the camp. POWs were no longer under strict observation from guards in towers and the closer proximity could have resulted in increased illicit behavior, such as bartering. By identifying the sections of the camp occupied by the POWs and guards researchers can visualize the proximity between the two groups and develop a better understanding of how the prison functioned.

Public Engagement with POW Sites: The Camp Lawton Archaeological Project
Rhianna Bennett, Ryan McNutt, Georgia Southern University

Conflict and battlefield sites have long been popular draws for heritage tourism. The finding of Camp Lawton, a Civil War prison camp located in Millen, Georgia, was no different. Created with public outreach in mind, the Camp Lawton Archaeological Project is a partnership between the Georgia Department of Natural Resources, U.S. Fish and Wildlife Service, and Georgia Southern University Department of Sociology and Anthropology. Located on a state park, the stewardship of the site helps to stimulate the local economy as well as educate visitors on internment and POW experiences during the Civil War. The Camp Lawton Archaeological Project utilizes K-12 STEM events, lectures, and public archaeology days to educate a variety of audiences. This paper will use Camp Lawton as a case study to explore the potentials and impacts of conflict sites to engage and educate the public.

"Andersonville All over Again": An Archaeological Comparison of Union POW's and Their Confederate Guards during the American Civil War
Lance Green, Wright State University

The treatment of prisoners during the American Civil War was a controversial topic during the conflict, and continues to be to the present day. Both sides, practicing a war of punitive violence, mistreated POWs, but often in different ways. Union POWs in Confederate prisons claimed that abuse included withholding of basic resources such as food, clothing, shelter, and medicine, in addition to physical violence perpetrated by Confederate guards. In contrast, Southern leaders claimed that the lack of adequate provisions was due to a lack of resources for all, including Confederate soldiers. Camp Lawton in Georgia and Florence in South Carolina were Confederate POW camps established in the fall of 1864. Both contained massive prison stockades holding thousands of Union prisoners. Archaeological investigations at these two sites enable a comparison of the daily lives of Union prisoners and their guards near the end of the war, as Southern supply lines were stretched to their thinnest. Differences in archaeological features and material assemblages related to housing, food and dining, hygiene and medicine, and clothing reveal significant disparities in the material quality of life between these two groups.



Roman Conflict Archeology

The Ancient Conflict Landscape of Kalkriese (Varus Battle 9 AD): New Insights into the Course of the Battle and the Post-battle Processes

Achim Rost, Universität Osnabrück, **Susanne Wilbers-Rost**, Varusschlacht im Osnabrücker Land gGmbH Museum und Park Kalkriese

For 30 years archaeological and multidisciplinary research has been done at Kalkriese Hill north of Osnabrück in Northwestern Germany. Investigation of the military conflicts between Romans and Germans in 9 AD focused on the events at the main site today called "Oberesch" with its numerous Roman finds and special features such as a rampart and pits with bones of the Roman soldiers killed in action. But this site is not isolated: metal detecting and excavations revealed Roman coins and military equipment at many places in an extended battle area of nearly 10 km in east-west direction. In recent years the settlement structure of the indigenous population and the development of the landscape by the inhabitants have been investigated more intensively. Against this background, the Roman objects found off the Oberesch site have now been analyzed in more detail. This led to new insights in the course of the battle and events immediately succeeding the fighting's. Dealing with Roman objects, discovered in the area of Germanic settlements which were inhabited in the decades around Christ's birth, has yielded new aspects for the understanding of looting, the removal and stay of booty, but also the treatment of captives. The paper will give an overview of the finds, together with a short explanation of methodological basics. The main aim of the paper, however, is to present considerations and new models that try to explain the events during and after the battle at Kalkriese.

Indigenous Resistance and Imperial Violence: Reassessing the Archaeology of the Roman Conquest in Western Europe **Manuel Fernández-Götz**, University of Edinburgh, **Nico Roymans**, University of Amsterdam

The last decade has witnessed important advances in the field of Conflict Archaeology related to the Roman conquest of Western Europe. Several fieldwork projects in different countries and regions have provided unexpected evidence for Roman military camps, sieges of indigenous settlements, and even some battlefields and massacre deposits. For the first time we have direct archaeological evidence for the brutality of the Roman conquest in regions such as northern Gaul, northern Iberia, and Scotland. This is due to several factors. First, the impact of post-colonial research agendas has placed greater interest in the destructive and more negative aspects of Roman imperialist expansion. Second, the widespread use of remote sensing technologies and geophysical surveys has allowed the discovery and exploration of a large number of new sites, including numerous marching camps and indigenous fortifications. Finally, some case-studies have investigated the demographic impact of the conquest at a regional level on the basis of excavated settlement evidence and environmental data. This paper will summarize some of the main trends in recent research, which provide evidence for both the resistance opposed by indigenous communities and the strategies of Roman militarism.

Beneath Rust and Dust: A Study of Warfare Interactions. The Use of 3D Technology to Approach the Warfare Practices and Exchanges in Western Europe During the Last Centuries BC. **Alexandre Bertaud**, Bordeaux Montaigne University

In order to understand the warfare practices in ancient societies,

we need to apprehend the place of the weaponry within each society, given by the analysis of the archaeological context. We also need to understand how the weapons were used and in which purpose. This second approach can be conducted through morphological analysis and use-wear observations. The development of 3D technology allows us to approach the warfare practices in a different way. This paper will present a new way to tackle the warfare practices, especially the gestures associated with the swords. This paper will focus on the Western Europe during the last centuries BC, an area occupied by several peoples who had their specific swords. It will include the Roman army, its impact on late prehistorical societies, and its adoption of a Gladius Hispaniensis. Through the 3D reconstruction of the swords, we can approach the similarities of use whereas the morphology is very different. Through this method, we can approach the fighting techniques from the artifacts themselves. Furthermore, we can use the method to larger issues, especially the warfare interactions. The exchanges of weapons are submitted to social practices within and between societies. The weapons, particularly the swords, are tools which are necessarily used in a specific way on the battlefield. The way to use the weapons is important to understand the exchanges and adoptions. This paper will propose a large scale analysis on the interactions of warfare artifacts through specific methodology involving 3D recreation.

The Lusitanian Wars, a Faceless Conflict of the 2nd Century BC in Western Iberia from an Archaeological Approach. **Luis Berrocal-Rangel**, Universidad Autónoma de Madrid

According to Greco-Latin ancient writers, the Lusitanian Wars were a series of military conflicts between Celtic peoples from Western Iberia (Lusitanians, Celts and Vettons) and the invading Roman legions, from the beginning of the 2nd Century BC to middle 1st Century BC. The main events of these conflicts happened from 150 to 138 BC, when Hispanoceltic tribes were commanded by a historical leader, known with the name of *Viriatius*, who achieved great goals against Roman legions. These victories were owing to the war strategy, imposed by indigenous troops, and the guerrilla warfare, according to Greek and Latin writers. There were some attacks to hill forts, but usually they were solved quickly by treason or stratagems. Therefore, the conflicts were swift movements and these left few and small marks. In contrast, later Civil Roman conflicts (*i.e.* the Sertorian War) had major battles, permanent camps and defensive fronts. Consequently, they left more archaeological marks: destroyed ramparts, burned sites, new weapons, hidden depots, etc... In addition, Greco-Latin ancient writers described the Lusitanians as light troops. These facts make more difficult to identify earlier Lusitanian conflicts. In this paper, we offer an approach to the Landscape Archaeology and defensive Architecture of Late Iron Age in Western Iberia, which fits with this whole picture. Just by the study of contemporary fortifications and weapons, we can attest that the Lusitanian wars were not an invention of the Roman writers, as a propaganda mechanism, and then to propose conclusive suggestions to understand this faceless conflict.

Material Culture

The Social Significance of Weapons – Taking Chinese Bronze Weapons as an Example **Guo Yanli**, Shaanxi Normal University, Xi'an, China

Weapons are the materialized form of war, representing violence and the will of the country. Weapons carry technical, social, political and military meanings and symbols. Combined with

unearthed items, bronze weapons represent the hierarchical etiquette system, funeral customs, social customs, cultural traditions and material exchanges. According to the excavation of the tombs, different grades of people used different quality, different sizes and different combinations of bronze weapons. The phenomenon of funerary weapons and the destruction of weapons may be related to the inadequacy of the user's financial resources and man's idea of ghosts and gods at that time. The types and styles of bronze weapons in the central kingdoms is highly consistent and the ones in the surroundings areas vary greatly, which is related to the geographical environment, their respective cultural traditions and the recognition of the etiquette system. In the Chinese Bronze Age, different kinds of weapons are from various places, and cultural exchanges including direct input and the transformation of the style of weapons can be seen.

Battlefield, Home Front, Factory, Forced Labor Camp

André Schürger, Phoenix Archaeology, **Lawrence Babits**, East Carolina University

This presentation reports on observations made during a contract archaeology project at Gablingen, Bavaria, Germany, during 2016. The site had been, successively, a Royal Bavarian Airfield, a Luftwaffe Airfield, an auxiliary/outlying forced labor camp for a Messerschmidt development and production facility, a US Army base/listening post, and finally public property associated with the Bavarian maximum security prison and Bundesnachrichtendienst. The team consisted of Phoenix Archaeology, a professional contract firm, volunteers, and local historical groups. Excavation consisted of uncovering features ranging from anti-aircraft gun positions, labor camp housing/offices, bomb craters, and the site perimeter. The artifacts ranged from military and civilian material culture associated with the various periods to structural elements, and complex, multicomponent artifacts. Insights into military and civilian material culture during total war are offered.

Conflict on Two Continents: Archaeology and the Culture History of frontier New France

Linda Naunapper, Wisconsin and Illinois Archaeological Surveys

The temporal period of approximately AD1600 – 1780 in the Great Lakes and Midwest USA has historically been characterized from a number of different disciplinary perspectives. While historians have focused on such Euro-centered themes as colonial history of New France, the Age of Exploration and fur trade studies, anthropologists have concentrated on reconstructing indigenous lifeways by scanning archives in search of historical cultural data and through using ethnohistoric methods to infer cultural identities. Anthropological archaeologists have, in turn, borrowed from these works, using them as a basis to develop interpretations of past lifeways and events that occurred at archaeological sites of the period. This interpretive framework works sufficiently for sites where cultural affiliation is fairly well known because material culture remains are of either indigenous or Euro manufacture. But what about sites that yield mixed

material culture assemblages, and in particular, a site where French trade items as well as French military artifacts (a portion of a cannon/mortar, lead balls, gunflints) have been recovered in association with indigenous artifacts? Recent historical research on this battle site (47Wn9) and potentially submerged adjoining sites suggest that 'Les Renards' depicted on an early modern French military map may not necessarily refer to an indigenous tribal group, as has been assumed. This paper presents a discussion of how and why this archaeological site, located on what was the western frontier of New France, is most adequately interpreted within its broader global context of intercontinental early modern period conflict.

Assessing Optimal Lethality of Early Eighteenth Century Hand Grenades

Stephen Lacey

In the first half of the eighteenth century, navies doubled the number of hand grenades in a ship's arsenal and transitioned from clay and glass to cast iron. Historical records make no mention as to the reason for this transition but an intensified effort for standardization of cannon and shoulder arms is contemporaneous. Apart from standardization, an assumed increase in the potential lethality of cast iron over glass or clay may have contributed to this shift. This study compares data from the blasts of a cast iron grenade to that of a hand-blown glass grenade of similar size with conventional adaptations from naval accounts. The blast provides quantifiable factors such as shrapnel spread, magnitude of concussive force, and decibel levels. An assessment of these factors renders an optimal lethality level of each grenade type, to be used to reinterpret historical accounts of blasts to determine discrepancies.

Elemental Analysis of 18th Century Cast Iron Projectiles: Georgia and South Carolina Evidence

Daniel T. Elliott, The LAMAR Institute

The use of elemental analysis is a relatively new method for studying Conflict Archaeology sites and reports on its use in identifying the elemental composition of cast iron artifacts is quite rare in the academic literature. In an effort to remedy this problem, the LAMAR Institute launched a study to begin a database for 18th century cast iron projectiles-Case shot and cannonballs from military sites in Georgia and South Carolina were systematically analyzed with a Bruker Tracer III-V device in 2017 and yielded intriguing results. The initial research focus was two cast iron balls, both attributed to having been removed by Surgeon James Lynah from Brigadier General Casimir Pulaski's body at Savannah in October, 1779. This effort quickly snowballed to include a sample of 83 cast iron projectiles from Revolutionary War contexts at Savannah, New Ebenezer and Kettle Creek, Georgia; and Beaufort, Camden, Charleston, Eutaw Springs, Fort Motte, Ninety-Six, Purysburg, Stono River, and Tar Bluff, South Carolina. Elements of particular interest for cast iron ordnance include arsenic (As), chromium (Cr), cobalt (Co), copper (Cu), lead (Pb), manganese (Mn), molybdenum (Mo), nickel (Ni)



rubidium (Rb), silver (Ag), strontium (Sr), tin (Sn), zinc (Zn) and zirconium (Zr). Careful study of these impurities promise to reveal secrets relating to intrasite and intersite interpretation. A larger sample size may allow the separation of balls cast in Europe versus those cast in frontier settings. The author presents the results of this pilot study and encourages its expansion to conflict sites and museum collections worldwide.



Battlefield Preservation

Welcome: Introduction to the American Battlefield Protection Program Path to Preservation
NPS Staff

Mapping Battlefields with GIS and GPS-Inventory and History for a Military Terrain Components of Battlefield Archeological and Cultural Landscapes
NPS Staff

Preservation Planning: Elements of the Effective Battlefield Plan Registering your Battlefield
NPS Staff

Battlefield Grants
NPS Staff

Health & Trauma

Trauma and Fracture on the Neolithic Age skeletons from Wanggou Site in Zhengzhou, Henan, China
Yan Qi-peng, ShaanXi Normal University

The analysis includes frequencies and pathogenic factor on trauma on the skeletons of Wanggou residents in Neolithic Age. The incidences of trauma were observed among 194 skeletons of the Wanggou sites. Results show that among the group of 194 individuals, 13.40% had fracture and trauma. The pathology was present in twenty of 105 Prime (24-35 years) (19.04%), five of the 33 middle-aged persons (7-14years) (15.15%). Sixty-one percent of the trauma found was in males, and 38.46% of trauma found on female. This was lower than those from modern skeletons in China, and the frequency of the fracture and trauma have age and sex differences. The site of trauma is focused on the bones of the four limbs, vertebra, clavicle and ribs. Only two examples are found on the skull and tibia with blunt force injury. Wanggou residents may not have had too much warfare, instead, they may have a stable life and carried out agricultural labor. At the same time Hunter-Gatherer & Cultivation may have gave them enough food and not too dangerous activities such as violence and war.

A Possible "Ritual" Killing from Farmington, Connecticut
Nicholas F. Bellantoni, University of Connecticut, **Kristen Hartnett-McCann**, CT Office of the State's Chief Medical Examiner, **Gerald J. Conlogue**, Quinnipiac University, **Jaime M. Ullinger**, Quinnipiac University, **Rachel O'Neill**, University of Connecticut, **Bo Reese**, University of Connecticut, **Julianna Crivello**, University of Connecticut, **Gabrielle Hartley**, University of Connecticut

During the construction of a stone retaining wall along the eastern bank of the historic Farmington Canal in 1985, a dismembered

young adult human male skeleton was exposed. The cranium had been decapitated and severe attacks with sharp metal implements were exhibited on the vertebrae and long bones. At that time, the State Medical Examiner ruled the discovery a homicide, but that the trauma was inflicted well over 100 years ago and not part of a modern criminal investigation. As a result, the case was dropped and the skeletal remains were boxed and placed in storage for 30 years. Due to renewed interest, the case has been reevaluated with permission from CT Chief ME, Dr. James R. Gill. The degree of mutilation, well beyond death, may suggest a "ritual" killing. The site location is purported to have been the scene of a late-17th century battle between the local Tunxis tribe and the Stockbridge Indians of Massachusetts. In addition, Revolutionary War French General Comte de Rochambeau's army bivouacked his army nearby in 1781. This paper will present the results of a biological profile based on forensic osteological studies, computed tomography to produce high-resolution sectional images of cut marks to determine weaponry, radiocarbon (AMS) dating and DNA sequencing to determine mitochondrial and haplotype identification, all of which we apply to a number of varied historical outcomes.

