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# KAINUA 2017

International Conference on Knowledge, Analysis and Innovative Methods for the study and the dissemination of ancient urban areas

# BOLOGNA APRIL 18<sup>TH</sup> - 21<sup>ST</sup>

DEPARTMENT OF HISTORY AND CULTURES "Giorgio Prodi" Lecture Hall Piazza San Giovanni in Monte, 2

# PROGRAM

Conference in honour of Professor Giuseppe Sassatelli's 70<sup>th</sup> birthday





DIPARTIMENTO DI STORIA CULTURA CIVILTÀ DIPARTIMENTO DI ARCHITETTURA

with the collaboration of









KAINUA 2017 is the Closing Conference of the three-year long FIR 2013 project KAINŬA. Reconstructing, perceiving, disseminating the lost reality. Transmedial technologies for the Etruscan city of Marzabotto, funded by the Italian Ministry of Education, Universities and Research (MIUR). The Conférence is organized by the Department of History and Cultures and the Department of Architecture of the Bologna University, in collaboration with CINECA, Soprintendenza Archeologia, Belle Arti e Paesaggio per la Città Metropolitana di Bologna e le province di Modena, Reggio Emilia e Ferrara, Polo museale dell'Emilia Romagna and the Journal Archeologia e Calcolatori of ISMA - CNR, and with the patronage of UNESCO - Commissione Nazionale Italiana, the Municipality of Bologna and Genus Bononiae – Musei nella città. The Conference is in honour of Professor Giuseppe Sassatelli's 70<sup>th</sup> birthday, who always encourages students and scholars to a multidisciplinary research in Archaeology. Regarding the Etruscan city of Marzabotto, his uninterrupted work has opened a new season of research and has changed the historical perspective of this ancient city.

#### What does the KAINUA 2017 official icon mean?

The icon representing the KAINUA 2017 Conference is a

Pebble with an engraved cross. Its importance is due to the place of its discovery. This pebble was found in the summer of 1963, buried under the crossroads of the main streets in the ancient Etruscan city of Kainua. We assume that around 500 BC, Etruscans dug a pit at the bottom of which the engraved pebble was set down, orienting its engraved cross according to the cardinal points that would have later guided the roads' plan. The pit was then covered by the crossroad

Therefore, the pebble with the engraved cross, namely the decussis according to the Roman tradition, is the materialization of the place where the construction of the town began and, above all, it is the mate-rial icon of the Erruscan ritual of foundation.

As the pebble with decussis is a symbol of the foundation rite and the construction of the Etruscan city, we chose it as a secular symbol of the process of reconstruction of ancient urban areas.



# PROGRAM



# APRIL 18

- 08.30-10.00 REGISTRATION OF PARTICIPANTS
- 10.00-11.00 OPENING CEREMONY

#### TRACK 1: ARCHAEOLOGICAL ANALYSIS OF ANCIENT CITIES AND THEIR LANDSCAPES

- 11.00-11.40 KEYNOTE 1. From ruins to reconstruction: past and present (M. Torelli)
- 11.40-12.10 Archaeological Computing and Ancient Cities: Insights from the Repository of «Archeologia e Calcolatori» (P. Moscati, invited speaker)

THE ANALYSIS OF THE SETTLEMENT

- 12.10-12.35 From the groma to the city: new datas on the urbanism of Civita Musarna (V. Jolivet, H.Broise, G.E. Cinque)
- 12.35-13.00 Geo-archaeological study of the territory of Burnum's Roman site (Croatia) through LANDSAT multi-temporal satellite images and high resolution GeoEye (A. Campedelli, M. Dubbini, M. Martina)
- 13.00-14.00 LUNCH
- 14.00-14.25 Reconstructing the ancient urban landscape in a long-lived city: the project Ausculum between research, territorial planning and preventative archaeology (E. Giorgi, F. Boschi, M. Silani)

THE URBAN SETTLEMENT AND ITS LANDSCAPE

- 14.25-14.50 A city and its landscape across time: a perspective from Samarkand (Uzbekistan) (S. Mantellini)
- 14.50-15.15 Contemporary Landscape and Archaeological Record. An Integrated Approach for the Study of the Etruscan-Samnite Site of Pontecagnano (SA) (C. Pellegrino, A. Rossi)
- 15.15-15.40 Tharros Capo San Marco in the Phoenician and Punic age. Geophysical investigations and virtual rebuilding (A.C. Fariselli, F. Boschi, M. Silani, M. Marano)
- 15.40-16.05 Castelmonardo Project: an union among technological research, 3D approach and social communication (V. Poscetti, S.G. Malatesta,, V. Rondinelli, F. Lella, V. Cirilli)
- 16.05-16.30 COFFEE BREAK

