



## TUESDAY MORNING

8:30 AM - Keynote Address

**Dr. Ken Kvamme**  
SCE Auditorium

9:30 AM

Coffee Break

### General Papers

#### General - GIS Room: SCE House

9:50 AM

**Caswell, Edward**, *An Analysis of Selected Variables that Affect the Production of Cost Surfaces*  
10:10 AM **Becker, Daniel, Christian Willmes, Andreas Bolten, Maria de Andrés-Herrero, Gerd-Christian Weniger, Georg Bareth,**

*Influence of Differences in Digital Elevation Models and their Resolution on Slope-Based Site Catchment Modelling*

10:30 AM

**Beusing, Ruth**, *Temporal-GIS Tools for Mixed and Meso-Scale Archaeological Data*  
10:50 AM **James, Vivian**, *Context as Theory: Towards Unification of Computer Applications and Quantitative Methods in*

Archaeology

11:10 AM

**Sharp, Kayeleigh**, *Testing the 'Small-Site' Approach with Multivariate Spatial Statistical and Archaeological Network Analysis*

11:30 AM

**Groen, Mike**, *Geospatial Analysis, Predictive Modelling and Modern Clandestine Burials*  
11:50 AM **Slayton, Emma, Jan Athenstädt, Corinne Hofman, Jan Hildenbrand**, *Seafaring with Mental Sign Posts: Connecting*

*Materials with Canoe Routes in the Archaic Age Northern Lesser Antilles*

### Open Open Open. The Rise of Open Scientific Publishing and the Archaeological Discipline: Managing the Paradigm Shift

#### Education and Dissemination Room: SCE 216

Organizers: Arianna Traviglia, Xavier Rodier

9:50 AM

**Rocks-Macqueen, Doug, Tom Levy**, *The Last of the Publishers*  
10:10 AM **Roued-Cunliffe, Henriette, Peter Jensen**, *What is Open Data in an Archaeological Context?*

10:30 AM

**Brin, Adam, Francis Pierce-McManamon, Leigh Anne Ellison**, *The Challenges of Open Access for Archaeological Repositories*

10:50 AM

**Kondo, Yasuhisa, Atsushi Noguchi**, *Best Practices and Challenges in Promoting Open Science in Archaeology: Two Narratives from Japan*

11:10 AM

**Rodier, Xavier, Olivier Marlet**, *How to Combine Archaeological Archives, Linked Open Data and Academic Publication, a French Experience*

11:30 AM

**Buard, Pierre-Yves, Elisabeth Zadora-Rio**, *Publishing an Archaeological Excavation Report in a Logistic Workflow*

11:50 AM

**Kansa, Eric, Anne Austin, Ixchel Faniel, Sarah Kansa, Ran Boynter, Jennifer Jacobs, Phoebe France**, *A Reality Check: The Impact of Open Data in Archaeology*

### Same as it ever was... Same as it ever was

#### Critical Reflections Room: SCE 217

Organizers: Hugh Corley, Lorna-Jane Richardson

9:50 AM

**Pageau, Hanna**, *An Inclusive Archaeology: Being Able in Archaeology*  
10:10 AM **Foreman, Penelope**, *"Well, actually...": The Othering of Women in the Computing and Programming Communities and Its*

Effects on Digital Archaeology

10:30 AM

**Ni Chiobhain Enqvist, Delia**, *Whose (Maritime) Archaeology is It Anyway?*  
10:50 AM **Hassett, Brenna, Suzanne Pilaar Birch, Victoria Herridge, Rebecca Wrapp Sykes**, *TrowelBlazers: Raising Horizons for a*

Diverse Digital Archaeology

11:10 AM

**Corley, Hugh**, *Privilege and Digital Archaeology*  
11:30 AM **Richardson, Lorna-Jane**, *Digital Archaeology and Digital Inequalities: A View from a Sociology Department*

11:50 AM

Discussion

## Urbanism at the Micro, Meso and Macro Scales: Advances in Computational and Quantitative Methods to Study Cities and their Built Environments

### GIS Room: SCE Auditorium

Organizers: Eleftheria Paliou, Adrian Chase

- 9:50 AM **Cabaniss, Andrew**, *Diversity from the Bottom Up: Modeling Cities as Communities of Diverse Households*
- 10:10 AM **Cesaretti, Rudolf**, *Re-Evaluating Settlement Population Estimation: An Analogue-Based Method for Modeling Patterned Variation in Population Density*
- 10:30 AM **Levine, Evan, Daniel Plekhov**, *Patterns of Urbanism in Bactria: Reevaluating a Paradigm Through Remote Sensing*
- 10:50 AM **Hermitt, Elijah, Erika Maxson, Kirk French, Damien Marken, Derek Shaffer, Timothy Murtha**, *Hydrologic Design in Three Maya Cities: Using Regional Topographic Data, Hydrologic Analysis in GIS and Archaeology for a Comparative Analysis of Palenque, Tikal, and El Peru*
- 11:10 AM **Baumanova, Monika, Ladislav Smejda, Heinz Ruther**, *The Streets of Timbuktu Old Town. Moving Goods, People and Ideas on the Coast of the Sahara*
- 11:30 AM **Shpuza, Ermal**, *The Effect of Gridiron Street Pattern on the Urban Growth of Adriatic and Ionian Coastal Cities 1800-2010*
- 11:50 AM **Crawford, Katherine**, *Unravelling Urban Religious Landscapes: Modelling Processions at Ostia*
- 12:10 PM **Klassen, Sarah, Jonathan Weed, Damian Evans**, *Discerning the Urban Morphology of Angkor Using a Semi-Supervised*

*Algorithm for Manifold Learning*

## The Creation of Big Data Labs for Archaeology, Heritage, and Global Initiatives

### Broader View - Digital Archaeology and the Humanities Room: SCW 460/462

Organizers: Thomas Levy, Michael Decker

- 9:50 AM **Decker, Michael, Thomas Levy, Maurizio Forte, Ethan Watrall**, *Introduction*
- 10:00 AM **Decker, Michael**, *CVAST: The USF Center for Virtualization and Applied Spatial Technologies*
- 10:20 AM **Levy, Thomas, Margie Burton**, *The UC San Diego Center for Cyber-Archaeology and Sustainability*
- 10:40 AM **Forte, Maurizio**, *The Dig@Lab at Duke University*
- 11:00 AM **Watrall, Ethan**, *MATRIX: The Center for Digital Humanities & Social Sciences*
- 11:20 AM **Tanasi, Davide**, *Learning Through Objects: 3D Digital Imaging, 3D Printing and Haptic Technology for Public Outreach in Archaeology*
- 11:40 AM **Colobran, Miquel, Juan Antonio Barcelo, Igor Bogdanovic**, *Reusing Archeological Information to Improve Modeling and Research: An Interoperability Data Schema*
- 12:00 PM **Watrall, Ethan**, *Mbira: A Platform to Build, Serve, and Manage Mobile Heritage Experiences*

## NEH Roundtable on Advanced Challenges in Theory and Practice in 3D Modeling

### 3D Acquisition / Object Modeling Room: SCW 464

Organizers: Alyson Gill, Heather Richards-Rissetto, Lisa Snyder

- 9:50 AM **Carter, William**, *The Life of Attributes: Meta and Paradata as 3D Point and Object DNA for Heritage Providence*
- 10:10 AM **Clinton, Miriam**, *A Workflow to Integrate 3D Data Acquisition with Traditional Artifact Study? Lessons from Mouliana*
- 10:30 AM **Ulguim, Priscilla**, *3D Digital Models and Bioarchaeology: Challenges and Proposals for Practice*
- 10:50 AM **Massari, Lauren, William Rourke, Shayne Brandon, Jama Courtney, Worthy Martin, Chip German**, *Challenges in Processing, Delivering, and Archiving Large Amounts of 3D Data*
- 11:10 AM **Mudge, Mark**, *Computational Photography, Scientific Imaging, and the Preservation of 3D Digital Representations*
- 11:30 AM **Richards-Rissetto, Heather**, *Challenges of Peer-Review: Where Does 3D Archaeological Scholarship Fall under the Umbrella of Digital Humanities Scholarship?*
- 11:50 AM **Richards-Rissetto, Heather, Alyson Gill**, *Roundtable*

## Rip – Model – Learn: Towards the Total Model

### Broader View - Digital Archaeology and the Humanities Room: SCW 466/468

Organizers: Carlo Bianchini, Alfonso Ippolito, Carlo Inglese, Luca Senatore

- 9:50 AM **Luce, Fabio**, *Digital Surveying and Ideal Reconstruction for Total Hybrid Model: The Case of Fort Presanella in Val di Sole*
- 10:10 AM **Filippucci, Marco, Fabio Bianconi, Federica Magi Meconi**, *Models and Parameterization of the Five Orders of Architecture*
- 10:30 AM **Eve, Stuart, Guy Hunt, Michael Johnson, Jessica Ogden, John Layt**, *10 Years of Online Archaeological Databases - Revolution, Convolution, Evolution*
- 10:50 AM **Empler, Tommaso**, *3D Modeling to Reconstruct a Paleontological Site: Museum of Casal de' Pazzi in Rome*
- 11:10 AM **Senatore, Luca, Michela Cigola, Arturo Gallozzi**, *New Methodologies for Knowledge and Valorization: The Digital Survey Made by Remote-Controlled Mobile Platform: The Case Study of the Roman Casinum City*

11:30 AM

**Caldarone, Adriana**, *3D Printing and Augmented Reality: Integration, Methods and Communication for Cultural Heritage*.