Ritual and Raiding: Recording Interpersonal Violence in California

Joseph B. Curran, Tetra Tech

This research focuses on the effects of interpersonal conflict on social organization in Californian indigenous groups. Specifically, the focus is on the transition of combat in forager societies to its institutionalization among horticulturalists and complex hunter-gatherers. One of the challenges in archaeology is in recognizing steps in the evolution of violence in formative and less stratified societies. To achieve this end, the transition of conflict needs to be operationalized. This investigation analyzes the impact of specialized weaponry (i.e., clubs), indicative of the earliest signs of escalating warfare in California. Experiments were conducted in collaboration with forensic scientists and biomechanical engineers to derive quantifiable data on lethality caused by traditional war clubs. Weapons were reconstructed from descriptions in historic accounts and analysis of museum specimens. Specimens analyzed were from ethnographic collections of A.L. Kroeber and Robert L. Heizer. The reconstructions were then tested using biomechanical engineering methods to measure force, pressure, and strike patterns. Test results were related to the bioarchaeological record and specific case studies (i.e., Channel Islands, Central California, and Playa Vista) for blunt force trauma in prehistoric California to connect the ethno historic record to data from prehistory. This comparison allows for the charting of the early development of conflict centered, social organizations.

Facing the Unseen Enemy: The Experience of the First World War Underground Soldiers

Anthony Byledbal, GUARD Archaeology

From the first months of the First World War, the belligerents reintroduced the mine, an underground organization dug to destroy an enemy position by blowing up an explosive charge, and in which the military engineers, from all the Armies, were poorly trained in. From one side to another of the frontline, the effort was important to find specialists who could manage this blind and secret combat. These men from all over the world were soon engaged in a general underground warfare in Belgium and France, trying to chase and destroy the enemy tunnels before they blew up their trenches. The soldiers who fought underground, didn't chronicle their experience after the War. The secret nature

of their activities on the Western Front kept them silent. Most of them, civilian miners, quickly came back from France, soon after the Armistice, because they were needed in the mines. No more than twenty books or memoirs were written by a few veterans from the countries engaged in the conflict. None of these testimonies clearly details what they experienced in the small tunnels deeply dug in the clay or in the chalk. Studying the archives and excavating the underground galleries give clues which one by one enlighten the subterranean wartime experience from an anthropological perspective. Thus, how these special soldiers managed the intense and nervous underground operations? How their bodies supported the physical effort in the tiny tunnels? What was the resultant health and trauma issues they contracted?

A Hell of Disfiguring Violence: The Trauma and Consequences of Colonial Wars

Ashley Bissonnette, Mashantucket Pequot Museum & Research Center, Eastern Connecticut State University

In 1675 New England, one of the bloodiest wars in the United States broke out. The violence disfigured communities, and the resulting starvation and disease took more lives than those lost in combat. The experience of those living through war and deadly epidemics has in many ways have been lost to historians and its effects underscored for centuries. Community health profiles, risks-factors, public health action, cultural stigmas and the toll of disease have been reconstructed in part using 17th century documentation, histories, archeology and community involvement. During the archeological investigations of the Battle of Great Falls/Wissantinnewag-Peskeompskut, a genocidal event and intensely contested battlefield of King Philip's War (1675-1677), researchers worked with Native experts to add a Native voice, challenge norms, and engage the community of Western Massachusetts. The project highlights Colonial trauma, and the importance of public archaeology and cultural resources for community engagement and empowerment, and preservation of historic battlefields.

Historical Trauma in New London County CT: Generational Impacts on Youth Substance Abuse and Mental Health Trends **Angela Rae Duhaime & Christine Miskell**, Southeastern Regional Action Council

The Southeastern Regional Action Council is a regional nonprofit organization that provides prevention services for communities in the areas of substance abuse, mental health, and problem gambling awareness. For more than a decade Southeastern Regional Action Council has collected youth survey data (grades 7th through 12th) on the rates of substance use and various associated risk factors, perceptions, and beliefs. This presentation will utilize the existing database of self-reported youth responses specifically among the population of native youth residing in New London County CT. Several local towns have contributed to this dataset including (not limited to) Ledyard, North Stonington, Stonington, Montville, and Norwich. This proposal has three intended goals: (1) to present findings on the analysis of data for

Native American youth in New London County, (2) to discuss the importance of the findings in the context of the Theory of Historical Trauma and (3) to highlight the goals and

efforts of the Mashantucket Skeehch Wuyeean (Good Medicine) Project.

Becoming Evil: The Psychology of Perpetrator Behavior in Fields of Conflict

James Waller, Keene State College

Far too often, fields of conflict include, and may be a cover for, crimes of mass atrocity – war crimes, crimes against humanity, and genocide. Much of the research regarding mass atrocity crimes focuses, as it should, on the victim and survivor experience – including the preservation of those traumatic experiences as well as their treatment. A new perspective in the field of atrocity studies, however, focuses on the victimizers – the men and women who perpetrate the atrocities in fields of conflict. For a robust understanding of conflict, the physical remains of what perpetrators leave behind on fields of conflict – their victims – must be complemented by a psychological excavation of the factors that drive perpetrator behavior. This presentation is based on over two decades of fieldwork regarding perpetrator behavior in Germany, Israel, Northern Ireland, the former Yugoslavia, Rwanda, Uganda, Tanzania, Argentina, Chile, Colombia, and Guatemala. The resulting work was published as “Becoming Evil: How Ordinary People Commit Genocide and Mass Killing” (Oxford University Press) and will soon be released in a third revised and updated edition. This presentation, with a particular focus on atrocity crimes committed against Indigenous peoples around the globe, will explore cultural influences of worldview on perpetrator behavior, how perpetrators come to define the “other,” and the group dynamics involved in the social construction of cruelty. Recapturing the experiential history of perpetrators is necessary in order to prevent the crimes from occurring as well as to inform strategies for re-integrating perpetrators into post-conflict societies.

Inter-generational Trauma, Justice, and the Armenian Genocide

Marian Mesrobian MacCurdy, University of Massachusetts at Amherst

The year 2015 marked the 100th anniversary of the Armenian Genocide, a comprehensive effort by the Ottoman Turks to annihilate their Armenian population. By the time the genocide was over in 1923, approximately a million and a half Armenians had been killed and most of the rest of the approximately 2 million population forcibly removed, their assets confiscated by their oppressors. While some of the Turkish leaders responsible for the Genocide were convicted of capital crimes in post-war tribunals, they escaped across the Black Sea on a German boat and were never extradited to Turkey to face their punishment. The Armenians suffered a personal and collective trauma born not only of genocide but of its denial, the silence that followed, and the resulting lack of justice. Crucial to the Armenians' recovery as a people was the creation of a communal social remembrance that goes beyond the fact of victimhood and relies on individual and collective memory and resistance, including Operation Nemesis, a covert Armenian effort to locate the escaped Ottoman Turkish leaders and to mete out the punishment their crimes had earned. Such actions within a community play a key role in trauma mitigation since they can help build resilience, personal agency, and a sense of justice. This presentation examines the phenomenon of inter-generational trauma, the “bleeding” from one generation to the next, which may rest partly on epigenetic modifications that can affect the way we respond to our world. The presentation will then focus on elements of remembrance and resistance in the Armenian community, particularly how action can help build resilience and counteract trauma. Not only



can the sins of the fathers be visited upon their children but their responses from being sinned against as well. If so, this means that in some ways the genocide is still happening—to both the survivors and the perpetrators—but efforts to make the truth known hold the Armenian community together in its quest for recognition, reparations, and justice.

Northeast Region National Park Service Projects

Conflict Stewardship in the Northeast Region National Park Service

Margaret Watters Wilkes, Northeast Region U.S. National Park Service, **James W. Kenrick**, Intermountain Region, U.S. National Park Service

The Northeast Region Archaeology Program of the National Park Service works with a diverse range of conflict sites from Maine to Virginia. Thirty of the National Parks and Battlefields in the Northeast Region have been founded to commemorate, interpret, and preserve significant battlefields, political events and individuals, and military structures. The National Parks contain a diverse history and landscape of Conflict from the French and Indian War, the American Revolutionary War, the War of 1812, the American Civil War, to conflict landscapes created for training during World Wars I and II. The theme of conflict in the Northeast region is not solely located or focused on the battlefield but runs through the history of occupation. Conflict can be seen in the movement of people, the battle for resources, and in the interpretation of freedom. NRAP works with the Parks, contractors, collaborators, volunteers, and stakeholders to help accomplish effective, ethical, respectful, and cutting edge research and interpretation of its Conflict resources. These paper and poster sessions are grouped to highlight the research being done in the National Parks and Battlefields in the Northeast Region and to provide insight not only to the history and archaeology of battles, but to better understand the landscape of Conflict, the people fighting, and impacted individuals and communities. These papers discuss the methods through which we are able to explore and interpret our fields of Conflict and provide snapshots of clashes between opposing forces, and intimate moments of bravery, heroism, suffering, and death.

Parker's Revenge Revealed

Margaret Watters Wilkes, Northeast Region U.S. National Park Service

April 19, 1775, at the border of the towns of Lexington and Lincoln in Massachusetts, Captain John Parker and the Lexington Militia met the British Regular troops for a second time as the British column retreated to Boston following the exchange of fire that marked the start of the American Revolutionary War at Concord's North Bridge. A long time focus of the local reenactment community and the Minute Man National Historical Park, the location and details of the battle were not known despite the robust body of historical research. Using an integrated archaeological approach the historical landscape was reconstructed enabling targeting and identification of not only the location of the battle, but also insight into the tactics utilized during that engagement. The Park has used the results from the archaeological project for landscape refurbishment and exhibition development to more effectively engage the public in the events that took place at Parker's Revenge. Visitors can view the exhibit in the visitor's center and see the musket balls fired during the battle then walk the Battle Road trail through the Nelson farmstead, accessing pathways and Waysides describing the battle. From its inception, the Parker's Revenge

project combined best practices in archaeological investigations, commitment to public engagement, and strategic planning for site access and preservation. The project has engaged in community collaboration using archaeology as a gateway to science fully incorporating the inherent STEM principles of this discipline in field research, planning for outreach programming, and site rehabilitation.

Dividends for Our Investment: Applying Conflict Research Methodology within the ARPA Program

In the Northeast Region

William A. Griswold, Northeast Region Archaeology Program

The adoption of Advanced Metal Detecting for the Archaeologist (AMDA) metal detector methodology has forever changed our view of how battlefield research should be done on NPS sites, especially for sites in the northeast. Work at Minute Man National Historical Park (Parker's Revenge), Fort Necessity National Battlefield, Gettysburg National Battlefield, and Saratoga National Historical Park document just a few parks that have experienced an enormous payout as a result of integrating new methodologies into projects. Integration of this new methodology, as well as the use of other geophysical instruments, has also aided the Archaeological Resources Protection Act (ARPA) program in the Northeast Region. Especially on battlefield sites, or in areas of contention, battlefield investigative methodology is affecting how ARPA Permits are being issued (even when primarily Section 106 in nature), how field documentation is collected for ARPA related violations, and how battlefields can be surveyed to provide a base map with which to evaluate future ARPA incidents.

Declaring Slow Violence and Native American Presence in the Northeast's National Parks

David Goldstein, Tribal and Cultural Affairs-Northeast Region, U.S. National Park Service

The public lands of the National Park Service's Northeast Region are some of the most substantial public holdings east of the Appalachian Trail. Yet, the cultural presence of Native American Indian sovereignty is difficult to see on this post-colonial landscape. Through a combination of tribal engagement, historical research, and geographical information systems we are working on finder's tools to assist both native peoples and land managers understand and locate their tribal partners. Discussing and interpreting colonial history in public space in areas of tribal sovereignty is a form of 'slow violence' that overwrites and effectively erases sovereign histories. We will illustrate this idea and the introduction of counter-narratives to colonial history at National Park sites within the Northeast.

"On great fields, something stays" Archaeology and Prescribed Burning on Little Round Top,

Gettysburg National Military Park

Joel Dukes, NPS Northeast Region Archaeology Program

The incredible events that occurred at Little Round Top on July 2nd, 1863 during the Battle of Gettysburg and the iconic views and rugged terrain that directly contributed to its strategic and historic significance make it one of the most heavily visited sites within Gettysburg National Military Park. In an attempt to maintain the unobstructed view for the benefit of the visiting public, the park recently proposed utilizing prescribed burning. This paper reviews the results of archaeological surveys performed in 2017 by the National Park Service Northeast Region Archaeology program and an amazing group of volunteers in support of NHPA Section 106 compliance for the Little Round Top prescribed burn. The study utilized shovel testing, pre- and

post-burn metal detection surveys, and experimental placement of selected artifacts within the 52 acre burn area. The survey sample identified what types of battle related artifacts are present, what methodology is best suited to archaeological compliance and research projects, and how terrain and vegetation affect those methods. There is also evidence that recoverable artifact patterns survive that reflect the actions and specific events that produced them on the field of battle. As a result of the survey, the park has current baseline information to move forward with a prescribed burning program that not only has minimal potential to impact battle related archaeological resources, but can also enhance future battlefield research.

The Archaeology of Mutiny: Excavations at the Connecticut Line's 1779-1780 Camp, Morristown, New Jersey
Richard Veit and Casey Hanna, Monmouth University

The winter of 1779-1780, saw troops from the Pennsylvania Line cantoned at Jockey Hollow, near Morristown, New Jersey, mutiny over back pay, poor housing and provisions, and the involuntary extension of their enlistments. In the summer of 2017, Monmouth University's Department of History and Anthropology, Rutgers University Newark's Department of Earth and Environmental Sciences, and the National Park Service began a collaborative study of sites associated with the mutiny. Research focused on Fort Hill, a poorly-documented fortification built to General Anthony Wayne's designs, and the log hut city where the troops were housed. The project was designed to determine the extent and integrity of archaeological deposits at the site and tested a variety of remote sensing techniques, most notably induced polarization, a form of resistivity. Surveying, photogrammetry, shovel testing, excavation units and metal detecting were employed to document the archaeological remains. Fortification and hut remains were identified and a small but evocative collection of Revolutionary war era artifacts was unearthed. Most importantly, the fieldwork highlighted the usefulness of metal detecting, often a go-to technique for investigating battlefields, as a highly effective technique for investigating military camps.

American Civil War

Digging In: Combat Engineering and the Rise of the Entrenched Battlefield in the American Civil War
Philip L. Shiman, Marine Corps University, David Lowe, U.S. National Park Service Cultural Resources GIS, Julia Steele, Petersburg National Battlefield

The final campaigns of the American Civil War witnessed a remarkably rapid evolution in tactics as open-field fighting gave way to trench warfare, culminating in the nine-and-a-half month deadlock of Petersburg (June 1864-April 1865). This phenomenon has never been adequately described or explained. To do so, our interdisciplinary team, which includes two historians and an archaeologist, is applying an innovative methodology that combines the traditional and modern tools and techniques of our respective fields. We have discovered that much of the tactical evolution of this period was driven by previously unrecognized developments in combat engineering, especially improvised battlefield entrenchments. During the last year of the war, field fortification, once the province of technical specialists, became an integral part of infantry tactics and a required skill for the common soldier. Faced with the need to protect themselves quickly in a highly lethal environment, the troops applied their ingenuity and experience to create new engineering forms and procedures not taught at the United States Military Academy or described in the field manuals. Most importantly, they

constructed their earthworks progressively, starting with small shelters and gradually strengthening them during the course of the battle while staying under cover the entire time. Now, for the first time, units could securely entrench themselves even while engaged in combat—a critical feature of the new trench warfare. With the help of LiDAR imagery, contemporary photographs, and GIS surveys, this paper will discuss these developments and describe their significance for the Civil War battlefield.

'...a fine rifled cannon from Liverpool' an Archaeological Biography of (four) Fawcett Preston Cannon Made for the Confederacy.
Peter Norris, University of Liverpool

The Confederacy did not have a significant heavy industrial base at the start of the American Civil War. Therefore, it was forced to seek armaments from outside North America. Europe and especially Great Britain became principal suppliers of the Confederate needs. In particular, Whitworth rifles from Manchester, Armstrong rifles from Newcastle upon Tyne and Blakely rifles, principally made in Liverpool. All of these manufacturers supplied both naval and field ordnance. It is the actions and manufactures of Fawcett Preston & Co. Ltd, who undertook engineering and armaments production that will be the subject of this paper. They made guns under the Blakely patent and also designed by themselves. These guns armed the Confederate surface raiders, were placed in the forts guarding the ports, and took part in many land engagements. Nevertheless, it is a legacy that has received neither wide acknowledgement nor understanding. Over thirty examples of the cannons manufactured by Fawcett Preston remain in North America on display, in museums, on battlefields and other open-air sites. A few also survive in Britain and Peru. This paper will explore the biography of four Fawcett Preston guns, from procurement, to operational history, and final resting place. They have been selected with regard to their particular significance to historical events, and provide a clear illustration of the significance of an Engineering company, and Liverpool, to Confederate war effort. The opening shots of the American Civil War (Fort Sumter) were claimed as being fired by a gun made in Liverpool and the last combatant (CSS Shenandoah) surrendered there. As the quote from the governor of South Carolina in the title highlights, Fawcett Preston made a significant contribution to the Confederate war effort, but there was also a price to pay.

