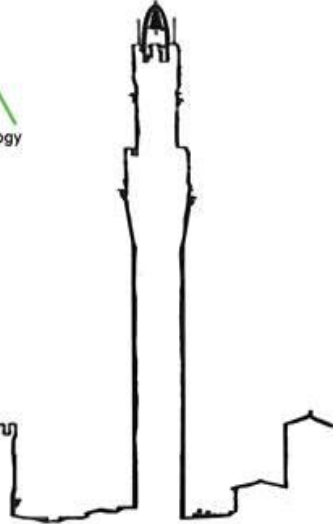


> SIENA
> 30 march-3 april
> CAA 2015



KEEP THE REVOLUTION GOING >>>

43rd Computer Applications and Quantitative Methods in
Archaeology

Annual Conference

Conference Program

University of Siena
Department of History and Cultural Heritage



Conference chairman

[Stefano Campana](#) – University of Siena (ITALY), University of Cambridge (UK)

[Roberto Scopigno](#) – Institute for Computer Science and Technologies – CNR Pisa

Honorary Committee

A.C. Addison - University of California, Berkely – USA

J.A. Barceló – Autonomous University of Barcelona – Spain

A. Beraldin - National Research Council – Canada

L. De Luca – CNRS – France

M. Doneus – University of Vienna – Austria

M. Farjas – Universidad Politécnica de Madrid – Spain

M. Forte – Duke University – USA

F. Giligny – Université La Sorbonne – France

A. Grün – Federal Institute of Technology (ETH) Zurich – Switzerland

M. Guaitoli – University of Salento Lecce – Italy

G. Huadong – Chinese Academy of Sciences – China

M. Hernandez – The International Society for Photogrammetry and Remote Sensing – Mexico

I. Hodder – Stanford University – USA

I. Johnson – University of Sidney – Australia

S. Keay – University of Southampton – UK

K.L. Kvamme – University of Arkansas – USA

L. Lancaster – University of California, Berkely – USA

G. Lock – University of Oxford – UK

M. Millett – University of Cambridge – UK

W. Neubauer – Ludwig Boltzmann Institute – Austria

C. Orton – University College London – UK

E. Papi – University of Siena – Italy

D. Powlesland – University of York – UK

C. Renfrew - University of Cambridge – UK

H. Ruter – Cape Town University – South Africa

F. Vermuellen – University of Ghent – Belgium

E. Zubrow – University of Buffalo – USA

National Committee

G. Azzena – University of Sassari

P. Carafa – University of Rome “La Sapienza”

M. Cattani – University of Bologna

G. Ceraudo – University of Salento Lecce

A. d’Andrea – University of Naples

G. Gattiglia – University of Pisa

M. L.Gualandi – University of Pisa
L. Malnati – MIBACT – Ministry of Cultural Heritage
P. Moscati – Institute of Ancient Mediterranean Studies– CNR Rome
F. Niccolucci – University of Florence
A. Pessina – Archaeological Superintendence of Tuscany
S. Piro – Institute of Technology Applied to the Cultural Heritage – CNR Rome
A. P. Recchia – MIBACT – Ministry of Cultural Heritage
A. Santoriello – University of Salerno
G. Scardozzi – IBAM Institute for Archaeology and Monuments – CNR Lecce

Organizing Committee

G. Benelli – University of Siena, Italy
C. Citter – University of Siena, Italy
N. Dell’Unto – University of Lund, Sweden
G. Guidi – Polytechnic of Milan, Italy
S. Pescarin – Institute of Technology Applied to the Cultural Heritage – CNR Rome, Italy
G. Pizziolo – University of Siena, Italy
F. Remondino – Bruno Kessler Foundation Trento, Italy
A. Traviglia – Macquarie University Sidney, Australia

Scientific Secretariat

Marianna Cirillo – University of Siena

Contact CAA 2015 SIENA

Marianna Cirillo - marianna.cirillo@hotmail.it

CAA 2015 SIENA WEB SITE

<http://caaconference.org/>

CAA INTERNATIONAL WEB SITE

<http://caa-international.org/>

Conference venue – University of Siena

San Niccolò University Building - [Google Map](#)

In the early 2000s, the University of Siena restored the building, a former monastery that in early 800s was a sort of village organized into pavilions to accommodate mentally ill people. Some University departments have been housed in the wide rooms of the former psychiatric hospital that is located in the town centre, very close to Porta Romana.

The Teaching Centre has many teaching rooms, including those of the Outer Room Pavilion which comprises six 100 seat multi-functional rooms (transformable into a 700 seat auditorium).

Under the High Patronage of



Sponsored by



Ministero
dei beni e delle
attività culturali
e del turismo



Con il patrocinio di



Provincia di Siena



COMUNE
DI SIENA

SESSION 1B

THE CHALLENGE OF THE PREVENTIVE ARCHAEOLOGY : EFFICIENCY AND QUALITY

POSTER

1	<p>JEAN-PHILIPPE CHIMIER, THOMAS POUYET</p> <p><i>Working with preventive archaeological data in the research programm EVENA : an efficient case</i></p>
2	<p>FREDERIC AUDOUIT, VÉRONIQUE VACHON</p> <p><i>Topograhly in preventive archaeology : operating more integrated into GIS and archaeological information system</i></p>
3	<p>SYLVAIN BADEY, XAVIER RODIER</p> <p><i>Spatial analysis for an efficient use of data from trial trenching</i></p>
4	<p>ELLÉBORE SEGAIN, VÉRONIQUE VACHON</p> <p><i>Recording data and managing the field : another use of the GIS-DBMS system in preventive archaeology</i></p>
5	<p>CORINA IOANA BORS, LUCIANA ADELA RUMEGA-IRIMUS, VLAD RUMEGA-IRIMUS</p> <p><i>Large scale archaeological preventive excavations in Romania. The case study of the middle Hallstatt site Tărtăria – Podu Tărtăriei vest</i></p>