11:50 AM

**Bercigli, Monica, Stefano Bertocci**, *Digital Documentation of Masada Fortress in Israel: Integrated Methodologies of Survey and Representation*

12:10 PM

**Carnevali, Laura, Marco Carpiceci, Andrea Angelini**, *Problems Concerning Elaboration and Representation in Italian Rock-Hewn Architecture*

## TUESDAY AFTERNOON

### Digital Archaeology - Where are We and How do We Fit In? / SIG Education and Outreach

#### **Critical Reflections** **Room: SCE 216**

*Organizers: Paul Reilly, John Pouncett, Stephen Stead*

- 12:45 PM **Brin, Adam, Francis Pierce-McManamon, Leigh Anne Ellison**, *The Archaeological Data Lifecycle*
- 1:05 PM **Verhagen, Philip**, *Education, Training, and Outreach: A Call to Arms*

### Archaeology In and Out of the Classroom: Digital Approaches to Archaeological Instruction

#### **Education and Dissemination** **Room: SCE 216**

*Organizer: Jeffrey Emanuel*

- 2:00 PM **Gandolfi, Eleonora**, *Public Engagement in Compulsory-Age Education with MOOCs: A Case Study from the Italian and English Context*
- 2:20 PM **Rourk, Will, Andrew Johnston, Lauren Massari, Shayne Brandon, Arin Bennett, Jama Courtney, Worthy Martin**, *Cultural Heritage Data Synthesis for Architectural History Field*
- Methods*
- 2:40 PM **Golubiewski-Davis, Kristina, Samantha Porter, Matt Edling, John Soderberg, Gilbert Tostevin**, *The Use and Reuse of 3D Scanned Lithic Refits*
- 3:00 PM **Calvin, Elizabeth, Jennifer Wexler**, *Virtual Viewing: Engaging Audiences with the African Rock Art Digital Collection at The British Museum*

### Ground-penetrating Radar Advancements in the Americas

#### **Geophysics/Remote Sensing** **Room: SCE 217**

*Organizer: Peter Leach*

- 2:00 PM **Morris, Isabel**, *Today's Surveys and Tomorrow's Inversions: GPR Attribute Analysis*
- 2:20 PM **Sturm, Jennie**, *Ground-Penetrating Radar in Chaco Canyon, New Mexico: 40 Years of Mapping Chaco's Buried Past*
- 2:40 PM **Lowry, Sarah, Shawn Patch**, *Mississippian Villages in East Tennessee: Geophysical Case Studies at Five Sites to Examine Community Layout and Land Use*
- 3:00 PM **Leach, Peter, Richard Boisvert**, *High-Frequency GPR for Real-Time 'Digital Bisection' of Archaeological Features*

### Urbanism at the Micro, Meso and Macro Scales: Advances in Computational and Quantitative Methods to Study Cities and their Built Environments

#### **GIS** **Room: SCE Auditorium**

*Organizers: Eleftheria Paliou, Adrian Chase*

- 2:00 PM **Chase, Adrian**, *Erasing the Garden City: Interpolation of Architectural Volume from LiDAR Derived DEMs*
- 2:20 PM **Prufer, Keith, Amy Thompson**, *Processes of Urban Development Among the Ancient Maya of Uxbenká and Ix Kuku'il, Southern Belize*
- 2:40 PM **Hare, Timothy**, *Mapping and 3D Modeling at the Household, Neighborhood, and Regional Levels Using UAVs, Photogrammetry, and LiDAR*
- 3:00 PM **Forte, Maurizio, Nevio Danelon, David Johnston, Katherine McCusker, Everett Newton**, *Vulci3000 Project - A Digital Challenge*
- 3:20 PM **Landeschi, Giacomo, Stefan Lindgren, Jesper Blid Kullberg, Henrik Gerding, Alcestis Papadimitriou, Jenny Wallensten, Nicolò Dell'Unto, Angeliki Kossiva**, *Integrated Digital Methods for Investigating a Hidden Cityscape: The Case of Ancient Hermion*
- 3:40 PM *Coffee Break*
- 4:00 PM **Kubicka, Anna**, *The Metrological Research of Machu Picchu Settlement: Application of a Cosine Quantogram Method for 3D*
- Laser Data*
- 4:20 PM **Vadala, Jeffrey, Brian Denham**, *Virtual Reality as a Tool for Spatial Analysis at Cerro Maya, Belize (Cerro)*
- 4:40 PM **Goodwin, Graham, Heather Richards-Rissetto**, *Modeling Acoustics in Ancient Maya Cities: Moving Towards a Synesthetic Experience Using 3D Simulation*
- 5:00 PM **Hanus, Kasper**, *Understanding Urban Pattern of Silk Road Oasis-Cities Using Archival Aerial Images.*
- 5:20 PM *Discussion*

### The Creation of Big Data Labs for Archaeology, Heritage, and Global Initiatives

#### **Broader View - Digital Archaeology and the Humanities** **Room: SCW 460/462**

*Organizers: Thomas Levy, Michael Decker*

- 2:00 PM **Johnson, Andrew, Steve Savage, Tom Levy**, *The ASOR Cultural Heritage Initiative-TerraWatchers Collaborative: Crowd-Sourced Monitoring of At Risk Cultural Heritage Sites in the Middle East*
- 2:20 PM **Banaszek, Łukasz, Kamila Oleś**, *Making Use of the Publicly Available Spatial Data and Bringing the Past to the People: A Case Study of the Pomeranian Wall, Poland*

2:40 PM	<b>McCusker, Katherine, Maurizio Forte, David Johnston, Everette Newton</b> , <i>Adding the Aerial Multi-Spectral Perspective: A Holistic View of Vulci through Multi-layered Data Sets</i>
3:00 PM	<b>Harrison, Laura</b> , <i>Mobilizing a Salvage Archaeology Dataset to Build a 3D Interpretive Visualization</i>
3:20 PM	<b>Smitheram, Craig, George Pavlidis, Thomas Levy</b> , <i>The Center for Cyber-Archaeology and Sustainability (CCAS): Pedagogy and Student Engagement in At-Risk World Heritage Initiatives</i>
3:40 PM	<i>Coffee Break</i>
4:00 PM	<b>Lercari, Nicola, Jeffrey Weekley</b> , <i>Leveraging the UC Merced WAVE and Pacific Research Platform to Create At-Risk Global</i>
<i>Cultural Heritage Networks</i>	
4:20 PM	<b>Frey, Jon</b> , <i>From Analog to Digital in Archaeological Archives</i>
4:40 PM	<b>Spring, Adam</b> , <i>Solutions in Photogrammetric Selectivity: Optimizing High Fidelity Meshes from Casual Photography-The</i>
<i>Trajan's Forum Project Examples</i>	
5:00 PM	<b>Forte, Maurizio, Nevio Danelon, Julia Liu</b> , <i>The Trajan's Forum Project: Dig@lab and the Framework of Big Data.</i>
5:20 PM	<b>Liss, Brady, Matthew Howland, Thomas Levy</b> , <i>Running on Autopilot: Testing Google Earth Engine for the Automatic Identification of Archaeological Features in Satellite Imagery</i>

## Methods, Tools, Disruption ... : From Information Delivery to Interaction

### Broader View - Digital Archaeology and the Humanities Room: SCW 464

Organizer: Ian Johnson

2:00 PM	<b>Gunn, Scott</b> , <i>Archaeological Field Data Collection Using Ruggedized Android Tablets and Free and Open Source Software</i>
2:10 PM	<b>Brennan, Matthew, Bernard Frischer</b> , <i>Photomodeling for Rapid Documentation and Survey of Complex Urban Spaces and Archaeology</i>
2:20 PM	<b>Laugier, Elise, Jesse Casana</b> , <i>Cultural Heritage Monitoring Using Time-Sequenced Satellite Imagery: A Case Study from the Syrian Civil War</i>
2:30 PM	<b>Casana, Jesse, Jackson Cothren</b> , <i>The CORONA Atlas Project: Orthorectification and Analysis of Declassified, Cold War-Era Satellite Imagery</i>
2:40 PM	<b>Meyer, Dominique, Eric Lo, Thomas Wypych, Dominique Rissolo, Falko Kuester</b> , <i>From Air to Model- A Workflow for Automated UAV Surveying, Data Transmission and Rapid Cloud Distributed Photogrammetry Processing</i>
2:50 PM	<b>Tolle, Karsten, David Wigg-Wolf</b> , <i>Improving Data Quality by Rules – A Numismatic example</i>
3:00 PM	<i>Discussion</i>

