



ARQUEOLÓGICA 2.0 – 9th International Congress

&

3rd GEORES - GEOMatics and pREServation

26 - 28 April 2021

*Digital Twins for Advanced Cultural Heritage Semantic
Digitization*

ONLINE PROGRAMME: MICROSOFT TEAMS



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CONGRESO INTERNACIONAL DE ARQUEOLOGÍA E INFORMÁTICA GRÁFICA, PATRIMONIO CULTURAL E INNOVACIÓN
INTERNATIONAL CONGRESS ON ARCHAEOLOGY, COMPUTER GRAPHICS, CULTURAL HERITAGE AND INNOVATION

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COLLABORATORS:



CIPA
Heritage
Documentation



innova
virtual archaeology
international network



Photogrammetry
& Laser
Scanning
Research Group
(GIFLE), UPV



Dept. of
Cartographic
Engineering,
Geodesy and
Photogrammetry
(UPV)



School of
Engineering in
Geodesy,
Cartography
and Surveying
(UPV)





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PROGRAMME

<h1 style="font-size: 2em; margin: 0;">26</h1> <p style="font-size: 1.2em; margin: 0;">Monday</p>	<h1 style="font-size: 2em; margin: 0;">27</h1> <p style="font-size: 1.2em; margin: 0;">Tuesday</p>	<h1 style="font-size: 2em; margin: 0;">28</h1> <p style="font-size: 1.2em; margin: 0;">Wednesday</p>
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Central European Time (CET)	CHANNEL A	CHANNEL B	CHANNEL A	CHANNEL B	CHANNEL A
09:00/10:00	OPENING CEREMONY		INVITED SPEAKERS 2		INVITED SPEAKERS 3
10:00/11:00	INVITED SPEAKERS 1		SPECIAL SESSION 1		SPECIAL SESSION 2
COFFEE BREAK					
11:30/13:00	ORAL PRESENTATION 1		ORAL PRESENTATION 3		PHD FORUM ROUNDTABLE
LUNCH					
14:00/15:00	SHORT ORAL PRESENTATIONS 1	SHORT ORAL PRESENTATIONS 2	SHORT ORAL PRESENTATIONS 5	SHORT ORAL PRESENTATIONS 6	SHORT ORAL PRESENTATIONS 9
15:00/16:30	ORAL PRESENTATION 2		ORAL PRESENTATION 4		ORAL PRESENTATION 6
COFFEE BREAK					CLOSING CEREMONY
17:00/17:55	SHORT ORAL PRESENTATIONS 3	SHORT ORAL PRESENTATIONS 4	ORAL PRESENTATION 5		
17:55/18:30			SHORT ORAL PRESENTATIONS 7	SHORT ORAL PRESENTATIONS 8	

On the Microsoft Teams calendar, the registered authors will be able to access Channels A and B per day; this information is not valid for UPV members. Besides, a Support Channel will also be available for all the participants.



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26
Monday

OPENING CEREMONY

Monday 9:00 - 10:00
CHANNEL A

Co-chairs

Prof. José Luis Lerma

*GIFLE, Department of Cartographic Engineering, Geodesy and Photogrammetry,
Universitat Politècnica de València*

Prof. Grazia Tucci

*GeCO Lab, Dipartimento di Ingegneria Civile e Ambientale, Università degli Studi
di Firenze*

Prof. Raffaella Brumana

*Department of Architecture, Built Environment and Construction Engineering
(DABC), Politecnico di Milano*

Dr. Víctor Manuel López-Menchero Bendicho

President. Spanish Society of Virtual Archaeology

Honorary Committee

Prof. Mario Santana Quintero

Secretary General, International Council on Monuments and Sites (ICOMOS)

Prof. Efstratios Stylianidis

President. CIPA Heritage Documentation

Mr. Juan Pablo Navarro Batet

*Territorial Manager, Spanish Professional Association of Geomatics and
Surveying Engineering (COIGT)*



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Dr. Gemma M^a Contreras Zamorano

Deputy Director, Institut Valencia de Conservació, Restauració i Investigació

Prof. Ana Belén Anquela Julián

*Dean, School of Engineering in Geodesy, Cartography and Surveying,
Universitat Politècnica de València*

INVITED SPEAKERS 1: **#MATTHEW VINCENT, #DOMINIQUE RISSOLO & #FALKO KUESTER**

Monday 10:00 - 11:00

CHANNEL A

Coordinator: José Luis Lerma

Title: *DIGITAL PRESERVATION MEETS REALITY: REKREI IN MOSUL*

Author: *Matthew L. Vincent*

Affiliation: *Rekrei*

Title: *THE CULTURAL HERITAGE ENGINEERING INITIATIVE: RECENT VISUAL
ANALYTICS RESEARCH FOR DIGITAL TWIN APPLICATIONS*

Authors: *Dr. Dominique Rissolo / Dr. Falko Kuester*

Affiliation: *University of California, San Diego USA*

COFFEE BREAK

Monday 11:00 - 11:30



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CONGRESSO INTERNAZIONALE DI ARQUEOLOGIA E INFORMATICA GRAFICA, PATRIMONIO CULTURALE E INNOVAZIONE
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ORAL 1:

#VIRTUAL ARCHAEOLOGY/ARCHITECTURE/MUSEUMS

Monday 11:30 - 13:00

CHANNEL A

Coordinator: Grazia Tucci

Title: PARAMETRIC APPROACH TO THE RECONSTRUCTION OF TIMBER STRUCTURES IN CAMPANIAN ROMAN HOUSES

Authors: Luca Sbrogiò

Affiliation: Department of Cultural Heritage, University of Padova, Italy.

