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*Roundtable

S02 Kelsey M Reese, Kathryn Harris, Using GIS modeling to solve real-world archaeological problems

Jade d'Alpoim Guedes

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| S02-01 | Jade d'Alpoim Guedes | Constructing agricultural frames of reference: An example from Highland Southwest China |
| S02-02 | Katia Francesca Achino, Juan Antonio Barceló | Using geostatistical modeling to solve spatio-temporal questions |
| S02-03 | Kathryn Harris, Iza Romanowska, Benjamin Davies, Stefani A Crabtree | Applied Agent-Based Modeling in archaeology: When and why? |
| S02-04 | Mike Groen | Spatial analysis and predictive modelling and modern clandestine burials |
| S02-05 | Kelsey M Reese | From the empirical to the conjectural: Settlement patterns on the Mesa Verde landform |
| S02-06 | Dita Auziņa | Studying site construction processes through visibility analyses: The case of Aguas Buenas, Nicaragua, a pre-Hispanic (400-1525 AD) mound complex |
| S02-07 | Anita Casarotto, Tessa D Stek, Ruud van Otterloo, Jan Sevink | Assessing visibility and geomorphological biases in archaeological field surveys: A case study on an early Roman colonial landscape in Central-Southern Italy |
| S02-08 | Stephanie E Metz, Harald Stadler, Thomas Bachnetzer | Glacial Archaeology in the Austrian Alps (GAAA) |

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| S02-09 | Joe Ree, Olivia Mavrinac, Tobias Richter | Look before you walk: Simulation and adaptive sampling in archaeological survey |
| S02-10 | Gail Michele Higginbottom, Roger Clay | New statistical tests determining the likely reality of a connection between stone circles and astronomical phenomena |
| S02-11 | Tsoni Kolev Tsonev | Least cost path analysis and conditional perception of prehistoric travelers |

S03 Emma Slayton, Crystal Safadi Exploring maritime spaces with digital archaeology: Modelling navigation, seascapes and coastal spaces

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| S03-01 | Melinda Allen, Benjamin Davies, Alex Morrison, Andrew McAllister | Modeling prehistoric maritime interactions in East Polynesia |
| S03-02 | Gjermund Steinskog | Reconstructing and modelling the Stone Age landscape in Southeastern Norway |
| S03-03 | Emma Slayton, Jan Christoph Athenstädt, Jan Hildenbrand | Uncovering routes to Grenada: Exploring possible routes between mainland South America and the Southern Lesser Antilles |
| S03-04 | Paweł Cwiąkała, Kasper Jan Hanus, Karolina Matwij, Wojciech Matwij, Łukasz Misk, Wojciech Ostrowski | Looking for the lost harbor. Role of non-invasive archaeological methods in the reconstruction of the seascape of an ancient city Paphos |
| S03-05 | Adam Kevin Benfer | Simulating Pre-Hispanic canoe navigation in Lake Cocibolca, Nicaragua |
| S03-06 | Manuela Ritondale, Gaia Pavoni, Roberto Scopigno, Marco Callieri, Matteo Dellepiane | Evocative virtual exploration of underwater sites: Issues and approaches |
| S03-07 | Crystal Safadi | A space and time analysis of the Early Bronze Age Levantine Littoral |

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| S03-P1 | Alejandro García Moreno, Manuel R. González Morales, Igor Gutiérrez Zugasti, Alejandro Cearreta, David Cuenca Solana | Changing coasts, changing worlds. A preliminary approach to the evolution of coastal landscapes at the Asón river basin (Cantabria, northern Spain) during the Pleistocene–Holocene transition |
| S03-P2 | Eveline Kiki Kuijjer, Rosemary Helen Farr, Robert Marsh, Ivan David Haigh, Erik van Sebille | Exploitation of prevailing winds and currents by the earliest known seafarers, reaching and colonizing Australasia c 50 000 years ago |
| S03-P3 | Cátia Sofia Machado Teixeira, João Pedro Pereira da Costa Bernardes, Célia Maria Alves Gonçalves | Using GIS modeling to reconstruct the urban landscape of the Roman city of Ossonoba |
| S03-P4 | Moritz Mennenga, Hauke Jöns | The first web based viewer for archaeological underwater sites in Europe: The Splashcos–Viewer |

S04 Evy Berg Databases and archives: How do we handle the digital archives?

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| S04-01 | Isto Huvila | No one's business: Negotiating the value of archiving archaeology in Sweden |
| S04-02 | Evy Berg, Stian Finmark, Christer Vinje Gimse | From active database to archive: Case of a Sites and Monuments Register |
| S04-03 | Annabel Lee Enriquez, Alison Dalgity, David Myers | Ensuring cultural heritage data longevity with the Arches Heritage Inventory and Management System |
| S04-04 | Cristina Barroso Cruz, Ana Seabra, Filipa Neto | Row, row, row your boat gently... upstream: A methodological approach to access Portuguese bioarchaeological data using a computer database |
| S04-05 | Emily Nimmo, Peter McKeague | Digital archives: More than just a digital skeuomorph? |

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| S04-P1 | Øyvind Eide, Arianna Ciula, Cristina Marras, Patrick Sahle | Modelling between digital and humanities: Thinking in practice |
| S04-P2 | Ian Johnson | Sustainability = separation: Keeping database structure, domain structure and interface independent |
| S04-P3 | Ana Seabra, Cristina Barroso-Cruz, Filipa Neto | Bioarchaeology module—Loading please hold... Recording human bioarchaeological data from Portuguese archaeological field reports |

