CAA²⁰¹⁷ATL

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	**Johnson, Ian**, *Building Web-Based Integration from Data Model through Tablet Data Collection to Analysis*
8:50 AM	**Jensen, Peter**, *Semantically Enhanced 3D: Introducing a Web-Based Platform for Spatial Integration of Excavation Documentation*
9:10 AM	**Cuy, Sebastian, Jan Wieners, Daniel de Oliveira**, *iDAI.Field 2.0 - A Modern & Open Framework for Field Recording*
9:30 AM	**Landeschi, Giacomo, Danilo Marco Campanaro, Nicolò Dell'Unto**, *A 3D Web-Aided Resource for Pompeian Studies (3D WARPS)*
9:50 AM	**Zerbini, Andrea**, *Building a Heritage Management Platform for Endangered Archaeology in the Middle East and North Africa*
10:10 AM	**Lang, Matthias, Michael Derntl**, *Spacialist – A Virtual Research Environment for the Spatial Humanities*
10:30 AM	*Coffee Break*

	10:50 AM	**Pouncett, John, Chris Green, Chris Gosden, Mark Pollard**, *A Tale of Two Projects: The Role of Web-GIS in Collaborative Research*
11:10 AM		**Karenowska, Alexy**, *What do Web-Based Platforms Mean for the Ambitions of Archaeology?*
	11:30 AM	**Wright, Holly**, *One Size does not Fit All: Reflections on Online Research Infrastructures*
11:50 AM		**Opitz, Rachel**, *Publishers and Archives as Fieldwork Collaborators*
	12:10 PM	*Discussion*

3DVR Caveats and Accomplishments

VR
Room: SCE 217
Organizer: Willeke Wendrich

8:30 AM		**Wendrich, Willeke**, *3DVR Caveats and Accomplishments - Introduction*
	8:50 AM	**Elgewely, Eiman**, *Evaluation and Enhancement of the Virtual Experience: The Case Study of the "Reviving Karanis in 3D" Project*
9:10 AM		**Mezzano, Michela, Noemi Mafrici**, *Saving the Nubian Temples: The Study of the History through Digital Tools*
9:30 AM		**Champion, Erik**, *PublicVR and its Relevance to 3DVR and Virtual Heritage*
	9:50 AM	**Payne, Angie, Vance Green, Fred Limp**, *History Erased and History Recovered: (Re)Creating the Rohwer Japanese Interment Camp*
10:10 AM		**Wolter, Thomas**, *Photogrammetric Feature Documentation and Cave Modelling*
	10:30 AM	*Coffee Break*
	10:50 AM	**Vurpillot, Damien**, *Exploring Massive Point Clouds: How to Make the Most Out of Available Digital Material*
11:10 AM		**Kuester, Falko, Vid Petrovic**, *Giga-Point Rendering for 3D VR*
	11:30 AM	**Follett, Forrest, Kyle Urquhart**, *A 3D Visualization of Ceramic Materials form Gabii, Italy*
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		**Knoop, Peter**, *Best Practices for Mobile GIS and Information Technology in the Field*
	8:50 AM	**Hill, Austin**, *Low Cost, High Accuracy Drone Survey Methods*
		9:10 AM **Chyla, Julia, Miłosz Giersz, Wiesław Więckowski, Patrycja Prządka-Giersz, Roberto Pimentel-Nita**, *One Step Further beyond Field Survey*
9:30 AM		**Miszk, Łukasz, Wojciech Ostrowski, Weronika Winiarska**, *Urban sprawl vs. Archaeological Site: A View from Paphos.*
9:50 AM		**Pethen, Hannah**, *Accessing the Inaccessible: Detailed 'Off-Site' Archaeological Survey using Satellite Imagery and GIS at the Hatnub Travertine Quarries, Egypt*

10:10 AM	**Bułavka, 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, Yuriy Polyukhovych, Martha Macri**, *Diffusion Networks and the Transmission of Dynastic Rituals in*	

Classic Maya Society

9:30 AM	**Golitko, 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	**Groenhuijzen, 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	**Kampel, 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	**Noble, Tommy, Neffra Matthews**, *Good Photogrammetry, Good Data, Good Science*
10:10 AM	*Discussion*
	10:30 AM	*Coffee Break*

10:50 AM   **Rossi, Maria Laura, Carlo Inglese, Antonio Pizzo, Leonardo Paris**, *Geometry as Matrix of Construction of Roman Stone Bridges. The Augustus Bridge in Narni.*

11:10 AM   **Scafuri, Michael**, *The Integration of Multiple 3D Documentation Methodologies in the Modeling and Analysis of an American Civil War Submarine.*

11:30 AM   **Mudge, Mark, Carla Schroer**, *Challenges and Insights from the Photogrammetric Capture of a Large-Scale Diego Rivera Fresco*

11:50 AM   **Johnson, Tyler**, *3D User Interfaces at the Nexus of Technical Processing and Creative Design in Digital Archaeology*

12:10 PM   **Kai-Browne, Arie, Thomas Bremer, Kay Kohlmeyer, Julia Gonnella, Sebastian Plesch, Susanne Brandhorst**, *Contextualizing Cultural Heritage – The Cupola of the Torres de las Damas in the Alhambra*

Contributions to Settlement Theory? Archaeological Location Analysis and Modelling

GIS
Room: SCE Auditorium
Organizer: Kenneth Kvamme

10:50 AM   **Smith, Karl**, *Locations in Experience: Visibility, Seafaring, and the Placement of Pembrokeshire's Iron Age Coastal Promontory Forts*