Title: DOCUMENTATION OF A COMPLEX CULTURAL HERITAGE ASSET WITH INTEGRATED GEOMATIC SURVEY: THE MONTANARO BELL TOWER

Authors: Lorenzo Teppati Losè^a, Filiberto Chiabrando^a, Francesco Novelli^b, Giacomo Patrucco^a, Stefano Perri^a

Affiliation: ^a Laboratory of Geomatics for Cultural Heritage. Department of Architecture and Design (DAD), Politecnico di Torino, Italy.

^b Department of Architecture and Design (DAD), Politecnico di Torino, Italy.

Title: DEVELOPMENT OF INTEGRATED MANAGEMENT TOOLS FOR A MAINTENANCE PLAN OF HISTORICAL HERITAGE

Authors: Ilaria Bonfanti^a, Elisabetta Colucci^a, Valeria De Ruvo^a, Matteo Del Giudice^b, Sara Fasana^b, Emmanuele Iacono^c, Andrea Maria Lingua^a, Francesca Matrone^a, Gianvito Marino Ventura^c, Marco Zerbinatti^b

Affiliation: ^a Department of Environmental, Land and Infrastructure Engineering (DIATI). Politecnico di Torino, Italy.

^b Department of Structural, Building and Geotechnical Engineering (DISEG). Politecnico di Torino, Italy.

^c Department of Economics and Business Studies (DISEI). Università del Piemonte Orientale, Italy.

Title: HOW WERE THE TAPESTRIES IN THE SALA DI SATURNO OF PITTI PALACE ARRANGED? GEOMATICS AND VIRTUAL REALITY FOR ART CURATORS

Authors: Grazia Tucci, Valentina Bonora, Alessandro Conti, Lidia Fiorini

Affiliation: GeCO Lab, Dipartimento di Ingegneria Civile e Ambientale, Università degli Studi di Firenze, Italy.

Title: LOST GEOMETRIES - A METHODOLOGY FOR THE DIGITAL RECONSTRUCTION OF HISTORIC ARCHITECTURAL RUINS

Authors: Simone Fallica*, Raissa Garozzo, Cettina Santagati

Affiliation: Department of Civil Engineering and Architecture, University of Catania, Via Santa Sofia 64, 95123 Catania, Italy.



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LUNCH

Monday 13:00 - 14:00

SHORT ORAL 1:

#DIGITIZATION AND DOCUMENTATION OF CULTURAL HERITAGE

Monday 14:00 - 15:00

CHANNEL A

Coordinator: Lourdes Cerezuela

Title: THE ETRUSCAN CITY GATES OF PERUGIA: GEOMATIC TECHNIQUES FOR THE DOCUMENTATION AND STUDY OF AN URBAN HISTORY HERITAGE
Authors: Fabio Radicioni^a, Pietro Matracchi^b, Aurelio Stoppini^a, Grazia Tosi^a, Laura Marconi^a
Affiliation: ^a Department of Engineering, University of Perugia, Italy.
^b Department of Architecture, University of Firenze, Italy.

Title: ANALYSIS OF HISTORICAL EVOLUTION AND PRESENT STATE OF CONSERVATION OF REGIO VII, INSULA 14 IN POMPEII
Authors: Alice Capobianco^a, Sara Gagliolo^b, Silvia Pallecchi^a, Domenico Sguerso^b
Affiliation: ^a Department of Antiquity, Philosophy and History, University of Genoa, Italy.
^b Laboratory of Geodesy, Geomatics and GIS, Department of Civil, Chemical and Environmental Engineering, University of Genoa, Italy.

Title: THE ARCH OF AUGUSTUS IN AOSTA: DATA AND ANALYSIS REUSE FOR A CONSERVATION PROJECT
Authors: Andrea Adami^a, Lorenzo Appolonia^b, Barbara Scala^c
Affiliation: ^a Department of Architecture, Built Environment and Construction Engineering (ABC), Politecnico di Milano, Italy.
^b RAVA, Italy.
^c DICATAM, Università degli studi di Brescia, Italy.

Title: QANATS AS AN ENDANGERED TRADITIONAL HYDRAULIC HERITAGE. AN INTEGRATED METHODOLOGY FOR DOCUMENTING, RESTORING AND REUSING AN ANCIENT IRANIAN QANAT
Authors: Paola Branduini^a, Federico Zaina^b, Fereshteh Zavvari^a, Yasaman Nabati Mazloum^b
Affiliation: ^a Department of Architecture, Built Environment and Construction Engineering, Polytechnic University of Milan, Italy.
^b Department of History and Cultures, University of Bologna, Italy.



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Title: TLS AND IMAGE-BASED ACQUISITION GEOMETRY FOR EVALUATING SURFACE CHARACTERIZATION
Authors: Giacomo Patrucco, Stefano Perri, Antonia Spanò
Affiliation: Department of Architecture and Design (DAD), Politecnico di Torino, Italy.

Title: STUDY ON QUALITY IN 3D DIGITISATION OF TANGIBLE CULTURAL HERITAGE
Authors: Douglas Pritchard^a, Thomas Rigauts^a, Francesco Ripanti^a, Marinos Ioannides^a, Raffaella Brumana^b, Robert Davies^a, Eleanna Avouri^a, Harriet Clifffen^a, Nenad Joncic^a, Giulia Osti^a, Marina Toumpouri^a
Affiliation: ^a Digital Heritage Research Laboratory, Department of Electrical Engineering, Computer Engineering and Informatics, Cyprus University of Technology, Cyprus.
^b Dipartimento Architettura, Ingegneria delle Costruzioni e Ambiente Costruito (ABC), Politecnico di Milano, Italy.