*** S05 Gary Lock, Agiatis Benardou, Costis Dallas, Paul Reilly, Jeremy Huggett Unstable futures/potential pasts: Scenarios for digital computing 2020**

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| S05-01 | Ann Degraeve | Everyday reality and the multidirectional digital future in urban archaeology—The Brussels challenge |
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S06 Miguel Carrero-Pazos, Alia Vázquez-Martínez, Benito Vilas-Estévez, Miguel Busto-Zapico Computer tools for depicting shape and detail in 3D archaeological models

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| S06-01 | Rimvydas Laužikas, Albinas Kuncevičius, Tadas Žižiūnas, Egidijus Žilinskas | Automated heritage monitoring software prototype implementing 3D technologies |
| S06-02 | Diego Jiménez-Badillo, Mario Canul Ku, Salvador Ruíz-Correa, Rogelio Hasimoto-Beltrán | A machine learning approach for 3D shape analysis and recognition of archaeological objects |
| S06-03 | Miguel Carrero-Pazos, Benito Vilas-Estévez, Alia Vázquez-Martínez | AsTrend: A las point based methodology for micro surfaces depicting |

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| S06-04 | Edgar Francisco Román-Rangel, Diego Jiménez-Badillo | Application of Computer Vision algorithms for automatic classification of archaeological artefacts |
| S06-05 | Samantha Thi Porter, Kele Missal, Leszek M Pawlowicz | A comparison of methods for creating 3D models of obsidian artifacts |
| S06-06 | Sorin Hermon, Laura Longo, Dante Abate, Giusi Sorrentino, Natalia Skakun | Les gestes retrouvés: A 3D visualisation approach to the functional study of Early Upper Palaeolithic grinding stones |
| S06-07 | Alia Vázquez-Martínez, Benito Vilas-Estévez, Miguel Carrero-Pazos, Arturo de Lombera Hermida, Ramón Fábregas-Valcarce, Xosé Pedro Rodríguez-Álvarez | A methodological approach to the study of prehistoric cave engravings: The case of Cova Eirós (Lugo, Spain) |
| S06-08 | Elizabeth Craig-Atkins, Jenny Crangle, Dawn Hadley, Peter Heywood, Tom Hodgson, Steve Maddock, Robin Scott, Adam Wiles | The digital ossuary: Rothwell (Northamptonshire, UK) |
| S06-09 | Vera Moitinho de Almeida, Valentina Vassallo | O brother, where art you? A quantitative approach using 3D models and geometric morphometrics: The case study of the Ayia Irini terracotta figurines |
| S06-10 | Tommaso Empler, Adriana Caldarone | From survey to 3D modeling to 3D printing: Bramante's Nymphaeum Colonna at Genazzano |
| S06-11 | Mikhail V Vavulin, Olga V Zaytceva, Andrei A Pushkarev | 3D Reconstruction of Koch, Russian rowing/sailing boat of the 17th Century |

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| S07 | Jens-Bjørn Riis Andresen | Integrating 3D photogrammetric data in the field: Challenges, implications and solutions |
| S07-01 | Mohamed al-Farhan, Ahmad al-Hasanat, Mohamed Shalaby, Luca Passone, Thomas Levy, Neil Smith | RAPID Aerial Scanning of UNESCO cultural heritage sites in the Kingdom of Saudi Arabia |
| S07-02 | Carsten Meinertz Risager | Digital workflow on a selection of Danish excavations in the Århus area—With special emphasis on the use of 3D recording |
| S07-03 | Kristin Eriksen, Almut Schülke | The 3D photogrammetry documentation of the Mesolithic grave from Brunstad, Norway |
| S07-04 | Cecilia Falkendal, Ingebjørg Njos Storvik, Kevin Wooldridge | Using 3D photogrammetry in the field: An example from Kvåle Sogndal, Norway |
| S07-05 | David Stott, Matteo Pilati, Carsten Meinertz Risager, Peter Jensen, Casper Skaaning Andersen, Jens-Bjørn Riis Andresen | Supercomputing at the trench edge: Expediting image based 3D recoding |
| S07-06 | Andrei A Pushkarev, Olga V Zaytceva, Mikhail V Vavulin, Anna Y Skorobogatova | Creation of an Early 19th century Siberian ship 3D model |
| S07-07 | Martijn van Leusen, Gary Nobles | 3D spatial analysis: Beyond extrusion and sectioning |
| S07-08 | Matteo Pilati | Enhancing evidence and re-evaluating interpretations with 3D GIS and image-based 3D replicas: The case of Borggade (Denmark) |
| S07-09 | Kasper Jan Hanus, Łukasz Miskz, Wojciech Ostrowski, Weronika Winiarska | In the fields and on the screens. 3D documentation for the excavations at Paphos Agora, Cyprus |

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| S07-10 | Jerzy Sikora, Piotr Kittel | Closing a gap with simple toy. How using a tablet affected documentation workflow on the Rozprza ring-fort excavation |
| S07-11 | Åsa Berggren, Anders Gutehall | The documentation of Neolithic flint mines—An experimentation of methods |
| S07-12 | Nicolo' Dell'Unto, Giacomo Landeschi, Jan Apel | Back and Forth through the contexts: 3D Geographic Information Systems in support of field documentation |
| S07-P1 | Anna Maria Kubicka | Underwater archaeological remains open to public diving—Close range photogrammetry as digital preservation and complex documentations of despairing relicts |
| S07-P2 | George Alexis Pantos | Questions and bottlenecks: The precariousness of computation heavy documentation in the field |