SESSION 2A

INTERDISCIPLINARY METHODS OF DATA RECORDING, MANAGEMENT AND PRESERVATION

POSTER

6	DOMENICO CANTONE, MARIANNA NICOLOSI-ASMUNDO, DANIELE FRANCESCO SANTAMARIA, FRANCESCA TRAPANI <i>An ontology for ceramics cataloguing</i>
7	MONICA GIULIANO <i>A multidisciplinary approach for virtual reconstruction</i>

SESSION 2B

INTEGRATING 3D DATA FROM FIELD ARCHAEOLOGY

POSTER

8	<p>SIMONE GIANOLIO, GUGLIELMO GENOVESE, FRANCESCA MERMATI</p> <p><i>New data for the plan of Forum Boarium in Rome</i></p>
9	<p>PAT THOMAS TANNER</p> <p><i>From initial site survey to 3D digital reconstruction</i></p>
10	<p>MERIEM ZAMMEL</p> <p><i>Photomodeling and cloud computing application in the survey of the roman theater of Uthina architectural elements</i></p>
11	<p>LEONARDO BAGLIONI, CARLO INGLESE, MATTEO FLAVIO MANCINI</p> <p><i>Topography, Laser Scanning and Automated Photogrammetry for an Integrated Survey methodology: survey and modeling of the Roman amphitheater in Syracuse</i></p>
12	<p>YONG ZHU</p> <p><i>3d interactive Terracotta Warriors site scene roaming system</i></p>
13	<p>ŁUKASZ MISZK, WERONIKA WINIARSKA, PAWEŁ ĆWIAKAŁA, WOJCIECH MATWIJ, KAROLINA MATWIJ</p> <p><i>3D database for Agora Nea Paphos. Case study</i></p>
14	<p>ANGELA BOSCO, MARCO BARBARINO, ROSARIO VALENTINI</p> <p><i>Pompei, Domus di Stallius Eros: a comparison between terrestrial and aerial low-cost surveys</i></p>
15	<p>ENEKO CALONGE MAESTRO, PABLO ROMERO PELLITERO, JOSÉ MARÍA MARTÍN CIVANTOS</p> <p><i>Archaeological 3d stratigraphic sequence modeling by structure from motion (SfM) techniques: practical experience in medieval sites</i></p>

16	<p>EVA BUTINA</p> <p><i>From historic data to representation of 3D models during archaeological excavation process: Benefits and limitations of use of proprietary software for archaeological data management</i></p>
17	<p>ANDREI CÎMPEANU, OVIDIU ȚENȚEA</p> <p><i>Master Problems of a master plan</i></p>

SESSION 2C

SUPPORTING RESEARCHERS IN THE USE AND RIUSE OF ARCHAEOLOGICAL DATA: FOLLOWING THE ARIADNE TREAD

POSTER

18	VICTORIA DONNELLY <i>A Study in Grey: Grey literature and archaeology in England</i>
19	ELISABETH GAVIGNET, ERIC LECLERCQ, NADINE CULLOT, MARINETTE SAVONNET, LAURE SALIGNY <i>Logics and modalities for managing uncertainty in archaeological databases</i>
20	KARL GROSSNER, IAN HODDER, CLAUDIA ENGE <i>Towards a Living Archive for Çatalhöyük</i>
21	BRUNO FANINI, SOFIA PESCARIN <i>Cyber Archaeology in the Cloud</i>
22	UROS DAMNJANOVIC, SORIN HERMON, VALENTINA VASSALLO, KYRIAKI YIAKOUPI, GIANCARLO IANNONE <i>STARC repo, collaborative repository of digital heritage data</i>
23	KAI-CHRISTIAN BRUHN, STEFANIE WEFERS <i>Salvaging TLS-Data from the terrace house 2 in Ephesos (Turkey) by annotating 3D-information and adopting a LOD approach</i>
24	STEINAR KRISTENSEN <i>The Religion and money project; Coins found in medieval churches the challenging GIS in a multidisciplinary project</i>

SESSION 2D

LINKED DATA: FROM INTEROPERABLE TO INTEROPERATING

POSTER

25	RIMVYDAS LAUŽIKAS, JUSTINAS JARONIS, INGRIDA VOŠYLIŪTĖ <i>Beyond the space: the LoCloud Historical Place Names microservice</i>
26	MATTHEW LUKE VINCENT <i>OpenDig: Applying CIDOC-CRM and CRMarchaeo to in-field Data Recording</i>

SESSION 3A

A DIALOGUE BETWEEN ARCHAEOLOGICAL SCIENCE AND COMPUTER VISUALIZATION

POSTER

27	RYAN J RABETT, PAOLA DI GIUSEPPANTONIO DI FRANCO <i>Digital fauna and zooarchaeological itunes</i>
28	DARIA HOOKK, NIKOLAI NIKOLAEV <i>Computer modelling for validation of a scientific hypothesis on narrative and archaeological sources: reconstruction of the wooden objects from frozen tombs</i>
29	UHANA KAMMONEN, TARJA SUNDELL <i>Principal component analysis of archaeological data</i>
30	LAN RYAN SMEYATSKY, KARIM SADR, PATRICK RANDOLPH-QUINNEY <i>Stylistic variation in Later Stone Age tanged arrowheads: a pilot study using geometric morphometrics</i>
31	LUCA BEZZI, CICERO MORAES <i>Archaeological forensic facial reconstruction with FLOSS</i>

SESSION 3B

OCCUPATION FLOORS OF HUNTER-GATHERERS IN THE DIGITAL ERA: IMPACT AND EXPECTATIONS BEYOND GEOMATICS AND COMPUTATIONAL PERSPECTIVE