SHORT ORAL 2: #MANAGEMENT AND 3D REPRESENTATION OF CULTURAL HERITAGE

Monday 14:00 - 15:00
CHANNEL B

Coordinator: Erica Parisi

Title: THE DIGITAL TRANSFORMATION OF THE MUSEO EGIZIO
Authors: Davide Mezzino^a, Francesca Valentina Luisa Lori^b
Affiliation: ^a Department Development and European Funds, Fondazione Museo delle Antichità Egizie di Torino, Italy.
^b Department of Architecture, Built Environment and Construction Engineering, Politecnico di Milano, Italy.

Title: MANAGEMENT OF ARCHAEOLOGICAL HERITAGE THROUGH TICS IN MUSEUMS. THE CASE OF THE ARCHAEOLOGICAL MUSEUM OF BURRIANA (CASTELLÓN)
Authors: José Manuel Melchor-Monserrat^a, José Martínez-Uso^b, Jorge Alcaide-Marzal^c
Affiliation: ^a Burriana Municipal Archaeological Museum, Spain.
^b Cologne Game Lab, Technische Hochschule Köln, University of Technology, Arts, Sciences, Germany.
^c Institute for Research and Innovation in Bioengineering (i3B), Universitat Politècnica de València, Spain.



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RES



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-
- Title:** *ENHANCING AND MANAGING DATA AND DIGITAL COMPETENCIES FOR ARCHITECTURE TEACHING AND TRAINING IN THE FIELD OF PROTECTION OF HERITAGE*
- Authors:** *Nora Lombardini^a, Cristiana Achille^b, Cinzia Tommasi^b, Elena Fioretto^a*
- Affiliation:** *^a Department of Architecture, Built Environment and Construction Engineering (ABC), Politecnico di Milano, Italy.
^b 3D Survey Group, ABC Lab, Department of Architecture, Built Environment and Construction Engineering (ABC), Politecnico di Milano, Italy.*
-
- Title:** *A HERITAGE INFORMATION SYSTEM FOR MULTISCALE ANALYSIS FOR THE WORLD HERITAGE SITE OF CUENCA, ECUADOR*
- Authors:** *Verónica Heras, Paúl Ochoa, Andrés Delgado*
- Affiliation:** *Facultad de Diseño, Arquitectura y Arte, Universidad del Azuay, Ecuador.*
-
- Title:** *RESTORATION, REPRESENTATION, PROJECT: A DIALOGUE-LIKE APPROACH FOR THE COMPSA PALIMPSEST*
- Authors:** *Bianca Gioia Marino, Raffaele Catuogno, Rossella Marena*
- Affiliation:** *DiARC Department of Architecture, University of Studies Federico II, Italy.*
-
- Title:** *CARE OF ANCIENT HUMAN REMAINS. CONSERVATION AND MANAGEMENT WITH 3D MODELING AND DBMS*
- Authors:** *Elena Dellù, Angela Sciatti*
- Affiliation:** *Physical Anthropology Laboratory, Superintendence of Archaeology, Fine Arts and Landscape for the metropolitan city of Bari, Italy.*
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ORAL 2:

#HISTORIC BUILDING INFORMATION MODELLING

Monday 15:00 - 16:30

CHANNEL A

Coordinator: Raffaella Brumana

Title: *HBIM FOR RESTORATION WORK AND MONITORING OF COMPLEX ARCHITECTURES: THE FAMILY CHAPEL OF RAMÓN PERES Y ROVIRA IN CASTELLÓN DE LA PLANA (SPAIN)*

Authors: *Gianna Bertacchi^a, Francisco Juan-Vidal^b, Luca Cipriani^a*

Affiliation: *^a Department of Architecture, University of Bologna, Italy.
^b Department of Graphic Expression in Architecture, Instituto de Restauración del Patrimonio, Universitat Politècnica de València, Spain.*

Title: *BIM DESIGN LEAD FOR RESTORATION OF SHIPWRECK MUSEUM IN KYRENIA CASTLE IN CYPRUS*

Authors: *Carlo Biagini, Francesco Capparelli, Giorgio Verdiani*

Affiliation: *Department of Architecture, University of Florence, Italy.*

Title: *THE RECONSTRUCTION OF A DYNAMIC INVENTORY MODEL TOWARD SHARED HBIM LIBRARIES FOR VAULTED SYSTEMS*

Authors: *Anna Turrina, Dario Attico*

Affiliation: *Department of Architecture, Built Environment and Construction (DABC), Polytechnic of Milan, Italy.*

Title: *DIGITAL EARTHQUAKE-DAMAGED BUILDING USING HBIM, COMMON DATA ENVIRONMENT(CDE) AND EXTENDED REALITY (XR): THE CHURCH OF SAN FRANCESCO IN ARQUATA DEL TRONTO*

Authors: *Fabrizio Banfi^a, Raffaella Brumana^a, Angelo Giuseppe Landi^b, Mattia Previtali^a, Fabio Roncoroni^a, Chiara Stanga^b*

Affiliation: *^a Department of Architecture, Built Environment and Construction Engineering (DABC), Politecnico di Milano, Italy.
^b Department of Architecture and Urban Studies (DASTU), Politecnico di Milano, Italy.*

Title: *PARAMETRIC PARADIGMA: EXCEPTIONAL COFFERED CEILING ARCHITECTURE VS HBIM*

Authors: *Olga Rosignoli^a, Barbara Scala^b, Daniele Treccani^a, Andrea Adami^a, Laura Taffurelli^a, Simona Scandurra^a, Luigi Fregonese^a*

Affiliation: *^a Department of Architecture, Built Environment and Construction Engineering (DABC), Politecnico di Milano, Italy.
^b Department of Civil, Environmental, Architectural Engineering and Mathematics (DICATAM), University of Brescia, Italy.*



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Title: *PARAMETRIC GENERATION IN HBIM WORKFLOWS FOR SLAM-BASED DATA: DISCUSSING EXPECTATIONS ON SUITABILITY AND ACCURACY*