S08 Philip Verhagen, Monica de Cet Modelling approaches to analyse the socio-economic context in archaeology II: Defining the limits of production

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| S08-01 | Tuna Kalayci | Putting production landscapes into context: A multi-faceted case study from Upper Mesopotamia during the Early Bronze Age |
| S08-02 | Maria Coto-Sarmiento, Xavier Rubio-Campillo, José Remesal | Quantifying change: An evolutionary approach to interpret the amphorae production in the Roman Empire |
| S08-03 | Irmela Herzog | Boundaries of agrarian production in the Bergisches Land in 1715 AD |
| S08-04 | Jamie Joyce, Philip Verhagen | Factors of production: Investigating land and labour as limiting factors in agricultural production in the Dutch Roman limes zone via agent-based modelling |
| S08-05 | Monica De Cet | Socio-economic analysis and GIS modelling: A pilot study from rural society in Northeastern Italy |

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| S08-06 | Simon Carrignon, Jean-Marc Montanier, Jerome Michaud, Xavier Rubio-Campillo | Co-evolution of culture and trade : Impact of cultural network topology on economic dynamics |
| S08-07 | Francesca Cadeddu | Defining boundaries: A GIS-based approach to the Sardinian Bronze Age |
| S09 | César González-Pérez, Patricia Martín-Rodilla, Ruth Varela | Archaeological Information Languages and Notations |
| S09-01 | Stephen Stead, Martin Doerr, George Bruseker, Maria Daskalaki | Is that a good concept? |
| S09-02 | Igor Bogdanović, Capuzzo Giacomo, Berta Morell, Juan Antonio Barceló Álvarez | Towards a formalisation of spatio-temporal relationships in chronometric databases |

S10 James Stuart Taylor, Sara Perry, Nicolò Del'Unto, Åsa Berggren Theorising the Digital: Digital Theoretical Archaeology Group (digiTAG) and the CAA

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| S10-01 | Sara Perry, James Taylor | Theorising the digital turn in archaeology |
| S10-02 | Catalin Nicolae Popa, Oliver Nakoinz | A plea for (non-mathematical) reason. Rethinking the use of computational methods in archaeology |
| S10-03 | Mhairi Maxwell | The biography of a 3D print |

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| S10-04 | Matteo Pilati | Epistemological considerations on image-based 3D representations: Bridging the paradigms through the objectification of field interpretation |
| S10-05 | Dominik Lukas | How raw is raw data? |
| S10-06 | Leigh Anne Lieberman, Gregory Tucker | Communication in archaeological fieldwork: Responses to a digital workflow |
| S10-07 | Gareth Beale, John Schofield | The lives of digital machines: Evaluating the significance of historic computing machinery |
| S10-08 | Katie Campbell | Digital interpretive technologies: A way into difficult heritage in the Middle East and Central Asia? |
| S10-09 | Teija Oikarinen | Trends in digitalisation of archaeology: Interdisciplinary and archaeological viewpoint |
| S10-10 | Jeremy Huggett | The apparatus of digital archaeology |
| S10-11 | Piraye Hacigüzeller | Deep maps of digital, post-representational archaeology |
| S10-12 | Lorna-Jane Richardson | Bringing digital sociology to digital archaeology |

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| S11 | Julian Richards, Franco Niccolucci, Holly Wright, Kate Fernie | Supporting researchers in the use and re-use of archaeological data: Continuing the ARIADNE thread |
| S11-01 | | Introduction to the session |
| S11-02 | Maria Theodoridou, George Bruseker, Maria Daskalaki, Martin Doerr | Methodological tips for mappings to CIDOC CRM |
| S11-03 | Christophe Tuffery, Achille Felicetti, Patrick Jard, Nicolas Holzem, Thomas Guillemard | An essay of mapping archaeological land-record system used by Inrap with CIDOC-CRM and CIDOC-CRMarchaeo extension using 3M online tool |
| S11-04 | Cesar Gonzalez-Perez, Patricia Martin-Rodilla, Elena Epure | Formalisation and reuse of methodological knowledge on archaeology across European organisations |
| S11-05 | David Bader, Aleksandra Michalewicz, Oded Green, Jessie Birkett-Rees, Jason Riedy, James Fairbanks, Anita Zakrzewska | Semantic database applications at the Samtavro Cemetery, Georgia |
| S11-06 | Franca Debole, Nicola Aloia, Christos Papatheodorou, Dimitris Gavrilis, Carlo Meghini | A Catalog for archaeological resources |
| S11-07 | Philipp Gerth, Wolfgang Schmidle, Sebastian Cuy | Using semantic technologies for the deep integration of research items in ARIADNE |
| S11-08 | Elizabeth Fentress, Michael Johnson, Florence Laino, Stuart Eve | Fasti Surveys |

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| S11-09 | Mark Mudge, Carla Schroer | The advantages of integrated 3D photogrammetry and Reflectance Transformation Imaging empirical acquisition |
| S11-10 | Manuela Ritondale, Gaia Pavoni, Roberto Scopigno, Marco Callieri, Matteo Dellepiane | Best practices to re-use remote sensing data coming from marine geophysical surveys for the 3D reconstruction of underwater archaeological deep-sites |
| S11-11 | Christopher Power, Andrew Lewis, Helen Petrie, Julian Richards, Katie Green, Mark Eramian, Ekta Walia, Brittany Chan, Isaac Sijaranamual, Maarten de Rijke | Digging into and re-using image data for archaeology |
| S11-12 | Dimitris Gavrilis, Eleni Afiontzi, Johan Fihn, Olof Olsson, Sebastian Cuy, Achille Felicetti, Franco Niccolucci | A data integration infrastructure for archaeology |
| S11-P1 | Valentina Vassallo, Sorin Hermon, Giusi Sorrentino, Uros Damjanovic | Combining analytical and digital data in archaeology: Towards a multidisciplinary ontological solution. The Salamis terracottas case study |
| S11-P2 | Mark Mudge, Carla Schroer | New tools for Digital Lab Notebook creation for use in Reflectance Transformation Imaging |