THE LANDSCAPE

16.30-16.55 Pyrgi, harbour and sanctuary of Caere: landscape, urbanistic planning and architectural features (L.M. Michetti, M.P. Baglione, B. Belelli Marchesini, C. Carlucci)





- 16.55-17.20 Open architecture RDBMS and GIS as tools for analysing the Etruscan presence in the Po Plain: towards a model for the urban/non-urban landscape (T. Quirino)
- 17.20-17.45 Scanning and visualization of Roman Adriatic townscapes (F. Vermeulen)

### **APRIL 19**

- 08.30-09.00 REGISTRATION OF PARTICIPANTS
- 09.00-09.30 The origin of the city in Etruria. Economy, sociology, city planning: the study case of the Accesa settlement (G. Camporeale, invited speaker)
- 09.30-12.15 KAINUA PROJECT (SPECIAL SESSION, Moderator Giuseppe Sassatelli)

Kainua: the archaeological framework (E. Govi)

The project and the archaeological analysis (A. Gaucci)

The craft settings: places and archaeological issues (C. Mattioli, G. Morpurgo, C. Pizzirani)

Topographical survey and digital models (B. Gruška, G. Mancuso, S. Santocchini Gerg, E. Zampieri)

Methods and results for the architectural and the urban reconstruction (S. Garagnani)

The ancient Digital Terrain Model and the infrastructure (A. Muzzarelli, M. Franzoia)

Building materials and virtual models (B. Gruška, G. Mancuso, E. Zampieri)

Conclusions (G. Sassatelli)

- 12.30 TRANSFER TO THE NATIONAL ETRUSCAN MUSEUM "POMPEO ARIA" OF MARZABOTTO
- 14.30-16.30 DEMO IN THE ARCHAEOLOGICAL PARK OF MARZABOTTO

## APRIL 20

08.30-09.30 REGISTRATION OF PARTICIPANTS

#### TRACK 2: ARCHITECTURAL ANALYSIS AND VIRTUAL RECONSTRUCTION

09.30-10.10 KEYNOTE 2. Too much is never enough...or is it? Documentation, modelling and dissemination (S. Fai)

THE SITE SCALE

10.10-10.35 Acquarossa Memory Project. Reconstructing an Etruscan Town (P. Lulof)

PROGRAM



- 10.35-11.00 The Nora Virtual Tour: an immersive visit in the ancient city (J. Bonetto, A. Zara)
- 11.00-11.20 COFFEE BREAK

THE BUILDING SCALE

- 11.20-11.45 Using Laser Scanner Technology to Analyse Mud-brick Architecture in the Ancient Near East. The Palatial Complex of Arslantepe (Malatya, Turkey) (G. Liberotti, C. Alvaro)
- 11.45-12.10 Etruscan rock-cut tombs with decorated facades a 3D approach (T. Votroubeková)
- 12.10-12.35 A 3D environment to rebuild virtually the Augusteum in Herculaneum (A. D'Andrea, A. Bosco, M. Barbarino)
- 12.35-13.00 Management and communication of archaeological artefact and Architectural Heritage using digital IS: what today? What next? (M. Gaiani, invited speaker)
- 13.00-14.00 LUNCH
- 14.00-14.25 A geomatics approach to surveys for Late Antiquity buildings. The Episcopal Palace in Side, Turkey (M.H. Cordero)

#### STARTING AND ON-GOING PROJECTS

(SPECIAL SESSION)

- 14.25-14.50 Numana and its ancient territory: new data and research perspectives (V. Baldoni, S. Finocchi)
- 14.50-15.10 New methodologies to analyse and study the Hellenist-Roman quarter in Agrigento (G. Lepore, E. Giorgi, V. Baldoni, F. Boschi, M.C. Parello, M.S. Rizzo)
- 15.10-15.30 Seeing into the past: integrating 3D documentation and non-invasive prospecting methods for the analysis, understanding and reconstruction of the ancient Pompeii. The case of the House of Obellio Firmo (IX, 14) (E. Giorgi, M. Silani, F. Boschi, G. Bitelli, A. Martellone)
- 15.30-15.50 Reconstructing the Late Antiquity Episcopal Complex of Valentia (I. Escrivà, J.J. Marín, A. Ribera, M. Rosselló, A. Santonja)
- 15.50-16.10 Misenum. The harbour and the city: landscapes in context (G. Illiano)
- 16.10-16.30 COFFEE BREAK
- 16.30-17.10 KEYNOTE 3. Engaging visitors of archeological sites through 'emotive' storytelling experiences (M. Roussou, keynote speaker)
- 17.10-19.00 GUIDE TOUR TO THE MUSEUM OF THE HISTORY OF BOLOGNA