POSTER

32	DOMENICO LO VETRO, ENRICO ORTISI, CLAUDIA STRIULI, GIOVANNA PIZZILO, MICHELE DE SILVA, PIER FRANCESCO FABBRI, FABIO MARTINI <i>A new Palaeolithic burial from Grotta del Romito (Calabria, Italy). A digital restitution.</i>
33	GIOVANNA PIZZILO, CARLO TESSARO, NICOLETTA VOLANTE <i>Exploring a Copper Age funerary site: Intra-site analysis and 3D visualisation at 'Poggio di Spaccasasso'(Grosseto, Italy)</i>

SESSION 3C

COMPUTER AND ROCK ART STUDIES: DATA COLLECTION, INTERPRETATION AND COMMUNICATION

POSTER

34	<p>LARISA VODOLAZHSKAYA, ARTEM VODOLAZHSKIY</p> <p><i>Journal AaATec - modern Internet-resource for communication in the field of archaeological studies</i></p>
35	<p>MASSIMO VANZI, PAOLO EMILIO BAGNOLI, CARLA MANNU, GIUSEPPE RODRIGUEZ</p> <p><i>Photometric Stereo 3D visualizations of rock-art panels, bas-reliefs and graffiti</i></p>
36	<p>BENITO VILAS</p> <p><i>A (re)view of the archaeoastronomical interpretations of the deer antlers in the Galician rock art: The case of Campo Lameiro, Pontevedra.</i></p>
37	<p>JORGE ANGAS, MANUEL BEA</p> <p><i>Geometric documentation and diffusion of the rock-art in Spain: ARAM project</i></p>

SESSION 4A

MANAGING ARCHAEOLOGICAL 3D MODELS

POSTER

38	FRANCESCO LELLA, SAVERIO GIULIO MALATESTA, ILARIA BALDINI, FRANCES PINNOCK, DAVIDE NADALI <i>Reconstructing a Lost Town: The Case Study of Ebla</i>
39	CARLO INGLESE, ANTONIO PIZZO <i>The Integrated Digital Survey As a Form of Knowledge of the Roman Bridges in Lusitania</i>
40	LI JIJUNNAN, GENG GUOHUA, JIA CHAO, WANG XIAOFENG <i>Reappear the Qin Dynasty Architecture: Eaves Tiles Reconstruction</i>
41	MAURICE DE KLEIJN, RENS DE HOND <i>A 3D Information system for the Mapping the Via Appia project</i>
42	MATTEO LORENZINI, RENATO GUERRUCCI <i>3D segmentation and semantical enrichment</i>
43	FRANCESCA CARBONI <i>Ostia, Domus Fulminata (III, VII, 3-5): from traditional survey to the virtual 3D model</i>
44	PETER RAUXLOH, MOISES HERNANDEZ CORDERO, AZIZUL KARIM <i>Beyond the academic – Photo modelling applied to complex commercial archaeology</i>

SESSION 4B

NEW TRENDS IN 3D ARCHAEOLOGY: INNOVATIVE TECHNIQUES AND METHODOLOGIES FOR THE ACQUISITION, RETRIEVAL AND ANALYSIS OF CULTURAL HERITAGE

POSTER

45	<p>BERNARD D. FRISCHER</p> <p><i>Digitizing the West Pediment of the Temple of Zeus at Olympia: From 3D Data Capture to Online Publication.</i></p>
46	<p>STEFANO CAMPOREALE, ROSSELLA PANSINI</p> <p><i>The Capitolium of Sala (Rabat, Morocco): a new study and 3D reconstruction.</i></p>
47	<p>CRISTINA GIANCRISTOFARO, EMANUELA GRIFONI, STEFANO LEGNAIOLI, GIULIA LORENZETTI, STEFANO PAGNOTTA, LUCIANO MARRAS, GIANNA GIACHI, PASQUINO PALLECCHI, VINCENZO PALLESCHI</p> <p><i>'Tomba della Scimmia' in Chiusi (SI). Photogrammetric 3D reconstruction, multispectral imaging and analysis of the painted surfaces.</i></p>
48	<p>ELENA BIONDI, ALESSANDRO BOVERO, PAOLO TRIOLO</p> <p><i>Multispectral photogrammetric techniques and multispectral RTI in monitoring of surfaces in archeological and cultural heritages objects: the case study of sarcophagi from Egyptian Museum of Turin.</i></p>
49	<p>MEHDI BELARBI, AURELIA LUREAU</p> <p><i>The Gothic church Saint-Pierre et Saint-Paul of Gonesse, France : photogrammetric survey of preventive excavations and online presentation.</i></p>
50	<p>GIULIO POGGI</p> <p><i>Documentation and analysis workflow for the on-going archaeological excavation with Images-Based 3D modeling technique: the case-study of the medieval site of Monteleo (Italy).</i></p>
51	<p>ROBERT SCHLADER</p> <p><i>Why pay to play? Comparison and contrast of Meshlab to commercial software for post processing of 3D scan data.</i></p>
52	<p>NOUR ALLAH MUNAWAR</p> <p><i>Cultural Heritage Preservation in a Digital Context.</i></p>