## Rip – Model – Learn: Towards the Total Model

### Broader View - Digital Archaeology and the Humanities Room: SCW 466/468

Organizers: Carlo Bianchini, Alfonso Ippolito, Carlo Inglese, Luca Senatore

2:00 PM	<b>Mancini, Matteo Flavio, Leonardo Baglioni</b> , <i>Integrated Surveying Techniques for Analysis of Archaeological Artifact</i>
2:20 PM	<b>Gallozzi, Arturo, Leonardo Paris, Wissam Wahbeh</b> , <i>3D Models and Interactive Communication for Archaeology: The Nymphaeum Ponari in Cassino</i>
2:40 PM	<b>Carpiceci, Marco, Carlo Inglese, Andrea Angelini</b> , <i>Survey, Representation, Analysis and Cataloguing of the Rock-Hewn Architecture in Cappadocia</i>
3:00 PM	<b>Chiavoni, Emanuela, Daniela Esposito</b> , <i>The Archaeological Park of the Porto of Traian: Knowledge, Preservation and Fruition</i>
3:20 PM	<b>Piumatti, Paolo, Rosa Tamborrino</b> , <i>3D Digital Modelling and Digital Urban History: A Methodology for Studying the Processes of Transformation of Nubian Temples and Landscape in the Site of Lake Nasser.</i>
3:40 PM	<i>Coffee Break</i>
4:00 PM	<b>Pirinu, Andrea</b> , <i>Graphic Analysis of Historic Documents, Architectural Survey, Applied Geophysics in Support of Archaeological Investigation: The Urban Wall of Cagliari (Sardinia, Italy)</i>
4:20 PM	<b>Attenni, Martina, Alfonso Ippolito</b> , <i>Representing Intangible Heritage: Questions About Method</i>
4:40 PM	<b>Inglese, Carlo, Carlo Bianchini, Alfonso Ippolito, Martina Attenni, Valeria Caniglia</b> , <i>Tradition and Innovation: From Worksite Plans to Digital Models</i>
5:00 PM	<b>Porfiri, Francesca, Carlo Bianchini</b> , <i>The Microcosm of Tiberius's Cave in Sperlonga: Analysis, Investigation and Digital Reconstruction of the Ancient "Sculpture's Theatre"</i>
5:20 PM	<b>Bianchini, Carlo, Alessandro Viscogliosi, giorgia potestà, Gaia Lisa Tacchi</b> , <i>Tradition and Hi-Tech in the Construction of a Total Model: The Complex of Pietrabbondante</i>

## The Technology Lag: A Panel Discussion Regarding the Use of the Computing Technologies Toolkit For Cultural Resource Compliance Projects

### Critical Reflections Room: SCE 216

Organizers: Brian Seymour, Michael Scafuri, Sarah Kessick, Timothy Dodson

4:00 PM	<b>Seymour, Brian</b> , <i>Introduction / Roundtable</i>
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## Non Invasive Methods to Assess Above and Underground Spatial Pattern

### Geophysics/Remote Sensing Room: SCE 217

Organizers: Michael Märker, Christian Sommer

4:00 PM	<b>Märker, Michael, Ivano Rellini, Luigi Mucerino, Volker Hochschild</b> , <i>Assessment of Subsurface Neolithic/ Palaeolithic Sites in the Southern Gargano Area, Apulia, Italy</i>
4:20 PM	<b>Stavilă, Andrei</b> , <i>Bronze Age Tell or Not? Research Methods for Revealing the Internal Habitation Pattern of Alioș – „Valea Alioșu” Site, Timiș County, Romania</i>
4:40 PM	<b>Pihokker, Matthew</b> , <i>Determining Spatial Relationships between Domestic Sites and Cemeteries of the Central Peloponnese</i>
5:00 PM	<b>Hegy, Alexandru, Petru Urdea</b> , <i>2D and 3D Electrical Resistivity Tomography Imaging of Archaeological Structures - Case Studies from Romania</i>

## Geographic Relations in Databases on Cultural Heritage

### **Networks/Modeling**

**Room: SCW 464**

*Organizers: Michael Märker, Volker Hochschild, Espen Uleberg, Mieko Matsumoto*

4:00 PM	<b>Perucchetti, Laura, Peter Bray, Mark Pollard</b> , <i>The Use of GIS to Understand the Circulation of Metal in the Prehistoric Alps.</i>
4:20 PM	<b>Uleberg, Espen, Mieko Matsumoto</b> , <i>Display matters? Enhanced Visualization for Unique Aspects of Norwegian Stone Age Site Distribution</i>
4:40 PM	<b>Willmes, Christian, Daniel Becker, Yasa Yener, Olaf Bubenzner, Georg Bareth</b> , <i>Open Science, e-Science and Geospatial Data Management to Support Research in Archaeology</i>
5:00 PM	<b>Märker, Michael, Volker Hochschild, Christian Sommer</b> , <i>How to Integrate and Illustrate Aspects of Landscape Evolution and Human Evolution</i>
5:20 PM	<i>Discussion</i>

## **TUESDAY EVENING**

**Poster Sessions: 5:40 PM - 7:30 PM**  
**Room: SCE House**

### **Posters from The Creation of Big Data Labs for Archaeology, Heritage, and Global Initiatives**

**Elliott Smith, Rosemary, Carolyn Breeze, Taylor Harman, Arkin Gupta, Franklin Reece, Margie Burton, Thomas Levy,** *ArchaeoSTOR: A User-Friendly Archaeological Database*  
**Lu, Qin-Qin, Zhengyao Jin,** *Scientific Database and the Big Data Approach for the Bronze Age of China*  
**Du Vernay, Jeffrey,** *3D Mapping and Visualizing the Galerie de Paléontologie et d'Anatomie Comparée at the Muséum National d'Histoire Naturelle, Paris*  
**McLeod, James,** *Three-Dimensional Documentation and Examination of a Medieval Period Cistern at Alarcos in the Castilla-La Mancha Region of Spain*  
**Howland, Matthew,** *Developing a Standardized Workflow for Digital Preservation and Analysis of Archaeological Ceramics*  
**Banaszek, Lukasz, Kamila Oleś,** *Data Hub for Early Medieval Architecture? Crossing the Borders of an Unfriendly Tradition*

### **General Posters**

**Bergervoet, Michael,** *Geospatial and Ethnographic Analysis of the Red Wing Stone Cairns*  
**Brenningmeyer, Todd,** *Documenting Ephemeral Settlements of Modern Greece*  
**Canela Grácia, Joan, Núria Otero Herraiz,** *Cultural Heritage preservation through Open Data and GIS: A methodological proposal for North-eastern Iberian Peninsula.*  
**Dennis, L. Meghan,** *Reclaiming "Ethics" in a Post-GamerGate World: Participatory Standards and the Establishment of an Ethical Framework of Practice in Archaeogaming*  
**Harper, Charlie, Jeremy Vause,** *Batten Down the Hatches! Digitizing and Displaying Finds from the Spanish Plate Fleet Wrecks*  
**Holmes, Rachael, Ashely Green,** *Accounting for Environmental Factors: Approaches to enhancing horizontal resolution and interpretability in geophysical surveys*  
**Jones, Steven, Eileen Ernenwein,** *Towards A More Efficient Approach To Grave Detection: Experiments Using Microtopography, Ground Penetrating Radar, Magnetometry, And Electromagnetic Induction*  
**Lockhart, Jami, Timothy Mulvihill, Jeffrey Mitchem,** *A Multiscale Geospatial Analysis of a Protohistoric Mississippian Landscape.*  
**Menzer, Jeremy, Jay Franklin,** *Geophysical Survey of Mississippian Mound Sites on the Upper Cumberland Plateau, Tennessee*  
**Muccigrosso, John,** *Creating a Database of Roman Temples*  
**Nicu, Ionut Cristi,** *Cultural heritage landscape vulnerability using analytical hierarchy process and geographic information systems. An approach to historical maps*  
**Sea, Claiborne, Eileen Ernenwein,** *Landscape Scale Geophysical Survey of the Singer-Hieronymus Site Complex in Scott County, Kentucky: Determining the Development of Village Infrastructure Using Non-Invasive Techniques*  
**Smith, Tyler, Greg Lewis, Allison Mueller,** *3D Scanning and Printing Ancient Greek Vases: From Deep Storage to Rapid Prototyping*  
**Smith, Karen, Jun Zhou, Haoshou Yu, Song Wang, Colin Wilder,** *SnowVision 1.0: Toward the automatic matching of stamped pottery sherds to carved wooden paddle designs*  
**Tankersley, William,** *An Approach to Digital Data Collection for Cultural Resource Management*  
**Traviglia, Arianna,** *Automating detection of landscape patterning: a similarity-based approach*  
**Velandria, Yoly,** *Pre-Hispanic agricultural technologies and water control systems in northwestern Venezuela*  
**Whitmore, Deidre,** *Seeking Context: Archaeological Practices Surrounding the Reuse of Spatial Information*  
**Wright, Holly, Gabriele Gattiglia, Michael Remmy,** *Archaeological Automatic Interpretation and Documentation of cEramics (ArchAIDE)*  
**Yang, Yunyun,** *A Study of the Cultural Development and Landscape Distribution of the Majiayao Culture in Gansu and Qinghai Provinces in China*



## **WEDNESDAY MORNING**

### **Mechanics, Mods and Mashups: Games of the Past for the Future Designed by Archaeologists**

#### **Education and Dissemination**

**Room: SCE 216**

Organizers: Erik Champion, Michael Nitsche

8:30 AM	<b>Booker, Emily</b> , <i>"I Don't Want to Set the World on Fire": Ruin Interactions and Attitudes in Fallout 4</i>
9:00 AM	<b>Bryant, Robert, Sandra Blakely, Joanna Mundy, Cole Furrh</b> , <i>Sailing with the Gods: Argonauts and Samothracians in an Ancient Sea</i>
9:30 AM	<b>Eve, Stuart</b> , <i>How Waterloo was Won</i>
10:00 AM	<b>Linde, Lennart</b> , <i>Blur the Lines – Games as Tools for Archaeological Research</i>
10:30 AM	<i>Coffee Break</i>
10:50 AM	<b>Underberg-Goode, Natalie</b> , <i>Arpilleras and Ayni: Roleplaying Reciprocity</i>
11:20 AM	<b>Hiriart, Juan</b> , <i>Designing and Using Game Environments as Historical Learning Contexts</i>
11:50 AM	<i>Discussion</i>

