

New Technologies to Preserve and Promote Cultural Heritage: The Italian Experience

Workshop on:

How ancient cities can get smart too

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Abstract

The workshop focuses on the advent of the new technologies and the consolidation of new approaches in the city context. The questions that will be discussed include:

- Requalification of old/historical cities.
- Musealization and urban landscape: what and how can we musealize historical cities?
- Analysis of the urban environment. Diffused museums. Eco museums. City museums. What do they have in common? How to develop valorization strategies?
- Guiding the visitors in a historical urban landscape. New technologies for serving the user with geo-located, personalized, augmented information.
- How to build a valorization strategy (physical and digital) able to reconcile the territory, the object, the cultural context through drones, immersive visitors, mobile apps, etc.?
- Scenic design and photography. Issues to take into account in musealization to avoid that the container prevails over the content.

Program

09:00 – 09:30 Registration and welcome coffee

09:30 – 09:45 Welcome session

09.30-09.35 *Dr. George Sharvashidze, Rector of Ivane Javakhishvili Tbilisi State University*

09.35-09.38 **Mikheil Batiashvili, Minister for Education, Science, Culture, and Sport of Georgia (TBC)**

09.38-09.40 *Mariam Jashi, MP, Parliament of Georgia*

09.40-09.45 *H.E. Antonio Bartoli, Ambassador of Italy to Georgia*

09:45 – 10:00 Welcome from Dr. David Lordkipanidze, the Panel Chair

10:00 – 13:10 Panelists' presentations

10.00-10.20 *Giuseppe Amato (ISTI-CNR) "Accessing Cultural Heritage via Images"*

10.20-10.40 *Jan Bigazzi (Targetti) "Lighting Architecture"*

10.40-11.00 *Alberto Del Bimbo (MCC-University of Florence) "Computer Vision for Smart Visits of Cultural Heritage Sites"*

11.00-11.20 *Livio Karrer (M9 Museum) "M9 as a unique Digital Museum in Italy. The project and the permanent collection"*

11.20-11.40 *Massimo Osanna (University of Naples) "Pompeii Today. The Afterlife of an Ancient Town"*

11.40-11.55 *prof. Vakhtang Licheli "Urban intellectual innovations"*

11.55-12.10 *prof. Irine Koshoridze "Georgian museums and cities and 21th century challenges"*

12.10-12.25 *prof. Teo Jalaghania "Aesthetic image of the city and environment"*

12.25-12.40 *prof. Giorgi Jibuti "SMART|AtmoSim_Lab – air quality research in Tbilisi"*

12.40-12.55 *Nikoloz Antidze "Modern technologies in interpretation of Cultural Heritage"*

12.55-13.10 **Anri Basilaia, Tbilisi City Municipality [TBC]**

13:10 – 13:20 Closing remarks from Dr. David Lordkipanidze, the Panel Chair

Biographies of the International Panelists and Profiles of their Organizations

Panelist 1: Giuseppe Amato (CNR-ISTI)



Giuseppe Amato was awarded a PhD in Computer Science at the University of Dortmund, Germany, in 2002. He is a senior researcher at CNR-ISTI in Pisa, where he leads the “Artificial Intelligence for Multimedia Information Retrieval” research group (AIMIR - <http://aimir.isti.cnr.it/>). His main research interests are artificial intelligence, content based retrieval of multimedia documents, access methods for similarity search, smart camera networks. He has published in international journals and conferences in the areas of multimedia information retrieval. He has participated in several EC and national funded research actions in the areas of content based retrieval of multimedia data. Among these, he was chief scientist at CNR for the Rubicon (Robotic Ubiquitous COgnitive Network) FP7 project, he was the project coordinator of the ERDF project VISITO Tuscany, he was technical director of the FP6 project Multimatch. He is currently involved in the AI4EU European project (<http://ai4eu.org/>) aiming at building the European platform for Artificial Intelligence.

More at <http://nemis.isti.cnr.it/person/giuseppe-amato>.

The Italian National Research Council (CNR) is the largest and most important research body of Italy, the depositary of a unique heritage of knowledge and skills. The mission of CNR is to carry out, promote and disseminate research activities in the main sectors of knowledge and study their application to the scientific, technological and social development of the country, relying on 4,000+ researchers, and 1,500 technicians. The CNR research activities are carried out in a network of 100+ institutes, spread across the national territory, and organized in seven thematic departments that embrace almost all scientific research fields. The Institute of Science and Information Technologies, **ISTI**, is the largest among CNR institutes active on ICT. ISTI is located in Pisa, is organized in twelve thematic laboratories and has around 150 permanent staff and 100 temporary collaborators.

Panelist 2: Jan Bigazzi (Targetti)



Jan Bigazzi is an architect specialized in lighting design. He graduated at the University of Architecture in Florence and has been working in Moscow since 2000. Jan has a deep experience in the field of lighting: as a lighting designer he is the author of important lighting concepts such as Menshikov’s Palace in Oranienbaum and the Mirax “Beating Heart” in Moscow. Since 2005 Jan works with Targetti, the company which signed some of the most prestigious lighting projects in the world including the McLaren headquarters, Palazzo Vecchio in Florence, the Vienna Opera House, the Tower of Pisa and the foundation Louis Vuitton in Paris. He also teaches at the Lighting Design master of the Istituto Europeo di Design in Florence.

Targetti has been designing and producing indoor and outdoor architectural light fixtures since 1928. For ninety years our products have been the epitome of innovation, research and attention to detail; they light the most prestigious artistic and architectural works of art, create atmospheres and arouse emotions. What we are today is the result of the experience and know-how we have acquired over time that we share with our partners and the environment we live in through our passion for light.