53	GIUSI SORRENTINO, STEFANO GIUNTOLI, STEFANO VALENTINI, CRISTINA GIANCRISTOFARO, EMANUELA GRIFONI, STEFANO LEGNAIOLI, MARTINA LEONARDI, GIULIA LORENZETTI, STEFANO PAGNOTTA, VINCENZO PALLESCHI <i>3D reconstruction and elemental analysis of the Etruscan 'Telephus mirror' of Tuscania.</i>
54	MIGUEL BUSTO-ZAPICO, MIGUEL CARRERO-PAZOS <i>3D technology applied to quantification studies of pottery: EVE 2.0.</i>
55	ISIDORO CAMPAÑA, ALFONSO BENITO-CALVO, JOSÉ MARÍA BERMÚDEZ DE CASTRO, ALFREDO PÉREZ-GONZÁLEZ, EUDALD CARBONELL <i>Using 3D models to analyze stratigraphic and sedimentological contexts in archaeo-palaeoanthropological Pleistocene sites (Gran Dolina site, Sierra de Atapuerca).</i>
56	ÁNGELA CRESPO FRAGUAS, MIGUEL ÁNGEL DÍAZ MORENO, SERGIO ISABEL LUDEÑA, INÉS DEL CASTILLO BARGUEÑO, MERCEDES FARJAS ABADÍA, GUILLERMO MARTÍNEZ PARDO-GIL, ESTHER ALFONSO CARBAJOSA, CARLOS RUÍZ SERRANO <i>Arqueología del Conflicto: Aplicación de nuevas tecnologías en el yacimiento de Los Yesares, Pinto (Madrid) [Archeology of Conflict: application of new technologies in the site of Los Yesares, Pinto (Madrid)]</i>
57	ALBA MASCLANS, JOAN ANTON BARCELÓ, MAITE VENTURA, JUAN FRANCISCO GIBAJA <i>3D Geometric Morphometric Methodology applied to the Study of Neolithic Stone Axes.</i>
58	JORGE ANGAS, JACOPO BRUTTINI, FEDERICO CANTINI <i>Standardization of 3D data recording and management in the archaeological excavation of the Third Courtyard of Palazzo Vecchio (Florence. Italy).</i>
59	BRUNO FANINI, DANIELE FERDANI, EMANUEL DEMETRESCU <i>Serious games in Virtual Archaeology: a distributed workflow for 3D asset ingestion.</i>
60	MARIUSZ WIŚNIEWSKI, WOJCIECH OSTROWSKI, BARRY MOLLOY <i>RAW file pre-processing and 3d model quality – archaeological perspective.</i>

SESSION 4C

FORMAL APPROACHES TO VISIBILITY ANALYSIS IN ANCIENT ARCHITECTURAL SPACES AND CULTURAL LANDSCAPES

POSTER

61	<p>MICHAL BIRKENFELD, YIEZHAK PAZ</p> <p><i>Seen and Unseen: Using View Shed Analysis to reconstruct socio-political relations between settlements in LBA Ramat Bet Shemesh, Israel</i></p>
62	<p>ANIL KUMAR, NEETI ANIL KUMAR</p> <p><i>Typo-technological aspects of rock-cut cave-temples in south India -with special reference to the Pallava Caves (data analysis and interpretation using digital applications in cave architecture)</i></p>
63	<p>MICHELE DE SILVA</p> <p><i>Visual space, defence, control and communication: towers and fortresses system of the tuscan coastal belt</i></p>
64	<p>YING ZHOU, MINGQUAN ZHOU, WUYANG SHUI, ZHONGKE WU, WEI WANG</p> <p><i>Segmentation of Ancient Chinese Architecture Point Cloud based on Parallel k-means Clustering</i></p>

SESSION 4D

3D RECONSTRUCTION, ANALYSIS AND IMMERSIVE TELEPRESENCE AT ROCK-ART SITES

POSTER

65	<p>GUOGUANG DU, MINGQUAN ZHOU, PU REN, ZHONGKE WU, WUYANG SHUI, PENGBO ZHOU</p> <p><i>Image aided repair for Tibetan Architecture Reconstruction</i></p>
66	<p>PU REN, MINGQUAN ZHOU, GUOHUA GENG, WUYANG SHUI, CHUNHONG WANG</p> <p><i>Rule-based Rapid Modeling Method for Chinese Pagodas</i></p>
67	<p>EMANUEL DEMETRESCU, DANIELE FERDANI</p> <p><i>Best practices in archaeological 3D reconstruction: the case study of the Mausoleum of Romulus in Rome.</i></p>
68	<p>WEI WANG, MINGQUAN ZHOU, WUYANG SHUI, YI ZHOU, ZHONGKE WU, YING ZHOU, KANG WANG</p> <p><i>Artifact models Simplification and progressive transmitted encoding</i></p>
69	<p>JORGE ANGAS, MANUEL BEA</p> <p><i>Virtual restitution of the destroyed Levantine rock art shelters of Matarraña region (Teruel, Spain)</i></p>

SESSION 4E

FROM 3D SCANNING OF OBJECTS AND MONUMENTS TO AUGMENTED REALITY THEORETICAL AND METHODOLOGICAL ISSUES OF ADVANCED 3D IMAGING TECHNOLOGIES

POSTER

70	MARIO ALAGUERO, DAVID CHECA, ANDRES BUSTILLO <i>Learning the lessons of history: the augmented reality of the Mosque of Burgos in the Spanish Civil War</i>
71	CARLO BATTINI, GIOVANNI LANDI <i>Augmented Reality e Virtual reality with mobile devices</i>

SESSION 4F

GEOMATICS APPROACHES IN LATIN AMERICAN ARCHAEOLOGY: THE STATE-OF-THE-ART IN SPATIAL ARCHAEOLOGY

POSTER

72	<p>TIAGO ATTORRE, PAULO DEBLASIS</p> <p><i>Ground Penetrating Radar and GNSS-RTK as tools for mapping, imaging and modeling large archaeological structures surrounding Coastal Shell Mounds in Southern Brazilian Coast</i></p>
73	<p>DANIEL ALEXANDER CONTRERAS</p> <p><i>A history of digital data acquisition and analysis at Chavín de Huántar, Peru</i></p>
74	<p>PATRICIA CASTILLO-PEÑA, KRASSIMIR IANKOV</p> <p><i>Application of LiDAR and Photogrammetry in a "World Heritage" Archaeological Site: El Tajín, Veracruz; México</i></p>
75	<p>ALEX AUGUSTUS KARA</p> <p><i>Of PostGIS and Peteneros: finding the interface between geospatial technology and Maya Archaeology</i></p>