### **Automation is Here to Stay! The Hitch-hiker's Guide to Automated Object Detection and Image Processing in Remote Sensing**

#### **Geophysics/Remote Sensing**

**Room: SCE 217**

Organizers: Arianna Traviglia, Dave Cowley

8:30 AM	<b>Cowley, Dave, Arianna Traviglia</b> , <i>Hitching the Right Ride? Concepts and Issues for Developing Automated Object Detection and Image Processing in Remote Sensing Archaeology</i>
8:50 AM	<b>Kramer, Iris</b> , <i>Creating a Future for Automation by Targeting Models to their End-Users</i>
9:10 AM	<b>Zambanini, Sebastian, Simon Brenner, Robert Sablatnig</b> , <i>Adapting to the Problem at Hand: Image Registration and Object Detection for Automatic WW2 Aerial Photograph Processing</i>
9:30 AM	<b>Green, Ashely, Paul Cheetham, Timothy Darvill</b> , <i>Information Systems and Ad Hoc Workflow Models as Viable Applications to Improve the Pre-excavation Detection of Characteristic Human Interments</i>
9:50 AM	<b>Ramel, Jean-Yves, Clément Laplaige, Xavier Rodier, Shuo Bai</b> , <i>Extraction of Linear Structures from LIDAR Images Using a Machine Learning Approach</i>
10:30 AM	<i>Coffee Break</i>
10:50 AM	<i>Discussion</i>

### **General - Data Management and Textual Analysis**

#### **General**

**Room: SCE 218**

8:30 AM	<b>Bischoff, Robert</b> , <i>Moving Forward with Digital Databases: Current Opinions and Potential Solutions</i>
8:50 AM	<b>Schroer, Carla, Mark Mudge</b> , <i>Digital Lab Notebook Creation for Computational Photography</i>
9:10 AM	<b>Casey, Christian</b> , <i>Digital Demotic: Opportunities and Challenges</i>
10:30 AM	<i>Coffee Break</i>
10:50 AM	<b>Gad, Moataz, Yasmin Mohamed</b> , <i>Treatment of Lime Stone Colored with Egyptian Blue Pigment Using Different Techniques of Documentation</i>
11:10 AM	<b>Bray, Peter, Mark Pollard</b> , <i>The Characterisation Hypothesis for Scientific Metallurgy: Classes of Structure in Chemical Datasets and their Visualisation</i>
11:30 AM	<b>Sonnemann, Till, Jason Laffoon, Termeh Shafie</b> , <i>Enhancing Archaeological Material Provenance Studies by Manipulating Isoscapes</i>
11:50 AM	<b>Foreman, Penelope</b> , <i>The Colour Out of Space: Digital Media as Mouthpieces for Material Agency</i>

### **From Physical to Digital, From Interactive to Immersive: Uses of Three-Dimensional Representation, Mixed Reality, and More in the Sharing and Exploration of Archaeological Data**

#### **VR**

**Room: SCE Auditorium**

Organizer: Jeffrey Emanuel

8:30 AM	<b>Vurpillot, Damien</b> , <i>Making Virtual Reality Real: What Can We Learn by Bringing Together Virtual Reality and Visual Attention Analysis?</i>
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8:50 AM	<b>Bremer, Thomas, Sebastian Plesch, Kay Kohlmeyer, Susanne Brandhorst, Arie Kai-Browne, Timo Falke, VR:TA - A Virtual Reality Toolset for Archaeologists</b>
9:10 AM	<b>Hollis, Luke, MorgantinaVR: Cityscale Handheld AR and Cross-Platform VR for Visualizing Georeferenced Datasets as a Part of a Microservices Software Architecture</b>
9:30 AM	<b>Burns, Bryan, Jordan Tynes, Excavation Progress and Artifact Manipulations in a Virtual Environment</b>
9:50 AM	<b>Kamash, Zena, Digital Digestion: Roman Food and Digital Objects at Corinium Museum</b>
10:10 AM	<b>Wescoat, Bonna, Arya Basu, On the Dynamics of Interactive Exploration over Animation as Methods of Experiential</b>
<i>Simulation in the Sanctuary of the Great Gods on Samothrace</i>	
10:30 AM	Coffee Break
	10:50 AM <b>Rudov, Ivan, Combined Method of 3D Model of Archaeological Objects Optimization for a Mobile App.</b>
11:10 AM	<b>Löwenborg, Daniel, John Ljungkvist, Daniel Westergren, Sebastian Wiberg, Staffan Hagberg, Augmented History – A Virtual “Window to the Past”</b>
11:30 AM	<b>Gonzalez-Perez, Cesar, Martin Pereira-Fariña, Chris Reed, Toward an Argument Evaluation System on Cultural Heritage Based on Anchoring Inference Theory</b>
11:50 AM	Discussion

## Women in CAA

### Critical Reflections Room: SCW 460/462

Organizers: Katie Simon, Sara Gale, Lisa Fischer

8:30 AM	<b>Simon, Katie, Introduction</b>	
8:40 AM		<b>Ernenwein, Eileen, Implicit Gender Bias? What's That?</b>
		8:50 AM <b>Rocks-Macqueen, Doug, Is Equality Enough?</b>
9:00 AM	<b>Wendrich, Willeke, Bringing out the Best: Mentoring Women in Digital Archaeology</b>	
9:10 AM		<b>Wallrodt, John, Increasing Academic Approaches to CAA</b>
		9:20 AM Discussion
9:50 AM		<b>Fredrick, David, Collision</b>
	<i>Detection: Reflections on Gender from Game Space to Other Spaces</i>	
10:00 AM	<b>Gonzalez-Tennant, Edward, Cyberfeminist Perspectives on the Future of Digital Archaeology</b>	
10:10 AM		Discussion
		10:30 AM Coffee Break
10:50 AM		<b>Sturm, Jennie, Women in</b>
	<i>Business in the CAA fields</i>	
11:00 AM	<b>Lowry, Sarah, Technical Women in Cultural Resource Management: Amplifying the Importance of Non-Traditional Skill Sets in Modern Archaeology</b>	
11:10 AM	<b>Simon, Katie, That Was Not OK. Now What?</b>	
	11:20 AM Discussion	
		11:40 AM <b>Gale, Sara, How to Maintain an A-Game!: The Importance of</b>
<i>Continued Education for Women in Technical Fields</i>		
11:50 AM	<b>Fischer, Lisa, A “Digital Divide”: Working to Close the Gender Gap</b>	
	12:00 PM Discussion	
		12:25 PM <b>Fischer, Lisa, Closing Remarks</b>

## Data, Theory, Methods, and Models. Approaching Anthropology and Archaeology through Computational Modeling

### Networks/Modeling Room: SCW 464

Organizers: Stefani Crabtree, Iza Romanowska, undefined undefined, Philip Verhagen

8:30 AM	<b>Crabtree, Stefani, An Introduction to Modeling</b>	
8:50 AM		<b>Allison, James, Agent-Based Modelling of the Relationships Among Kinship, Residence, and Exchange</b>
9:10 AM	<b>Weaverdyck, Eli, Military Markets in Moesia Inferior: Using Location Analysis and Comparative Modelling to Identify Market Places on Rome's Lower Danubian Frontier</b>	
9:30 AM	<b>Coto-Sarmiento, Maria, Simon Carrignon, Xavier Rubio-Campillo, José Remesal, Identifying Social Learning Mechanisms in the Amphorae Production within Roman Empire</b>	
9:50 AM	<b>van Havre, Grégoire, The Dynamics of Brazilian Rock Art Landscape: An Agent-based Modelling Approach to Theories</b>	
10:10 AM	<b>Riris, Phil, Experiments in Modelling Environmental Impact: A Case Study of Post-Contact Piaraa (Wothuha) Land Use Patterns</b>	
10:30 AM	Coffee Break	
	10:50 AM <b>Kruse, Kristin, Spatial Pressure on Alpine Settlements? An Equation Based Case Study in the Silvretta Massif (Switzerland,</b>	
<i>Canton of Grisons)</i>		
11:10 AM	<b>Reynolds, Adam, Paul Hooper, Stefani Crabtree, Julia Clark, Optimizing Long Run Energy Harvesting Strategies in Central Asian Nomadic Pastoralists</b>	
11:30 AM	<b>Romanowska, Iza, Hominin Dispersal, Environmental Change and the Evolution of Behavioural Plasticity</b>	
11:50 AM	<b>Hölzchen, Ericson, Christine Hertler, Modeling Resource-Driven Out of Africa Hypotheses – Potential and Challenges</b>	
12:10 PM	<b>Davies, Benjamin, Simon Holdaway, Making Sense of the Surface: Using Spatial Simulation to Understand Stone Artifact Scatters</b>	
12:30 PM	<b>Barceló, Juan, When All Agents Die: Analyzing the Possible Failures of Agent-Based Models.</b>	