Authors: *Giulia Sammartano^{a,b}, Mattia Previtali^c, Fabrizio Banfi^c*

Affiliation: *^a Department of Architecture and Design (DAD), Politecnico di Torino, Italy.
^b Future Urban Legacy Lab (FULL), Politecnico di Torino, Toolbox coworking, Italy.
^c LAB Gicarus, Department of Architecture, Built Environment and Construction Engineering (ABC), Politecnico di Milano, Italy.*

COFFEE BREAK

Monday 16:30 - 17:00

SHORT ORAL 3: **#HIGH-END DIGITIZATION OBJECTS, MONUMENTS AND SITES**

Monday 17:00 - 18:30

CHANNEL A

Coordinator: Roberto Pierdicca

Title: *ALGORITHMIC MODELLING PROCESSES IN SCAN-TO-BIM WORKFLOWS*

Authors: *Raffaele Argiolas*

Affiliation: *Department of Civil and Environmental Engineering and Architecture, University of Cagliari, Italy.*

Title: *CONSIDERATIONS AND QUESTIONS DERIVED FROM THE APPLICATION OF A SCAN-TO-BIM MODELING PROCESS OF A HISTORICAL PUBLIC BUILDING*

Authors: *Franco Guzzetti, Karen L. N. Anyabolu, Francesca Biolo, Lara D'Ambrosio*

Affiliation: *Department of Architecture, Built Environment and Construction Engineering, Politecnico di Milano, Italy*

Title: *CANOSSA CASTLE: THE IMPORTANCE OF A CRITIC AND AWARE PLAN OF INTERVENTIONS FOR CONSERVATION AND PREVENTION OF CULTURAL HERITAGE*

Authors: *Marco Catellani, Lia Ferrari, Elena Zanazzi*

Affiliation: *Department of Engineering and Architecture, University of Parma, Italy.*

Title: *A HYBRID MODEL FOR THE REVERSE ENGINEERING OF THE MILAN CATHEDRAL. CHALLENGES AND LESSON LEARNT*

Authors: *Franco Spettu^a, Simone Teruggi^a, Francesco Canali^b, Cristiana Achille^a, Francesco Fassi^a*



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Affiliation: ^a 3D survey Group, ABC Lab, Politecnico di Milano, Italy
^b Veneranda Fabbrica del Duomo di Milano, Italy

Title: HBIM AND WORKSITE SIMULATION: FIRST EXPERIMENTS

Authors: Olga Rosignoli

Affiliation: Department of Architecture, Built Environment and Construction Engineering (DABC), Politecnico di Milano, Italy.

Title: MULTI-SCALE AND MULTI-DOMAIN APPROACHES FOR CULTURAL TERRACED LANDSCAPES

Authors: Erica Isabella Paris^a, Jakub Tyc^b

Affiliation: ^a Laboratory of Geomatics for Environment and Conservation of Cultural Heritage (GeCo), Department of Civil and Environmental Engineering, University of Florence, Italy.
^b Digital Architecture and Planning, Institute of Architectural Sciences, Vienna University of Technology, Austria.

Title: CANTÓN NABÓN CULTURAL HERITAGE GEOPORTAL IMPLEMENTATION: FIRST STEPS

Authors: Angel Collado^a, Gaspar Mora-Navarro^a, Paula Rodas^b, Verónica Heras^c, José Luis Lerma^a

Affiliation: ^a Department of Cartographic Engineering, Geodesy and Photogrammetry, GIFLE, Universitat Politècnica de València, Spain.
^b Instituto Nacional de Patrimonio (INPC), Ecuador.
^c Facultad de Diseño, Arquitectura y Arte, Universidad del Azuay, Ecuador.

SHORT ORAL 4:

#CULTURAL HERITAGE GAMING
#EXTENDED/VIRTUAL/AUGMENTED REALITY AND DIGITAL TWINS
#DIGITIZATION AND DOCUMENTATION OF CULTURAL HERITAGE

Monday 17:00 - 18:30

CHANNEL B

Coordinator: Valentina Bonora

Title: YEDI KULE - MONUMENT ROAD RACE: THE CONSTRUCTION OF THE 3D MAPPING ANIMATION OF THE OLD CITY OF THESSALONIKI, GREECE

Authors: Efthymios-Spyridon Georgiou^a, Nikos Lambrinos^b

Affiliation: ^a Master Integrated School Spatial Planning and Development, Department Engineering, Aristotle University of Thessaloniki, Greece.
^b Department of Primary Education, School of Education, Aristotle University of Thessaloniki, Greece.