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| S12 | Carlo Bianchini, Alfonso Ippolito, Carlo Inglese, Luca James Senatore | Documentation interpretation and communication of Digital Archaeological Heritage |
| S12-01 | Carlo Bianchini, Giulia Pettoello | Multi-shape archaeological modeling and communication |
| S12-02 | Ruth Varela | A methodology for the analysis of graphical representations in archaeology and some preliminary results |
| S12-03 | Vid Petrovic | Developing a workflow for analysing and annotating reconstructed models of underwater sites |
| S12-04 | Martina Attenni, Carlo Bianchini, Alfonso Ippolito | Emerging technologies for archaeological heritage: Knowledge, digital documentation, communication |
| S12-05 | Anne Moreau, Federico Nurra | Towards a European standard for spatial data management for archaeological heritage: Experiences in France and Italy |
| S12-06 | Julia Maria Chyla, Marzena Ozarek-Szilke, Wojciech Ejsmond | Comprehensive field survey: Multidisciplinary approach for a field prospection |
| S12-07 | Carlo Bianchini, Alfonso Ippolito, Carlo Inglese | New actualities for Mediterranean ancient theatres: The Athena Project lesson |
| S12-08 | Donato Maniello, Valeria Amoretti | Handle digital data to turn them into immersive experience using the augmented reality |
| S12-09 | Valeria Pescetti, Juan Torrejón Valdelomar, Alois Hinterleitner, Wolfgang Neubauer | Interpretative 3D mapping of large urban archaeological landscapes: The use of ESRI CityEngine for the interpretation of Ground Penetrating Radar data |
| S12-10 | Michael Hess | Multimodal data fusion for the non-destructive assessment of the Baptistery di San Giovanni in Florence, Italy |

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| S12-11 | Marco Carpiceci, Carlo Inglese, Fabio Colonnese | The Exedra of Goreme OAM: An ocean of points to be explored |
| S12-12 | Giulio Poggi, Mirko Buono | Enhancing archaeological interpretation with volume calculations. An integrated method of 3D recording and modeling |
| S12-13 | Paola Derudas, Maria Carla Sgarella | A new approach for the study and presentation of an archaeological context not traditionally exploitable. Applying a fast but extensive 3D survey to the Bisarcio case study, a Medieval and Post-Medieval cemetery (Sardinia) |
| S12-14 | Tommaso Empler | Digital Archaeological Dissemination: Eleniana Domus in Rome |
| S12-15 | Michela Cigola, Arturo Gallozzi, Leonardo Paris, Emanuela Chiavoni | Integrated methodologies for knowledge and valorisation of the Roman Casinum city |
| S12-16 | Giacomo Landeschi, Jan Apel, Stefan Lindgren, Nicolò Dell'Unto | An exploratory use of 3D for investigating a Prehistoric stratigraphic sequence |
| S12-17 | James Miles, Hembo Pagi, Andres Uueni, Jüri Pärtna | The building survey of Kaasan Church |
| S12-18 | Angela Bosco, Andrea D'Andrea, Massimiliano Nuzzolo, Rosanna Pirelli, Patrizia Zanfagna | A virtual reconstruction of the sun temple of Niuserra: From scans to BIM |
| S12-19 | Susanne Rutishauser, Ralph Rosenbauer, Tim Arni, Fabienne Kilchör, Alexander Sollee | Virtual Cilicia Project: Digital globes for communicating digital archaeological heritage |
| S12-20 | Carlo Inglese, Mario Docci, Alfonso Ippolito | Representing Archaeological Architecture—RAA |

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| S12-21 | Paolo Di Pietro Martinelli, Valeria Valentini | Visual stratifications: Different levels of representation in relief of archaeological heritage |
| S12-22 | Antonio Pizzo, Carlo Inglese | 3D model of Roman architecture in Lusitania. Archaeology and classification of architectural heritage |
| S12-23 | Fabrizio Ivan Apollonio, Elisabetta Caterina Giovannini | Virtual Reconstruction Information Management (VRIM): Some considerations on scientific 3D models |
| S12-24 | Luca J Senatore, Carlo Bianchini | After the paper: Potential and problems in the documentation and communication of archeology in the Information Age |
| S12-P1 | Akihiro Kaneda | How to classification?—A trial examining the effectiveness of an elliptic Fourier descriptor for Japanese archaeological studies |
| S12-P2 | Susanne Rutishauser | Urbanism in the Cilician Plain from Chalcolithic to Byzantine Period |

S13 Johanna Stoeger, Eleftheria Paliou, Undine Lieberwirth Computational approaches to ancient urbanism: Documentation, analysis and interpretation