## 3D Digitization of Sculpture

### 3D Acquisition / Object Modeling

Room: SCW 466/468

Organizers: Bernard Frischer, Gabriele Guidi

8:30 AM	<b>Frischer, Bernard</b> , <i>Digitizing Sculpture: Where We've Been, Where We're Going</i>
8:50 AM	<b>Vassallo, Valentina, Nicolò Dell'Unto, Sorin Hermon</b> , <i>A Quantitative Approach Using 3D Models for a Typo-Technological and Manufacturing Study of Terracotta Statuettes: The Case Study of the Ayia Irini (Cyprus) Small Figurines</i>
9:10 AM	<b>Brennan, Matthew</b> , <i>The Prado Muses - Rethinking the Unity of a Statue Group with the Help of 3D Models</i>
9:30 AM	<b>Kubicka, Anna, Aleksandra Brzozowska</b> , <i>3D Models of Architecture Remains in Archaeological Context: Visualisation as a Tool in Interdisciplinary Research of Polish Archaeological Mission in Kato Paphos on Cyprus.</i>
9:50 AM	<b>Varner, Eric</b> , <i>Digitizing Ancient Sculpture at the Michael C. Carlos Museum, Emory University</i>
10:10 AM	<b>Guidi, Gabriele, Umair Malik</b> , <i>Best Practices and Metrological Issues in Massive 3D Digitization of Sculptures</i>
10:30 AM	Coffee Break
10:50 AM	<b>Koutsoudis, Anestis, Georgios-Alexis Ioannakis, Christodoulos Chamzas</b> , <i>Incorporating Texture in the Retrieval Process of 3D Models Exploiting Spatial-Consistency of Texture Maps</i>
11:10 AM	<b>Christiaisen, Leif, Seymour</b> , <i>Image-based Rendering Solution for High-resolution, Browser-based 3D Graphics</i>
11:30 AM	<b>Burns, Bryan, Jordan Tynes</b> , <i>3D Models for Curatorial Dialogue and Undergraduate Education</i>
11:50 AM	<b>Sherman, William</b> , <i>High-Throughput Computing for Large-Scale Digitization</i>
12:10 PM	Discussion

## WEDNESDAY AFTERNOON

### Computer Applications in Archaeological Pedagogy: Best Practices for Teaching and Learning

#### Education and Dissemination

Room: SCE 216

Organizers: Anna Agbe-Davies, Julia Chyla

- 2:00 PM **Watrall, Ethan**, *Building Scholars and Communities of Practice in Digital Heritage and Archaeology*
- 2:20 PM **Bollwerk, Elizabeth, Lynsey Bates, Leslie Cooper, Jillian Galle**, *Lessons Learned from Teaching and Training with the Digital Archaeological Archive of Comparative Slavery (DAACS)*
- 2:40 PM **Lockyear, Kris**, *Flippin' R*
- 3:00 PM **Martin-Rodilla, Patricia, Cesar Gonzalez-Perez**, *Educational Experiences in Archaeological Information Modelling with the*
- Mind Maps and Object-Oriented Paradigms*
- 3:20 PM **Lambers, Karsten, Fulco Scherjon, Iza Romanowska**, *A Small Private Online Course on 'Modelling and Simulation in Archaeology' at Leiden University*
- 3:40 PM *Coffee Break*
- 4:00 PM **McMichael, A.L., Jon Frey, Tommy Truong, Eric Martin**, *Augmenting Art History: AR in the Survey Classroom*
- 4:20 PM **Pikov, Nikita**, *Augmented Reality (AR) and Digital Photogrammetry as a Way of Preserving and Popularization of Archeological Collections*
- 4:40 PM **Freeman, Mark, Jeanne Moe**, *Project Archaeology: Assessing Paper and Digital Approaches to Online Learning*
- 5:00 PM *Discussion*

### Differing Perspectives: The Wide World of Geophysical Prospection

#### Geophysics/Remote Sensing

Room: SCE 217

Organizers: Christine Markussen, Petra Schneidhofer

- 2:00 PM **Kalayci, Tuna, Meropi Manataki, Apostolos Sarris**, *The More the Merrier? Two Conflicting Stances on Multi-Array Sensors*
- 2:20 PM **Casana, Jesse, Austin Hill, Elise Laugier**, *Advancing Methodologies for Archaeological Aerial Thermography*
- 2:40 PM **De Smedt, Philippe**, *The Interpretive Potential of Geophysical Landscape Archaeology: An Electromagnetic Perspective.*
- 3:00 PM **Herrmann, Jason**, *What to do with Ambiguous Anomalies?*
- 3:20 PM **Ernenwein, Eileen, Jeremy Menzer**, *3D Ground Truth: Integrating Above Ground Photogrammetry, Ground Penetrating Radar, and Sub surface Laser Scans of a Medieval Tunnel, Mourjou, France*
- 3:40 PM *Coffee Break*
- 4:00 PM **Cooper, Lorna**, *Relocating a Forgotten Asian Market Garden in Historic Perth (1833-1936): Using GIS to Integrate and*
- Interrogate Excavated, Archival and Geophysical Information*
- 4:20 PM **Cannon, Cayla, Eileen Ernenwein, Jay Franklin**, *In Search of the People Who Lived Here Before: From Historic to Prehistoric Significance at a Tennessee State Historic Site*
- 4:40 PM **Miszk, Łukasz, Martina Seifert, Nikola Babucic, Ewdoksia Papuci-Wladyka**, *Old or New? Human Impact and the Mapping of Ancient Nea Paphos*
- 5:00 PM **Grap, Rachel, Eileen Ernenwein**, *Big Geophysics with Small Tools: Looking for the Big Picture One Step at a Time at Tel Shimron*
- 5:20 PM *Discussion*

### General - 3D Modeling

#### General

Room: SCE 218

- 2:00 PM **Johnson, Adam**, *Shifting Stones and Data Points: Using Terrestrial Laser Scanning to Assess Damage to Monumental Architecture in Hawai'i*
- 2:20 PM **Guidi, Gabriele, Laura Micoli, Sara Gonizzi Barsanti**, *Diachronic 3D Reconstruction of Historical Sites in Urban Context*
- 2:40 PM **Cennamo, Gerardo Maria**, *The Giusso Castle and the Foundation Area of Sicignano degli Alburni (SA): Survey and 3D Modeling for Social and Territorial Valorization Strategies*

### Visualization as Analysis in Archaeology

#### Broader View - Digital Archaeology and the Humanities

Room: SCW 460/462

Organizers: Neha Gupta, Michael Carter

- 2:00 PM **Dallas, Costis**, *Curation at the Sensor's Gaze: Connecting Representation and Performance in Archaeological Visualization*
- 2:05 PM **Gupta, Neha, Rodolphe Devillers**, *Geographic Visualisation as Knowledge Generation in Archaeology*
- 2:10 PM **Huggett, Jeremy**, *Continuous Interactivity in Archaeological Visualisation*
- 2:15 PM **Carter, William**, *Making and Meaning-Making in Virtual Archaeology*
- 2:20 PM **Higginbottom, Gail, Vincent Mom**, *Place: The Physical Embodiment of Collective Information*

2:25 PM	<b>Denham, Brian</b> , <i>Applied Technological Approaches in Heritage and Heritage Management: The Black Butte River Mapping Project</i>
2:30 PM	<b>Kansa, Eric, Neha Gupta</b> , <i>Visualizing and Navigating Chronology in Large Digital Collections</i>
2:35 PM	<b>Triplett, Edward, Emma Buckingham</b> , <i>Recontextualizing Decades-Old Excavation Materials through 3D Visualization</i>
2:40 PM	<b>Kubicka, Anna, Aleksandra Brzozowska-Jawornicka</b> , <i>3D Models of Architecture Remains in Archaeological Context: Visualization as a Tool in Interdisciplinary Research of Polish Archaeological Mission in Kato Paphos on Cyprus.</i>
2:45 PM	<b>Kotoula, Eleni, David Robinson, Matthew Baker, Clare Bedford, Devlin Gandy, David Wheatley, James Miles, Jennifer Perry</b> , <i>The Gordian Knot Project: An Integrated Approach for Rock Art Visualization</i>
2:50 PM	<b>Pattee, Aaron</b> , <i>Analyzing the Medieval Landscape of the Pfalz—Castles in the Area of Kaiserslautern</i>
2:55 PM	<b>Pattee, Aaron, Effie Athanassopoulos, Kami Ahrens, Cole Juckette</b> , <i>Campus Archaeology and 3D Modeling: An Archaeological Collection of Historic Artifacts from the University of Nebraska-Lincoln</i>
3:00 PM	<b>Juckette, Cole, Effie Athanassopoulos, Aaron Pattee, Kami Ahrens</b> , <i>Campus Archaeology and Digital Mapping: Urban Space and Commerce in Lincoln Nebraska, 1870-1920s.</i>
3:05 PM	<b>Kulhanek, Karin, Andreas Pastoors</b> , <i>Tracking in 3D</i>
3:10 PM	Discussion
3:40 PM	Coffee Break
4:00 PM	<b>Kulhanek, Karin, Andreas Pastoors</b> , <i>Roundtable</i>

