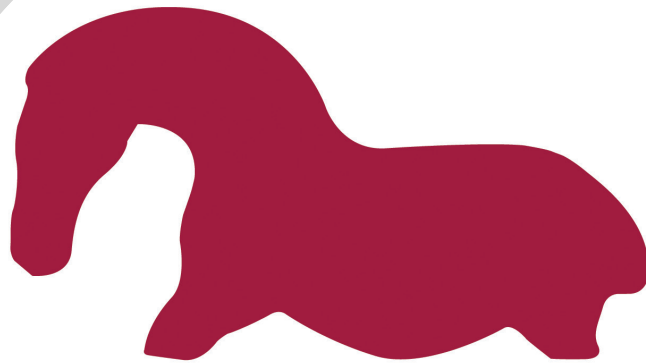


# HUMAN HISTORY AND DIGITAL FUTURE



# CAA

TÜBINGEN 2018

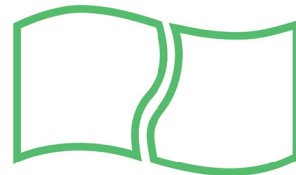
eScience-Center  
Institute for Geography  
ROCEEH (The Role of Culture in Early Expansions of Humans)  
German National CAA Chapter

EBERHARD KARLS  
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# THURSDAY, 22 MARCH 2018

	Room 1	Room 2	Room 5
08:15 - 10:00	S37 Connectivity: linking and interpreting the archaeological record	S17 Early human land use strategies during Middle and Late Pleistocene glacial and inter- glacial times in Europe	S32 Automation, com- bination and cali- bration: consolida- ting the framework for archaeological geophysics
10:00 - 10:30	<b>COFFEE BREAK</b>		
10:30 - 12:15	S37 Connectivity: linking and interpreting the archaeological record	S10 Expanding horizons: confron- ting issues of scale, resolution, and re- presentation in the study of human expansions	S32 Automation, com- bination and cali- bration: consolida- ting the framework for archaeological geophysics
12:15 - 13:45	<b>LUNCH BREAK</b>		
13:45 - 15:30	S42 Archeology Heritage Infor- mation Modeling. Models construction for documentation and analysis	S8 Untapping the potential of 3D Quantitative Analysis	S9 Show your code: task streamlining, reproducibility and replicability in archaeological computing
15:30 - 16:00	<b>COFFEE BREAK</b>		
16:00 - 17:45	S42 Archeology Heritage Infor- mation Modeling. Models construction for documentation and analysis	S8 Untapping the potential of 3D Quantitative Analysis	S9 Show your code: task streamlining, reproducibility and replicability in archaeological computing

# SESSIONS

CAA 2018

- S01 Creative Disruption in Archaeological Theory and Practice
- S02 Islamic History and Archaeology: Linking Data and Ontologies
- S03 Digital Archaeology Scholars in a Changing World: Problems, Perspectives, and Challenges
- S04 Close range 3D data acquisition, processing and querying in cultural heritage
- S05 Exploring Digital Interpretation, Argumentation, Conflict
- S06 Our little minions: small tools with major impact
- S07 What is the Value of Digitally Mediated Archaeology?
- S08 Untapping the potential of 3D Quantitative Analysis
- S09 Show your code: task streamlining, reproducibility and replicability in archaeological computing
- S10 Expanding horizons: confronting issues of scale, resolution, and representation in the study of human expansions
- S11 Untapping the value of old fieldwork records
- S12 Making the most of film and video in archaeology
- S13 Digital Documentation Archaeological Ships. What do we do and what do we need?
- S14 Setting the automation agenda for Remote sensing: learning to see through a computer?
- S15 Analysing Historical Transportation Systems from new applications and methodologies
- S16 Play, Process, and Procedure: An Experiential Digital Archaeology
- S17 Early human land use strategies during Middle and Late Pleistocene glacial and interglacial times in Europe
- S19 Agents, networks and models: formal approaches to systems, relationships and change in archaeology
- S20 Palaeo-GIS
- S21 Structural Analysis for Cultural Heritage: Tools and Methods for Assessing Heritage Monuments and Structures
- S22 Social theory after the spatial turn
- S23 New Directions in Archaeological Aerial and Satellite Remote Sensing
- S24 Computational classification in archaeology
- S25 Do we have a heading? Ah! A heading. Set sail in a... uh... for Mobile GIS direction!
- S26 Sensory GIS: towards a deeper engagement?
- S27 Map management and Webgis applications for archaeological data base solutions
- S28 Cities of Data: computational and quantitative advances to urban research
- S29 Digital Innovation & Experimentation in Archaeology & Cultural Heritage Collections
- S30 Open Digital Infrastructures for Archaeology and Cultural Heritage
- S32 Automation, combination and calibration: consolidating the framework for archaeological geophysics
- S33 Guaranteeing data quality in archaeological Linked Open Data
- S34 R as an archaeological tool: current state and directions
- S35 Ancient Near Eastern and Neighboring Regions: Enlarging Research Horizons through Digital and Computational Practices
- S36 Advantages and Limitations of Spatial Applications in Archaeology
- S37 Connectivity: linking and interpreting the archaeological record
- S38 Applicability of Digital Archaeology Tools
- S39 Heritage Beyond Boundaries: Developing Standards and Storefronts for Immersive Technologies in Archaeology
- S40 Science and Technology (S&T) for Archaeology and Cultural Heritage in the Eastern Mediterranean
- S41 Immersive Techniques in Archaeological Practice and Publication
- ~~S42 Archeology Heritage Information Modeling: Models construction for documentation and analysis~~

## S10 Expanding horizons: confronting issues of scale, resolution, and representation in the study of human expansions

*Benjamin Davies, Nicholas Conard*

*Neue Aula, Room 2, 10.30 - 12.15, 22 March 2018*

Panelists of this roundtable session will discuss theoretical and methodological issues associated with the study of prehistoric human expansions and computational methods used to represent them. From the earliest hominin expansions in Africa and Eurasia, to the settlement of Australia and the New World, to explorations of the world's oceans: the historical record of humanity is structured by the movements of people over the earth. Human expansions have been facilitated by changing environmental conditions, technological innovations, and shifts in the social relationships between different human groups, all of which have consequences for patterning observed in the archaeological record. Many major human movements occurred at spatial and temporal scales that differ from that of both archaeological investigations and many conceptions of human culture, leaving room for a good deal of uncertainty and presenting challenges to the construction of prehistoric narratives. Computational modelling approaches like GIS, network analyses, and agent-based models, offer opportunities to place these narratives in a framework where different potential historical processes can be assessed and uncertainty can be quantified. How we represent our ideas about the past in computational form involves trade-offs between realism and generality, as well as negotiations between different areas of expertise. This roundtable will include panelists from a range of research specialisations in order to expose common issues in the field of modeling human expansions and generate ideas about how best to bring together these areas of expertise.

**Modeling Movement on Water: Generating past mobility corridors on the sea,**  
*Emma Slayton*

**No two ancient migrations are the same: constructing null models at different scales of analysis,**  
*Iza Romanowska*

**Route selection and number of exits: Quantifying “Out of Africa”,**  
*Ericson Hölzchen, Christine Hertler*

**‘Out of Site’: Problems in Understanding Hominin Dispersal Caused by Site Centrism and Predictive Models,**  
*Patrick Cuthbertson*

**Diffusion versus dispersal wave-of-advance models and Neolithic spread,**  
*Joaquim Fort*