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| S13-01 | Eleftheria Paliou | Digital archaeology and the science of cities: Some observations on the application of spatial interaction models to the study of Minoan urbanism |
| S13-02 | Hanna Stöger | A tale of two city blocks from Ostia, the port-town of Imperial Rome |
| S13-03 | Scott Branting, Tuna Kalayci | Kerkenes Dag: Materializing an Imaginary City |
| S13-04 | Chiara Piccoli | From data visualization to hypothesis generation: An integrated approach for the study of past cityscapes |

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| S13-05 | Jacopo Turchetto, Giuseppe Salemi | On the attack of Constantinople! The Crusaders and the maritime walls of the Golden Horn: A matter of visibility? |
| S13-06 | Kayeleigh Sharp | Computational approaches for studying cultural coexistence in Peru's urban landscape: Contributions and questions |
| S13-07 | Mariza Christina Kormann, Stella Katsarou, Dora Katsonopoulou, Gary Lock | On roof construction and wall strength: Non-Linear Structural Integrity Analysis of the Early Bronze Age Helike Corridor House |
| S13-08 | Undine Lieberwirth, Axel Gering | 3D GIS in archaeology—A microscale analysis |
| S13-09 | Sven Straumann | Understanding a Roman insula by the aid of GIS—The Insula 30 in Augusta Raurica (CH) |
| S13-10 | Kristine Stub Precht | Hand drawn section drawings analyzed in real 3D environment |
| S13-11 | Mark A Locicero | Liquid footprints: Water, urbanism, and sustainability in Roman Ostia |
| S13-12 | Kasper Jan Hanus | The waters of life. Digital approach towards the reconstruction of the small scale water management of Angkor (Cambodia) |
| S13-P1 | Sabrina Amaducci | Forum Boarium survey |
| S13-P2 | Francesca Fulminante, Alessandro Guidi, Sergi Lozano, Luce Prignano, Ignacio Morer | Geographical and cultural networks to better understand urbanization processes in central Italy (1175/1150–500 BC ca) |
| S13-P3 | Till Frieder Sonnemann | Patterns and recognition: Mapping indigenous settlement topography in the Caribbean |

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| S14 | Iza Romanowska, Stefani Crabtree, Benjamin Davies | Can you model that? Applications of complex systems simulation to explore the past |
| S14-01 | Stefani A Crabtree | Agent-based modeling and complexity science: The next step in archaeological theory? |
| S14-02 | Alice Williams | How agent-based models can be used to investigate the evolution of social complexity in the past: A test of circumscription theory in the Valley of Oaxaca |
| S14-03 | Benjamin Davies, Simon Holdaway, Patricia Fanning | Simulating archaeological landscape formation to understand late Holocene population dynamics and mobility in arid Australia |
| S14-04 | Jean-Marc Montanier, Xavier Rubio-Campillo | Reinforcement learning for decision making in agent-based models |
| S14-05 | Colin D. Wren, Chloe Atwater, Kim Hill, Marco Janssen, Curtis Marean | An agent-based approach to weighted decision making in the spatially and temporally variable South African Palaeoscape |
| S14-06 | Iza Romanowska | The versatileist's story of human dispersal: Climate fluctuation, adaptation and the evolution of human uniqueness |
| S14-07 | Phil Riris, Fabio Silva | Dates and dispersions: Examining the spatio-temporal boundaries of the Guaraní expansion into the La Plata basin with Monte Carlo methods |
| S14-08 | Andrea Zanotti, Richard Moussa, Jean-Pierre Bocquet-Appel | An agent-based modelling approach to a complex problem: Economics and demography of the first farming expansion in the Balkans |
| S14-09 | Ericson Hölzchen, Christine Hertler | An agent-based modeling framework for Out of Africa hypotheses |
| S14-10 | Fabio Silva | Testing archaeological narratives of the spread of rice cultivation in Asia |

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| S14-11 | Florencia Del Castillo | An agent based empirical model of collective seasonal hunting |
| S14-12 | Jan Zipser | The emergence and process of formation of the La Tène culture settlement system in Upper Silesia (Southern Poland and Northern Czech) in the light of the simulation modelling See page 49 |
| S14-13 | Elizabeth M Gallagher, Mark G Thomas, Stephen J Shennan | Can you analyse that? Fitting simulations to idealised outcomes for the origins of farming |
| S14-14 | Juan Antonio Barceló, Florencia Del Castillo Bernal | Everything seems possible: Exploring the parametric space of a simulated prehistoric scenario |
| S14-15 | Fulco Scherjon | Evolving hominins in HomininSpace—Genetic Algorithms and the search for the perfect Neanderthal |
| S14-16 | Xaver Rubio-Campillo, Rinse Willet | Content or context? Model selection of settlement growth models using entropy maximization |
| S14-P1 | Elizabeth M Gallagher, Peter J Bentley, Stephen J Shennan, Mark G Thomas | The origins of agriculture: Mathematical models, cooperation and the rise of social inequality |

S15 **Stuart Eve, Catriona Cooper** **Interpretations from digital sensations? Using the digital sensory turn to discover new things about the past**

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| S15-01 | Catriona Cooper | Auralization: What can acoustics tell us about digital lived experience? |
| S15-02 | Piotr Dziewanowski, Janusz Różycki | From the largest to the smallest: The use of the latest technology in digitalization of the objects from the collection of the National Maritime Museum in Gdańsk |

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| S15-03 | Lawrence Shaw, David John, Harry Manley, Gary Underwood | More than just a pretty picture: A review of the use of 3D printing, touch tables and virtual environments to engage the public with Lidar and the archaeology of the New Forest, U.K. |
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S16 **Tom Brughmans, Daniel Weidele** **Networking the past: Towards best practice in archaeological network science**