Diversion or Massacre: A Cautionary Tale
Lawrence Babits, East Carolina University

This presentation reports on a December 1862 engagement at White Hall, North Carolina. A large Federal force engaged in an artillery bombardment against a much smaller Confederate defense across the Neuse River. Later accounts and interpretations have suggested that a friendly fire incident occurred that may have been a virtual massacre of Union infantry by Federal artillery. Documentary and artifactual evidence are used in conjunction with the landscape to offer a better explanation of what may have happened.

"The Oft Forgotten but Indispensable State: Evaluating Florida Civil War Archaeology"
Janene Johnston & Brianna Patterson, University of West Florida

Though far from the major engagements of the Civil War, events in Florida played a significant role in its outcome. While the majority of Florida remained under Confederate control for the duration of the war, tensions quickly arose as the Union

took hold of key positions across the state and established the Gulf Blockading Squadron. As a result, there is a rich history of the Civil War in Florida. This paper explores this history by synthesizing all archaeological research conducted throughout the state. It includes a diverse array of conflict sites such as battlefields, forts, hospitals, saltworks, and shipwrecks. These investigations will provide insight into potential avenues for future research while also instituting a prioritized list of sites that need further investigation before they are impacted by factors such as development, sea level rise, severe weather phenomena, and continued private collecting.

“150 Years after the Battle of Franklin: Archaeological Investigations of the Federal Defensive Lines and Carter Hill Cotton Gin”

Nathan Allison, University of Idaho

The focus of this paper is the continuing multi-year archaeological project related to the American Civil War Battle of Franklin, Tennessee, and the subsequent search for the Carter Hill Cotton Gin, which played a role in Federal Troop's defensive works during the Battle. After Confederate forces marched overnight from Columbia, Tennessee, the Army of the Tennessee sprung a morning attack on Union forces on November 30, 1864. One Hundred and fifty years later the Confederate failure to dislodge Union fortifications at Franklin and subsequently capture Nashville is known as one of the most devastating defeats of the War. As the Sesquicentennial anniversary approached Battle of Franklin Trust and Franklin's Charge formulated plans to reclaim and preserve any surviving evidence of the Battlefield from the urban landscape and incorporate it into the Carter Hill Battlefield Park. Contracted under Franklin's Charge, Nashville office of TRC Environmental Corporation carried out a multi-year archaeological investigation to uncover remnants of the Federal Troop's defensive lines associated with the Battle of Franklin and determine the precise location of the Carter Hill Cotton Gin. An existence questioned due to succeeding urban development across the project area. This paper explores the 2014 and 2015 field seasons when TRC staff were successful in locating stone foundations of the Cotton Gin as well as intact preserved Federal defensive lines. Relying on eye witness accounts and other documentary sources to guide field work, this paper further examines how memory of conflict can corroborate and or differ from archaeological evidence.

“...also attacked, tho. partially”: The Right Flank of Burgoyne, New Archeological Evidence

Matthew Kirk, Justin DiVirgilio, Elizabeth Gregory & Adam Luscier, Hartgen Archeological Associates

In the fall of 1777, General Burgoyne and his army of soldiers from Great Britain, Canada, and Europe, along with Native American allies marched south from Canada in an effort to join with other British forces at Albany in a strategic gambit to sever New England from the American interior. The American forces, initially assembled by General Philip Schuyler, and later led by General Horatio Gates made a determined stand near Stillwater, New York. Two battles, later known as the Battle of Freeman's Farm (September 19) and Bemis Heights (October 7), checked the British advance and eventually forced Burgoyne to capitulate. Today, the majority of the battlefields are preserved and interpreted as part of the Saratoga National Historical Park. Recent archeology for park improvements, which included systematic metal detecting, led to recovery of 359 artifacts that could be associated with the 1777 battles. The majority were recovered near the British fortifications known as Balcarres'

and Breymann's Redoubts. However, here, we focus on a smaller assemblage of battlefield material recovered at the western flank of the two battles, on a commanding overlook. Using KOCOA analysis and historical documentation, we consider how and why these materials may be part of a small (but significant) skirmish that ultimately affected the larger progression of the battle on September 19.

Fortifications

Hypothetic Reconstruction of the Development of the Defensive Structures of the Middle Town of Rohatyn In 15-17th Centuries

Mykola Bevz, Polytechnic National University, Lublin University of Technology

The town of Rohatyn belongs to the oldest urban locations that existed according to the German law in the territory of Western Ukraine. The great chronological depth of the town's urban structure has been often mentioned by researchers. However, academic literature does not yet fully cover the changes made to the planning of the town's structure during the 15-17th centuries. Similarly, the stages of development of the town's defensive lines were not identified, although historical documents contain many references to the existence of fortifications around the middle town and the castle. Existing documentation only describes the urban changes in general terms, with researchers not yet having organized them into specific planning schemes. In our present work, we set our goal as the reconstruction of the different stages of development of fortifications in the middle town of Rohatyn. We use the following methodology: analysis of the town's planning structure based on both historical and contemporary maps, studies of the remains of fortifications in the current landscape, comparison of field studies with data from cartographic analysis to references to the defensive objects found in historical documents, studies of analogical landmarks, and graphical reconstruction of stages of development of fortifications.

Frontier Warfare in the Argentine Pampas from an Archaeological Perspective: Late XIXth Century Military Sites in Carlos Casares County, Buenos Aires Province, Argentina

Juan B. Leoni, CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas) Universidad Nacional de Rosario, **Diana S. Tamburini**, CEAR (Centro de Estudios Arqueológicos Regionales) Universidad Nacional de Rosario, **Teresa R. Acedo**, Dirección de Patrimonio, Museos y Turismo de Carlos Buenos Aires, **Graciela Scarafia Casares**, CEAR (Centro de Estudios Arqueológicos Regionales) Universidad Nacional de Rosario

Throughout the XIXth century, Argentina underwent a process of territorial expansion aimed at incorporating extensive tracts of land -favorable for cattle herding and agriculture- in the region known as the Pampas. This process was fiercely contested by indigenous societies, transforming the frontier areas into a locus of a complex interethnic dynamic in which peace and conflict alternated. In this paper we discuss a temporally and spatially localized part of this process, the territory of what is now Carlos Casares County (Buenos Aires Province) between 1869 and 1877. The local landscape was then marked by the presence of the military frontier line, which included both small forward outposts and a larger fort. We focus our discussion on two specific military frontier facilities, Fort General Paz and Fortín Algarrobos, which have been archaeologically investigated in recent years. Their architectural characteristics and artifact assemblages are presented, pointing out the low degree of standardization shown by the heterogeneous military materials,



*Gustoweh by Sharif Patterson
on display in "Katahshayooôkanun
Mákooôkanash" — Our Family
Gifts: a Pequot Art Exhibit in the
Mashantucket Gallery, MPMRC*

as well as discussing logistical and supply issues through the analysis of glass containers, ceramic wares, and faunal remains. The picture emerging from the archaeological record is then contrasted with contemporary and later folk and historical narratives about life and warfare in the frontier.

Time in the Battle. Could We Measure It? Case of Archeological Investigation at Ordon's Redoubt in Warsaw, Poland

Wojciech Borkowski, State Archaeological Museum in Warsaw, Poland & **Michał Paczkowski**

The "Redoubt of Ordon" project, implemented by the State Archaeological Museum in 2010-2015, was aimed not only at determining the actual location of the famous Ordon's Redoubt, archaeological examination of the object, interdisciplinary development of research results and their publication, but also conservation and educational activities. The survey of the same scone carried out in 2013 covered the area of 30 acres. This allowed recognition of the layout of fortifications relics. During the research, all elements of the fortifications were identified. These were: lines of wolf pits, moats, and the foundation of the embankment. In the half of discovered wolf pits have been found the remains of soldiers killed in battle. They were burials common to soldiers of both sides. A total of over 2,300 artifacts were gained, including items from organic raw materials: pouches, caps, shoes and fragments of uniforms, as well as metal elements of uniforms, weapons and equipment. A team of 48 Polish and Russian scientists developed the results of the research. In addition to the results of archaeological research, the project "Reduta Ordon" included a number of historical studies

in the field of general history, military history, fortifications, as well as the history of literature and biographies, published in two volumes. The project "Reduta Ordon" was accompanied by huge public interest. Hence the numerous popular publications, radio and television programs as well as presentations and lectures and papers of participants. During its implementation three promotional exhibitions and a number of didactic classes were prepared.

Fort Nya Goteborg and the Printzh of (36DE3): Archaeology and Ethnohistory of the First European Structure Built in Present Pennsylvania.

Marshall Joseph Becker, West Chester University

Fort Nya Göteborg (New Gothenburg) is the first European structure to have been built in what is now the state of Pennsylvania. The establishment of a Swedish outpost in Dutch territory on the South (Delaware) River in 1638 was centered at Fortress Christina, located where Wilmington, Delaware now stands. The third Swedish colonial governor, Johann Printz, established his home and trading post upstream on Tinicum Island, parts of which now lie below Philadelphia International Airport. The first construction was a palisaded enclosure, given the name Fort Nya Göteborg. Printz's house, located just behind the fort, was identified as the Printzhof. Until excavations in the 1980s recognized that these were two separate constructions, their separate identities remained uncertain. Details of palisade construction at this site reveal a pattern of fortification previously unknown in North America.

BIOGRAPHIES

Timothy J. Abel, Ph.D., earned Bachelor's and Master's Degrees from the University of Toledo, Ohio, and a Ph.D. from the University at Albany, SUNY. In three decades of research and consulting he has directed more than 215 projects involving Phase 1, 2 and 3 archaeological investigations for research and construction projects ranging from bridge replacements to large block developments. He has authored more than 60 conference papers, 30 professional articles, and a monograph. He is an active member of twelve professional organizations, including the New York State Archaeological Association, Eastern States Archaeological Federation and the New York Archaeological Council. His academic specialties and interests include prehistoric ceramics, Northeast and Great Lakes prehistory and ethno history, the St. Lawrence Iroquoians, War of 1812 military sites and political economy. He has lived and conducted archaeological research in northern New York area for 24 years.

Sara Abriola, is a recent graduate from Eastern Connecticut State University. Sara majored in Health Sciences with a concentration in public health. Sara now wants to put a large amount of effort into public health issues in order to make a positive and an impactful difference. During the summer Sara will be working at YMCA Camp Hi Rock as a counselor for children aged 7 to 15. Sara's goal throughout the summer is to assist in the development of campers mind, body, and spirit.

Teresa R. Acedo, is the Director of Patrimonio, Museos y Turismo (Heritage, Museums, and Tourism) of Carlos Casares town (Buenos Aires province, Argentina). She has degrees in Museum Studies and in Cultural Tourism from the Universidad del Museo Social Argentino (Buenos Aires, Argentina). She also has a degree in Historical Museums Studies from the Escuela Nacional de Museología-Complejo Museo Histórico Nacional (Buenos Aires, Argentina). She has developed a project for the Protection of Cultural Heritage and an Education Program as part of the Cultural Circuit of Carlos Casares (Buenos Aires, Argentina). She carries out research in historical archaeology of frontier military sites (Buenos Aires Province, Argentina).

Christopher Adams, has been with the Gila National Forest Heritage Program for ten years and with the U.S. Forest Service

for 21 years as a professional archaeologist. Mr. Adams has been working in archaeology for well over 30 years in both the private sector and well as with the U.S. Forest Service. Mr. Adams received his B.A. from Arizona State University. Mr. Adams has been using metal sensing technology for over 40 years in North America and is considered to be one of the leading experts in the Spanish Colonial Period and Apache Indian War Period in the Southwestern U.S.A. Christopher Adams has worked on battlefield projects in New Mexico, Arizona, Montana, Wyoming, Colorado, Alaska, Missouri, Arkansas, Texas, and Virginia.

Mohamed Ahmed Abd El-Rahman Ibrahim Enab, Ph.D., is working as a lecturer of Islamic architecture – faculty of archaeology – department of Islamic archaeology- Fayoum University. He has a Ph.D. degree in Islamic Architecture, Faculty of Archaeology- Cairo University (2014), with his thesis title being: "Remaining ottoman mosques in Sana'a comparative architectural archaeological study." He is interested in Islamic Architecture and art especially in Yemen. He has a special interest in the preservation of endangered cultural heritage through conflicts. He has attended many courses on how to manage archaeological sites and Risk Management. Also he participated in many conferences and workshops. He was the Deputy Director of Crisis and Disaster Management Unit, Faculty of Archaeology, Fayoum University.

Nathan Allison, currently ABD perusing a Ph.D. in Historical Archaeology at the University of Idaho (UI). In addition to his doctoral work, he serves as adjunct faculty for the Department of History at UI where he teaches courses in early American history and the history of crime and punishment. His research interests focus in public space in the early modern Atlantic world, conflict archaeology, and funerary archaeology. He has an undergraduate degree from Metropolitan State University of Denver in History and Anthropology and, and a master's degree in European and Atlantic World History and graduate certificate work in GISci from Eastern Illinois University. Prior to Ph.D. studies, Nathan lived in Nashville, Tennessee where he worked as an archaeologist for TRC, Solutions.

Josh Anderson, serves as a field director in the Public Archaeology Facility at Binghamton University. His research

interests include the mapping of battlefield sites through metal detector survey, military history, GIS applications, and community outreach. He is the team leader for the American Battlefield Trust's grant to PAF for the GIS mapping of all Revolutionary War/War of 1812 battlefield sites in the National Park Service's ABPP files.

Lawrence (Larry) Babits, Ph.D., has excavated battlefields, fortifications, ships, and a World War II POW camp. Babits served in the US Army's B Company, 1st Battalion, 21st Infantry (Gimlets). He has been a Revolutionary War and Civil War reenactor since 1961, sailed tall ships, and traveled extensively, including Egypt, Afghanistan, Iran, and Europe. Currently involved with researching smoothbore musketry, he shoots competitively with the First Maryland Infantry. He last played rugby in 2017. His publications include Fort Dobbs on the Carolina Frontier and Archaeological Investigations at Causton's Bluff, Chatham County, Georgia. He was named McCann-Taggart Lecturer for the American Institute of Archaeology, George Washington Distinguished Professor by the NC Society of the Cincinnati, and a Fellow of the Company of Military Historians. His most recent book, *Long, Obstinate and Bloody*, about the Battle of Guilford Courthouse, was co-written with Josh Howard.

Joanne E. Ball, Ph.D., after taking an undergraduate BA degree in Ancient History & Archaeology at the University of Liverpool, and an MA in Ancient World Studies at the University of Manchester, she completed a Ph.D. in archaeology at the University of Liverpool in 2016. She is currently an independent post-doc scholar associated with the University of Liverpool. Her research interests are Greek & Roman battlefield archaeology, theory & methodology in battlefield archaeology, and conflict site formation.

Robert T. Ballard, USN, ret. and Professor of Oceanography at the University of Rhode Island and Maritime Archeologist.

Bryce Barker, is an archaeologist specializing in Australian and Melanesian, indigenous archaeology, focusing on 'pre'-historic societies as well as the colonial contact period in the Institute of Resilient Regions, University of Southern Queensland. Recent projects include, research in Papua New Guinea on trade networks in the Gulf of Papua, and an

Australian Research Council funded project on colonial frontier conflict in Queensland, entitled 'The Archaeology of the Queensland Native Mounted Police.'

Marshall Joseph Becker, Ph.D., was trained at the University of Pennsylvania in all four fields of Anthropology. He now applies archaeology as well as other approaches to gather information about the Lenape ("Delaware Indians") and their various neighbors. Dr. Becker has published two books, a number of book chapters, and nearly 200 articles on the Lenape, Colonists, and other peoples of the Americas in scholarly journals as well as popular magazines. Dr. Becker's research has been supported by grants from the National Science Foundation, the National Endowment for the Humanities, the American Philosophical Society and the National Geographic Society.

Nicholas F. Bellantoni, Ph.D., Emeritus Connecticut State Archaeologist, serves as the *emeritus* state archaeologist with the Connecticut State Museum of Natural History and Archaeology Center, and as Adjunct Associate Research Professor in the Department of Anthropology at the University of Connecticut. He received his doctorate in Anthropology from UConn in 1987 and was shortly thereafter appointed state archaeologist. His duties were many, but primarily included the preservation of archaeological sites and the protection of unmarked human burials in the state. He is a former State Commissioner for Culture and Tourism and sat on the State Historic Preservation Council for over twelve years. He is a past president of the Archaeological Society of Connecticut and the National Association of State Archeologists. He has provided technical assistance to the State's Medical Examiner's Office and the CT State Police on modern criminal investigations. His research background includes zooarchaeology and the analysis of human skeletal remains. He has been excavating in North America for over 40 years.

