

> SIENA
> 30 march-3 april
> CAA 2015



43rd Computer Applications and Quantitative Methods in
Archaeology

Annual Conference

conference program

University of Siena
Department of History and Cultural Heritage



Conference chairman

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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).

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Monday 30th March - Workshops

4 slots 1.30 h each

8.00 – 10.00 Workshop registration

9.00 – 10.30

Predictive Techniques for 3D Data Augmentation in Cultural Heritage

1. Hands-On Archaeological Conceptual Modelling 2
2. Storytelling from the earth
3. 3DHOP – Presenting online high-res 3D models: a crash course
4. Introduction to exploratory network analysis for archaeologists using Visone
5. UAV Photogrammetry for archaeology and Survey: a state of the art

10.30 – 11.00 Coffee break

11.00 – 12.30

1. Predictive Techniques for 3D Data Augmentation in Cultural Heritage
2. Hands-On Archaeological Conceptual Modelling 2
3. Storytelling from the earth
4. 3DHOP – Presenting online high-res 3D models: a crash course
5. Introduction to exploratory network analysis for archaeologists using Visone
6. UAV Photogrammetry for archaeology and Survey: a state of the art

12.30 - 14.00 Lunch

14.00 – 15.30

1. The Use of 3D GIS Platforms for Intra-Site Investigation in Archaeology
2. First steps in agent-based modelling with Netlogo
3. Data modelling, processing and integration for the knowledge and valorisation of Cultural Heritage in urban area
4. Improving Presentation Skills
5. Ha(r)ckeology: an hacking approach to open archaeology
6. Reconstructing Ancient Landscape in the Cloud

15.30 - 16.00 Coffee break

16.00 – 17.30

1. The Use of 3D GIS Platforms for Intra-Site Investigation in Archaeology
2. First steps in agent-based modelling with Netlogo
3. Data modelling, processing and integration for the knowledge and valorisation of Cultural Heritage in urban area
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18.15 – Conference opening: Rector, Usiena Humanities Dean, CNR, MIBACT.

19.00 – 19.45 Key-note talk [prof. Martin Millett](#) + 15 min question time

20.15 – Icebreaker Party – Siena downtown (further info on [CAA web site](#))

Tuesday 31 March – CAA 2015 CONFERENCE DAY 1

Paper 20 min + 5 min question time
Up to 8 parallel sessions + roundtable
2 Slots 5 papers each in the morning
2 slots 4 papers each in the afternoon

Poster session from 14.30 to 15.00
2 Roundtables
2 Key-note talks

8.00 – 10.00 Conference registration desk open

9.00-11.00

1. 2D Linked Data: From interoperable to interoperating
2. 4C Formal approaches to visibility analysis in ancient architectural spaces and cultural landscapes
3. 5C Archaeological Theory and Statistical Modelling
4. 5E Homologation and standardization of archaeological cartographic data
5. 6D Colour and Space in Cultural Heritage: Interdisciplinary connections
6. 7C Replication: from the past to the digital age
7. 4E From 3D Scanning of Objects and Monuments to Augmented Reality

ROUNDTABLE 6 – Thinking between the lines: conceptualising the future of archaeological databases

11.00-11.30 Coffee break

11.30-13.30

Keynote speakers

11.30 – 12.15 [Holly Rushmeier](#) + 15 min question time

12.30 – 13.15 [Maurizio Forte](#) + 15 min question time

13.30-14.30 Lunch time

14.30-15.00 Poster session

15.00-16.40

1. 3C Computer and rock art studies: data collection, interpretation and communication
2. 4F Geomatics approaches in Latin American Archaeology
3. 5G How to reveal geographic relations in Databases on cultural heritage
4. 5K Where Do We Go From Here? Least Cost Paths Revisited
5. 5M Improving Resolutions: Use and Potentials of Quantitative Methods in Near Eastern Archaeology
6. 7A Teaching digital archaeology - digitally teaching archaeology
7. 7C Replication: from the past to the digital age
8. 8C Digital methods in exploring and explaining the development of protourban centres

ROUNDTABLE 2 - Arches Heritage Inventory and Management System

16.40-17.00 Coffee break

17.00-18.40

1. 3C Computer and rock art studies: data collection, interpretation and communication
2. 4F Geomatics approaches in Latin American Archaeology
3. 5G How to reveal geographic relations in Databases on cultural heritage
4. 7A Teaching digital archaeology - digitally teaching archaeology
5. 8C Digital methods in exploring and explaining the development of protourban centres
6. 6B New advancements in computational imaging

19.30 – 20.30 Duomo tour (further info on [CAA web site](#))

Wednesday 1st April – CAA 2015 CONFERENCE DAY 2

Paper 20 min + 5 min question time
Up to 8 parallel sessions + roundtable
2 Slots 5 papers each in the morning
2 slots 4 papers each in the afternoon

Poster session from 14.30 to 15.00

3 Roundtables
1 Key-note talk

8.00 – 10.00 Conference registration desk open

9.00-11.00

1. 1A Digital frontiers in maritime archaeology
2. 2A Interdisciplinary methods of data recording, management and preservation
3. 4A Managing archaeological 3d models
4. 5H Geographical and temporal network science in archaeology
5. 5I Interpreting the unstructured: new methods and tools for intrasite spatial analysis of palaeosurfaces
6. 5L Modelling large-scale human dispersals: data, pattern and process
7. 9A Towards a Theory of Practice in Applied Digital Field Methods

ROUNDTABLE 3 - The whole is other than the sum of its parts: where is the spatial data infrastructure for cultural heritage?