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| S16-01 | Tom Brughmans | A guide to good practice for archaeological network science |
| S16-02 | Lieve Donnellan | Exploring formal SNA approaches to funerary contexts in Early Iron Age Italy |
| S16-03 | Ignacio Morer, José Remesal, Albert Diaz-Guilera, Luce Prignano, Daniel Martin Arroyo | Wine trade from Roman Crete: Onomastic–geographic network analysis |
| S16-04 | Donat Wehner | Least-Cost Networks and Network Analysis: Modelling trade relations in early medieval East Central Europe |
| S16-05 | Thomas Huet | Geometrical and planar graphs in ancient iconography studies, a heuristic tool |
| S16-06 | Discussion | |
| S16-P1 | Analia Andrade, Joan Anton Barceló, Florencia Del Castillo | Artificial Neural Networks to estimate Paleotemperatures in North Patagonia (Argentina) based on micromammals sequences |

| S17 | Mark Groenhuijzen, Philip Verhagen | The road not taken: Modelling approaches to transport on local and regional scales |
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| S17-01 | Devi Taelman, Dimitrij Mlekuž | Transport and trade: An energyscape model and transport network approach for trade in Roman times |
| S17-02 | Luce Prignano, Francesca Fulminante, Sergi Lozano, Ignacio Morer | A network model for the evolution of terrestrial connections in Central Italy (1175/1150–500 BC ca) |
| S17-03 | Pau de Soto | Network analysis to understand the Roman commerce. Connectivity and transport costs of the Roman networks |
| S17-04 | Karim Sadr | Comparison of regional and local transport networks in 17th and 19th century AD pre-colonial stone-walled structures in the southern Gauteng Province, South Africa |
| S17-05 | Jacopo Turchetto | Modelling the road network of central Cappadocia (Turkey): A matter of 'cost' and 'visibility' |
| S17-06 | Mark Groenhuijzen, Philip Verhagen | Testing the validity of network analysis results in research on local transport networks |
| S17-07 | Diego Torres-Iglesias | The need of topographic restitution in local mobility analysis |
| S17-08 | Joan Canela Gràcia, Núria Otero Herraiz | From sea to land: Reflections on freight traffic during the Iron Age of the Northeastern Iberian peninsula (6th to 1st centuries BC) |

| S19 | Anne Moreau, Federico Nurra | New technologies and archeology : The impact of the digital revolution |
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| S19-01 | Martin Kermit, Øivind Due Trier | Towards a national infrastructure for semi-automatic mapping of cultural heritage in Norway |

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| S19-02 | Dimitri Schreiber, Dominique Meyer, Dominique Rissolo, Falko Kuester | Autonomous stereoscopic photosphere system for archaeological site virtualization |
| S19-03 | Karl Hjalte Maack Raun, Duncan Paterson | Systematic literature review on automated monument detection: A remote investigation on patterns within the field of automated monument detection |
| S19-04 | Anja Wutte, Peter Ferschin, Georg Suter | Spatial analysis of Ancient Egyptian Monuments. Case study: Late Period private funerary monuments of Thebes |
| S19-05 | Dominique E Meyer, Jamie Hodgkins, Fabio Negrino, Christopher E Miller, Caley M Orr, Falko Kuester, Stefano Benazzi, Marco Peresani, Julien Riel-Salvatore, David Strait, Matthias Czechowski | Optimization in the co-registration of large point clouds for archaeological visualization |
| S19-06 | Angela Bosco | 3D survey for archaeology: When the solution can be a problem |
| S19-07 | Ana Predoi, Lutz Schubert, Keith Jeffery | Interpolating 3D stratigraphic information from written excavation reports |
| S19-08 | Alessandro Panetta, Paola Derudas | 3D photogrammetric documentation in the archaeology of the contemporary past: Preserving the World War II landscape in North-West Sardinia (Italy) |
| S19-09 | Forkel Johansen | Letter from the trenches: Challenges and strategies in the development of a digital collection management architecture |
| S19-10 | Federico Nurra | A proposal for a collaborative Web Mapping for archaeological spatial data: OpenArcheoMap |

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| S19-11 | Rozenn Colleter, Guillaume Roy, Thierry Gaugry, Jean-Baptiste Barreau | HumanOS Project: A nomadic osteological inventory |
| S19-12 | Arianna Commodari | Using GIS to study ancient landscapes. The case study of the Pisa centuriation (Italy) |
| S19-13 | Ilan Ryan Smeyatsky, Karim Sadr, Patrick Randolph-Quinney | Discerning and explaining shape variations in Later Stone Age tanged arrowheads, South Africa |
| S19-14 | Jean-Philippe Chimier, Matthieu Gaultier, Isabelle Pichon | Structuring data from documentary study and archives for spatial studies. Examples from funerary archeology |
| S19-P1 | Alexis Gorgues, Florent Comte, Sonia Syllac | From the field to the showroom: The Augmented-Reality Kilns ExhibitOn (ARKEO) |
| S19-P2 | Mar Zamora Merchán | Roman archaeology and GIS visibility studies |
| S19-P3 | Raymond Sauvage, Magnar Mojarén Gran | Digital strategies and workflow. Case studies from large scale excavations in Central Norway |
| S19-P4 | Wuyang Shui | Why 3D printing technique is the useful tool for artifact conservation |