Rhianna Bennett, is a graduate student in the Master of Social Sciences program at Georgia Southern University, conducting her thesis research on the relationship between archaeology and public education in the state of Georgia. During her time at Georgia Southern, she has worked as Graduate Assistant to the Camp Lawton Archaeological Project.

Grzegorz Berendt, has been associated with the Institute of History of the University of Gdańsk, Poland, since

1985. As a historian, he has conducted research on the history of Polish Jews and other groups of Gdańsk Pomerania's population in the 20th century. He is the author of approximately 90 scientific publications and over 30 popular science publications. His scientific achievements include three independent monographs and the co-authorship of seven books. He has investigated the history of the Gdansk region. His recent scientific projects focus on the extermination of Jews and Polish-Jewish relations during the Holocaust. He is a member of the Polish Historical Society, the Gdańsk Scientific Society and the Kashub Institute. He is the chairman of the Stutthof Museum Council and a member of the Auschwitz-Birkenau Museum Council, the Scientific Council of the Jewish Historical Institute and the Historical and Program Collegium of the European Solidarity Centre. In the years 2002-2007, G. Berendt was the head of the Postgraduate History Study at the Faculty of Philology and History of the University of Gdańsk. In October 2006, he took up the job at the Gdańsk branch of the Institute of National Remembrance-KŚZpNP. There, he coordinated the INDEX scientific project, dedicated to Polish citizens who were repressed by the German Nazi invaders for helping Jews. In October 2008, the President of the Institute of National Remembrance entrusted him with the position of head of the Branch Office of Public Education of the Institute of National Remembrance-KŚZpNP in Gdańsk. During the period of office he launched, among others, the so-called branch publishing series. To date, more than 50 volumes have been published. At the beginning of 2014, he focused mostly on scientific research on the extermination of Jews in the Borderlands of the Second Polish Republic. From the beginning of January to the end of April 2017, he was the head of the Branch Office of Historical Research of the Institute of National Remembrance in Gdańsk.

Since May 2017, Grzegorz Berendt holds the post of the Deputy Director of the Museum of the Second World War in Gdańsk, Poland.

Luis Berrocal-Rangel, Ph.D., is Professor of European Prehistory in the Autonomous University of Madrid. Member of the Real Academia de la Historia of the Kingdom of Spain (2002). He is a specialist in Celtic Archaeology, mainly in Fortifications and Warfare of the Celts in the Iberian Peninsula, and in Late Bronze Age and Iron Age Architecture. Member of the *International Union of the Prehistoric and Protohistoric Sciences (Metal Ages in Europe*

Commission); of the *European Association of Archaeologists* and the *Bronze Age Studies Group*; and the Scientific Committee of the *Association Française pour l'Étude de l'Âge du Fer* (Les espaces fortifiés à l'âge du Fer en Europe 2019). He is a main Researcher of the Spanish Governmental project *Late Prehistory Architecture in the Western Spanish Plateau. Archaeotecture and Archaeometry about the built heritage of the Vettones hill-forts* (HAR2016-77739-P) and editor of the scientific journal *Cuadernos de Prehistoria y Arqueología de la UAM* (CuPAUAM). He is author of more than one hundred of scientific papers and a dozen of books.

Alexandre Bertaud, Ph.D., studied Archaeology at the University of Toulouse Jean Jaurès from 2005 to 2009. He then joined the University of Bordeaux Montaigne to finish his MA and to prepare for his Ph.D. He conducted his Ph.D. research on the warfare practices in Western Europe during the last three centuries BC, when the late prehistorical societies met the roman armies in their territories. He was focusing on the interactions around the warfare practices, the exchanges of weapons as the exchanges of ideas associated with warlike behavior. To do so, he worked on the gesture through 3D reconstructions. He was appointed to teaching assistant from 2013 at the University Bordeaux Montaigne where he teaches archaeology from Material Culture studies, Artifacts, and Productions Studies to Prehistory in Mediterranean and Continental Europe. He was co-organizer of workshops on metallic artifacts (2012), objects biographies (2014-2015) and in a European scale, he was a coordinator of a session during the EAA meeting in Maastricht (2017), and the 4th and 5th European School of Protohistory of Bibracte (2017-2018). To complete his Ph.D., he worked on the warfare practices and interactions in the eastern Atlantic area during late Prehistory and the interactions with the great material culture areas. The excavations he co-conduct since 2017 in Geloux (France, Nouvelle-Aquitaine, Landes) show the influence of La Tène material culture in south Aquitaine, especially the penetration of Gallic weaponry in the Aquitani people, that have been considered since Cesar as different from the Celts.

Mykola Bevz, Professor, Sc. D., architect, is currently the Head of Department of Architecture and Conservation at the Institute of Architecture, Lviv Polytechnic National University in Lviv, Ukraine. Here he is also the chief of the Scientific

Research Laboratory of Regeneration of Historical Towns. He also is a professor in the Department of Conservation of Build Heritage at the Lublin University of Technologies in Lublin, Poland. He is a member of the Ukrainian Committee of ICOMOS and the Vice-President of "Association of Castles and Palaces Researchers." These being only a few of the many committees he is a member of. He has written two books and more than 200 articles in the field of protection and conservation of the built heritage of Ukraine.

Ashley Bissonnette, Ph.D., M.P.H., is the Senior Researcher at the Mashantucket Pequot Museum & Research Center and Assistant Professor of Public Health, Department of Health Sciences at Eastern Connecticut State University. She has been involved in the *Battlefields of the Pequot War* and *Battlefields of King Philip's War* projects since 2007. She is working on her latest publication *Pestilences of New England's First Wars*, an examination of War Epidemics and trauma that challenged Native and Colonial people in their ability to heal and look after their most basic needs, lending to death and a downward spiral of poor health for generations. Her interests include historical archaeology, public programming, historical preservation and health policy.

Matthew Bjorkman, is currently involved with the Indiana University of Pennsylvania Applied Archaeology M.A. Program and worked in various capacities on the Fort Necessity National Battlefield survey. Bjorkman is currently completing his MA and worked as a field technician on the project.

Joel Bohy, is the Director of the Historic Arms & Militaria Department at Skinner Auctions and a frequent appraiser of Arms & Militaria on the PBS series *Antiques Roadshow*. He has worked as a material culture consultant on numerous historical projects and has a passion for the basic objects worn or carried by a soldier and civilian during the American Revolutionary War period. Picking up a detector for the first time while working on the Parker's Revenge Archaeology project at Minuteman National Historical Park, sparked a passion for battlefield archaeology which lead to participating with AMDA on a number of research projects. Bohy now volunteers with other battlefield archaeology projects nationally and internationally.

Edmond A. Boudreaux, Ph.D., is the

Director of the Center for Archaeological Research (CAR) and Associate Professor of Anthropology at the University of Mississippi. He has over 25 years of experience in the archaeology of the Southeast with an emphasis on Native Americans during the Late Pre-contact and Contact periods. He recently co-organized the Mid-South Archaeological Conference, the theme of which was Native Societies during the Early Contact period in the southeastern U. S. His recent publications include: "The Mississippian Community at Town Creek" in *Reconsidering Mississippian Households and Communities*, edited by Elizabeth Watts Malouchos and Alleen Betzenhauser, University of Alabama Press (co-authored with Paige Ford and Heidi Rosenwinkel, in prep.); and "Early Mississippian in the North Carolina Piedmont" in *Mississippian Beginnings: Variability, Inequality, and Interaction in the Southeast and Midwest*, edited by Gregory D. Wilson, University of Florida Press, 2017.

Habiba Boumli, is an Associate Professor at LaGuardia Community College, and founder of NYFAF. She holds a Ph.D. in Social and Cultural Anthropology and M.A. in Arabic and Islamic Studies. She teaches Arabic and French language and literature, and linguistics. Her academic background and teaching experience include Arabic, French language and francophone cultures and literatures, Cultural Anthropology, Women Cross-Culturally, Middle Eastern History, and Arab Cinema. Her most recent publications include: "Female Activists in Tunisian Socio-Political Movements. The Case of Amira Yahyaoui," E. Maestri and A. Profanter, eds., in *Arab Women and the Media in Changing Landscapes* (Springer, 2017). Doris H. Gray and Habiba Boumlik. "Morocco's Islamic Feminism. Contours of a New Theology?" Gray and Sonneveld, eds., in *Gender, Laws, Social Change* (Cambridge University Press, 2018).

Heather Burke, is an Associate Professor in Archaeology in the College of Humanities, Arts and Social Sciences at Flinders University of South Australia.

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Stacey Camp, Ph.D., is an Associate Professor of Anthropology and the

Director of the Campus Archaeology Program at Michigan State University. Her research has centered on the experiences of immigrants living in the late 19th century and early 20th century West.

David Capps-Tunwell, MBE, Ph.D., is retired from the Royal Navy after a career in aircraft engineering and now lives in Normandy, France. He is an associate member of the Centre de Recherche d'Histoire Quantitative (Université de Caen-Normandie) and founder member of Conflict Landscapes Research. He is currently researching German logistical support and the impact of Allied tactical bombing during the battle for Normandy using archive sources and geoarchaeological analysis of landscape evidence.

Toni L. Carrell, Ph.D., has worked on submerged battlefield sites in the Pacific since the 1980s. She is the editor of *Submerged Cultural Resources Assessment of Micronesia* (1991) and *Maritime History and Archaeology of the Commonwealth of the Northern Mariana Islands* (2009). McKinnon and Carrell are the recipients of six WWII-related American Battlefield Protection Program (ABPP) grants (2009, 2011, 2012, 2016, 2017). They are also the editors of *Underwater Archaeology of a Pacific Battlefield: The WWII Battle of Saipan* (Springer Press 2016) based on work under the ABPP grants.

Wade P. Catts, is the Principal with South River Heritage Consulting, LLC. He is an historical archaeologist specializing in history, archaeology, and historic preservation. His work experience includes cultural resource management, preservation planning, and teaching. He holds a graduate degree in American History from the University of Delaware and is a Registered Professional Archaeologist. He is a past president and currently Vice President for Membership of the American Cultural Resources Association, a past president of the Delaware Academy of Science, and currently serves on the board of the Old Swedes Foundation in Wilmington, the Dennis Farm Charitable Land Trust in Pennsylvania, the Advisory Board for Indiana University of Pennsylvania's Masters in Applied Archaeology Program, and as a Trustee for Preservation Delaware. In 2016 Mr. Catts was the recipient of the Archibald Crozier Award for Distinguished Achievement and Contributions to Archeology from the Archeological Society of Delaware. He has authored or co-authored articles in

Historical Archaeology, North American Archaeologist, Northeast Historical Archaeology, Delaware History, Advances in Archaeological Practice, and The Bulletin of the Archeological Society of Delaware. His Revolutionary War experience includes multiple battlefields and military sites in New Jersey (Raritan Landing, Beverwyck, Short Hills, Princeton, Fort Mercer/Red Bank), Pennsylvania (Brandywine, Paoli, Valley Forge, Camp Security, French Creek Powder Works), Delaware (Cooch's Bridge), New York (Schuylerville, Bennington), and Vermont (Hubbardton). He has worked with the Civil War Trust in its successful preservation efforts at Princeton and Brandywine battlefields.

Amanda Charland, Ph.D., received her doctorate in archaeology from the University of Glasgow in 2014. During her doctoral research, Amanda travelled to Israel to survey and to study the ruins of Crusader-era city walls. Her particular interest lies in the interaction between different groups of people and how they alter walls through destruction, reconstruction, incorporation, ornamentation, or new construction. Other research highlights include: exploring the function of Cyprus's Frankish castles; surveying and excavating Second World War aircraft wreckage in Scotland's Highlands and Islands; and exploring the history of the University of Glasgow's 19th and 20th century architecture. Most recently, Amanda has co-authored a book with the American Philosophical Society, the oldest learned society in the United States. The book investigates the life of a Pennsylvania farm from colonial times to the present.

Njabulo Chipangura, is employed by the National Museums and Monuments of Zimbabwe as an archaeologist and is based in Eastern Zimbabwe at Mutare Museum. His research interests include looking at the configuration and reconfiguration of museum collection and exhibition practices within colonial and post-colonial settings. He is currently a Wenner Gren Ph.D. Fellow in the Anthropology Department at the University of Witwatersrand in South Africa. His Ph.D. research looks at the archaeological, ethnographic and historical characteristics of artisanal and small-scale mining of gold in the Eastern Highlands of Zimbabwe.

Terence Christian, Ph.D., is a military historian and conflict archaeologist specializing in post-medieval armed conflict. Dr. Christian received his Ph.D. in conflict archaeology from the University of Glasgow (Glasgow, Scotland) with a focus

in aviation archaeology. He joined Temple University as the Defense POW/MIA Accounting Agency's (DPAA) Historian-in-Residence in 2017. His work involves conducting archival research, creating site identification and interpretation tools, constructing and interrogating GIS products, and producing analytical reports in support of DPAA's mission. His academic research primarily focuses on Second World War and Cold War aviation history and archaeology, the development of site recording methodologies, and the conception and application of historic preservation initiatives for conflict sites. Currently, he is working on his first book, an expansion of his doctoral thesis, and serves on the editorial board of *Federal History*, the journal of the Society for History in the Federal Government. Prior to undertaking his postdoctoral research with Temple University, Dr. Christian was the Military Historian for the National Park Service's American Battlefield Protection Program in Washington, D.C.

Charles Cobb, holds the James E. Lockwood Chair in Historical Archaeology at the Florida Museum of Natural History, University of Florida. He has 40 years of experience in archaeology, recently focusing on Spanish missions. His recent publications include "Ackia and Ogoula Tchetoka: Defining Two Battlefields of the 1736 French and Chickasaw War in Southeastern North America," in the *Journal of Field Archaeology* (with Steven Smith, James Legg, Brad Lieb, and Chester DePratter, 2017), and "All Consuming Modernity," in *Material Worlds, Archaeology, Consumption, and the Road to Modernity*, edited by Barbara Heath, Eleanor Breen, and Lori Lee, Routledge, 2017.

Noelene Cole, holds an Adjunct Research Fellowship as an archaeologist in the College of Arts, Society and Education at James Cook University, Australia.

Gerald J. Conlogue, is an emeritus professor of Diagnostic Imaging at Quinnipiac University. Although his primary task has been to teach students how to use x-rays to produce images of living patients, his research has not been restricted to a medical setting. For over fifty years he has focused on applying medical imaging techniques to non-medical areas, such as art conservation, wildlife management, archaeology, anthropology and forensics. In 1999, along with Ron Beckett, professor of Respiratory Care, they founded the Bioanthropology Research Institute at Quinnipiac.

Conlogue's work with mummified remains led to appearances in several Discovery and Learning Channel productions in 2000. From 2001 to 2003 he and Beckett co-hosted *The Mummy Road Show* on the National Geographic Channel. During the series, they traveled to South American, Europe, and Asia employing imaging techniques to reveal clues to tell each mummy's life story. His appearances in documentaries have continued on the Science and Smithsonian Channels. Since 2002, he has also been a consultant and, along with other Quinnipiac Diagnostic Imaging faculty, volunteer to x-ray cases at the Office of the Chief Medical Examiner in Farmington, Connecticut.

Iain Davidson, Iain Davidson is an Emeritus Professor in Archaeology in the School of Humanities at the University of New England, Australia.

Robert de Hoop M.A., since October 2017, he has served as maritime and underwater archaeologist and works at the Maritime Programme at the Cultural Heritage Agency of the Netherlands (RCE). Robert completed a bachelor in Archaeology with Honour's at Saxion University of Applied Sciences in the Netherlands. Robert's undergraduate thesis about predicting underwater cultural heritage was linked to an internship at the Maritime Programme of the Cultural Heritage Agency of the Netherlands. He completed his masters at the Maritime Archaeology Programme at the University of Southern Denmark during which he obtained his commercial diving IDSA level 1 ticket, Commercial SCUBA Diver. His thesis on the different values and on the significance of WWII shipwrecks was nominated for the W.A. van Es prize. Robert participated in several national and international projects including the excavation of the East Indiaman (VOC) ship the *Rooswijk*, and writing the process and best practice guidelines for the EU-project SASMAP.