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- Title:** A WEB APPLICATION TO GEOLOCATE THE CURRENT CITY OF SAN CRISTOBAL DE LA LAGUNA IN A XVI CENTURY MAP
- Authors:** Fernando Pérez-Nava^a, Isabel Sánchez-Berriel^a, Alejandro Pérez-Nava^a, Virginia Gutiérrez-Rodríguez^b, Jesús Pérez-Morera^c
- Affiliation:** ^a Departamento de Ingeniería Informática y Sistemas, Escuela Superior de Ingeniería y Tecnología, Spain.
^b Departamento de Psicología, Facultad de Psicología, Spain.
^c Departamento de Historia del Arte y Filosofía, Facultad de Humanidades, Spain.
-
- Title:** MYTHOPOIESIS AND COLLECTIVE IMAGINATION IN VIDEOGAMES
- Authors:** Andrea Piano^a, Emiliano Ilardi^a, Alessio Ceccherelli^b
- Affiliation:** ^a Department of Pedagogy, Psychology, and Philosophy, University of Cagliari, Italy.
^b Department of Enterprise Engineering, University of Rome "Tor Vergata", Italy.
-
- Title:** FROM THE DOCUMENT'S LIFE CYCLE TO THE MONUMENT'S LIFE CYCLE: THE CASE OF THE DE MURTAS BARRACK IN CAGLIARI
- Authors:** Alice Agus, Donatella Rita Fiorino
- Affiliation:** Department of Civil-Environmental Engineering and Architecture (DICAAR), University of Cagliari, Italy.
-
- Title:** MIXED REALITY FOR THE MONUMENTAL HERITAGE. A FIRST TEST
- Authors:** Simone Teruggi, Francesco Fassi
- Affiliation:** 3D Survey Group, ABC Lab, Politecnico di Milano, Italy.
-
- Title:** ACCESSIBILITY TO UNDERWATER CULTURAL HERITAGE: THE INTERACTIVE WEB NAVIGATION OF THE ROMAN SUBMERSED VESSEL OF CALA MINNOLA
- Authors:** Andrea Scianna^a, Giuseppe Fulvio Gaglio^a, Marcello La Guardia^b
- Affiliation:** ^a ICAR-CNR (High Performance Computing and Networking Institute - National Research Council of Italy) at GISLab, Italy.
^b Department of Engineering, Polytechnic School of University of Palermo, Italy.
-
- Title:** THE TAORMINA THEATER: THE DIGITAL SURVEY SYSTEM OF KNOWLEDGE OPEN IN TIME
- Authors:** Giuseppe Di Gregorio
- Affiliation:** Dipartimento di Ingegneria Civile e Architettura, Università degli Studi di Catania, Italy.
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Title: *DIGITAL SURVEY AND RECEPTION STRUCTURES FOR A VIRTUAL FRUITION: THE CASE STUDY OF THE HYPOGEUM OF CALAFORNO (RAGUSA)*

Authors: *Graziana D'Agostino^a, Marianna Figuera^b, Gianluca Rodonò^a*

Affiliation: *^a Department of Civil Engineering and Architecture, University of Catania, Italy.
^b Department of Human Sciences, University of Catania, Italy.*

Title: *SANTA MARIA NOVA (VIA APPIA ANTICA, ROME), II – XX A.D. ARCHAEOLOGY OF ARCHITECTURE OF A LONGLIFE BUILDING*

Authors: *Luigi Oliva, Francesca Romana Paolillo, Stefano Roascio*

Affiliation: *Parco Archeologico dell'Appia Antica, MiBACT, Italy.*



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Tuesday

INVITED SPEAKERS 2: **#MARINA PAOLANTI**
#DAVID JUANES

Tuesday 9:00 - 10:00
CHANNEL A

Coordinator: José Luis Lerma

Title: *GEOAI: ARTIFICIAL INTELLIGENCE APPROACHES FOR THE INTERPRETATION OF COMPLEX GEOMATICS DATA. A FOCUS FOR CULTURAL HERITAGE*

Author: *Marina Paolanti*

Affiliation: *Dipartimento di Ingegneria dell'Informazione (DII), Università Politecnica delle Marche, Ancona, Italy.*

Title: *3D STUDIES FOR CONSERVATION BY CT, SEM AND HANDHELD 3D SCANNER. APPLICATION EXAMPLES AT THE IVCR+i*

Author: *Dr. David Juanes*

Affiliation: *Valencian Institute of Conservation, Restoration and Research (IVCR+i)*



ARQUEOLÒGICA 2.0

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GEORES2021



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SPECIAL SESSION 1: #QUALITY IN 3D DIGITIZATION OF CULTURAL HERITAGE

Tuesday 10:00 - 11:00

CHANNEL A

Click [here](#) to join the meeting

Coordinator: *Marinos Ioannides*

Title: *EU STUDY ON QUALITY IN 3D DIGITISATION OF TANGIBLE CULTURAL HERITAGE: MAPPING PARAMETERS, FORMATS, STANDARDS, BENCHMARKS, METHODOLOGIES, AND GUIDELINES*

Author: *Marinos Ioannides^a, Petros Patias^b, Raffaella Brumana^c, Ronald Haynes III^d*

Affiliation: *^a Cyprus University of Technology, UNESCO CHAIR on Digital Cultural Heritage, Coordinator, Cyprus.*

^b Aristotle University of Thessalonik, Greece.

^c Politecnico di Milano, Italy.

^d University of Cambridge, UK.

COFFEE BREAK

Tuesday 11:00 - 11:30

**ORAL 3: #DIGITIZATION AND DOCUMENTATION OF CULTURAL HERITAGE
#INSPECTIONS AND NONDESTRUCTIVE TESTING**

Tuesday 11:30 - 13:00

CHANNEL A

Coordinator: *Inés Barbero*

Title: *TEACHING TERRESTRIAL LASER SCANNING IN CULTURAL HERITAGE USING A VIRTUAL SIMULATOR*

Authors: *Darius Popovas^{a,b}, Maria Chizhova^c, Denys Gorkovchuk^{d,e}, Julia Gorkovchuk^d, Mona Hess^c, Thomas Luhmann^a*

Affiliation: *^a Institute for Applied Photogrammetry and Geoinformatics, Jade University of Applied Sciences, 12095 Germany.*

^b Faculty of Environmental Engineering, Department of Geodesy and Cadastre, Vilnius Gediminas Technical University, Lithuania.

^c Institute of Archaeology, Heritage Sciences and Art History, University of Bamberg, Digital Technologies in Heritage Conservation, Germany.

^d Department of Geoinformatics and Photogrammetry, Kyiv National University for Construction and Architecture, Ukraine.

^e SPM3D LLC, Ukraine.



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Title: MENSIOCHRONOLOGICAL TECHNIQUES FOR TIMBER ELEMENTS: LIMITS AND SPECIFICITIES THROUGH A CASE STUDY
Authors: Alberto Grimoldi, Angelo Giuseppe Landi, Emanuele Zamperini
Affiliation: Department of Architecture and Urban Studies, Politecnico di Milano, Italy.