## The Ups and Downs of Archaeological Simulation

### Networks/Modeling Room: SCW 464

Organizers: Iza Romanowska, Juan Barceló

2:00 PM	<b>Rocks-Macqueen, Doug</b> , <i>The Long Road Ahead for Simulations in Archaeology</i>
2:20 PM	<b>Linde, Lennart</b> , <i>Think Different! - Why "Model Thinking" Shaped the Archaeological Thought Beyond the Hype on ABM</i>
2:40 PM	Discussion

## Quality Assurance and Quality Control in Image-Based Modeling

### 3D Acquisition / Object Modeling Room: SCW 466/468

Organizers: Adam Spring, George Bevan

2:00 PM	<b>Sherman, William</b> , <i>Introduction</i>
2:20 PM	<b>Bryan, Paul</b> , <i>Structure-from-Motion (SfM) – A Reliable Survey Tool for Archaeology or an Unreliable Black-Box?</i>
2:40 PM	<b>Bevan, George, Jason Birch</b> , <i>Some Considerations on Semi-Global Matching for High-Accuracy Heritage Recording Applications</i>
3:00 PM	<b>Seguin, Maxime</b> , <i>Training with Free and Open-Source Photogrammetric Softwares: One of the Answers to Rectify the Situation?</i>
3:20 PM	<b>Bevan, George, Jones Kristen</b> , <i>An Analytical Stereoplotting Workflow for Archaeological Excavation: Reviving a 20th-Century Photogrammetric Technique for the 21st.</i>
3:40 PM	Coffee Break
4:00 PM	<b>Meyer, Dominique, Danielle Mercure, Eric Lo, Jamie Hodgkins, Dominique Rissolo, Falko Kuester</b> , <i>Evaluating Photogrammetric Reconstructions of Faunal and Lithic Artifacts Compared to Traditional Microscopic Observation, Structured Light Imaging, Laser Scanning, Magnetic Resonance Imaging and Computerized Tomography Scanning</i>
4:20 PM	<b>Kleinkemper, Larry</b> , <i>The Key to Creating a GREAT Model from Laser Scanning and Photogrammetry</i>
4:40 PM	<b>Liu, Julia, Adam Spring</b> , <i>From Scan to Sculpture: Ensuring Quality Control in Digital Restoration.</i>
5:00 PM	<b>Peters, Caradoc</b> , <i>Using Inscribed Stone Surfaces To Examine Low Cost 3D imaging</i>

## Decolonising Digital Archaeology

### Critical Reflections Room: SCE 218

Organizers: Andrew Duffon, Jessica Ogden

4:00 PM	<b>Sheldrick, Nichole</b> , <i>Accessing Archaeology: Creating an Open-Access Heritage Database for the Endangered Archaeology in the Middle East &amp; North Africa (EAMENA) Project</i>
4:20 PM	<b>Huntsman, Theresa, Eric Kansa</b> , <i>Context and Community: Accountable, Open Presentation of Digital Archaeology</i>
4:40 PM	<b>Kamash, Zena</b> , <i>'Postcard to Palmyra': Exploring Visitor Responses to the Replica of the Triumphal Arch from Palmyra in Trafalgar Square, London</i>
5:00 PM	<b>Bianchini, Carlo, Mohammed El Khalili, Nizar Al Adarbeh, Alekos Diacodimitri</b> , <i>Survey, 2D and 3D Modelling of the Roman Nymphaeum in Amman: a Multilateral, Cooperative Research Experience</i>
5:20 PM	<b>Heitman, Carrie</b> , <i>Decolonizing an Archive of Archives?</i>

## Path Modelling and the Materiality of Movement

### GIS Room: SCE Auditorium

Organizers: Philip Verhagen, Laure Nuninger, Axel Posluschny

4:00 PM

**Caswell, Edward, Michelle De-Gruchy, James Edwards**, *Walking Across Beach Sand is Hard and Other Discoveries: First Results of Assessing the Time Cost of Moving through Various*

*Terrains*

4:20 PM

**Kalayci, Tuna**, *The Volume of Ancient Movement: A Satellite Remote Sensing Approach*

4:40 PM

**Field, Sean**, *Least Cost Path Modelling: Computing Functional Correlations in Chacoan Road Systems*

5:00 PM

**Rothenberg, Miriam**, *Do All Roads Really Lead to Rome? Modelling Mobility in the Ager Veientanus and the Sangro Valley, Italy*

5:20 PM

*Discussion*



## THURSDAY MORNING

### Web-based Infrastructure as a Collaborative Framework across Archaeological Fieldwork, Lab Work, and Analysis

#### Collaborative Data Management Room: SCE 216

Organizers: Fabrizio Galeazzi, Heather Richards-Rissetto

8:30 AM	<b>Johnson, Ian</b> , <i>Building Web-Based Integration from Data Model through Tablet Data Collection to Analysis</i>
8:50 AM	<b>Jensen, Peter</b> , <i>Semantically Enhanced 3D: Introducing a Web-Based Platform for Spatial Integration of Excavation Documentation</i>
9:10 AM	<b>Cuy, Sebastian, Jan Wieners, Daniel de Oliveira</b> , <i>iDAI.Field 2.0 - A Modern &amp; Open Framework for Field Recording</i>
9:30 AM	<b>Landeschi, Giacomo, Danilo Marco Campanaro, Nicolò Dell'Unto</b> , <i>A 3D Web-Aided Resource for Pompeian Studies (3D WARPS)</i>
9:50 AM	<b>Zerbini, Andrea</b> , <i>Building a Heritage Management Platform for Endangered Archaeology in the Middle East and North Africa</i>
10:10 AM	<b>Lang, Matthias, Michael Derntl</b> , <i>Spacialist – A Virtual Research Environment for the Spatial Humanities</i>
10:30 AM	Coffee Break
10:50 AM	<b>Pouncett, John, Chris Green, Chris Gosden, Mark Pollard</b> , <i>A Tale of Two Projects: The Role of Web-GIS in Collaborative</i>
Research	
11:10 AM	<b>Karenowska, Alexy</b> , <i>What do Web-Based Platforms Mean for the Ambitions of Archaeology?</i>
	11:30 AM <b>Wright, Holly</b> , <i>One Size does not Fit All: Reflections on Online Research Infrastructures</i>
11:50 AM	<b>Opitz, Rachel</b> , <i>Publishers and Archives as Fieldwork Collaborators</i>
	12:10 PM Discussion

### 3DVR Caveats and Accomplishments

#### VR Room: SCE 217

Organizer: Willeke Wendrich

8:30 AM	<b>Wendrich, Willeke</b> , <i>3DVR Caveats and Accomplishments - Introduction</i>
8:50 AM	<b>Elgweily, Eiman</b> , <i>Evaluation and Enhancement of the Virtual Experience: The Case Study of the "Reviving Karanis in 3D"</i>
Project	
9:10 AM	<b>Mezzano, Michela, Noemi Mafrici</b> , <i>Saving the Nubian Temples: The Study of the History through Digital Tools</i>
9:30 AM	<b>Champion, Erik</b> , <i>PublicVR and its Relevance to 3DVR and Virtual Heritage</i>
9:50 AM	<b>Payne, Angie, Vance Green, Fred Limp</b> , <i>History Erased and History Recovered: (Re)Creating the Rohwer Japanese</i>
Interment Camp	
10:10 AM	<b>Wolter, Thomas</b> , <i>Photogrammetric Feature Documentation and Cave Modelling</i>
	10:30 AM Coffee Break
	10:50 AM <b>Vurpillot, Damien</b> , <i>Exploring Massive Point Clouds: How to</i>
Make the Most Out of Available Digital Material	
11:10 AM	<b>Kuester, Falko, Vid Petrovic</b> , <i>Giga-Point Rendering for 3D VR</i>
	11:30 AM <b>Follett, Forrest, Kyle Urquhart</b> , <i>A 3D Visualization of Ceramic Materials from Gabii, Italy</i>
11:50 AM	Discussion

### Mobile GIS and Field Survey - Current Possibilities, Future Needs

#### GIS Room: SCE Auditorium

Organizers: Nazarij Buławka, Julia Chyla

8:30 AM	<b>Knoop, Peter</b> , <i>Best Practices for Mobile GIS and Information Technology in the Field</i>
8:50 AM	<b>Hill, Austin</b> , <i>Low Cost, High Accuracy Drone Survey Methods</i>
9:10 AM	<b>Chyla, Julia, Miłosz Giersz, Wiesław Więckowski</b>
Patrycja Prządka-Giersz, Roberto Pimentel-Nita	<i>One Step Further beyond Field Survey</i>
9:30 AM	<b>Miszk, Łukasz, Wojciech Ostrowski, Weronika Winiarska</b> , <i>Urban sprawl vs. Archaeological Site: A View from Paphos</i>
9:50 AM	<b>Pethen, Hannah</b> , <i>Accessing the Inaccessible: Detailed 'Off-Site' Archaeological Survey using Satellite Imagery and GIS at the Hatnub Travertine Quarries, Egypt</i>

10:10 AM **Bulawka, Nazarij**, *Ancient Landscapes and Present-day Agriculture – On the Example of Tejen River (Turkmenistan)*

## Everything wrong with...

### Critical Reflections Room: SCW 460/462

Organizers: Doug Rocks-Macqueen, Stefani Crabtree, Philip Riris

8:30 AM **Dennis, L. Meghan**, *Ethics? Ethics? Anyone?*  
8:40 AM **Crabtree, Stefani**, *Communicating Archaeological Research to the Press and the Public*