Chester DePratter, Ph.D., is a Research Professor at the South Carolina Institute of Archaeology and Anthropology, University of South Carolina. He has over 40 years' experience in prehistoric and protohistoric archaeology, with a focus on the Spanish presence in the New World including Santa Elena, at Parris Island, South Carolina. He has spent many years researching the Spanish in the New World, including the DeSoto Entrada and the 16th century Spanish site of Santa Elena. His publications include: "The Hernando de Soto Expedition: From Apalachee to Chiaha," in *Southeastern Archaeology*,

1984, with Charles Hudson and Marvin Smith; "The Hernando de Soto Expedition: From Mabila to the Mississippi River," in *Towns and Temples along the Mississippi*, edited by David Dye, 1990, with Hudson and Smith; "Refinements in Hernando de Soto's Routh Through Georgia and South Carolina," in *Columbian Consequences*, volume 2, *Archaeological and Historical Perspectives on the Spanish Borderlands East*, edited by D.H. Thomas, 1990, with Charles Hudson and John E. Worth.

Michael Derderian, M.A., graduated from the University of Rhode Island in 2015 with a B.A. in History with a minor in Anthropology. In May 2017, he graduated from Hawaii Pacific University with a M.A. in Diplomacy and Military Studies. Michael currently is employed with the National Park Service at Adam's National Historical Park and the Mashantucket Pequot Museum & Research Center as a historical researcher and archeologist. He has been involved in the *Battlefields of the Pequot War* and *Battlefields of King Philip's War* projects since 2013.

Justin DiVirgilio, is the President and part-owner of Hartgen Archeological Associates, a cultural resource management firm based in New York. A life-long love of history and archeology inspired him to make an early career change from engineering to anthropology. What started as a part-time field engagement with Hartgen unexpectedly became a career, during which Justin has been fortunate to learn from many wonderful people. His proudest contributions to the field are his work on urban sites in Albany, NY, including a remarkably well-preserved rum distillery established during the French and Indian Wars, a group of row-houses in an Irish-American neighborhood in Sheridan Hollow; Albany's 18th-century waterfront, and comparative studies investigating health indicators and the medicinal use of heavy metals.

Carl Drexler, is a Research Assistant Professor with the University of Arkansas and heads the Arkansas Archeological Survey's research station in Magnolia.

Angela Rae Duhaime, M.A., received her master's degree in Psychology from Central Connecticut State University and her bachelor's degree in Sociology and Applied Social Relations from Eastern Connecticut State University. She also has a graduate certificate from the UCONN Community Medicine and Health Center in Addiction Science. She is currently

employed at SERAC, a regional nonprofit for community-based prevention in behavioral health. She also currently works as an Adjunct Professor of psychology at Eastern Connecticut State University. Her previous experience includes city and statewide advocacy work for youth and families in the area of mental health and substance abuse and treatment. Her professional and academic background encompasses the field of mental health and substance abuse across the spectrum of prevention, intervention, and treatment.

Joel Dukes, M.A., is an archaeologist with the NPS Northeast Region Archaeology Program. He is the archeological advisor for several parks in the northeast including Gettysburg NMP, Statue of Liberty NM and the Appalachian Trail. Prior to working with the NPS he was the archaeologist for the Homochitto National Forest in Mississippi. He received his M.A. from the University of Georgia where he specialized in the analysis of faunal remains from coastal sites.

Daniel T. Elliott, is an archaeologist with 41 years of experience. He serves as President of the LAMAR Institute and has been actively studying 18th century material culture for more than three decades and engaged in Conflict Archaeology since 2001. His experience with Elemental Analysis (pXRF) of military ordnance started in 2014 with a study of early lead projectiles and expanded in 2017 and 2018 with the study of cast iron military objects.

Steven Elliott, is a retired RAF engineer and graduate of the University of Huddersfield's Arms and Armour Institute. He is currently undertaking a doctoral research scholarship under the supervision of Dr. Glenn Foard investigating the potential applications for Forensic Ballistic in 20th century conflict archaeology. His work is primarily focused on the interpretation impact scars, trajectory analysis, the ballistic testing of target materials and the interpretation of recovered projectiles. These are being used to challenge existing narratives within a modern battlefield setting. Steve is due to complete his studies in September 2019.

Tomas Englund, is a third-year Ph.D. student in archaeology at the Maritime Archaeological Research Institute (MARIS) at Södertörn University. In the ongoing dissertation work, he makes a critical review of the battle at Baggensstaket (1719) based on the archaeological results. He started his career as an archaeologist by studying ancient fortifications through

field investigations in Israel (1993-1994), Jordan (1994) and Greece (1995). He has organized archaeological collections from the Nubia region (1996) and Cyprus (2000-2001). In 1999, Tomas got his B.A. in Classical Archaeology and Ancient History. His B.A. essay deals with the fortifications in Palestine during the Iron Age. At the same year Tomas also got his M.A. in Archaeology science at the Archaeological Research Laboratory. His M.A. essay deals with archaeological prospecting methods as phosphate and electromagnetic mapping. In 2000, Tomas began specializing in battlefield archaeology in an attempt to locate two battlefields from the Viking-era. He has been an expert consultant for a Polish battlefield project at Kalisz (1706) 2002-2004. Since 2003, Tomas runs the interdisciplinary project Baggensstaket (1719) Battlefield Project. The aim with the project is to increase the knowledge about the Russian landing operation at the strait of Baggensstaket closed to Stockholm 1719. In 2005, he and his colleague Niklas Ytterberg initiated the battlefield project Badelunda 1520. Tomas is the initiator of the first battlefield museum in Sweden, HAMN which opened in 2014. Since 2018, he is a part of the marine archaeological project Mars (1564) Scientific Research Group.

Christopher Espenshade M.A., is a Registered Professional Archaeologist with more than 33 years of supervisory experience in cultural resource management. He currently works for New South Associates, Inc. Chris has an M.A. degree in Anthropology from the University of Florida, and a B.A. degree in Anthropology from Wake Forest University. He has supervised battlefield research on the following engagements: Resaca, GA (US Civil War); Newnan/Brown's Mill, GA (US Civil War); Blountville, TN (US Civil War); the Brodhead Expedition, PA/NY (American Revolution); Bennington, NY (American Revolution); Fort Donelson, TN (US Civil War); and Credit Island, IA (War of 1812). Chris is a co-founder and instructor of the continuing education class, Advanced Metal Detecting for the Archaeologist.

Manuel Fernández-Götz, Ph.D., is Reader in Archaeology at the University of Edinburgh and winner of the Philip Leverhulme Prize. He has authored more than 150 publications on Iron Age societies in Central and Western Europe, the archaeology of identities, and the archaeology of the Roman conquest. Key publications include the monographs

Identity and Power: The Transformation of Iron Age Societies in Northeast Gaul (Amsterdam University Press 2014), and the edited volumes *Eurasia at the Dawn of History: Urbanization and Social Change* (Cambridge University Press 2016) and *Conflict Archaeology: Materialities of Collective Violence from Prehistory to Late Antiquity* (Routledge 2018). He has directed fieldwork in Germany, Spain and Scotland.

Ben Ford, is currently involved with the Indiana University of Pennsylvania Applied Archaeology M.A. Program and works in various capacities on the Fort Necessity National Battlefield survey. Ford is the Chair of the Anthropology Department and the project principal investigator.

María Benítez Galán, received her Bachelor's degree in physics and master's degree in nuclear physics. She wrote her master's dissertation at the Centro Superior de Investigaciones científicas/ Superior Center of scientific researches.

Mario Ramírez Galán, Ph.D., is currently working for the University of Portland as an Adjunct Professor. He has a Ph.D. in archaeology and history, with a specialization in battlefield archaeology. In Spain, he has participated in several archaeological research projects from different periods: pre-Roman, Roman and Middle Ages. Some of them are very important, like the geophysical survey of the battle of Baecula. He has given lectures in several of the most important museums in Spain, like Museo Arqueológico Nacional and Museo del Ejército. Likewise, he has given lectures in the United States (Willamette University, Western Oregon University, University of Portland and Archaeological Institute of America Society). Furthermore, he has written different research papers about battlefield archaeology, museology and heritage management.

Doug George-Kanenti, was born and raised on the shores of the Kaniatarowanenneh (St. Lawrence) River on the Akwesasne Mohawk Territory. An award-winning writer and journalist, he has served the Mohawk Nation in numerous capacities, including as a land claims negotiator, a co-founder of Radio CKON, and the editor of the news journal Akwesasne Notes. He is the author of the books *Iroquois Culture and Commentary* and *Skywoman: Tales of the Iroquois*. From 1996 to 2002, he was a member of the Board of Trustees for the National Museum of the American

Indian. He once had the honor of bearing the Olympic torch. He resides on Oneida Territory with his wife, the singer Joanne Shenandoah.

David Givens, M.A., with more than 20 years of archaeological experience, David now serves as a Senior Staff Archaeologist at Jamestown Rediscovery and is directing the fieldwork at the Angela Site. He received a Bachelors' degree from Virginia Commonwealth University and a Masters in Cultural Anthropology, Historical Anthropology, and Post Medieval Archaeology from Leicester University, Leicester, UK.

David Goldstein, is an Anthropologist working for the National Park Service in the Northeast Region. He is trained in ethnobotany, archaeology, and human response to climate change. He works as a community facilitator between Native American Indians and the federal government, and has worked in community driven research projects for the past 25 years. As a NPS Urban Fellow, he spent 2015-17 in Detroit, Michigan building community projects for children and adults that promote healthy open spaces, support neighborhood vitality, and recognize cultural resources. He is a Charter Member of the Children and Nature Network, and lives with his four children, spouse, and various animals in Rumney, NH.

Lance Green, Ph.D., an Associate Professor in the Sociology and Anthropology Department at Wright State University. He received an M.A. from the University of Tennessee, Knoxville, and a Ph.D. from the University of North Carolina at Chapel Hill. His research includes investigations into the Cherokee Removal in North Carolina, Shawnee settlements in Ohio during the American Revolutionary War, and Union POWs during the American Civil War.

Elizabeth Gregory, earned a B.A. in Anthropology and a B.S. in Biological Sciences from the University at Buffalo and began her career with UB Archaeological Survey. She completed her Master's degree at SUNY Buffalo State in 2015 and shortly thereafter began working with Hartgen Archeological Associates, where she has quickly established herself as a valued member of the team.

Brian R. Grills, M.A., serves as a senior project director in the Public Archaeology Facility at Binghamton University. His research interests include the mapping

of battlefield sites through metal detector survey, conflict archaeology, working with descendant communities, and the interpretation of battlefield landscapes. He recently completed the survey, analysis and reporting for the Revolutionary War era Battle of Fort Anne (Battle Hill).

William A. Griswold, Ph.D., RPA, currently serves as the Northeast Region's ARPA Coordinator for the National Park Service. He has been with the NPS in various archaeological positions since 1993 and serves as archaeological advisor for 20+ parks within the region. Griswold was a co-editor with Donald Linebaugh for the 2016 book *The Saratoga Campaign: Uncovering an Embattled Landscape* and the (2012) book *Saugus Iron Works, the Roland W. Robbins Excavations, 1948-1953*.

Charles Haecker, since 1973 he has been engaged in archaeological research, directed survey and excavations, and Section 106 projects along the southern and mid-Atlantic states and in the southwest. From 1992 to 2000, Charles was a program archaeologist with the National Park Service-Intermountain Region, and in 2000 was the Archaeologist for the National Historic Landmarks Program in the NPS Intermountain Region. Since retirement in 2016 Charles continues investigation of Spanish Colonial period conflict sites in New Mexico and is an instructor for Advanced Metal Detecting for the Archaeologist (AMDA).

Casey Hanna, B.A., is a graduate student in Monmouth University's Anthropology program. Her research focuses on educational outreach and advocacy, cemetery studies, and historical archaeology of the mid-Atlantic region.

Les Harrigan, is a Traditional Owner for parts of southern Cape York Peninsula and the Support Officer of the Rinyirru Aboriginal Corporation, Australia.

Vincent Harrigan, is a Traditional Owner of the Dikarrba, Balganwarra, Dhuppiwarra and Dharrba Warra clans on the east coast of Cape York Peninsula in Queensland, Australia.

Stephan Harrison, Ph.D., is a climate scientist working in the College of Life and Environmental Science at Exeter University in England. His main research is on the response of glaciated mountain systems to climate change and climate change policy. He also has a long-standing interest in the ways in which

geomorphological systems interact with combat situations.

Gabrielle Hartley, obtained her Bachelor's degrees in Forensic Science and Biology from the University of New Haven, and graduated in 2017. She is currently a Ph.D. student in the Molecular and Cell Biology program, University of Connecticut, Storrs.

Kristen Hartnett-McCann, Ph.D., is a board certified Forensic Anthropologist at the Office of the Chief Medical Examiner in Farmington, CT, where she performs forensic anthropological casework and scene response. Prior to her employment in CT, she was the Assistant Director of Forensic Anthropology at the Office of Chief Medical Examiner in New York City. While in NYC, Dr. Hartnett-McCann was active in casework and participated in the recent recovery and identification efforts at the World Trade Center. She is also the consulting forensic anthropologist for Dutchess County, Rockland County, Suffolk County on Long Island as well as other counties in New York. In addition to teaching undergraduate classes at Hofstra University and casework, Dr. Hartnett-McCann is an appointed member of the Crime Scene/Death Investigation Scientific Area Committee (SAC) Anthropology Subcommittee, within the Organization of Scientific Area Committees (OSAC) under the National Institute of Standards and Technology (NIST) as well as the co-Vice Chair of the Academy Standards Board (ASB) Anthropology Consensus Body. Her research and applied interests include the estimation of age and sex from the adult skeleton, taphonomy, blunt and sharp force trauma, expert witness testimony, crime scene response, and mass disaster preparedness/response.

Elizabeth Hatte, is the Director of Northern Archaeology Consultancies in Townsville, Queensland, Australia.

Jim Hollister, has a career in museum education and interpretation which began at the Old Manse in Concord, a property of the Trustees of Reservations, and at the Concord Museum where he presented programs from Native American and early colonial settlement to the Revolutionary War, and the 19th century Concord authors. In 2002, he entered the National Park Service as a park ranger at Minute Man National Historical Park. He currently serves as the park's Education Specialist, Historic Weapons Supervisor and Living History Coordinator.

Michael Jacobson, Ph.D., previously served as a project director in the Public Archaeology Facility (PAF) at Binghamton University and is currently a Research Development Specialist in the Office of Strategic Research Initiatives at Binghamton University. He continues to collaborate with PAF on battlefield and community outreach projects. He specializes in historical archaeology, specifically sites of conflict, Revolutionary War sites, and landscape archaeology.

Janene Johnston, she received her Bachelor's in Anthropology from Eastern Kentucky University and received her Master's in Historical Archaeology from the University of West Florida. Her primary research interests are in conflict archaeology, plantation archaeology, and public archaeology. Her thesis examined the Civil War Battle of Natural Bridge near Tallahassee, Florida.

Chas Jones, is an independent researcher focusing on European battlefields of the 10 and 11th centuries. After a career in chemistry, he is interested in developing ways of extracting information from ferrous evidence from battlefields. He is based in Oxford, England.

Matthew Kirk, is the Principal Investigator and part-owner of Hartgen Archeological Associates. With 22 years in cultural resource management, he has managed hundreds of projects including many of Hartgen's most complex studies. He has worked on a wide variety of precontact and historic sites. One area of particular interest to him is battlefield and military archeology. He has conducted studies of the King William and King George's Wars Battlefields, Saratoga Siege Battlefield, Sacketts Harbor War of 1812 Battlefield, Fishkill Supply Depot, Valley Forge, and defensive works in the City of Albany. Mr. Kirk has long been active in the local community as a board member and volunteers with several historical groups, and regularly engages in a variety of outreach activities targeting youth and the general public. Mr. Kirk's publications include "The Retreat to Victory Woods" for *The Saratoga Campaign: Uncovering an Embattled Landscape*, edited by William A. Griswold and Donald W. Linebaugh (2016).

Yahya Laayouni, is an Associate Professor of Arabic and French at Bloomsburg University of Pennsylvania, and film curator of NYFAF. His research focuses on the complexity of identity formation in "French" films of children of North

African origins living in France. He is interested in questions of religion, gender and sexuality in film. He is also interested in topics related to visual alterity and postcolonial subjectivity. He published an article in the *Journal of Religion and Film*: "From Marseille to Mecca: Reconciling the Secular and the Religious in Le grand voyage" (The Big Trip) (2004). He also published several film reviews in *The French Review Journal* such as Nabil Ayouch's *Muched Loved*, Hicham Lasri's *C'est eux les chiens*, Boris Lojkin's *Hope* and Danielle Arbid's *Peur de rien*. He has also published a review of Maazouzi, Djemaa's book *Le partage des mémoires: la guerre d'Algérie en littérature, au cinéma et sur le web*.