SESSION 5A

MODELLING APPROACHES TO ANALYSE THE SOCIO-ECONOMIC CONTEXT IN ARCHAEOLOGY

POSTER

76	<p>KARIM SADR</p> <p><i>Methodological issues in the classification of stone-walled structures and their effects on modelling the socio-economic organization of pre-colonial communities in the southern Gauteng Province, South Africa.</i></p>
77	<p>RAFFAELLA DA VELA</p> <p><i>The Romanization of Northern Etruria as a breakdown of the social network of the minor settlements</i></p>
78	<p>ARNE ANDERSON STAMNES</p> <p><i>Assessing the Effect of Temperature Change on Iron Age Crop Production and Settlement Patterns in Mid-Norway – a Geostatistical Model</i></p>
79	<p>CRAIG ALEXANDER</p> <p><i>Rock-art, land-use and settlement in Iron Age Valcamonica</i></p>
80	<p>VALERIA ACCONCIA, SERAFINO LORENZO FERRERI</p> <p><i>GIS analysis for the identification of land use in inland Abruzzo from the Iron Age to the Romanization</i></p>
81	<p>GIUSEPPE MUCI</p> <p><i>Evaluating the crisis: population and land productivity in Late Medieval Salento (Southern Apulia)</i></p>
82	<p>ANDREA D'ANDREA, RODOLFO FATTOVICH, ANDREA MANZO, LUISA SERNICOLA, GILDA FERRANDINO, GIUSEPPE ZOLLO, ANTONELLA PALOMBA, MARTINA GRANIGLIA</p> <p><i>Dynamics of the settlement pattern in the Aksum area (800-400 BC). An ABM preliminary approach</i></p>
83	<p>TIM MURTHA, KIRK FRENCH, DAVID WEBSTER, CHRIS DUFFY</p> <p><i>Landscape and Territory at Tikal, Guatemala</i></p>

SESSION 5B

CONTINUING THE REVOLUTION WITH SPATIAL METHODS & ARCHAEOLOGICAL INTERPRETATION:
THE HOW AND WHYS OF SPATIAL ANALYSIS

POSTER

84	<p>KAREN NISKANEN</p> <p><i>Motifs in Finnish cliff paintings: distribution and contexts</i></p>
85	<p>ANDREA CAPECCHI, MICHELE DE SILVA, FABIO MARTINI, LUCIA SARTI</p> <p><i>GIS applications and spatial analysis for the survey of the prehistoric northern Apennine context: the Mugello case study (Tuscany)</i></p>

SESSION 5C

ARCHAEOLOGICAL THEORY AND STATISTICAL MODELLING. BRIDGING THE GAP

POSTER

86	<p>PETER OSKAR PFLAUMER</p> <p><i>Distributions of Age and Death from Roman Epitaph Inscriptions: An Application of Data Mining</i></p>
87	<p>ELMAR SCHMALTZ, MICHAEL MÄRKER, FELIX BACHOFER</p> <p><i>Stochastic modelling and comparison of fluvial landforming dynamics based on archaeological information of Palaeolithic sites in two intra-montane basins in the Northern Apennine</i></p>
88	<p>MAURO MAZZEI, ANTONIO SALVATORI, LUCIANO MARIA RENDINA</p> <p><i>A Spatial Statistical Approach for the Territorial System of Marturanum Regional Park, Lazio (Italy)</i></p>

SESSION 5D

PREDICTIVITY AND POSTDICTIVITY IN ARCHAEOLOGY. REFLECTING AND DISCUSSING ABOUT THEORIES, METHODS, AND TOOLS

POSTER

89	<p>ANDRÉS DíEZ-HERRERO, LUIS M. TANARRO, DAVID ÁLVAREZ-ALONSO, MARÍA DE ANDRÉS-HERRERO, JULIO A. ROJO-HERNÁNDEZ</p> <p><i>A MCE-GIS based model for assessing the influence of abiotic factors on the spatial distribution of the paleolithic archaeo-sites in central Spain</i></p>
90	<p>S. T. STEWART, STEVEN EDWARDS, PHILIP HITCHINGS, E. B. BANNING</p> <p><i>Predicting Survey Coverage through Calibration: Sweep Widths and Survey in Cyprus and Jordan</i></p>
91	<p>ANDREA PATACCHINI, SIMONE MORETTI, GIULIA NICATORE</p> <p><i>Potential paths and historical road network between Italy and Egypt: from predictive to postdictive approach.</i></p>
92	<p>NEVIO DUBBINI, GABRIELE GATTIGLIA</p> <p><i>What is the archaeological potential? A computational definition</i></p>
93	<p>AUGUSTO PALOMBINI, CINZIA TAVERNARI</p> <p><i>On their way back home... Geostatistical analysis applied to medieval caravanserais distribution in the the Syrian region.</i></p>
94	<p>MARCUS ASSERSTAM</p> <p><i>Predictive modelling for pioneer settlements in eastern middle Sweden</i></p>
95	<p>LAURA MORABITO, GIOVANNA PIZZILO</p> <p><i>Postdicting and predicting Proto-history: a case study from Central Italy</i></p>

SESSION 5E

HOMOLOGATION AND STANDARDIZATION OF ARCHAEOLOGICAL CARTOGRAPHIC DATA

POSTER

96	<p>STEFANO CAMPANA, MATTEO SORDINI</p> <p><i>The Sitan project in the Province of Grosseto: a web-gis for landscape archaeology</i></p>
97	<p>ALFONSO SANTORIELLO, AMEDEO ROSSI, LUIGINA TOMAY</p> <p><i>The SiUrBe project (Sistema Informativo del patrimonio archeologico Urbano di BEnevento: an Archaeological Information System as a tool for the definition of the archaeological evaluation</i></p>
98	<p>SERAFINO LORENZO FERRERI</p> <p><i>The 'Georeferenced archaeological census of Abruzzo': problems in the homologation and the repositioning of known archaeological data</i></p>
99	<p>MARIA ASSUNTA PAPA, AURELIO BURGIO</p> <p><i>The Cignana Project. Preliminary considerations on the settlement strategies during the Imperial Age from an archaeological, a geomorphological, and GIS perspective</i></p>
100	<p>MARIA LUISA MARCHI, GIOVANNI FORTE</p> <p><i>From the GIS of the Ager Venusinus project to the GIS of Ager Luceriunus Project: evolution of the system</i></p>
101	<p>ILARIA DI COCCO, MARCO EDOARDO MINOJA, RENATA CURINA, TIZIANO TROCCHI</p> <p><i>Standardization and certification of archaeological data in the WebGIS of the protected cultural heritage of Emilia-Romagna</i></p>