8:50 AM **Rocks-Macqueen, Doug**, *F\*ck Public Archaeology*  
9:00 AM **Huggett, Jeremy**, *Everything Wrong With ... Digital Archaeology*

9:10 AM **Gruber, Ethan**, *Challenges in Analysing Sensitive or Uncertain Data in a Semantic Web Environment*

9:20 AM **Graham, Shawn**, *Everything Wrong with Bots: On Algorithmic Madness*  
9:30 AM **Riris, Phil**, *"Twitter is Actually Stupid" - @fart*  
9:40 AM **Layt, John**, *Open Source: You're Doing it all Wrong*

9:50 AM *Discussion*  
10:30 AM *Coffee Break*  
10:50 AM **Newhard, James**, *Turning the Ship without Rocking the Boat:*

*Establishing Archaeological GIS within an Undergraduate Experience*  
11:00 AM **Brughmans, Tom**, *Everything Wrong with Exploratory Network Analysis of Archaeological Similarity Networks*

11:10 AM **Walthew, Jessica**, *The Aura as Metadata, The Aura of Metadata*  
11:20 AM **Opitz, Rachel**, *How We Measure Shape*  
11:30 AM **Johnson, Phyllis**, *How Can Something so Small Cost so*

*Much? Cost- and Time-Efficiency in Microartifact Analysis*  
11:40 AM **Eriksen, Kristin**, *3D-models in Archaeology*  
11:50 AM **Romanowska, Iza**, *Everything Wrong with Archaeological Models*

12:00 PM **Cooper, Catriona**, *Everything Wrong with Acoustical Modelling*  
12:10 PM *Discussion*

## Archaeological Networks: Uncertainty, Missing Data, and Statistical Inference

### Networks/Modeling Room: SCW 464

Organizers: Tom Brughmans, Matt Peeples

8:30 AM **Blair, Elliot**, *Social Networks of Mission Santa Catalina de Guale: Comparing and Contrasting Unimodal and Bimodal Approaches*

8:50 AM **Upton, Andrew**, *Frontier Networks: Cultural Transmission and Multiple Relations at the Intersection of Mississippian and Oneota Worlds*

9:10 AM **Munson, Jessica, Viviana Amati, Habiba Habiba, Jonathan Scholnick, Matthew Looper, Yuri Polyukhovych, Martha Macri**, *Diffusion Networks and the Transmission of Dynastic Rituals in Classic Maya Society*

9:30 AM **Golitzko, Mark**, *Historical Contingency in Network Data: Examples from Museum Collections Research*

9:50 AM **van Havre, Grégoire**, *Networks as a Theoretical Framework for Rock Art Studies in Northeast Brazil*

10:10 AM **Johnson, Kent**, *Social Network Analysis of Ancient Families: Exploring the Effects of Known Unknowns using Phenotypic Data from Documented Collections of Human Skeletal Remains*

10:30 AM *Coffee Break*  
10:50 AM **Crabtree, Stefani**, *Analyzing Trophic Networks among the Ancestral Pueblo*

11:10 AM **Groenhuizen, Mark, Philip Verhagen**, *Continuity and Discontinuity in Transport Networks of the Dutch Limes Zone*

11:30 AM **Prignano, Luce, Sergi Lozano, Ignacio Morer, Francesca Fulminante**, *Comparing Network Models for the Evolution of Terrestrial Connections in Central Italy (950–500 BC ca)*

11:50 AM **Brandes, Ulrik, Tom Brughmans**, *New Methods for Visibility Networks in Landscape Archaeology*

12:10 PM *Discussion*

## Close Range 3D Data Acquisition, Processing, Querying and Presentation in Cultural Heritage

### 3D Acquisition / Object Modeling Room: SCW 466/468

Organizers: Dirk Rieke-Zapp, Vera Moitinho de Almeida, Diego Jiménez-Badillo

8:30 AM **Kempel, Martin, Juraj Sarkisjan**, *Feasibility Study of Consumer Electronic Scanning Devices for Pottery Documentation*

8:50 AM **Filippucci, Marco, Fabio Bianconi, Sofia Catalucci, Gianluca Rossi**, *Drawing, Survey, Measure to Analyzing the Reliability of Photomodelling for Cultural Heritage*

9:10 AM **Kristensen, Steinar, Magne Samdal**, *One Stone, Two Men, Three Methods: Different Methods – Different Data? Rockart Analysis Testing RTI, Photogrammetry and Laserscan*

9:30 AM **Krohn, Anna, Miriam Clinton, Ian Roy**, *One Size Does Not Fit All: A Comparison of 3D Data Capture*

9:50 AM	<b>Noble, Tommy, Neffra Matthews</b> , <i>Good Photogrammetry, Good Data, Good Science</i>
10:10 AM	Discussion
10:30 AM	Coffee Break
10:50 AM	<b>Rossi, Maria Laura, Carlo</b>
	<b>Inglese, Antonio Pizzo, Leonardo Paris</b> , <i>Geometry as Matrix of Construction of Roman Stone Bridges. The Augustus Bridge in Narni.</i>
11:10 AM	<b>Scafuri, Michael</b> , <i>The Integration of Multiple 3D Documentation Methodologies in the Modeling and Analysis of an American Civil War Submarine.</i>
11:30 AM	<b>Mudge, Mark, Carla Schroer</b> , <i>Challenges and Insights from the Photogrammetric Capture of a Large-Scale Diego Rivera Fresco</i>
11:50 AM	<b>Johnson, Tyler</b> , <i>3D User Interfaces at the Nexus of Technical Processing and Creative Design in Digital Archaeology</i>
12:10 PM	<b>Kai-Browne, Arie, Thomas Bremer, Kay Kohlmeyer, Julia Gonnella, Sebastian Plesch, Susanne Brandhorst</b> , <i>Contextualizing Cultural Heritage – The Cupola of the Torres de las Damas in the Alhambra</i>

## Contributions to Settlement Theory? Archaeological Location Analysis and Modelling

GIS  
Room: SCE Auditorium  
Organizer: Kenneth Kvamme

10:50 AM	<b>Smith, Karl</b> , <i>Locations in Experience: Visibility, Seafaring, and the Placement of Pembrokeshire's Iron Age Coastal Promontory Forts</i>
11:10 AM	<b>Negre, Joan</b> , <i>A Geographically Based Ripley's Function to Assess Settlement Patterning</i>
11:30 AM	<b>Zipser, Jan</b> , <i>Possible Strategy of Land Use by the Przeworsk Culture People in Widawa Basin (South-Western Poland) and the Probable Settlement Processes</i>
11:50 AM	<b>Micle, Dorel</b> , <i>Landscape and Economics: A GIS Location Analysis of Middle Age Water Mills from Banat Region (Romania)</i>
12:10 PM	Discussion



## THURSDAY AFTERNOON

### Corpus of Analysis in the Research on Ancient Eastern Mediterranean and Western Asia: Encoding, Information Collection, Digital Collaboration, and Investigating Strategies

#### Collaborative Data Management Room: SCE 216

Organizers: Vanessa Juloux, Alessandro di Ludovico

- 2:00 PM **Di Ludovico, Alessandro**, *Data Description and Integrated Study of Ancient Near Eastern Works of Art: The Potential of Cylinder Seals*
- 2:20 PM **Ramazzotti, Marco**, *Landscape Archaeology and Artificial Intelligence: The Neural Hypersurface of the Mesopotamian Urban Revolution*
- 2:40 PM **Prosser, Miller**, *Digital Philology in the Ras Shamra Tablet Inventory Project: Text Curation through Computational Intelligence*
- 3:00 PM **Eraslan, Doğu**, *Epigraphic Interoperability in/of Encoded Ancient Texts: Some Principals and Deliverables at the Current State of our Encoding Schemes Based on an Encoding of Quadrilingual Vase of Darius I and Some Prospects for the Future*
- 3:20 PM **Pagé-Perron, Émilie, Terhi Nurmikko-Fuller, Vanessa Juloux**, *Enhancing Collaboration between Digital Assyriology Projects Through Open Access Practices*

### 3D Technologies Applied to Music and Sound

#### VR Room: SCE 217

Organizers: Bernard Frischer, Jared Katz

- 2:00 PM **Till, Rupert**, *Integrating Accurate Interactive Acoustics, Music and Soundscapes into Interactive 3D Models of Archaeological Sites and Landscapes*
- 2:20 PM **Kolar, Miriam, José Cruzado Coronel**, *Auralizing Ancient Spaces: Sonic Re-Presentation from Architectural Models, In-Situ Measurements, and Experimental Analogues*
- 2:40 PM **Katz, Jared**, *3D Maya Music: Use of 3D Models for the Creation of Typologies and for Public Outreach*
- 3:00 PM **Puglisi, Julia**, *Acoustics of the South Theatre at Hadrian's Villa: A Preliminary Study using I-Simpa*
- 3:20 PM **Kimber, Andres**, *Sound and Vision of Cup-marked Stones in Rebala Heritage Reserve, Estonia*
- 3:40 PM Coffee Break
- 4:00 PM **Koller, Jared**, *Multi-Sensory Landscape Analysis of Spanish Mission Building Practices in the Philippines*
- 4:20 PM **Cooper, Catriona**, *Listening to the Commons: Acoustically Modelling the Pre-1834 House of Commons, Westminster*
- 4:40 PM Discussion