11:10 AM   **Negre, Joan**, *A Geographically Based Ripley's Function to Assess Settlement Patterning*

11:30 AM   **Zipser, Jan**, *Possible Strategy of Land Use by the Przeworsk Culture People in Widawa Basin (South-Western Poland) and the Probable Settlement Processes*

11:50 AM   **Micle, Dorel**, *Landscape and Economics: A GIS Location Analysis of Middle Age Water Mills from Banat Region (Romania)*

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**, *To*

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	**Hess, Michael**, *Non-Destructive Techniques for the Structural Health Assessment of Historic Buildings*
3:20 PM	**Wittich, Christine, Tara Hutchinson**, *Seismic Response of Geologic and Heritage Structures: Geometry Acquisition, Numerical Modeling, and Probabilistic Interpretation*
3:40 PM	*Coffee Break*

4:00 PM	**Wood, Richard, M. Ebrahim Mohammadi**, *Lidar Damage Evaluation of Historic Temple after the 2015 Gorkha*

Earthquake

4:20 PM	**Schubert, Lutz, Keith Jeffery**, *Interpreting Shell Middens through Physics Simulation*

4:40 PM	**Miles, James**, *The Potential of Structural Analysis in Archaeological Simulation and Interpretation: A Case Study of*

Medieval Winchester Cathedral Close

5:00 PM	**Gil, Ana**, *A Methodology for Architectural Heritage's Digital Reconstructions: Lisbon Religious Houses as Case Study*
5:20 PM	**Meyer, Dominique, Gianmarco Guerra, Eric Lo, Michael Hess, Davide Forcellini, Falko Kuester**, *Comparing Measured Frequency Responses of the Third Tower of San Marino to Simulation*

Derived Frequency Responses from a Photogrammetry and LIDAR Acquired 3D Model

5:40 PM	**Rissolo, Dominique, Michael Hess, Jose Huchim Herrera, Eric Lo, Vid Petrovic, Dominique Meyer, Falko Kuester, Fabio Amador**, *Preliminary Structural Assessment of a Unique Maya*

Building Platform at Oxkintok, Yucatan

Archaeological Networks: Uncertainty, Missing Data, and Statistical Inference

Networks/Modeling
Room: SCW 464
Organizers: Tom Brughmans, Matt Peeples

2:00 PM	**Rivals, Cécile**, *The Modeling of Urban Spatial Dynamics in Long Time Spans*

2:20 PM	**Habiba, Habiba, Viviana Amati, Jessica Munson, Jonathan Scholnick, Yuriy Polyukhovych, Matthew Looper, Martha**

Macri, *Inferring Influence Networks of Grapheme Innovation in Classic Maya Hieroglyphic Writing*

2:40 PM	**Gjesfjeld, Erik**, *Centrality Measurements and their Application to Archaeological Data*

3:00 PM	**Peeples, Matthew, John Roberts**, *Bootstrap Methods for Assessing Variability in Archaeological Networks*

3:20 PM	**Cardinal, James**, *Unscrambling the Egg: Quantitative, Assemblage-Based Component Consociation Methods for Densely Mixed or Disturbed Contexts*
3:40 PM	*Coffee Break*

4:00 PM	**Collins-Elliott, Stephen**, *Accounting for Sample Size: Measuring Cultural Distinction through Monte Carlo*

Approximations of Hellinger Distances

4:20 PM	**Gauthier, Nicolas**, *Assessing the Impact of Parametric Uncertainty in a Simple Model of a Social-Ecological Network*
4:40 PM	**Gravel-Miguel, Claudine**, *Using an ABM to Evaluate the Impact of Missing Links on our Interpretation of Social Networks*
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	**Rieke-Zapp, Dirk**, *Quantitative Analysis Based on 3D data - Examples*

2:20 PM	**Pakhunov, Alexander, Ekaterina Devlet, Alexander Popov**, *How Can We Trace Translocated Boulders with Petroglyphs at*

the Riverbank?

2:40 PM	**McKee, Arlo**, *A Glimpse at Site Formation Processes from 3D Laser Scanning Ceramic Sherds in East Texas*
3:00 PM	**Porter, Samantha, Morgan Roussel, Marie Soressi**, *A Comparative Analysis of Châtelperronian and Protoaurignacian Blade Core Technology Using Data Derived from 3D*

Models

3:20 PM	**Murray, Michael**, *Practical Applications of Underwater Laser Scanning in Maritime Archaeology Compared to Micro-Bathymetry Sonar and Photogrammetry*
3:40 PM	*Coffee Break*

4:00 PM	**Jiménez-Badillo, Diego, Salvador Ruíz-Correa, Mario Canul-Ku, Rogelio Hasimoto-Beltrán**, *Application of a 3D Morphing*

Technique to Analyze the Style of Archaeological Models

4:20 PM	**Hanes, Laurence, Tim Collins, Sandra Woolley**, *Classifying the Surfaces of Virtual Cuneiform Tablet Fragments*
4:40 PM	**Mara, Hubert**, *Revealing Degraded Script in High Resolution 3D Measurement Data with GigaMesh*
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	**Athanassopoulos, Effie, Kim Shelton**, *Archaeological Practice and 3D Modeling: A Medieval Ceramic Assemblage from Nemea, Greece*
4:20 PM	**Isaksen, Leif, Rainer Simon, Elton Barker, Valeria Vitale, Rebecca Kahn**, *Supporting Community Annotation with Recogito 2*

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