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| S20 | Arianna Traviglia, Karsten Lambers | Computer vision vs human perception in remote sensing image analysis: Time to move on |
| S20-01 | Dave Cowley | Why, when and how? Context and computer vision in archaeological prospection and interpretation |
| S20-02 | Sebastian Zambanini, Fabian Hollaus, Robert Sablatnig | Computer vision applied to historical air photos: The registration and object detection challenge |

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| S20-03 | Øivind Due Trier, Arnt-Børre Salberg, Lars Holger Pilø | Semi-automatic detection of charcoal kilns from airborne laser scanning data |
| S20-04 | Benjamin Stular | Two methods for semi-automated feature extraction from lidar-derived DEM designed for cairn-fields and burial mounds |
| S20-05 | Iris Caroline Kramer | Using eCognition to improve feature recognition |
| S20-06 | Amandine Robin, Karim Sadr | Automated detection of stone-walled ruins using based on support vector machine and histogram of oriented gradients |
| S20-07 | Kenneth L Kvamme | Experiments in the automatic detection of archaeological features in remotely sensed data from Great Plains USA villages |
| S20-08 | Till Frieder Sonnemann, William Megarry, Eduardo Herrera Malatesta, Douglas Comer | Down to the last pixel: Multiband use for direct detection of Caribbean indigenous archaeology |

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| S21 | Leif Isaksen, Keith May | Linked pasts: Connecting islands of content |
| S21-01 | Karsten Tolle, David Wigg-Wolf, Ethan Gruber | An ontology for a numismatic island with bridges to others |
| S21-02 | Carl Anders Olsson | A Linked (Open) Data hub at the Norwegian Directorate for Cultural Heritage: A case study |
| S21-03 | Sebastian Cuy, Wolfgang Schmidle, Florian Thiery | Linking periods: Modeling and utilizing spatio-temporal concepts in the chronOntology project |
| S21-04 | Keith May | The Matrix: Connecting time and space with archaeological research questions involving spatio-temporal phenomena and the conceptual relationships between them |

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| S21-05 | Koen Van Daele, Maarten Vermeyen, Sophie Mortier, Leen Meganck | When data meets the enterprise. How we turned a merger of organisations into a confluence of information |
| S21-06 | Valeria Vitale, Jeffrey Becker, Jonathan Prag | Where is the House of the Dwarves? Enhancing granularity in the Pleiades Gazetteer: The examples of ancient Sicily and Pompeii |
| S21-07 | Ethan Gruber | LOD for Numismatic LAM Integration |
| S21-08 | Leif Isaksen, Simon Rainer, Pau de Soto Cañamares, Elton T E Barker | Pelagios Commons: Decentralizing the Web of historical data |

S22 Karsten Lambers, Hans Kamermans Teaching archaeology in the digital age. UISPP official session

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| S22-01 | Alexis Gorgues, Florent Comte | Dynamic process, static document. How to solve the teacher's baffling problem? |
| S22-02 | Michael Remmy | ArGO. Archaeological Geocaching Online. Teaching and learning archaeology with geocaching |
| S22-03 | Anne Moreau, Sylvain Badey | When I was a child, I wanted to be an archaeologist. What about now? A French case study |
| S22-04 | Heeen Van Londen, Marjo Schlaman, Andrea Travaglia | Towards the integration of green and cultural heritage management. Developing content for blended learning |
| S22-05 | Anna S Agbe-Davies | Archaeological education for a digital world: Case studies from the contemporary and historical US |
| S22-06 | Alessandro Vecchione, Domenica Dininno, Giulio Casazza | Digital data recording at Circus Maximus: A recent experience |

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| S22-P1 | Mar Zamora Merchán, Javier Baena Preysler | Teaching GIS in archaeology: What Students focus on |
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S23 Lars Gustavsen, Christer Tønning, Arne Anderson Stamnes, Erich Nau, Monica Kristiansen Needles in the haystack: Geophysical methods in challenging conditions

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| S23-01 | Christian Løchsen Rødsrud, Arne Anderson Stamnes, Kristin Eriksen | Magnetic geophysical prospection on prehistoric iron production sites in cultivated contexts: The case of Ånestad, Hedmark in Norway |
| S23-02 | Christine Markussen, Katie Simon, Benjamin Porter, Stephanie Brown | Understanding contrast at Busayra: Geophysical surveys of an Iron Age settlement in Southwest Jordan |
| S23-03 | Manuel Gabler | Opportunities and limitations of archaeological geophysical prospection on the example Uppåkra in Sweden |
| S23-04 | Martina Seifert, Ewdoksia Papuci-Władyka, Tomasz Kalicki, Sebastian Adlung, Michaelis Antonakis, Nikola Babucic, Joanna Krupa, Artur Buszek, Sławomir Chwatek, Dawid Świąch, Tomasz Herbich, Łukasz Misk | Looking through the rocks. Geophysical research on the agora of the ancient city: Nea Paphos—A case study |
| S23-05 | Petra Schneidhofer, Erich Nau, Christer Tønning, Immo Trinks | A geoarchaeological approach to selected issues in Norwegian archaeological geophysical prospection |
| S23-06 | Tuna Kalayci, Apostolos Sarris | Picking needles from a magnet: Obstacles and (hidden) opportunities of magnetic prospection in challenging environments |