Title: GEOMATICS ADVANCED IMAGE-BASED TECHNIQUES FLANKING ARCHAEOLOGICAL RESEARCH. A NOTEWORTHY AREA IN THE NORTHERN NECROPOLIS OF HIERAPOLIS OF FRIGIA (TK)
Authors: Lorenzo Teppati Losè^a, Antonia Spanò^a, Anna Anguissola^b
Affiliation: ^a Laboratory of Geomatics for Cultural Heritage (G4CH), Department of Architecture and Design (DAD), Politecnico di Torino, Italy.
^b Department of Civilizations and Forms of Knowledge, University of Pisa, Italy.

Title: INTEGRATING LASER SCANNING AND GEO-MECHANICAL SURVEY IN CONSERVATIVE RESTORATION; THE CASE OF FIRST WORLD WAR'S CIMA GRAPPA MILITARY SHRINE, ITALY
Authors: Francesco Mugnai^a, Paolo Farina^b, Grazia Tucci^a
Affiliation: ^a Department of Civil and Environmental Engineering, University of Florence, Italy.
^b Geoapp s.r.l., Italy.

Title: COPERNICUS EARTH OBSERVATION FOR CULTURAL HERITAGE
Authors: Athos Agapiou^{a,b}, Vasiliki Lysandrou^{a,b}, Branka Cuca^c
Affiliation: ^a Department of Civil Engineering and Geomatics, Faculty of Engineering and Technology, Cyprus University of Technology, Cyprus.
^b Eratosthenes Centre of Excellence, Cyprus.
^c Department of Architecture, Built Environment and Construction Engineering, Politecnico di Milano, Italy.

LUNCH

Tuesday 13:00 - 14:00



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SHORT ORAL 5:

#VIRTUAL ARCHAEOLOGY/ARCHITECTURE/MUSEUMS/EXHIBITIONS
#HERITAGE URBAN LANDSCAPE

Tuesday 14:00 - 15:00
CHANNEL A

Coordinator: Fabrizio Banfi

Title: AN INTERACTIVE 3D APPLICATION OF A HOUSE FROM THE XVI CENTURY IN SAN CRISTÓBAL DE LAGUNA AS A CASE STUDY FOR THE DISSEMINATION OF CULTURAL HERITAGE

Authors: Isabel Sánchez-Berriell^a, Alejandro González-González^a, Fernando Pérez-Nava^a, Cecile Meier^b, Jesús Pérez-Morera^c, Carmen Rosa Hernández-Alberto^d

Affiliation: ^a Departamento de Ingeniería Informática y Sistemas, Escuela Superior de Ingeniería y Tecnología, Spain.
^b Departamento de Bellas Artes, Facultad de Bellas Artes, Spain.
^c Departamento de Historia del Arte y Filosofía, Facultad de Humanidades, Spain.
^d Ayuntamiento de San Cristóbal de La Laguna, Spain.

Title: AN INFORMATIVE TOOL FOR THE PRESERVATION OF THE WOODEN ENCIRCLING TIE ROD OF THE DOME OF SANTA MARIA DEL FIORE, IN FLORENCE

Authors: Sofia Celli, Federica Ottoni

Affiliation: Department of Engineering and Architecture, Università di Parma, Italy.

Title: AN EXPERIMENTAL WORKFLOW FOR THE VIRTUAL RECONSTRUCTION OF ANCIENT STATUES

Authors: Leonarda Fazio^a, Mauro Lo Brutto^b

Affiliation: ^a Department Cultures and Societies, University of Palermo, Italy.
^b Department of Engineering, University of Palermo, Italy.

Title: INTEGRATION OF COMPLEX 3D MODELS INTO VR ENVIRONMENTS: CASE STUDIES FROM ARCHAEOLOGY

Authors: Julia Gorkovchuk^a, Denys Gorkovchuk^{a,b}, Thomas Luhmann^c

Affiliation: ^a Kiev National University for Construction and Architecture, Kyiv, Ukraine.
^b SPM3D LLC, Kyiv, Ukraine.
^c Institute for Applied Photogrammetry and Geoinformatics, Jade University of Applied Sciences, Germany.



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Title: *TECHNIQUES OF GEOMATICS AND SOFT COMPUTING FOR THE MONITORING OF UNSAFE BUILDINGS*

Authors: *Ernesto Bernardo^a, Giuliana Bilotta^b*

Affiliation: *^a Department of Civil Engineering, Energy, Environment and Materials (DICEAM), Mediterranean University of Reggio Calabria, Italy.
^b Department of Planning, University IUAV of Venice, Italy.*

Title: *READING INTEGRITY IN THE LANDSCAPE: METHODS' COMPARISON ON TICINO AREA*

Authors: *Branduini Paola^a, Previtali Mattia^a, Spinelli Eugenia^a, Tagliabue Marco^b*

Affiliation: *^a Department of Architecture, Built Environment and Construction Engineering, Politecnico di Milano, Italy.
^b GPSBrianza, Parco del Ticino, Italy.*

SHORT ORAL 6: **#DIGITIZATION AND DOCUMENTATION OF CULTURAL HERITAGE**

Tuesday 14:00 - 15:00
CHANNEL B

Coordinator: Erica Parisi

Title: *AN INTEGRATION OF NON-DESTRUCTIVE TECHNIQUES (SFM-GPR-TLS) AS A VIRTUAL TOOL FOR ARCHAEOLOGICAL STRATEGY: THE CASE OF THE ROMAN SITE OF THE PLAZA DE LA MORERÍA IN SAGUNTO (SPAIN)*

Authors: *Fernando Buchón-Moragues^a, Josep Benedito^b, Francisco García^a, José Manuel Melchor^c*