11.00-11.30 Coffee break

11.30-13.30

1. 1A Digital frontiers in maritime archaeology
2. 2A Interdisciplinary methods of data recording, management and preservation
3. 4D 3D Reconstruction, Analysis and Immersive Telepresence at Rock-Art Sites
4. 5A Modelling approaches to analyse the socio-economic context in archaeology
5. 5H Geographical and temporal network science in archaeology
6. 5L Modelling large-scale human dispersals: data, pattern and process
7. 6C The Past, Present and Future of Non-Intrusive Geophysical Survey in the Field and the Laboratory
8. 9A Towards a Theory of Practice in Applied Digital Field Methods

ROUNDTABLE 4 - Simulating the Past: Complex Systems Simulation in Archaeology

13.30-14.30 Lunch time

14.30-15.00 Poster session

15.00-16.40

1. 1B The challenge of the preventive archaeology
2. 2A Interdisciplinary methods of data recording, management and preservation
3. 4D 3D Reconstruction, Analysis and Immersive Telepresence at Rock-Art Sites
4. 5A Modelling approaches to analyse the socio-economic context in archaeology
5. 5L Modelling large-scale human dispersals: data, pattern and process
6. 6A Approaches for Sensor Data Integration for the Investigation of Archaeological Landscapes
7. 6C The Past, Present and Future of Non-Intrusive Geophysical Survey in the Field and the Laboratory
8. 9A Towards a Theory of Practice in Applied Digital Field Methods

ROUNDTABLE 5 - Linked Open Data Applied to Pottery Databases

16.40-17.00 Coffee break

17.00 – 17.45 Keynote [Nicolò dell'Unto](#) + 15 min question time

18.00 – 19.30 CAA plenary meeting

20.30 Social dinner at Rocca Salimbeni (further info on [CAA web site](#))

Thursday 2nd April – CAA 2015 CONFERENCE DAY 3

Paper 20 min + 5 min question time
Up to 9 parallel sessions
2 Slots 5 papers each in the morning
2 slots 4 papers each in the afternoon

Poster session from 14.30 to 15.00
2 Roundtables
Closing address lunchtime talk: Special Guest Professor Dominic Powlesland

8.00 – 10.00 Conference registration desk open

9.00-11.00

1. 2B Integrating 3D Data from Field Archaeology
2. 2C Supporting researchers in the use and reuse of archaeological data
3. 3A A dialogue between archaeological science and computer visualization
4. 4B New trends in 3D Archaeology
5. 5D Predictivity and postdictivity in archaeology
6. 9E Moving the focus from "know how" to "know why" 3D modeling cultural heritage
7. 10A ArcheoFOSS: free/open source software and archaeological research, ten years later
8. 10B Electronic resources for archaeology: from databases to digital open data

ROUNDTABLE 1 – Challenging Digital Archaeology – the discussion continues

11.00-11.30 Coffee break

11.30-13.30

1. 2C Supporting researchers in the use and reuse of archaeological data
2. 3A A dialogue between archaeological science and computer visualization
3. 4B New trends in 3D Archaeology
4. 5B Continuing the Revolution with Spatial Methods & Archaeological Interpretation
5. 5D Predictivity and postdictivity in archaeology
6. 6E Low Altitude Aerial Photography for archaeology – where is the revolution leading us?
7. 8B Urban Digital-Scapes: Computer application to the study of past urban developments
8. 10A ArcheoFOSS: free/open source software and archaeological research, ten years later

ROUNDTABLE 7 - Digital Technologies and Quantitative Methods in the Study of Prehistoric Art

13.30-14.30 Lunch time talk: Special Guest Professor Dominic Powlesland

14.30-15.00 Poster session

15.00-16.40

1. 9F Machine learning and Pattern Recognition for Archaeological Research
2. 4B New trends in 3D Archaeology
3. 5B Continuing the Revolution with Spatial Methods & Archaeological Interpretation
4. 6E Low Altitude Aerial Photography for archaeology – where is the revolution leading us?
5. 8A Digital cities: documenting and transmitting the archaeological-architectonical record
6. 8B Urban Digital-Scapes: Computer application to the study of past urban developments
7. 9C Modelling the archaeological process
8. 10B Electronic resources for archaeology: from databases to digital open data

16.40-17.00 Coffee break

17.00-18.40

1. 3B Occupation floors of Hunter-gatherers in the Digital Era
2. 5J Spatial analysis in ethnoarchaeology and experimental archaeology
3. 6E Low Altitude Aerial Photography for archaeology – where is the revolution leading us?
4. 7B New Cultural Heritage economies in the digital era
5. 7D About reasoning and the illusiveness of interfaces in the practice of digital and virtual archaeology
6. 9C Modelling the archaeological process
7. 9F Machine learning and Pattern Recognition for Archaeological Research
8. 10B Electronic resources for archaeology: from databases to digital open data

20.00 City hiking (further info on [CAA web site](#))

Friday 3rd April – Social trip