SESSION 5H

GEOGRAPHICAL AND TEMPORAL NETWORK SCIENCE IN ARCHAEOLOGY

POSTER

102	<p>SILKE VANBESELAERE</p> <p><i>Durability of ties or Nero's frenemies</i></p>
-----	--

SESSION 5I

INTERPRETING THE UNSTRUCTURED: NEW METHODS AND TOOLS FOR INTRASITE SPATIAL ANALYSIS OF PALAEO SURFACES

POSTER

103	<p>MIQUEL ROY SUNYER, RAFAEL MORA TORCAL, JORGE MARTÍNEZ MORENO</p> <p><i>Deconstructing palimpsests: Applicability of automated GIS algorithms</i></p>
104	<p>GIANNA GANDOSI</p> <p><i>A Chronology of Site Use: Quantifying Odd Deposits with GIS in Time and Space</i></p>
105	<p>LAURA MORABITO, ROSALBA AQUINO, MATTEO FARAONI, GIOVANNA PIZZILO</p> <p><i>Living in a palaeoriverbed: intra-site analysis of two prehistoric sites in the Florentine alluvial plain.</i></p>
106	<p>FRANÇOIS GILIGNY</p> <p><i>Reconstruction of the domestic units by the data analysis of the ceramic reassemblies: the example of the lakeside dwellings</i></p>

SESSION 5J

SPATIAL ANALYSIS IN ETHNOARCHAEOLOGY AND EXPERIMENTAL ARCHAEOLOGY

POSTER

107	FABIO CAVULLI <i>Sand trampling experiment: the effects of surface trampling on the archaeological record</i>
-----	--

SESSION 5K

WHERE DO WE GO FROM HERE? LEAST COST PATHS REVISITED

POSTER

108	Michele Matteazzi <i>Reconstructing Roman communication routes in the low Venetian plain with GIS</i>
109	Doug Rocks-Macqueen <i>Least Cost Path- The Least Useful Tool?</i>
110	Susanne Rutishauser <i>Natural frontiers and paths in Cilicia</i>

SESSION 5L

MODELLING LARGE-SCALE HUMAN DISPERSALS: DATA, PATTERN AND PROCESS

POSTER

111	<p>ERICSON HÖLZCHEN</p> <p><i>Identification of Agent-based Modelling elements in "Out of Africa" Hypotheses</i></p>
112	<p>CHUNYAN ZHAO</p> <p><i>Strontium isotope analysis and human mobility from late Neolithic to early Bronze Age in the central plain of China</i></p>

SESSION 5M

IMPROVING RESOLUTIONS: USE AND POTENTIALS OF QUANTITATIVE METHODS IN NEAR EASTERN ARCHAEOLOGY

POSTER

113	ARIE KAI-BROWNE, THOMAS BREMER, SUSANNE BRANDHORST, ALEXANDER HENNIG, FELIX BALDA, DAVID STRIPPGEN, SEBASTIAN PLESCH, ARIAN GOREN, KAY KOHLMAYER <i>The potential of game engines in real-time simulation of archaeological scenarios</i>
114	ALESSANDRO DI LUDOVICO <i>Working on Western Asiatic Artefacts: Values and Perspectives of Past and Present Experiences with Quantitative Methods</i>
115	CRISTINA BACCARIN, ANTONIETTA CATANZARITI <i>Use of remote sensing in mapping the Qara Dagh valley, Iraqi-Kurdistan</i>

SESSION 6A

APPROACHES FOR SENSOR DATA INTEGRATION FOR THE INVESTIGATION OF ARCHAEOLOGICAL LANDSCAPES

POSTER

116	KASPER JAN HANUS, EMILIA SMAGUR <i>Integrated prospection of the moated site Lovea, NW Cambodia.</i>
117	MIGUEL CARRERO PAZOS, BENITO VILAS ESTÉVEZ <i>Limits and possibilities of LiDAR data application for the study of Galician megalithic culture</i>

SESSION 6B

NEW ADVANCEMENTS IN COMPUTATIONAL IMAGING

POSTER

118	ELENI KOTOULA <i>Ultraviolet Reflectance Transformation Imaging</i>
-----	--

SESSION 6C

SITES, LANDSCAPES AND SURVEY: THE PAST, PRESENT AND FUTURE OF NON-INTRUSIVE
GEOPHYSICAL SURVEY IN THE FIELD AND THE LABORATORY

POSTER

119	LUIGI CAPOZZOLI, ANTONELLA CAPUTI, GREGORY DE MARTINO, VALERIA GIAMPAOLO, RAFFAELE LUONGO, ENZO RIZZO, FELICE PERCIANTE <i>Geophysical-archaeological experiments in controlled conditions at the Hydrogeosite Laboratory (CNR-IMAA)</i>
-----	--

SESSION 6D

COLOUR AND SPACE IN CULTURAL HERITAGE: INTERDISCIPLINARY CONNECTIONS

This session is kindly supported by the COST Transdomain Action, Colour and Space in Cultural Heritage (COSCH)

POSTER

120	<p>DOMINIQUE LAUVERNIER</p> <p><i>Virtualisation and restitution of Court theatres : from sources to space, sound, light.</i></p>
121	<p>FRANK BOOCHS, ASHISH KARMACHARYA, STEFANIE WEFERS</p> <p><i>Structuring 3D technologies through semantics for an optimized use in cultural heritage documentation</i></p>

SESSION 6E

LOW ALTITUDE AERIAL PHOTOGRAPHY FOR ARCHAEOLOGY – WHERE IS THE REVOLUTION LEADING US?