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| S23-P1 | Christine Markussen | Comparing 3D Ground Penetrating Radar visualization methods: A case study from Austria |
| S24 | David Vogt, Steinar Kristensen, Magne Samdal, Bjarte Aarseth | Digital rock art documentations, new perceptions |
| S24-01 | Xosefina Otero | New eyes to old graphics. Rock art in the Emirate of Sharjah |
| S24-02 | Tatiana Votroubeková | Documenting facades of Etruscan rock-cut tombs: From 3D recording to archaeological analysis |
| S24-03 | Raymond Sauvage | Ex-situ preservation of exposed painted rock art. Applying photogrammetry and color manipulation |
| S24-04 | Erik Kjellman | Photogrammetric rock art detection: Assisting detection of rock art on lichen covered surfaces using photogrammetry and 3D modelling software |
| S24-P1 | Xosefina Otero | New eyes to old graphics. Rock art in the Emirate of Sharjah |

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| S25 | Ingvild Solberg Andreassen | Public archaeology and the use of digital platforms |
| S25-01 | Gareth Beale, Nicole Beale | Co-designing digital community archaeologies: Experiences from the re-reading the British Memorial Project |
| S25-02 | Kate Welham, Lawrence Shaw, Mark Dover, Harry Manley, Mike Parker Pearson | Using Google Earth applications to enhance public engagement with cultural heritage: An evaluation of Seeing Beneath Stonehenge |
| S25-03 | Matthew Luke Vincent, Chance Coughenour, Fabio Remondino, Mariano Flores Gutierrez, Victor Manuel Lopez-Menchero Bendicho, Dieter Fritsch | Rekrei: A public platform for digitally preserving lost heritage |

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| S25-04 | Meriem Zammel | Photomodeling and webmapping on archeological site of Carthage (Tunisia) and data collection in the museum of Bardo (Tunisia) |
| S25-05 | Gunnar Liestøl, Birgitte Bjørkli, Espen Uleberg | Visualizing original sea level of Stone Age sites on location by means of mobile augmented reality |
| S25-06 | Alex da Silva Martire, Tatiana Bina | DOMUS: Cyber-archeology and education |
| S25-07 | Leif Harald Fredheim | Democratising the digital: Sustaining community-sourcing platforms for heritage management and conservation by co-creation |
| S25-08 | Michael Ann Bevivino | Breaking the mould: Why do we replicate objects of the past? |
| S25-P1 | Evy Berg | WW2 remains as cultural heritage |
| S25-P2 | Lauren Massari | Archives, archaeology, and architecture: A multimedia approach for 3D reconstructions |
| S25-P3 | Michal Michalski, Robert Carter, Daniel Eddisford, Richard Fletcher, Colleen Morgan | Doha Online Historical Atlas—GIS interactive mapping of space and time in a pearling town |

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| S26 | Kate Welham, Paul Cheetham, Derek Pitman, Rebecca Cannell | The portable XRF revolution: Elemental analysis for all? |
| S26-01 | Kate Welham, Derek Pitman, Chloe Duckworth, David Govantes-Edwards, Yvette Barbier, Ricardo Cordoba de Llave | Seeing things differently. The use of combined geochemical and geophysical prospection techniques to investigate early Islamic town planning |

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| S26-02 | Derek Pitman, Mark Brisbane, Paul Cheetham, Miles Russell, John Beavis, Rob Symmons, Stephen Clews, Susan Fox, Maurice Tucker | Pipes, pedalis and portable X-ray fluorescence: New avenues for the study of Roman building materials |
| S26-P1 | Luisa Dallai, Vanessa Volpi, Alessandro Donati | A multidisciplinary project for the study of historical landscapes: New archaeological and physicochemical data from the "Colline Metallifere" district |

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| S27 | Mieko Matsumoto, Michael Märker, Espen Uleberg, Volker Hochschild | Revealing by visualising: Geographic relations in cultural heritage databases |
| S27-01 | Christian Willmes, Daniel Becker, Michael Märker, Volker Hochschild, G. Bareth | GIS-based data integration for mapping paleoenvironments |
| S27-02 | Richard Jennings | Endangered archaeology in the Middle East and North Africa: The development of a spatial database |
| S27-03 | Michael Märker, Volker Hochschild | Management of raster data and their dynamic visualization within the ROCEEH-ROAD System |
| S27-04 | Mieko Matsumoto, Espen Uleberg | Vertical aspects of Stone Age distribution in Norwegian high mountains |
| S27-P1 | Peter Oskar Pflaumer | Distributions of Age at death from Roman Epitaph inscriptions in North Africa: An application of data mining |

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| * S28 | Iza Romanowska, Joan Anton Barceló, Florencia del Castillo | Methodology of archaeological simulation. Meeting of the Special Interest Group in Complex Systems Simulation |
| S28-01 | Juan Barceló | Why model |
| S28-02 | Stefani Crabtree | What is complexity theory and why should we care about it |
| S28-03 | Ben Davies | Simulation as middlerange research |
| S28-04 | Colin Wren | Models: 'Small and elegant' or 'complicated but realistic'? |
| S28-05 | Elizabeth Gallagher | ABMs, because they're worth it? Alternatives to our favourite method |
| S28-06 | Tom Brughmans | Fancy doing some networks? |
| S28-07 | Philip Verhagen | Building on expert advice to create an informed model |
| S28-08 | Iza Romanowska | Lessons already learned: drawing from the best software practice |
| S28-09 | Irmela Herzog | Proof of concept verifying ABM with analytical methods |
| S28-10 | Florencia del Castillo | Validation: The painful moment when the model meets the data |
| S28-11 | Xavi Rubio-Campillo | Model selection: what is the 'best' model? |

*Roundtable

① (New title) The Emergence and Formation Process of the La Tène Culture Settlement System in Upper Silesia (Southern Poland and Northern Czech) in Light of the Simulation Modelling