Rafael Montalvo Laguna, graduated in History at the University of Alcalá, where he studied his postgraduate studies about archaeology, heritage and education. Rafael has participated in the research group of Doctor Gómez Pantoja, lecture of University of Alcalá. This group is focused on roman archaeological sites and the use of new technologies applied in the field of heritage management. He has been part of an excavation in Complutum, El Llano de la Horca y Titulcia. His studies focus on preroman and roman archaeological sites from the Iberian Peninsula. At the present time, Montalvo is part of the research group of Doctor Ramirez Galán of the University of Portland. It is a multidisciplinary group who develop archeological studies about the battlefield of Alcalá la Vieja, a medieval fortress and its environment. He is a member of Alcalá de Henares World Heritage Advisory Board, who collaborates in the advice and follow-up of the heritage management in this city declared World Heritage Site by UNESCO.

Tiffany Lazur, is an undergraduate student at Eastern Connecticut State University, working towards a B.S. in Health Science with a concentration in Public Health. She is in the midst of her internship at the Mashantucket Pequot Museum & Research Center where her research focuses on different aspects of the Pequot War and the traumas and community health that resulted from the conflicts.

Peter Leach, is a technical trainer and archaeology and forensics application specialist at Geophysical Survey Systems, Inc (GSSI). Leach has his B.A. in Anthropology and his MSc in Quaternary and Climate Studies from University of Maine and is currently pursuing his Ph.D. in Anthropology at the University

of Connecticut. Formerly employed in the cultural resource management industry as a Geoarchaeologist, Leach has worked on four continents specializing in archaeological, geomorphic, and geophysical surveys with a focus on submerged prehistoric archaeology and GIS analysis and predictive modeling. Leach has a graduate certificate in GIS.

James B. Legg, is an Archaeologist with the South Carolina Institute of Archaeology and Anthropology, and is a material culture expert with a focus on military artifacts. With some 40 years' experience in archaeology, he is widely published in Civil War, Revolutionary War, and World War I archaeology. His publications include, "Camden: Salvaging Data from a Heavily Collected Battlefield," with Steven D. Smith, in *Fields of Conflict: Battlefield Archaeology from the Roman Empire to the Korean War*, edited by Douglas Scott, Lawrence Babits, and Charles Haecker, Potomac Books, 2009.

Juan Bautista Leoni, is an Adjunct Researcher for CONICET (National Council for Scientific and Technological Investigations), Argentina, he also teaches archaeology at the Universidad Nacional de Rosario, Argentina, where he has been the director of its Archaeology Department. He got his undergraduate degree from Universidad Nacional de Rosario, Argentina, and his MA and Ph.D. from Binghamton University-State University of New York, USA. His archaeological research includes both prehistoric archaeology in the Andean Area (Central Peru and Northwestern Argentina), and historical archaeology (Buenos Aires Province, Argentina), specializing in conflict archaeology (XIXth century military frontier outposts and Argentinean civil war battlefields).

Brad R. Lieb, is a native of Jackson, Mississippi, who grew up in Madison County along the old Natchez Trace near the 1811 Choctaw Agency site, a setting which inspired a lifelong interest in history, archaeology, and Native Americans. Lieb currently works as the Director of Chickasaw Archaeology for the Chickasaw Nation Heritage Preservation Division, and coordinates archaeological research in collaboration with several regional universities and institutes across the Southeast. Their research has resulted in publications on the 1736 French-Chickasaw battles of Ackia and Ogoula Tchetoka. He also leads the Chickasaw Explorers program in which Chickasaw college students

participate in archaeological research tracing the Chickasaw Migration and seeking the 1541 site of *Chicasa*, where Chickasaws hosted and later battled with Spanish explorer Hernando de Soto. Lieb has also worked successfully with the public to identify, preserve, and study Chickasaw village, burial, and battlefield sites as well as artifact collections in the original Chickasaw Homelands of Northeast Mississippi. Several major artifact collections have been donated back to Chickasaw Nation through this work. Lieb serves as the Native American Affairs Liaison Committee Chair for the Southeastern Archaeological Conference, and has been president of the Mississippi Archaeological Association and the Mississippi Association of Professional Archaeologists. Brad and wife, Caroline, sons Henry, 10, and Emmett, 7, reside in Mississippi.

Matthew Liebmann, is a Professor in the Department of Anthropology at Harvard University. He is the author of *Revolt: An Archaeological History of Pueblo Resistance and Revitalization in 17th Century New Mexico* (University of Arizona Press 2012), and the co-editor (with Uzma Rizvi) of *Archaeology and the Postcolonial Critique* (Altamira Press, 2008) and (with Melissa Murphy) of *Enduring Conquests: Rethinking the Archaeology of Resistance to Spanish Colonialism in the Americas* (SAR Press, 2011).

David W. Lowe, is a historian and cartographer for the U.S. National Park Service, specializing in military history and engineering. He was a staff historian for the Civil War Sites Advisory Commission (1990-1993) and has since conducted GPS surveys at national battlefields, publishing numerous reports and maps of cultural resources. Lowe edited for publication *Meade's Army: The Private Notebooks of Lt. Col. Theodore Lyman* (Kent State University Press, 2007).

Adam Luscier, attended field school at the University Massachusetts, then moved to Troy New York to study Anthropology and Archeology at the University of Albany. Passionate about nature, history and the study of the human past, Adam has excelled as a Project Director at Hartgen Archeological Associates for 22 years. He has discovered a number of important archeological sites, including a 1660s trading post on Van Schaick Island in Cohoes NY and the homestead of Cornelis Van Buren (Martin Van Buren's great-great-great Grandfather) that was destroyed by a flood in 1648. Adam is also

an adjunct lecturer at Schenectady County Community College and a published author and artifact illustrator.

Brian Mabelitini, is a Ph.D. graduate student in the Department of Anthropology, University of South Carolina. He has over ten years' experience in cultural resource management. His thesis was on a Civil War battery in Florida and has presented his conflict archaeology experience at the Society for Historical Archaeology. His dissertation topic will focus on the Revolutionary War in South Carolina.

Marian Mesrobian MacCurdy, Ph.D., writer, teacher, and singer, is retired professor and former chair of the Department of Writing at Ithaca College and currently visiting professor in the medical humanities program at the University of Massachusetts at Amherst and a fellow in the University of Massachusetts Institute for Interdisciplinary Studies. She earned her Ph.D. in Humanities from Syracuse University and studied under Jacqueline Rose in Cornell's School for Criticism and Theory. The article that resulted from her work at Cornell was published in *Literature and Medicine* in 2000. She gave the keynote address at the PEN New England summit on Writing and Trauma in November of 2015, and she and Charles Anderson organized a national conference on Writing and Healing for NCTE in June 2002. She has offered writing workshops in juvenile detention centers, veterans hospitals, and public schools, as well as for writing professionals, and her work has been used in the Columbia University Narrative Medicine program. She has published scholarly articles as well as personal essays, poetry, and three books: *Writing and Healing: Toward an Informed Practice*, co-edited with Charles Anderson, *The Mind's Eye: Image and Memory in Writing About Trauma*, and *Sacred Justice: The Voices and Legacy of the Armenian Operation Nemesis*. She has given many talks on Operation Nemesis and inter-generational trauma for Armenian communities and colleges and universities in Providence, Detroit, Toronto, New York City, Boston, etc.

Martijn Manders, is a maritime and underwater archaeologist and head of the Maritime Programme at the Cultural Heritage Agency of the Netherlands (RCE). The projects within this programme deal with Dutch maritime heritage overseas and shared cultural heritage. One of the main projects at this moment is the research and excavation

of the East Indiaman (VOC) ship the *Rooswijk*, off the coast of England. His research interests also include underwater cultural heritage management on a global scale, specifically on in situ preservation, sedimentation erosion processes and monitoring. The latter is strongly connected with geophysical research, a very important discipline for maritime archaeologists because it enables them to explore, monitor and manage underwater heritage sites. Within Europe, Martijn has initiated and worked on several innovative EU projects to develop new methods and techniques for geophysical and underwater research. The results contribute to making the Netherlands one of the leading countries in managing maritime heritage and conducting high quality maritime archaeology research on a professional level. As a maritime heritage expert, Martijn has travelled all over the world to cooperate with many countries managing cultural heritage underwater. He also works for Leiden University where he teaches maritime archaeology at the master's level, and he trains young professionals worldwide, mostly in cooperation with organizations like UNESCO and ICOMOS/ICUCH. Martijn has a special interest in emphasizing the social and cultural importance of studying maritime heritage as a source to learn more about our past: 'Shipwrecks are like time capsules. They offer us small peepholes, looking into our past. Learning about this unique heritage and telling the stories which we literally bring to the surface, help us to understand who we are.'

Adrian Mandzy, Ph.D., is Associate Professor of History at Morehead State University (Morehead, KY). A Fulbright Scholar, Professor Mandzy has spent the last twenty years studying former fields of conflict in Europe and the United States. His body of work includes studies of the Siege of Zbarazh (1649) and the Battles of Zboriv (1649), Poltava (1709), Blue Licks (1782), the Crater at Petersburg (1864), Makivka (1915), Lysonia (1916), Skoliv (1943) and Kosmach (1945). His most recent monograph, co-written with Bo Knarrstrom and J. P. Nilsson, is *Poltava, Karl XII:s karoliner och stormaktens undergang*. Professor Mandzy also serves on the editorial board for the series *Current Issues in Research, Conservation and Restoration of Historical Fortifications*, (Lviv, Ukraine). Additional recent publications include: A Hundred Years of Memory of the Great War in Western Ukraine: Case Studies of the Battlefields at Makivka and Lysonia, *The Materiality of Troubled Pasts: Archaeologies of Conflict*

and Wars, Warsaw-Szczecin, 2017, 197-213; Oral Testimony and Battlefield Archeology: A Multi-Disciplinary Study of a Ukrainian Ambush from 1945, *Preserving Fields of Conflict: Papers from the 2014 Fields of Conflict Conference and Preservation Workshop*, University of South Carolina, Columbia, SC, 2016, 199-202; On the Frontier of Europe, not all Musket Balls were Round, *Journal of Conflict Archaeology*, vol. 10, no. 3, 2015, 154-176; Nationalism and the Ideological Identities of Svoboda and the Right Sector, *The Maidan Uprising, Separatism and Foreign Intervention*, Klaus Bachmann and Igor Lyubashenko eds., Peter Lang International Academic Publishers, 2014, 157-182; Using Munitions and Unit Frontage: New Evidence about the Russian Main Battleline at Poltava (1709), *Fasciculi Archaeologiae Historicae, Recent Research into Medieval and Post Medieval Firearms and Artillery*, vol. 25, Polish Academy of Science, Lodz, 2012, 67-76.

Victor T. Mastone, received a B.A. in History and Anthropology from the University of Massachusetts in Boston and his M.A. in Anthropology and M.B.A. in Arts Administration from the State University of New York at Binghamton. He serves as both the Director and Chief Archaeologist of the Massachusetts Board of Underwater Archaeological Resources. Vic joined the Board in 1987 as its first staff archaeologist. He also served as Assistant Secretary for Administration and Finance for Massachusetts' Executive Office of Environmental Affairs from 2000-2004. He is a Visiting Instructor at Salem State University where he teaches a summer maritime archaeology field school. He is Vice President of the North American Society for Oceanic History and Vice President of the Massachusetts Archaeological Society. Vic was an appointed member and parliamentarian of the Federal Advisory Committee on Marine Protected Areas (2008-2011) co-chairing its Cultural Heritage Resources Working Group. He has been a Guest Investigator with the Woods Hole Oceanographic Institution.

Kevin McBride, Ph. D., is the Director of Research at the Mashantucket Pequot Museum & Research Center, and Associate Professor of Anthropology at the University of Connecticut. Kevin has worked as the Project Director of the *Battlefields of the Pequot War* project since the project began in 2007. Dr. McBride specializes in the Colonial & Native American Archaeology in the Northeast and during the course of

this project he has focused on applying Battlefield Archaeology and remote sensing techniques to the region. Kevin is the author of several articles and book chapters and lead author of all ABPP research projects.

Jennifer F. McKinnon, Ph.D., has researched and written extensively on heritage and conflict sites in the Pacific. In 2011, she was awarded the Governor's Humanities Award for Preservation of CNMI History for the development of the "WWII Maritime Heritage Trail – Battle of Saipan." She has served as an expert for UNESCO in the Pacific writing and contributing to two UNESCO publications on underwater cultural heritage and WWII heritage in the Pacific.

Col McLennan, Col McLennan is an Elder of the Jangga People of the Central Queensland Highlands and the CEO of the Jangga Prescribed Body Corporate, Australia.

Lucy R. McNair, is Associate Professor of English at LaGuardia Community College, the City University of New York, and co-curator of NYFAF. Her scholarly focus is North African literature and film. Her literary translations from the French include Mouloud Feraoun's Algerian classic, *The Poor Man's Son* (University of Virginia Press, 2005), Samira Bellil's inner city memoir *To Hell and Back* (University of Nebraska Press, 2008), and short works by Laabi, Khabiti, and Jacobiak in *SOUFFLES-ANFAS: A Critical Anthology from the Moroccan Journal of Culture and Politics* (Stanford University Press, 2015). Her article, "Towards an Ethics of Traumatic Memory: Mouloud Feraoun's La Cité des roses and Zahia Rahmani's France, récit d'une enfance" has recently appeared in the *Journal of North African Studies*.

Ryan K. McNutt, Ph.D., earned his B.Sc. in Anthropology from Middle Tennessee State University in 2006, and his M.Litt and Ph.D. in Archaeology from the University of Glasgow, where he specialized in conflict archaeology. His research interests include utilizing technology such as LIDAR and GIS to answer questions about battlefield and conflict sites, power and dominance in the landscape, and the impact of violence on non-combatants. This includes the archaeology of internment and POW camps, where place becomes transformed through social interaction into a space of the dominant and dominated, with landscapes and architecture spatially arranged in a grammar of control and

constant observation.

Christine Miskell, after earning her Doctor of Veterinary Medicine degree from the University of Florida, Christine went on to earn a Master of Public Health in Epidemiology from the University of Alabama at Birmingham. She spent five years working in the pharmaceutical industry where she was responsible for collecting, tabulating, analyzing and reporting on data from efficacy trials. Christine joined SERAC in 2006 and in her current role as an Epidemiologist, she is responsible for tabulating, analyzing and reporting data from a variety of local and regional youth and adult surveys across the state of Connecticut. Christine has experience with data management and analysis using a variety of statistical programs.

Greg Mitchell, is the retired Senior Researcher for NunatuKavut Community Council, Labrador, Canada, and for the past fourteen years has been researching indigenous land uses and the ethno-historical background of Southern Inuit. He has authored a number of related papers and is co-author of the land claims document, entitled, "Unveiling NunatuKavut: Describing the Lands and People of South/Central Labrador." He lives at Gillams, NL, Canada.

David Naumec, Senior Military Historian & Archaeologist. David has worked with *Battlefields of the Pequot War* since 2007. He completed a B.A. from University of Connecticut in Public History, a Master's Degree in History & Museum studies from Tufts University and is currently a Doctoral Candidate at Clark University in Worcester, MA where he specializes in early American history. David currently assists with historical research, the interpretation of battlefield events, material culture research and archaeological excavations.

Linda Naunapper, Ph.D., is an anthropological archaeologist, specializing in the time period bridging the historic and prehistoric periods in the Great Lakes region USA (AD 1600-1780). Her dissertation project centered upon analysis of prehistoric/pre Columbian ceramic vessels recovered from a site located on what was the western frontier of New France, but her more recent research interests have evolved towards developing a broader, global historic context within which to situate the site and its culture history. Delving into the archives, she has tapped into a wealth

of historic information that contributes significantly to our understanding of the complicated cultural, social, economic and political milieu of New France and the diversity of stakeholders involved in New World exploration and struggles for sovereignty. By considering early modern period primary source material from a culturally French perspective, she argues that academic translation of imperial sources may have been too literal and taken out of its proper period context. Dr. Naunapper regularly shares her research at national and international conferences in history and archaeology, and currently works in research grant administration at the University of Chicago.

Peter Norris, M.A., is an alumni of the University of Liverpool. There, he gained the following academic qualifications; B.A. (Hons) Ancient History & Archaeology, M.A. Ancient History. He is currently a board member of the Ordnance Society.

Rachel J. O'Neill is Director of the Institute for Systems Genomics, Center for Genome Innovation. She also serves as Professor of Genetics and Genomics in the Department of Molecular and Cell Biology at the University of Connecticut, Storrs.