Panelist 3: Alberto Del Bimbo (MICC - University of Florence)



Alberto Del Bimbo is Full Professor at the Department of Information Engineering of University of Firenze, Italy. In his career he was with IBM from 1978 to 1988 and joined University of Firenze in 1988. At the University of Firenze he was the Director of Systems and Informatics Department from 1997 to 2000, the Deputy-Rector for Research and Innovation Transfer from 2000 to 2006 and the President of Foundation for Research and from 2007 to 2010. From 2010, he is the Director of MICC Media Integration and Communication Center and the Director of NEMECH–New Media for Cultural Heritage Competence Center of the Tuscany Regional Government. He is leading a research team that investigates cutting-edge solutions in the fields of computer vision, multimedia content analysis, and advanced human-computer interactivity. He is the author of over 350 scientific publications and has been the coordinator of many research and industrial projects. He is the Editor in Chief of ACM TOMM Transactions on Multimedia Computing, Communications, and Applications. Prof. Del Bimbo is IAPR Fellow and ACM Distinguished Scientist and is the recipient of the 2016 ACM SIGMM Award for Outstanding Technical Contributions to Multimedia Computing, Communications and Applications.

MICC Media Integration and Communication Center (<https://www.micc.unifi.it>) is a national Center of Excellence in Italy, established by the National Ministry of University and Research (MIUR) at the Università di Firenze with the DM 11, 13/1/2000. The objectives and activities of the Center include the development of advanced research on ICT and digital media. *MICC is home to 21 researchers and 5 professors.* It includes two research laboratories with distinct focus of activity in ICT: *MICC Computer Vision and Artificial Intelligence*, and *MICC Secure Media*.

MICC maintains links with leading international academic centers for scientific research and has been partner in many International and National projects with industry and institutions, including several top international players. It is the promoter and responsible of NEMECH, Regional Center of Competence on New Media for Cultural Heritage funded by the Tuscany regional Government.

Panelist 4: Livio Karrer (M9 Museum)



Livio Karrer (Rome 1982), History PhD at Padua University. He worked on cultural and political history of twentieth century Italian history focusing on the evolution of civil rituals. He wrote several essays on civil funerals of major political actors of postwar Italy and on the political relationship among Italian communist and socialist parties in the 80's. He is member of the editorial board of "Memoria e Ricerca" review and collaborates with "Mondoperaio" journal. His interests and researches then moved toward the Public History field, he is one of the founding members of the Italian Public History Association (AIPH). Since 2014 he has been working with Fondazione di Venezia for the development of the M9 Museum project, he joined the content sector. He attended the Advisory board ideation phase and then the permanent collection setting up stage. He's now curator for the M9 Museum

M9 - Museum of the 20th Century is a multi-medial and interactive museum where the most advanced technologies are used in order to know our past understand the present and imagine the future. M9 is Italy's first attempt to create a new cultural institution as the drive behind a larger project to regenerate a post-industrial city. It is centred on an interactive museum, specialized in spreading knowledge of 20th-century Italian history to a young audience using advanced edutainment techniques and new technologies. M9 is a Project launched by the Fondazione di Venezia in 2005 to promote the urban regeneration of Mestre, the larger part of mainland Venice. It aims to open to the public a centrally located area – closed since the very beginning of the 19th century – and to re-invent it as a new district of the knowledge economy. The new museum will be the main asset in this cultural and social development project. The Fondazione di Venezia is giving the city, Italy and the world a national museum so that the Italian people may get to know the century that most contributed to forging their modern identity, in the conviction that knowledge is an indispensable starting point from which to design an individual and collective future. Italy previously had no such museum.

Panelist 5: Massimo Osanna (University of Naples)



Massimo Osanna is full Professor of Classical Archaeology at the University of Napoli "Federico II". He received his PhD in Archaeology from the University of Perugia, where he studied the greek colonization in Italy and a PhD in History from the University of San Marino, studying the religion of the ancient Peloponnesos. He carried out researches at the Italian Archaeological School of Athens and the University of Heidelberg (fellowship Alexander von Humboldt). He undertook his professional activity at the University of Basilicata where he was a Lecturer in classical archeology (since 1994), Associate professor (since 2000) and Director of the School of Specialization in Archaeological Heritage in Matera (2002-2014). He was also Superintendent for the Archaeological Heritage of Basilicata (2007-2008); Directeur d'etude (2007) at the Ecole Pratique des Hautes Etudes in Paris (2007); Professor of Classical Archeology at the University of Heidelberg (2010); research fellow Alexander von Humboldt at the Humboldt-Universität Berlin (2011); visiting professor at the École Normale Supérieure, Paris (2013). Between 2014 and 2019 he has been the Director of the Archaeological Park of Pompeii.

The history of the **archaeological site of Pompeii** is a story of transformations which, moving from a living and thriving roman city that was abruptly destroyed when Vesuvius erupted in AD 79, passes to the discovery phase and successive restorations which have created the Pompeii of today. From its discovery in the middle of the eighteenth century onwards, Pompeii has attracted an enormous number of visitors. Many scholars, artists, architects, writers were inspired from the ruins (here they could catch a glimpse of life in ancient society) and continued to be inspired until today, when the number of visitors in the 2018 reached almost four millions. The contemporary management of Pompeii has placed prime importance on safeguarding the ancient city, thanks the Great Pompeii Project (2013-2019), which has received 105 million euros of funding from the European Community. This was an extraordinary programme for the site, focusing first on conservation priorities before then meeting the needs of the general public, with a public use and enhancement projects that meets contemporary needs.