POSTER

122	<p>TAVERNARI CINZIA, GILLOT LAURENCE, BOUET OLIVIER, DEL ANDRÉ</p> <p><i>The uses of remote control drones in archaeological evaluation and assessment</i></p>
123	<p>PATRICK DRESCH</p> <p><i>Processing and presenting datasets acquired using UAVs for commercial landscape surveys.</i></p>
124	<p>MIKOLAJ KOSTYRKO</p> <p><i>Obtaining a low cost DTM – a kite perspective</i></p>
125	<p>JASON T. HERRMANN, BENJAMIN GLISSMAN, MATTHIAS LANG</p> <p><i>Low-Altitude Aerial Photography in an Archaeological Survey of Iraqi Kurdistan</i></p>
126	<p>RONNY WEBLING</p> <p><i>Mine is longer than yours – Pole Aerial Photography for the documentation of archaeological excavations and architectural remains</i></p>

SESSION 7A

TEACHING DIGITAL ARCHAEOLOGY - DIGITALLY TEACHING ARCHAEOLOGY

POSTER

127	<p>KEVIN KEE</p> <p><i>Seeing the Past with Augmented Reality and Computer Vision in Schools, Universities and Museums</i></p>
128	<p>MATTEO DELLEPIANE</p> <p><i>3D acquisition technologies for Cultural Heritage: a course for Digital Humanities students</i></p>
129	<p>GIULIANO DE FELICE</p> <p><i>The new trend of 3D archaeology is ... going 2D!</i></p>

SESSION 7B

NEW CULTURAL HERITAGE ECONOMIES IN THE DIGITAL ERA

POSTER

130	MARZIA BREDA, ANNA ELISABETTA ZIRI, MICHELA BIANCARDI, SILVIA PARENTI <i>WikiSauro: a wiki for museums</i>
131	CHIARA FERIOTTO, GIUSEPPE MINCOLELLI, MATTEO FABBRI, MICHELA BIANCARDI, ALESSANDRO MASSARENTE, STEFANO MUNERATO, FABIANA RACO <i>QFD as an opportunity to drive innovation on the market. Living museum: education and active participation</i>

SESSION 7C

REPLICATION: FROM THE PAST TO THE DIGITAL AGE

POSTER

132	<p>BLANCA GUINEA, GUILLERMO PUENTE, ANDRES BUSTILLO</p> <p><i>Using Rapid Prototyping and 3D renders to explain strong modified cultural heritage: the case of the Ducal Palace in Lerma (Spain)</i></p>
133	<p>DOMENICO LO VETRO, FRANCESCO ENRICO ORTISI, ANGELO SECCI, GIOVANNA PIZZILO, MICHELE DE SILVA, LUCIA SARTI, FABIO MARTINI</p> <p><i>Florence before Florentia. For the building up of a virtual Archaeological Museum of the Florentine area</i></p>

SESSION 7D

WHAT CAME FIRST, THE INTERFACE OR THE USER? ABOUT REASONING AND THE ILLUSIVENESS OF INTERFACES IN THE PRACTICE OF DIGITAL AND VIRTUAL ARCHAEOLOGY

POSTER

134	MARCO ORLANDI, SIMONE ZAMBRUNO, ANTONINO VAZZANA <i>One-to-one or one-to-many? An analysis of digital media for exploitation of academic outcomes</i>
135	ANDREA FRATTA, LORENZO BALDASSARRO, FABIO GIUSEPPE ANTONIO GAGLIARDI, CRISTIANO MOSCARITOLO <i>The Castle of Deliceto. Two proposals for archaeological knowledge sharing</i>

SESSION 8A

DIGITAL CITIES: DOCUMENTING AND TRANSMITTING THE ARCHAEOLOGICAL-ARCHITECTONICAL RECORD

POSTER

136	<p>ALFONSO IPPOLITO</p> <p><i>Archaeological data virtualization for the purpose of digital documentation and reconstruction</i></p>
137	<p>MARCO NEGRONI, SERENA DIMA, RACHELE ZAPPA, MARIA CLARA FROSI, MONIQUE PASINI</p> <p><i>Piazza dei Mercanti (Milano): Cardboard google's inexpensive virtual reality (VR) applied to cultural heritage promotion.</i></p>

SESSION 8B

URBAN DIGITAL-SCAPES: COMPUTER APPLICATION TO THE STUDY OF PAST URBAN DEVELOPMENTS

POSTER

138	PAOLO BUONORA <i>Descriptio Urbis – A WebGIS to reconstruct urban landscapes of Rome.</i>
-----	--

SESSION 9A

TOWARDS A THEORY OF PRACTICE IN APPLIED DIGITAL FIELD METHODS

POSTER

139	<p>SORIN HERMON, ELEFTERIOS CHARALAMBOUS, LOLA VICO, NIKOLAS BAKIRTZIS, GIANCARLO IANNONE</p> <p><i>Characterization of physical damages on ancient carved structures – a 3D quantitative and qualitative approach. Tomb 6 of the Pafos Tombs of the Kings complex as a case-study</i></p>
140	<p>VALENTINA VASSALLO</p> <p><i>A virtual bridge between Sweden and Cyprus: the case study of Agia Irini</i></p>
141	<p>ARIANNA TRAVIGLIA, STEPHEN WHITE, ANDREW WILSON, BEATRICE MCLOUGHLIN</p> <p><i>Digital practice in archaeological fieldwork: theoretical frameworks of 'going digital'.</i></p>
142	<p>PETER JENSEN, CASPER SKAANING ANDERSEN</p> <p><i>3D Documentation Workflow of Archaeological Excavations</i></p>