Matthew Palus, Ph.D., is a Senior Archeologist with The Ottery Group. He holds a doctoral degree from Columbia University (2010) and a Master of Applied Anthropology degree from the University of Maryland College Park (2000). He has been an archeologist in the Middle Atlantic region for nearly 20 years, focusing on historical sites pertaining to urbanization and modern infrastructure, post-Emancipation African American life, and military sites. He is an Adjunct Assistant Professor at the University of Maryland.

Colin Parkman, Colin Parkman graduated from the Ohio State University in 2008 with a BA in Anthropology, where he focused on bioarchaeology and forensic anthropology. In 2011, he graduated from the University of Bradford with an MSc in Human osteology and palaeopathology, his dissertation was on the use of cadaver dogs to locate mass graves on fields of conflict. In 2014 he began his Ph.D. at the University of Huddersfield titled Experimental firing, and analysis of impacted 17th-18th century lead bullets. From 2011- 2018 he has worked on multiple battlefield surveys in North America, England and Belgium.

Colin Partridge, is currently in his second year of Georgia Southern University's M.A.S.S. program pursuing his Masters in Anthropology. His interests include historical archaeology, the archaeology of conflict, and the American Southeast. He received his B.A. in Anthropology from the University of South Carolina, Columbia and worked two years as a field technician in cultural resource management.

David Passmore, Ph.D., teaches Geography in the Department of Geography, University of Toronto Mississauga, Canada and is a founder member of Conflict Landscapes Research. His research interests include conflict archaeology, military geography, environmental change and cultural resource management. His current work is on Second World War landscapes with a particular focus on the forests of northwest Europe.

Brianna Patterson, she received her Bachelor's in Anthropology from Lindenwood University in St. Charles, Missouri and is currently working on her Master's in Historical Archaeology at the University of West Florida. Her primary research interests are conflict archaeology, French colonialism, and public archaeology. Brianna's thesis investigates the 1862 Confederate raid in Pensacola, Florida.

Gediminas Petrauskas, Ph.D., is a modern conflict archaeologist and museologist at the National Museum of Lithuania. In 2017, he acquired Ph.D. in History at Vilnius University. His research is focused on the archaeology of Lithuanian Partisan War (1944-1953), as well as medieval cremation practices in the South-East Baltic. Since 2010, he has conducted field research of Anti-Soviet partisan bunkers, battlefields, and partisan courier homesteads in Lithuania.

Jacklyn Rogers, is a recent graduate of Dickinson College where she earned a B.A. in archaeology and history. This project was started as part of a senior year internship with PKSOI at the U.S. Army War College in Carlisle, PA.

Bill Rose, has a degree in organic chemistry from Brown University and an M.B.A. from the Harvard Business School. He is a former officer in the U.S. Navy and retired entrepreneur. He concentrated on buying mid-market companies needing turn-around attention using private equity capital. His current interests involve acting as a lead volunteer for a nationally

recognized organization delivering care to Veterans suffering Post Traumatic Stress and Traumatic Brain Injuries. He also delivers lectures on strategy, particularly naval strategy, throughout the northeast. This interest led him to study the issues and social pressures leading to the outbreak of the American Revolution in Massachusetts. As a result of those efforts, he was a prime mover in the investigations related to the Parker's Revenge Archaeology Project. He has received the Director's Partnership Award from the National Park Service. He continues to pursue conflict archaeology investigations at numerous sites around the country.

Achim Rost, Ph.D., has studied Prehistoric Archaeology, History of Art and Ethnology at the University of Göttingen where he got his doctor's degree (1988) with a dissertation about the development of settlements from late palaeolithic until late antiquity in a mountainous region. In the early 1990s he organized the first large exhibition about finds and results of investigations at the ancient battlefield of Kalkriese. For more than 15 years he has been working on methodological aspects of battlefield archaeology. As a research fellow at Osnabrück University he was responsible for a project to investigate the conflict landscape at Kalkriese.

Srishti Sathir, is a third-year Honors student at the University of Connecticut completing a double major in Anthropology and Ecology & Evolutionary Biology. Her research experience encompasses faunal analysis in the Zooarchaeology Lab for her Honors thesis project and musket ball impact analysis in the North American Archaeology Lab. With a broad interest in archaeology and biological anthropology, Srishti hopes to continue her research interests into graduate studies and a professional career. Srishti is also Vice President of Native American Cultural Programs and the Anthropology Mentor for The Major Experience (TME) at UConn. She was named a Babbidge Scholar in March of 2018.

Graciela Scarafia, is an undergraduate student at Universidad Nacional de Rosario, Argentina. She is involved in historical archaeological research of XIXth century military frontier sites in Buenos Aires Province, Argentina.

Matthew F. Schmader, Ph.D., has worked for 39 years in southwestern archaeology, principally in the middle Rio Grande valley. He has worked on sites of virtually every cultural time period,

ranging from Paleo Indian campsites to Archaic structures, from early ancestral puebloan pit houses to classic period petroglyph sites and pueblo villages, and from Spanish contact/colonial sites to the historic red light district in downtown Albuquerque. His current research interests are the transition from foraging to horticulture, and the contact period in the American southwest. He is Adjunct Associate Professor of archaeology at the Department of Anthropology, University of New Mexico.

André Schürger, studied archaeology of the Roman provinces and history in Cologne (Germany) and Thessaloniki (Greece) and was awarded Magister Artium in 1997. Since then he worked as field archaeologist and field director on sites in Germany and Austria. Recently he excavated a 2nd World War forced labor camp from Messerschmitt near Augsburg. From 2006 to 2012, he became project manager of the 'Lützen-Project', a battlefield research project on the Thirty-Years-War Battle of Lützen. This project led to a Ph.D. thesis. He was awarded Ph.D. in 2015.

Douglas D. Scott, Ph.D., retired in 2006 from the National Park Service after more than 30 years of with the Department of the Interior, his last position was as Great Plains Team Leader, Park Programs, Midwest Archeological Center Lincoln, Nebraska. He is currently a Visiting Research Scientist at Colorado Mesa University and maintains an affiliation with the Department of Anthropology, University of Nebraska-Lincoln. Doug received his Ph.D. in 1977 in Anthropology from the University of Colorado, Boulder. He has worked throughout the Great Plains and Rocky Mountain West on a variety of archeological projects. Doug specializes in 19th century military sites archeology and forensic archeology. He is particularly noted for his expertise in battlefield archeology and firearms identification having worked on more than 60 battlefield sites, including Palo Alto, Sand Creek, Big Hole, Bear Paw, Wilson's Creek, Pea Ridge, Centralia, and Santiago de Cuba. He was awarded the Department of the Interior's Distinguished Service Award in 2002 for his innovative research in battlefield archeology that started with his work at the Little Bighorn Battlefield National Monument. His 2013 book *Uncovering History*, on the archaeology of the Little Bighorn battle, has received several book of the year awards. Doug has also been involved with human rights and forensic investigations since the early 1990s. He has worked with the United Nations and

various human rights organizations in El Salvador, Croatia, Rwanda, Cyprus, Iraq, and on an animal welfare case in Canada.

Robert A. Selig, Ph.D., is a historical consultant who received his Ph.D. in history from the Universität Würzburg in Germany in 1988. He is a specialist on the role of French forces under the comte de Rochambeau during the American War of Independence and serves as project historian to the National Park Service for the Washington-Rochambeau Revolutionary Route National Historic Trail Project. For this project he researched and wrote surveys and resource inventories for the nine states and the District of Columbia through which American and French forces marched in 1781 and 1782. He also serves as Project Historian for numerous American Battlefield Protection Program projects such as the "Battle of Princeton," "Battle of Green Spring and Spencer's Ordinary," the "Paoli Massacre," "Battle of the Clouds," "Battle of Red Bank," "Battle of Bennington," "Battle of Hubbardton," and the "Battle of Brandywine."

Philip L. Shiman, Ph.D., is a historian whose primary interest has been military engineering of all periods, but especially focusing on the evolution of field fortifications during the American Civil War. During the 1980s, Dr. Shiman invested six summers as a seasonal interpreter at Petersburg National Battlefield, where he designed and oversaw the construction of a full-scale replica of the Union siege line that the park still maintains as a permanent exhibit. In 1992 he cofounded the Civil War Fortification Study Group, a nonprofit organization dedicated to promoting the interpretation and preservation of Civil War earthworks. During his career he has lectured in public and professional military forums and participated in numerous engineering-related living history demonstrations. He has been described as the "Master of the Gabion." Although in his other life he studied the history of modern military technology for the US Department of Defense, he has recently shifted his career emphasis to cultural resource management and battlefield archaeology. Dr. Shiman holds degrees in history – a B.A. from Yale College and a Ph.D. from Duke University.

Dan Sivilich, is a battlefield archaeologist with more than 30 years in the field. He has conducted numerous battlefield excavations both in the US and abroad. He is well known for the Sivilich Formula which is used worldwide to calculate the original diameters of non-spherical musket

balls based on their weight. He is the author of the book *Musket Ball and Small Shot Identification: A Guide*. He has written numerous articles on Revolutionary War-era historical archaeology.

Michelle Sivilich, received her Ph.D. from the University of South Florida where she studied the role standardized education officers received at the Military Academy at West Point, NY played on the outcome of the Second Seminole War (1835-1842). This is the first time large numbers of officers who were West Point trained were put in the field during combat. Since Florida was unlike any environment they had trained for, this unknown environment hampered their ability to conduct successful operations. In addition to her research with the Seminole Wars, she has over 15 years' experience in a variety of archaeological settings ranging from 17th century Maryland's first Capital of St. Mary's City, to Revolutionary War sites throughout the Northeast United States, to Thomas Jefferson's home of Monticello. She also received her M.S. from Indiana State University studying molecular archaeology and used a novel approach to genetic fingerprinting to assess levels of relatedness within cemeteries which relates to the changing cultural practices regarding the cemetery layout in the mid-1800s.

Steven D. Smith, Ph.D., is the Director of the South Carolina Institute of Archaeology and Anthropology, at the University of South Carolina. He has over 40 years' experience in historical archaeology largely focused on conflict archaeology, widely publishes on the topic, and teaches Conflict Archaeology ANTH 535 in the USC Department of Anthropology. Steve hosted the 2014 Fields of Conflict Conference in Columbia, South Carolina and is the editor of *Preserving Fields of Conflict: Papers From the 2014 Fields of Conflict Conference and Preservation Workshop*, SCIAA, and the *American Battlefield Protection Program*, 2016.

Stephanie Soder, is currently enrolled in the Maritime Studies Graduate Program at East Carolina University. She received my Bachelor's degree in Criminal Justice with a concentrated minor in Anthropology from York College of Pennsylvania. After completing an underwater research expedition in Cambodia and bioarchaeology digs in Ireland and Belize, she decided to focus on maritime archaeology, where she completed maritime projects in Bermuda and North Carolina. Her research interests

include warfare and internment during the 20th century. Her thesis work focuses on indigenous studies in Saipan, and the paper to be presented at the Fields of Conflict Conference are extensions of this research.

Julia Steele, grew up near Washington Crossing, PA, and developed an early interest in the American Revolution which expanded to the Civil War after family trips to Gettysburg. At the start of her professional career she recorded and assessed WWII and Cold War sites in Alaska. She joined the U. S. National Park Service Northeast Region Archeology Program in 1994 and worked on Civil War era projects at Petersburg, Gettysburg, Fredericksburg, Spotsylvania and Cold Harbor. She was part of a five year research project at Valley Forge, which lead to reinterpretation of significant aspects of the encampment. She served as archaeologist for other Virginia parks and is now Chief of Resource Management at Petersburg. Steele has a B.A. in Anthropology from the University of Pennsylvania and a masters in Anthropology from Binghamton University. She has contributed publications, grey literature and presentations on military archaeology and other archaeology topics.

Diana S. Tamburini, is a researcher and professor at the Universidad Nacional de Rosario, Argentina. She obtained her undergraduate degree from the Universidad Nacional de Rosario, where she also is a doctoral candidate at present. She carries out research in historical archaeology of XIXth century military frontier sites in Buenos Aires Province, Argentina.

Sarah Taylor, is currently in the third year of her Ph.D. and plans to have submitted her thesis by September 2018. Her Ph.D. has been supervised by Dr. Glenn Foard at the University of Huddersfield and with funding from the Heritage Consortium. She presented a poster at the 2016 *Fields of Conflict Conference* in Dublin and was part of the team that organized the Huddersfield Postgraduate Fields of Conflict Conference in 2017. Prior to starting her Ph.D. at Huddersfield, She did a masters in Medieval History at Durham University and a bachelor's degree at Cardiff University in Medieval History and Archaeology.

Lyle C. Torp, is the Managing Director of The Ottery Group, a Maryland-based cultural resource management firm established in 1998. He has over 25 years

of experience throughout the Southeast, Middle Atlantic, and Northeast. He holds a bachelor's degree in Anthropology from Wake Forest University, and a master's degree in Applied Anthropology from the University of South Florida. Lyle is a frequent speaker on various archeological topics to community organizations as well as at professional conferences. His research interests include cemetery preservation, military archeology, and colonial town development.

Mark Axel Tveskov, Ph.D., is a Professor of Anthropology at Southern Oregon University, and is interested in historical memory, colonialism, and conflict archaeology. His current research focuses on the Rogue River War of the early 1850s in southern Oregon. Tveskov is co-host of the monthly Jefferson Public Radio program Underground History and is a member of the Governor of Oregon's State Advisory Committee on Historic Preservation. He received his B.A. and M.A. from the University of Connecticut and his Ph.D., from the University of Oregon.

Yves Ubelmann, is an architect who graduated from the architecture school of Versailles in 2006. From 2006 to 2010, Yves Ubelmann has worked as an independent architect in Syria, Iran, Afghanistan, and Pakistan, focusing on the survey, study and the interpretation of archaeological sites. In this context, he has developed since 2009 a new approach to photogrammetry for the survey of archaeological sites. From 2010 to 2011 he has worked as a specialist engineer in the joint center Microsoft Research INRIA, with the IT department of the ENS (Ecole Normale Supérieure) for the development and use of 3D digitization tools based on recent photogrammetric reconstruction algorithms. In 2013, he cofounded Iconem, a company specialized in the 3D digitization of world heritage sites, using aerial and terrestrial data capture techniques. Based in Paris, ICONEM now operates in 21 countries for UNESCO, the Aga Khan Trust for Culture, museums (Louvre, British Museum), universities (MIT, Sorbonne) and governments (Oman, Afghanistan). ICONEM has produced over 250 digital copies of monuments and sites worldwide, with a focus on Syria Palmyra, Crac des Chevaliers, Iraq, Afghanistan, and also Sudan, Libya, and Greece.

Jaime Ullinger is an Associate Professor of Anthropology at Quinnipiac University who specializes in bioarchaeology and dental anthropology.

E. Smith Umland, is a graduate of Wheaton College and looking to pursue a masters and eventually a Ph.D. in Anthropology, specifically in cultural heritage preservation. She became interested in researching Native American museums after securing an internship at the Mashantucket Pequot Museum & Research Center. This eventually blossomed into a 50-page undergraduate thesis, which this paper is taken in part from.

Vincent van der Veen, works at the Vrije Universiteit Amsterdam as a finds liaison officer for PAN: Portable Antiquities of the Netherlands. Vincent's main areas of expertise are the material culture of the Roman period and of late pre-industrial warfare. In this capacity he is particularly interested in the distribution of militaria dating to the Napoleonic period. Alongside this he works at the Radboud Universiteit Nijmegen as an external Ph.D. candidate. Vincent's thesis is titled "Mapping the Flavian castra and canabae at Nijmegen. A big data approach to the analysis of a military community and its activities." Prior to this he worked as a field archaeologist. Vincent completed both B.A. and M.A. degrees in Classical Languages at the Radboud Universiteit Nijmegen and in Archaeology at the Katholieke Universiteit Leuven (Belgium).

Richard Veit, Ph.D., is Professor of Anthropology and Chair of the Department of History and Anthropology at Monmouth University. Dr. Veit is a North American historical archaeologist whose research focuses on the Middle Atlantic Region between the late 17th and early 19th centuries. His research focuses on commemoration, symbolism, vernacular architecture, and military sites archaeology. He has authored or co-authored numerous articles and reviews and eight books including *Digging New Jersey's Past: Historical Archaeology in the Garden State* (Rutgers Press 2002), *New Jersey Cemeteries and Tombstones History in the Landscape* (co-authored by Mark Nonestied, Rutgers Press 2008), and *New Jersey: A History of the Garden State* (co-authored with Maxine Lurie, Rutgers Press 2012). In 2007, he was the recipient of Monmouth University's distinguished teacher award. He regularly presents on topics relating to historical archaeology and New Jersey history and has been a TED speaker.