Affiliation: *^a Department of Cartographic Engineering, Geodesy and Photogrammetry, Universitat Politècnica de València, Spain.
^b Department of History, Geography and Art - Ancient History, Universitat Jaume I, Spain.
^c Municipal Archaeological Museum, Burriana City Council, Spain.*

Title: *COMPARISON OF THE PHOTOGRAPHY, RADIOGRAPHY AND PROCESSED IMAGES IN THE STUDY OF METALLIC PIECES FROM ARCHAEOLOGICAL SITES*

Authors: *Jose A. Madrid^a, Effat Yahaghi^b, Jose M. Melchor^c, Amir Movafeghi^d*

Affiliation: *^a Instituto Universitario para la Restauración del Patrimonio, Universitat Politècnica de València, Spain.
^b Department of Physics, Imam Khomeini International University, Iran.
^c Museo Arqueológico, Ayuntamiento de Burriana, Spain.
^d Nuclear Science and Technology Research Institute (NSTRI), Iran.*



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Title: *INFORMATIVE MODELS OF CULTURAL HERITAGE. THE “UNFINISHED” CHURCH OF BRENDOLA*
Authors: *Emanuela Sorbo, Gianluca Spironelli*
Affiliation: *Dipartimento di Culture del Progetto, Università Iuav di Venezia, Italy.*

Title: *USE OF A NOVEL, LOW-COST 3D CT-SCAN VIEWER BY THE HOYO NEGRO PROJECT, QUINTANA ROO, MEXICO*
Authors: *James C. Chatters^a, William O. Adams Jr.^b, Diana Arano Recio^c, Dominique Rissolo^d, Helena Barba Meineke^e*
Affiliation: *^a Applied Paleoscience, Bothell, USA.
^b MedVizi, LLC, Salt Lake City, USA.
^c Delegación Campeche, Instituto Nacional de Antropología e Historia, Mexico.
^d Center of Interdisciplinary Science for Art, Architecture, and Archaeology, University of California, USA.
^e Subdirección de Arqueología Subacuática, Instituto Nacional de Antropología e Historia, Mexico.*

Title: *INTEGRATION OF DIGITAL ACQUISITION TECHNIQUES FOR THE MANAGEMENT OF CULTURAL HERITAGE: THE ARCHAEOLOGICAL PARK OF THE VIA LATINA AND VIA APPIA ANTICA TOMBS*
Authors: *Santino Alessandro Cugno^a, Filippo Fantini^b, Francisco Juan-Vidal^c, Simona Rinaldi^{b,c}*
Affiliation: *^a Parco Archeologico dell’Appia Antica, MIBACT, Italy.
^b Dipartimento di Architettura, Università di Bologna, Italy.
^c Departamento de Expresión Gráfica Arquitectónica, Universitat Politècnica de València, Spain.*

Title: *DIGITIZING TO RE-DISCOVER: THE CASE STUDY OF THE ROMAN CITY-GATE IN ALTINUM, ITALY*
Authors: *Caterina Balletti^a, Eleonora Delpozzi^b*
Affiliation: *^a Università Iuav di Venezia, Italy.
^b Department of Humanities, Università Ca’ Foscari di Venezia, Italy.*



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ORAL 4:

#PhD FORUM

Tuesday 15:00 - 16:30

CHANNEL A

Coordinators: Nannina Spanò & Roberto Pierdicca

Title: AN INTEGRATED APPROACH AIMED AT THE PROTECTION OF CULTURAL HERITAGE: FROM THE GEOMATIC SURVEY TO HBIM AND AR REPRESENTATION OF VILLA PISANI (STRA, ITALY)
Authors: Michele Monego^{a,b}, Simone Maioli^c, Matteo Salvalaggio^a
Affiliation: ^a Department of Cultural Heritage, University of Padova, Italy.
^b Department of Civil, Environmental and Architectural Engineering, Italy.
^c School of Engineering, University of Padova, Italy.

Title: CRITERIA AND TOOLS TO CATALOGUE BRICK-MASONRY VAULTS. THE GIS-DATABASE OF FRAME, A FASCE AND PLANTERIAN VAULTS BETWEEN THE 16TH AND 18TH CENTURY IN NORTHERN ITALY
Authors: Chiara Stanga
Affiliation: Department of Architecture and Urban Studies (DAStU), Politecnico di Milano, Italy.

Title: AUTOMATIC MASKS GENERATION FOR THE DIGITIZATION OF A WOODEN COLLECTION OF MAQUETTES USING DEEP LEARNING
Authors: Giacomo Patrucco^a, Francesco Setragno^b
Affiliation: ^a Laboratory of Geomatics for Cultural Heritage (G4CH Lab), Department of Architecture and Design (DAD), Politecnico di Torino, Italy.
^b Volta® A.I., Italy.

Title: FINE TUNING AND DATA AUGMENTATION TECHNIQUES FOR SEMANTIC SEGMENTATION OF HERITAGE POINT CLOUDS
Authors: Francesca Matrone^a, Massimo Martini^b
Affiliation: ^a Department of Land and Infrastructure Engineering (DIATI), Politecnico di Torino, Italy.
^b Department of Information Engineering (DII), Università Politecnica delle Marche, Italy.



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Title: COMPARATIVE INVESTIGATION OF THE 3D REPRESENTATIONS OF THE HOLY AEDICULE OF THE TOMB OF CHRIST
Authors: Nefeli Tentoma^a, Andreas Georgopoulos^a, Grazia Tucci^b
Affiliation: ^a Laboratory of Photogrammetry, School of Rural and Surveying Engineering, National Technical University of Athens, Greece.
^b GECO, Geomatics for Environment and Conservation of Cultural Heritage Laboratory, Department of Civil and Environmental Engineering, University of Florence, Italy.