SESSION 9C

MODELLING THE ARCHAEOLOGICAL PROCESS

POSTER

143	<p>KAVEH YOUSEF POURAN, JUAN ANTON BARCELÓ, MARIA SAÑA SEGUÍ</p> <p><i>Extending Archaeozoology, from computer visualization to behavior dynamics: understanding early animal domestication through coupling functional morphology and locomotion</i></p> <p><i>Biomechanics</i></p>
144	<p>PATRIZIA GIOIA, LIVIA RIGA, RITA VOLPE</p> <p><i>How can the archaeologist “reconstruct” himself by “reconstructing” the ancient landscapes?</i></p> <p><i>Drawing and telling life in ancient suburbs of Rome</i></p>

SESSION 9D

THE SERVICE OF DIGITAL, VIRTUAL, AND CYBER ARCHAEOLOGY IN THE CONSTRUCTION OF ARCHIVES OF HUMAN IDENTITY

POSTER

JEAN-BAPTISTE BARREAU, QUENTIN PETIT, SANDRINE BERGEROT YANN BERNARD, RÉGINALD AUGER, YANNICK LE ROUX, RONAN GAUGNE, VALÉRIE GOURANTON

144A

3D reconstitution of the Loyola sugar plantation and virtual reality applications

SESSION 9E

MOVING THE FOCUS FROM "KNOW HOW" TO "KNOW WHY" 3D MODELING CULTURAL HERITAGE

POSTER

145	ELEONORA GANDOLFI, GRANT COX <i>New techniques in archaeology: which is the most accurate?</i>
-----	---

SESSION 9F

MACHINE LEARNING AND PATTERN RECOGNITION FOR ARCHAEOLOGICAL RESEARCH

POSTER

146	<p>JULIA L GALLIKER</p> <p><i>Application of computer vision to cross-collection characterisation of historic silk textiles attributed to Mediterranean production centres c. AD 600-1300</i></p>
147	<p>HUBERT MARA, BARTOSZ BOGACZ</p> <p><i>A Bridge to Digital Humanities: From Geometric Methods to Machine Learning for Analyzing Ancient Script in 3D</i></p>
148	<p>MICHAIL PANAGOPOULOS</p> <p><i>Identifying patterns on prehistoric wall paintings: A new curve fitting approach</i></p>
149	<p>MARTINA TROGNITZ</p> <p><i>Computer based analysis of multi-sided Aegean seals</i></p>

SESSION 10B

ELECTRONIC RESOURCES FOR ARCHAEOLOGY: FROM DATABASES TO DIGITAL OPEN DATA

POSTER

150	<p>YUE MENG, MINGQUAN ZHOU, WUYANG SHUI</p> <p><i>Tibet Cultural Resources Digital Network Exhibition Platform Based On Blog System</i></p>
151	<p>BASTIEN VAROUTSIKOS</p> <p><i>Obsidatabase: a collaborative interdisciplinary platform on Near Eastern obsidian</i></p>
152	<p>MARIAGRAZIA GALIMBERTI, NICHOLAS GEORGE WILTSHIRE, KYLA BLUFF</p> <p><i>Rolling Out Free And Open Source National Heritage Systems To Record Archaeological Sites</i></p>
153	<p>MATTHIAS LANG, MANUEL ABBT, GERLINDE BIGGA, JASON T. HERRMANN, VIRGINIA HERRMANN, FABIAN SCHWABE, DIETA SVOBODA</p> <p><i>A Swabian in the Orient - in the footsteps of Julius Euting - Bridging the gap between Digital Humanities and Digital Archaeology</i></p>
154	<p>SILVIA LISCHI, FRANCESCA SIMI</p> <p><i>Open Data and Near Eastern Archaeology</i></p>

SESSION 11

OPEN SESSION

POSTER

155	<p>ANTONIO GARCÍA CASTAÑEDA, TOM FUNKHOUSER, BENEDICT BROWN, SZYMON RUSINKIEWICZ, TIM WEYRICH</p> <p><i>Verification-Minimal Assembly of Fragmented Frescoes</i></p>
156	<p>FABIÁN ARIEL DE HARO</p> <p><i>Archeology and GIS in the hills of Tandilia Buenos Aires Argentina</i></p>
157	<p>ROCÍO GUTIÉRREZ GONZÁLEZ, MERCEDES FARJAS ABADÍA, ISABEL VELÁZQUEZ SORIANO</p> <p><i>EPIARQ a step towards standardization and interoperability in the epigraphic cataloguing</i></p>
158	<p>NÚRIA OTERO</p> <p><i>Intervisibility analysis and the definition of the western llergete territory: the case of Monderes.</i></p>
159	<p>LANA MELANIE RUCK, CLIFFORD TODD BROWN</p> <p><i>Quantitative Analysis of Munsell Color Data in Ceramics</i></p>
160	<p>ANDERS HAST, ANDREA MARCHETTI</p> <p><i>Stereo Visualisation of Historical Aerial Photos as a Valuable Tool for Archeological Research</i></p>
161	<p>MARIA PIA DI BUONO</p> <p><i>Entity Recognition for Archaeological Texts: an Ontology-based Su-pervised Approach</i></p>
162	<p>EVA PIETRONI, MASSIMILIANO FORLANI, CLAUDIO RUFÀ, ANDREA ADAMI, STEFANO BORGHINI, RAFFAELE CARLANI</p> <p><i>The Villa dei Volusii and Tiber Valley Virtual Museum: from the digital acquisition on the field to the 3D reconstruction, up to a novel approach in interactive storytelling inside VR environment</i></p>
163	<p>PETER ANTHONY INKER</p> <p><i>Virtual Williamsburg - Contextualizing data to construct a multi-layered user experience</i></p>

164	<p>ISTO HUVILA</p> <p><i>Chatting #fieldnotes : rethinking notetaking workflows in field archaeology</i></p>
165	<p>MARCO MINOJA GIANFRANCA SALIS</p> <p><i>Archaeological landscape safeguard and digital media. An example from Sardinia.</i></p>
166	<p>JOHN R CLARKE</p> <p><i>The Unity Gaming Engine as a Tool for Scholarship: The 3D Model of Villa A at Oplontis</i></p>