Jacqueline Veninger, Ph.D., received her Ph.D. in conflict archaeology from the University of Exeter (UK) in 2015. She

continues to research native colonial conflict in both the UK and New England; and is working on several publications, including a book version of her Ph.D. research – 'Archaeological Landscapes of Conflict in Twelfth-century Gwynedd.' Jackie is currently at the University of Connecticut where she serves as NAGPRA Coordinator.

Nina M. Versaggi, Ph.D., RPA, is director of the Public Archaeology Facility, a research center at Binghamton University in New York. Her research centers on the conduct of Cultural Resource Management in the Northeast, including policy review, professional standards, community outreach, and Native American consultation. Since 2008, she has served as co-PI on Revolutionary War battlefield preservation projects, focusing on community outreach and collaborations with Native Americans.

James Waller, Ph.D., is Cohen Professor of Holocaust and Genocide Studies at Keene State College (NH-US), home to the only undergraduate major in the field in the US. In addition, he serves as Director of Academic Programs for the Auschwitz Institute for Peace and Reconciliation, an International NGO dedicated to genocide and atrocity prevention training for government and security sector officials around the world. Waller is author of *Becoming Evil: How Ordinary People Commit Genocide and Mass Killing* (Oxford, 2nd ed., 2007) and *Confronting Evil: Engaging Our Responsibility to Prevent Genocide* (Oxford, 2016). His current work focuses on trauma, risk, and resilience in contemporary Northern Ireland.

Lynley Wallis, is a Senior Researcher in the Nulungu Research Institute at the University of Notre Dame Australia.

Jason Warren, Lieutenant Colonel, Ph.D., is a 1999 West Point graduate, who was commissioned in the Military Police Corps. He has served in various military assignments including platoon leader, battalion logistics officer, company commander, and provost marshal. In addition to serving for four years in Germany, LTC Warren served in the Sinai, Egypt, and Kandahar, Afghanistan, the latter deployment for which he was awarded the Bronze Star Medal. He studied military history at Ohio State University, and returned to teach military history at West Point from 2009-2012. While teaching at West Point, Ohio State awarded LTC Warren the Ph.D., and he

was subsequently promoted to Assistant Professor. His research focuses on warfare in early colonial America. In 2014, Oklahoma University Press published LTC Warren's *Connecticut Unscathed: Victory in the Great Narragansett War, 1675-1676*. The Army War College, where he also served as an Assistant Professor, recognized *Connecticut Unscathed* with the Colonel John J. Madigan III Award for best faculty monograph. Routledge also published his chapter on King Philip's War and Bacon's Rebellion in a diplomatic and military history handbook. He is editor and contributor for *Drawdown: America's Way of Postwar* with New York University Press, 2016. His other academic interests include the military history of the ancient world and modern military affairs. His recent article "The Centurion Mindset and the Army's Strategic Leader Paradigm" in *Parameters* also earned a Madigan Award. In addition to over 30 academic presentations and lectures, LTC Warren published "Beyond Emotion: The Epidamnian Affair and Corinthian Policy, 480-421 BC" in the *Ancient History Bulletin* in 2003. He currently serves as a strategist and plans chief for a subordinate headquarters to U.S. Cyber Command.

Michael Whitehead, is currently involved with the Indiana University of Pennsylvania Applied Archaeology MA Program and worked in various capacities on the Fort Necessity National Battlefield survey. Whitehead completed his M.A. in 2014 and was the field director throughout the three-year project.

Susanne Wilbers-Rost, Ph.D., has studied Prehistoric Archaeology, Palaeoethnobotany and Ethnology at the University of Göttingen. She got her doctor's degree (1990) with a dissertation about Germanic horse harnesses. Since 1990 she has been working for the Kalkriese Project. Since 2000 she is head of the Archaeological Department of the "Museum and Park Kalkriese" and responsible for the organization and interpretation of excavations and coordination of multidisciplinary studies in Kalkriese.

Margaret Watters Wilkes, Ph.D., is currently the National Park Service Northeast Region Archaeological Site Management Inventory System Coordinator. Dr. Wilkes has worked in CRM, geophysical survey equipment manufacturing, the development of the Visual and Spatial technology Center at the University of Birmingham, UK, and was the President of Visual Environment

Solutions, LLC. She specializes in applied non-invasive technologies for archaeological landscape mapping, interpretation, and visualization. In this role she has led survey missions in the United States and internationally including work in Central and South America, Africa, and Europe. Dr. Wilkes is a Trustee for the Massachusetts Archaeological Society and was a member of the Millis, MA Historical Commission. Dr. Wilkes is the recipient of the U.S Department of the Interior National Park Service Director's Partnership Award for her work as lead archaeologist of the Parker's Revenge Archaeological Project at the Minute Man National Historical Park.

Megan Willison, is a doctoral candidate at the University of Connecticut. Her research focuses on how warfare in 17th century southern New England impacted and continues to impact indigenous and Euro-American relations of power as viewed through site settlement patterns, material culture usage, and memorialization.

Guo Yanli, Ph.D., Master tutor, author, Deputy Director of The Museum of Shaanxi Normal University, and the Deputy Director of WenBo Talent Training Demonstration of the State Administration of Cultural Heritage. He graduated from the Graduate School of Chinese Academy of Social Sciences, majoring in the teaching and research of museology and archaeology and has taught postgraduate and undergraduate students. He teaches Introduction to Museums, Overview of Chinese archaeology, Chow Archaeology, Qin and Han Dynasties Archaeology, Archaeology Theory and Method, Chinese Bronze Weapons Appreciation, Heritage Appreciation and Exploration Archaeology. He has resided over the National Social Science Fund's Project "In the Eastern Guanzhong Plain of Shang Dynasty archaeological data and research," the National Social Science Fund Project "Research of Shang Dynasty bronze weapons," the State Administration of Cultural Heritage Project "Museum Management Personnel Training Teaching System Research," the Shaanxi

Province Bureau of Cultural Heritage Project "The Research of Museum Exhibition Yijiangdaibu Method." He has also participated in the National Social Science Fund Project "The study of military Archaeology," the National Social Science Fund Project "The study of the ethnic interaction between Shang and Qin Dynasties," the National Social Science Fund "The comprehensive study of the group of Shang Dynasty bronze in the Chengyang area of Shaanxi," the National Social Science Fund "A study on the path of history development in New China," and the State Administration of Cultural Heritage Project "Research on the policies and measures of the social forces participating in the personnel training of the Museum of cultural relics" and "The research on the results of cultural relics survey and social service."

Larry Zimmerman, Ph.D., is a Professor of Anthropology and Museum Studies at Indiana University-Purdue University, Indianapolis, USA.



FINAL PAPER PROCEDURES

International Fields of Conflict Conference, Mashantucket Pequot Museum & Research Center

Full Paper Title in Title Case (Font: Arial 18 bold)

First Author Smith¹, Second Author Smith² and Third Author. Smith³

1 Full address of first author, including affiliation and email

2 Full address of second author, including affiliation and email

3 Full address of third author, including affiliation and email

(use Times New Roman 10 typeface for author's Affiliation)

ABSTRACT

The conference proceedings will be published in an electronic format. The full paper file must be written in compliance with these instructions. The author is asked to submit the paper in Microsoft Word and saved with the author's full name "Last, first." The abstract must not exceed 500 words, in English, should appear on the top of the first page, after the title of the paper in chapter titled "Abstract" (without chapter number), after the names of the authors and the contact information of the corresponding author.

Key Words: Maximum 6 Key words.

1. INTRODUCTION

It is expected that authors will submit carefully written and proofread material. Spelling and grammatical errors, as well as language usage problems, are not acceptable in the final submission. There is no strict limitation to the number of pages, but it is suggested that the paper length should not exceed **6000 words**. Papers should clearly describe the background of the subject, the authors work, including the methods used, and concluding discussion on the importance of the work. Papers are to be prepared in **English (British or American)**. Technical terms should be explained. Acronyms should be written out at their first appearance.

2. SUBMITTING THE PAPER

The Full paper has to be submitted electronically by e-mail to the following addresses: abissonnette@pequotmuseum.org and it should be submitted no later than August 15, 2018 5:00PM.

3. PAPER FORMAT

The uniform outlook will help the reader to follow the proceedings. This can be obtained most easily if authors use this template file to construct their papers. Please note the following details: all text paragraphs should be single spaced, with first line intended by 10 mm (0.4 inch). Double spacing should only be used before and after headings and subheadings as shown in this example. Position and style of headings and subheadings should follow this example. No spaces should be placed between paragraphs. Please do not change any of the above mentioned page, paragraph and font settings.

3.1. Fonts

Papers should use 12-point Times New Roman font. The styles available are bold, italic and underlined. It is recommended that text in figures is not smaller than 10-point font size.

3.2. Tables and Figures

Figure captions and table headings should be sufficient to explain the figure or table without needing to refer to the text. Figures and tables not cited in the text should not be presented. Styles Heading Table and Caption Figure are available in this template for tables and figures. The following is the example for Table 1.

Table 1 Title of Example Table

Standard Error	20 Story				30 Story			
	Uniform	ELF	SRSS	3 Modes	Uniform	ELF	SRSS	3 Modes
Displacement	29.53	44.58	41.05	23.81	27.4	43.6	40.87	20.65
Drift	60.4	60.92	60.47	38.24	60.91	63.83	63.53	26.19

Tables and figures should be placed close after their first reference in the text. All figures and tables should be numbered with Arabic numerals. Table headings should be above the tables. Figure captions should be centred below the figures. Minimum figures' resolution: 150dpi.



Figure 1: 30 Floor Building's Drift Ratios Percent

REFERENCES

List of references must follow Chicago Manuel of Style

FOC POSTER PROCEDURE 2018

Posters must be 4 feet (height) x 8 feet (wide), and it is requested that text be double spaced. Graphs, charts, and relevant images are encouraged. Please display title and author clearly at the top of the poster. You are responsible for printing your poster and your own mounting supplies: double sided tape and putty, and electricity will not be provided. Time spent with posters is not required, but interacting with the audience to answer questions and encourage further discussion is highly encouraged.

THE INTERNATIONAL FIELDS OF CONFLICT CONFERENCE DINNER

Mashantucket Pequot Museum & Research Center

Saturday, September 29, 2018

5 - 6 pm Cocktail Hour

7 - 9 pm Dinner

Hors d'oeuvres

Wild Rice Fritters

Quahog Fritters

Smoked Salmon Bites

Cheese Board with Fruit



Soup

Quahog Chowder

Autumn Succotash

Bread

Butternut Squash

Corn cakes with Cranberry Chutney

Salad

Dandelion greens salad with sun chokes, pears, red pepper, black berries, & purple onion

Mixed field greens, vine ripened tomatoes, cucumber, orange pepper, topped with cranberry vinaigrette, & salted toasted pumpkin seeds

Entrée

Seafood Stew

Stripe bass, shrimp, scallops, mussels, little necks, & fire roasted tomatoes

Venison Roast

With Beach plum reduction

Stuffed Squash

Wild rice blend, beans, walnuts, sun flower seeds, dried cranberries, scallion, sun chokes

Sides

Garlicky Green Beans

Butternut Squash

Oven Roasted Potatoes

Three Sisters Rice

Dessert

Sassafras Sorbet

Cranberry Pear Crisp

Peach Shortcake

AIRPORTS • DIRECTIONS

For your convenience here is a list of the closest major airports, along with directions from them to the Mashantucket Pequot Museum & Research Center should you need them.

For further directions visit <http://www.pequotmuseum.org/MuseumInfo.aspx>.

Bradley International Airport (BDL), Windsor Locks, CT

1 hour & 12 minutes, 64.0 miles

Follow Route 2 East, take Exit 28 South to I-395 South. From I-395 South, take Exit 79A to Route 2A East, crossing the Mohegan-Pequot Bridge. Turn left on Route 12. Take the first right onto Route 2A East. Follow Route 2A to Route 2. Turn right onto Route 2 East. Stay on Route 2 and take the Route 214 exit. At the Foxwoods Boulevard light, go straight, drive 3/10 mile to third light (including Foxwoods Blvd. light), turn right onto Pequot Trail. The Public Safety Building is on the left. Continue until you reach the Museum parking lot on the left.

John F. Kennedy International Airport (JFK), Queens, NY

2 hours & 32 minutes, 141 miles

From NYC/New Haven:

Follow I-95 North, take Exit 92. Turn left onto Route 2 West. Stay on Route 2 West for 8 miles. Take the Foxwoods Boulevard exit; then move to the left lane for Route 214 West. At the Foxwoods Boulevard light, go straight, drive 3/10 mile to third light (including Foxwoods Blvd. light), turn right onto Pequot Trail. The Public Safety Building is on the left. Continue until you reach the Museum parking lot on the left.

T. F. Green Airport (TFG), Warwick, Rhode Island

47 minutes, 43.9 miles

From Rhode Island and Points North:

Follow I-95 South to Exit 92. At the exit, go to the second stop light and turn right onto Route 2 West. Stay on Route 2 West for 8 miles. Take the Foxwoods Boulevard exit; then move to the left lane for Route 214 West. At the Foxwoods Boulevard light, go straight, drive 3/10 mile to third light (including Foxwoods Blvd. light), turn right onto Pequot Trail. The Public Safety Building is on the left. Continue until you reach the Museum parking lot on the left.

Logan International Airport (BOS), Boston, MA

1 hour & 45 minutes, 104 miles

From Worcester:

Take I-395 South to Exit 85 in Connecticut. Go straight to the second traffic light and turn left onto Route 164 South. Follow Route 164 to the end, approximately 7 miles. Turn left onto Route 2 East. Stay on Route 2 and take the Foxwoods Boulevard exit; then move to the left lane for Route 214 West. At the Foxwoods Boulevard light, go straight, drive 3/10 mile to third light (including Foxwoods Blvd. light), turn right onto Pequot Trail. The Public Safety Building is on the left. Continue until you reach the Museum parking lot on the left.

HOTEL ACCOMODATIONS

Great Cedar Hotel

39 Norwich, Westerly Road, Ledyard, CT 06339

Rates: Single/double \$129.00 per night Wednesday 9/26/18-Thursdays 9/27/2018
and \$199.00 per night Friday 9/28/2018.

Please be advised of additional taxes. **Cut off reservation date is Wednesday September 5, 2018 5:00 p.m.** Individuals are responsible for their own room, MPT Occupancy Tax, applicable Resort Fee and incidental charges upon departure.

Registrations link: [Mashantucket Pequot Museum Room Block](#)

Hilton Garden Inn

Preston Casino Area, 5 Watson Road, Preston, CT

Rates: Single/double \$129.00 per night Wednesday 9/26/18-Thursdays 9/27/2018,
and \$199.00 per night Friday 9/28/2018 and \$239.00 Saturday 9/29/2018.

Please be advised of additional taxes. **Cut off reservation date is August 27, 2018 5:00.** Individuals are responsible for their own room, Occupancy Tax, applicable Resort Fee and incidental charges upon departure.

Registrations link: [Mashantucket Pequot Museum Room Block](#)

Belissimo Grande Hotel

411 A & B Norwich Westerly Road, North Stonington, CT 06359

Rates: 9/26/18 Wednesday \$89.00 plus tax and fee's- \$118.45, 9/27/18 Thursday \$89.00 plus tax
and fee's- \$118.45, 9/28/18 Friday \$149.00 plus tax and fee's-\$187.45 9/29/18,
Saturday \$229.00 plus tax and fee's-\$279.45

Please be advised of additional taxes. **Cut off reservation date is August 27, 2018 5:00.** Individuals are responsible for their own room, Occupancy Tax, applicable Resort Fee and incidental charges upon departure.

Fields of Conflict Lodging as the group booking code **FOCL**.

Registrations link: [Mashantucket Pequot Museum Room Block](#)

Other area hotels:

The Fox Tower at Foxwoods, 240 Fox Tower Drive, Ledyard Center, CT

Grand Pequot Tower at Foxwoods, 350 Trolley Lane Boulevard, Ledyard Center, CT

Two Trees Inn, 240 Indiantown Road, Ledyard, CT

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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Archaeologist David Naumec



Archaeologist Kevin McBride and Detectorist George Pecia



Detectorist Mike Horen and Archaeologists Kevin McBride and Ashley Bissonnette

*The figure of the Indians fort or Palizado in
NEW ENGLAND
And the maner of the destroying
It by Captayne Vnderhull
And Captayne Mason*



Fields of Conflict
CONFERENCE 2018 PEQUOT MUSEUM