### Contributions to Settlement Theory? Archaeological Location Analysis and Modelling

#### GIS Room: SCE Auditorium

Organizer: Kenneth Kvamme

- 2:00 PM **Tsonev, Tsoni**, *Complexity of Mesolithic Settlements in Northeastern Bulgaria*
- 2:20 PM **Higginbottom, Gail, Roger Clay**, *Human Scale and its Impact on Location Modelling*
- 2:40 PM **Whitley, Thomas**, *Blurring the Lines Between Prediction and Interpretation: Some Thoughts on the Contributions of Energetics, Mobility, and 3D Models to Settlement Theory.*
- 3:00 PM **Shaffer, Derek, Timothy Murtha, Charles Golden, Bruce Cook, Elijah Hermitt**, *Sites, Landscapes, and LiDAR in the Maya Lowlands: Leveraging High Resolution Regional LiDAR for Improved Predictive Models.*
- 3:20 PM **Hobbs, Elizabeth, Michael Bergervoet**, *Designing Locational Models to Test Settlement Theory*
- 4:00 PM Discussion
- 4:20 PM **Verhagen, Philip, Antonin Nüsslein, Laure Nuninger**, *Boldly Go Where No One Has Gone Before: Integrating Socio-cultural, Environmental and Temporal Factors in Site Location Analysis and Predictive Modelling*
- 4:40 PM **Kvamme, Kenneth**, *The Dimensions of Settlement Choice*
- 5:00 PM **Cuthbertson, Patrick**, *A Landscape-Based Approach Assessing Hominin Occupation and Dispersal in Lower-Middle Pleistocene Central Asia*
- 5:20 PM Discussion

### Structural Analysis for Cultural Heritage

#### 3D Acquisition / Object Modeling Room: SCW 460/462

Organizers: Falko Kuester, Michael Hess, Dominique Rissolo

- 2:00 PM **Ippolito, Alfonso, Carlo Inglese, Martina Attenni, Valeria Caniglia**, *Quantity vs Quality: Advantages and Disadvantages of Imaged Based Modelling*
- 2:20 PM **Guidi, Gabriele, Sara Gonizzi Barsanti**, *A Novel Pipeline for the Structural Analysis of 3D Digitized Cultural Heritage*
- 2:40 PM **Napolitano, Rebecca, Tim Michiels, Branko Glisic**, *Digital Workflow for Structural Analysis of Discontinuous Media*

3:00 PM	<b>Hess, Michael</b> , <i>Non-Destructive Techniques for the Structural Health Assessment of Historic Buildings</i>
3:20 PM	<b>Wittich, Christine, Tara Hutchinson</b> , <i>Seismic Response of Geologic and Heritage Structures: Geometry Acquisition, Numerical Modeling, and Probabilistic Interpretation</i>
3:40 PM	Coffee Break
4:00 PM	<b>Wood, Richard, M. Ebrahim Mohammadi</b> , <i>Lidar Damage Evaluation of Historic Temple after the 2015 Gorkha Earthquake</i>
4:20 PM	<b>Schubert, Lutz, Keith Jeffery</b> , <i>Interpreting Shell Middens through Physics Simulation</i>
4:40 PM	<b>Miles, James</b> , <i>The Potential of Structural Analysis in Archaeological Simulation and Interpretation: A Case Study of Medieval Winchester Cathedral Close</i>
5:00 PM	<b>Gil, Ana</b> , <i>A Methodology for Architectural Heritage's Digital Reconstructions: Lisbon Religious Houses as Case Study</i>
5:20 PM	<b>Meyer, Dominique, Gianmarco Guerra, Eric Lo, Michael Hess, Davide Forcellini, Falko Kuester</b> , <i>Comparing Measured Frequency Responses of the Third Tower of San Marino to Simulation Derived Frequency Responses from a Photogrammetry and LIDAR Acquired 3D Model</i>
5:40 PM	<b>Rissolo, Dominique, Michael Hess, Jose Huchim Herrera, Eric Lo, Vid Petrovic, Dominique Meyer, Falko Kuester, Fabio Amador</b> , <i>Preliminary Structural Assessment of a Unique Maya Building Platform at Oxkintok, Yucatan</i>

## Archaeological Networks: Uncertainty, Missing Data, and Statistical Inference

### Networks/Modeling Room: SCW 464

Organizers: Tom Brughmans, Matt Peeples

2:00 PM	<b>Rivals, Cécile</b> , <i>The Modeling of Urban Spatial Dynamics in Long Time Spans</i>
2:20 PM	<b>Habiba, Habiba, Viviana Amati, Jessica Munson, Jonathan Scholnick, Yuriy Polyukhovych, Matthew Looper, Martha Macri</b> , <i>Inferring Influence Networks of Grapheme Innovation in Classic Maya Hieroglyphic Writing</i>
2:40 PM	<b>Gjesfjeld, Erik</b> , <i>Centrality Measurements and their Application to Archaeological Data</i>
3:00 PM	<b>Peeples, Matthew, John Roberts</b> , <i>Bootstrap Methods for Assessing Variability in Archaeological Networks</i>
3:20 PM	<b>Cardinal, James</b> , <i>Unscrambling the Egg: Quantitative, Assemblage-Based Component Consociation Methods for Densely Mixed or Disturbed Contexts</i>
3:40 PM	Coffee Break
4:00 PM	<b>Collins-Elliott, Stephen</b> , <i>Accounting for Sample Size: Measuring Cultural Distinction through Monte Carlo Approximations of Hellinger Distances</i>
4:20 PM	<b>Gauthier, Nicolas</b> , <i>Assessing the Impact of Parametric Uncertainty in a Simple Model of a Social-Ecological Network</i>
4:40 PM	<b>Gravel-Miguel, Claudine</b> , <i>Using an ABM to Evaluate the Impact of Missing Links on our Interpretation of Social Networks</i>
5:00 PM	Discussion

## Close Range 3D Data Acquisition, Processing, Querying and Presentation in Cultural Heritage

### 3D Acquisition / Object Modeling Room: SCW 466/468

Organizers: Dirk Rieke-Zapp, Vera Moitinho de Almeida, Diego Jiménez-Badillo

2:00 PM	<b>Rieke-Zapp, Dirk</b> , <i>Quantitative Analysis Based on 3D data - Examples</i>
2:20 PM	<b>Pakhunov, Alexander, Ekaterina Devlet, Alexander Popov</b> , <i>How Can We Trace Translocated Boulders with Petroglyphs at the Riverbank?</i>
2:40 PM	<b>McKee, Arlo</b> , <i>A Glimpse at Site Formation Processes from 3D Laser Scanning Ceramic Sherds in East Texas</i>
3:00 PM	<b>Porter, Samantha, Morgan Roussel, Marie Soressi</b> , <i>A Comparative Analysis of Châtelperronian and Protoaurignacian Blade Core Technology Using Data Derived from 3D Models</i>
3:20 PM	<b>Murray, Michael</b> , <i>Practical Applications of Underwater Laser Scanning in Maritime Archaeology Compared to Micro-Bathymetry Sonar and Photogrammetry</i>
3:40 PM	Coffee Break
4:00 PM	<b>Jiménez-Badillo, Diego, Salvador Ruiz-Correa, Mario Canul-Ku, Rogelio Hasimoto-Beltrán</b> , <i>Application of a 3D Morphing Technique to Analyze the Style of Archaeological Models</i>
4:20 PM	<b>Hanes, Laurence, Tim Collins, Sandra Woolley</b> , <i>Classifying the Surfaces of Virtual Cuneiform Tablet Fragments</i>
4:40 PM	<b>Mara, Hubert</b> , <i>Revealing Degraded Script in High Resolution 3D Measurement Data with GigaMesh</i>
5:00 PM	Discussion

## Exploring the Symbiotic Relationships of Archaeology and Spatial Humanities

### Broader View - Digital Archaeology and the Humanities Room: SCE 216

Organizers: Armin Volkmann, Heather Richards-Rissetto

4:00 PM	<b>Athanassopoulos, Effie, Kim Shelton</b> , <i>Archaeological Practice and 3D Modeling: A Medieval Ceramic Assemblage from Nemea, Greece</i>
4:20 PM	<b>Isaksen, Leif, Rainer Simon, Elton Barker, Valeria Vitale, Rebecca Kahn</b> , <i>Supporting Community Annotation with Recogito 2</i>

4:40 PM	<b>Rabinowitz, Adam, Ryan Shaw, Patrick Golden, Elijah Fleming, Lorraine Haricombe</b> , <i>In Search of Common Ground: Time, Tradition, and Temporal Reconciliation in PeriodO2</i>
5:00 PM	<b>Schmidle, Wolfgang, Sebastian Cuy, Nathalie Kallas, Florian Thiery, Jan Wieners</b> , <i>Analyzing Reasons for Different Datings of Periods using the ChronOntology Time Gazetteer</i>
5:20 PM	<b>Kondo, Yasuhisa, Akira Saito, Nozomi Mizota, Tomoko Koyama</b> , <i>Synergistic Collaboration between Data Visualization Experts and Historians in Developing a Geodatabase of Forced Resettlement in the Colonial Andes</i>
5:40 PM	<i>Discussion</i>