## APRIL 21

08.30-09.30 REGISTRATION OF PARTICIPANTS

#### TRACK 3: APPLICATIONS AND INTEGRATED SOLUTIONS FOR THE CULTURAL HERITAGE

09.30-10.10 KEYNOTE 4. Techniques for the Rapid Documentation, Analysis, and Dissemination of Complex Architectures (H. Maschner)

STUDY CASES

- 10.10-10.35 Multi-temporal images and 3D dense models for archaeological site monitoring in Hierapolis of Phrygia (TK) (G. Sammartano, A. Spanò, F. Chiabrando, G. Semeraro)
- 10.35-11.00 Understanding Etruscan art and architecture through 3D Modeling: the case of Volterra (E. Taccola, L. Rosselli)
- 11.00-11.25 COFFEE BREAK
- 11.25-11.45 The last ten years of research at Tarquinia (G. Bagnasco Gianni, M. Marzullo, A. Garzulino)
- 11.45-12.10 The Iberian town of Ullastret (Catalonia), an Iron Age urban agglomeration reconstructed virtually (F. Codina, G.J. de Prado Cordero, I.Ruiz, A. Sierra)
- 12.10-12.35 Reshaping the urban space: Bakchias in Ptolemaic and Roman times (I. Rossetti)
- 12.35-13.00 Analyzing the Medieval Landscape of the Pfalz–Castles in the Area of Kaiserslautern (A. Pattee)
- 13.00-14.00 LUNCH

METHODOLOGIES AND TOOLS

- 14.00-14.25 OpenHistoryMap (M. Montanari, R. Trojanis, S. Bernardoni)
- 14.25-14.50 The future (?) of effective protection (G. Azzena, R. Busonera, C. Perini)
- 14.50-15.15 Digital Acquisition (DA): reflection on data quality (A. Ippolito, C. Bartolomei, M. Attenni)
- 15.15-15.40 Multimedia digital solutions from image and range based models for ancient landscapes communication (E. Donadio, F. Barello, R. Mazza)
- 15.40-16.05 Knowledge and valorization of historical sites through low-cost gaming sensors and HBIM models. The case study of Liternum (V. Cera)
- 16.05-16.30 COFFEE BREAK





#### SHORT PRESENTATIONS

(SPECIAL SESSION)

- 16.30-16.40 Gropello Cairoli (PV): Computer Applications for historic-topographical synthesis (S. Loreto)
- 16.40-16.50 The archaelogical settlement of Monte Bibele (Bologna) (A. Penzo, A. Gottarelli, F. Proni)
- 16.50-17.00 3D Digital Technologies for Architectural Analysis and Virtual Reconstruction. The case of the "Pagan Shrine" in the Catacombs of Saint Lucy (Siracusa, Sicily) (I. Gradante, D. Tanasi)
- 17.00-17.10 Reconstruction of Villino Florio's wooden ceiling using 3D technologies (F. Gabellone, I. Ferrari)
- 17.10-17.20 The contribution of 3D technologies for a critical reading and philological presentation of ancient contexts (F. Gabellone, I. Ferrari, F. Giuri, M. Chiffi)
- 17.20-17.30 Virtual reconstruction and comparative analysis of two painted tombs from Anzi (Basilicata), described by Andrea Lombardi in the early XIX<sup>th</sup> century (A. Pecci, F. Donnici)
- 17.30-17.40 When there was no GIS system. Rediscovering archaeological activities of the XIXth century through the use of the drone. The case study of Mount Siri (Anzi, Basilicata) (A. Pecci, F. Donnici)
- 17.40-17.50 Heron VE visualisation and dissemination of semantic cultural heritage data (M. van der Kaaij)
- 17.50-18.30 CLOSING CEREMONY

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Media Partner: Archeologia e Calcolatori, Peer Reviewed Open Access Journal



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