COFFEE BREAK

Tuesday 16:30 - 17:00

ORAL 5: #PhD FORUM

Tuesday 17:00 - 17:55
CHANNEL A

Coordinators: Giulia Sammartano & Mattia Previtali

Title: TOWARDS ONLINE 3D ARCHIVE OF HISTORICAL SITE: THE TURIN 1911 WORLD'S FAIR
Authors: Alessandra Spreafico^a, Cristina Della Coletta^b
Affiliation: ^a Department of Architecture and Design (DAD), Politecnico di Torino, Italy.
^b Division of Arts and Humanities (DAH), UCSD, University of California San Diego, USA.

Title: DIGITAL CULTURE, UMWELT AND ALETHEIA AN ONTOLOGICAL INTRODUCTION
Authors: Andrea Pasqui
Affiliation: Department of Architecture, Built environment and Construction engineering (ABC), Politecnico di Milano, Italy.

Title: DETECTING AND MAPPING FLASH FLOODING WITH SYNTHETIC APERTURE RADAR (SAR) SATELLITE DATA: THE METAPONTO PLAIN CULTURAL LANDSCAPE CASE STUDY
Authors: Marzia Gabriele
Affiliation: Department of Architecture, Built Environment and Construction Engineering (ABC), Politecnico di Milano, Italy.



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SHORT ORAL 7:

#PhD FORUM

Tuesday 17:55 - 18:30

CHANNEL A

Coordinators: Valentina Bonora & Mattia Previtali

Title: ARTIFICIAL INTELLIGENCE APPLIED TO MULTISPECTRAL IMAGERY FOR FLUVIAL MACROPLASTICS DETECTION
Authors: Irene Cortesi
Affiliation: Department of Civil and Environmental Engineering, University of Florence, Italy.

Title: 3D TECHNOLOGIES IN CYPRIOT PREHISTORIC ARCHAEOLOGY AND HERITAGE: THE ERIMI USER EXPERIENCE
Authors: Francesca Dolcetti^a, Luca Bombardieri^b
Affiliation: ^a Department of Archaeology, University of York, UK.
^b Dipartimento DFCLAM, Università di Siena, Italy.

Title: POINT CLOUD PROCESSING FOR URBAN ACCESSIBILITY MANAGEMENT IN HISTORIC CONTEXT
Authors: Daniele Treccani^a, Andrea Adami^a, Lucía Díaz-Vilariño^b
Affiliation: ^a Department of Architecture, Built Environment and Construction Engineering (ABC), Politecnico di Milano, Italy.
^b Universidade de Vigo, CINTECX, GeoTECH group, Spain.

Title: MAPPING MONUMENTS' STONE WEATHERING USING LOW-COST MULTISPECTRAL TECHNOLOGIES AND IMAGE PROCESSING
Authors: Efsthios Adamopoulos^a, Fulvio Rinaudo^b
Affiliation: ^a Dipartimento di Informatica, Università degli Studi di Torino, Italy.
^b Dipartimento di Architettura e Design, Politecnico di Torino, Italy.



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SHORT ORAL 8:

#PhD FORUM

Tuesday 17:55 - 18:30

CHANNEL B

Coordinators: Nannina Spanò & Giulia Sammartano

Title: DOCUMENT MANAGEMENT FOR ARCHITECTURAL HERITAGE RESTORATION AND ITS APPLICATION IN THE MONASTERY OF SAN MILLÁN DE LA COGOLLA (LA RIOJA)

Authors: Jaione Korro^a, Pilar Acosta^b, Francisco Pinto^c, José Manuel Valle^a, Ainara Zornoza-Indart^d

Affiliation: ^a Laboratorio de Documentación Geométrica del Patrimonio, University of the Basque Country (UPV/EHU), Spain.

^b Instituto Andaluz de Patrimonio Histórico (IAPH), Spain.

^c Institute of Architecture and Building Science (IUACC), University of Seville, Spain.

^d Department of Painting, Faculty of Fine Arts, University of the Basque Country (UPV/EHU), Spain.

Title: ENGINEERING THE ARCHAEOLOGICAL RESEARCH: SUBMILLIMETRIC CT SCAN OF ANCIENT EGYPTIAN ARTIFACTS

Authors: Simone Galli

Affiliation: Department of Architecture, Built Environment and Construction Engineering, Politecnico di Milano, Italy.

Title: PRE- AND SELF-CALIBRATION OF UNDERWATER CAMERAS FOR PHOTOGRAMMETRIC DOCUMENTATION OF ARCHAEOLOGICAL SITES

Authors: Alessio Calantropio^a, Dominique Rissolo^b, Evan Kovacs^c

Affiliation: ^a Laboratory of Geomatics for Cultural Heritage (LabG4CH), Department of Architecture and Design (DAD), Polytechnic University of Turin, Italy.

^b Center of Interdisciplinary Science for Art, Architecture, and Archaeology (CISA3), University of California, USA.

^c Marine Imaging Technologies, USA.

Title: THE LAST DECADE DEVELOPMENT OF PROJECT DATA MANAGEMENT THROUGH THE BIM

Authors: Francesco Di Stefano

Affiliation: Dipartimento di Ingegneria Civile, Edile e Architettura (DICEA), Università Politecnica delle Marche, Italy.



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Wednesday

INVITED SPEAKERS 3: **DIGITAL TWIN SYSTEMS FOR EMERGENCY MANAGEMENT**

Wednesday 9:00 - 10:00

CHANNEL A

Coordinator: José Luis Lerma

Title: *PERFORMANCE-DRIVEN EMERGENCY MANAGEMENT*

Author: *Dr. Shabtai Isaac*

Affiliation: *Ben-Gurion University of the Negev, Israel.*

Title: *DIGITAL TWIN FOR THE BUILT ENVIRONMENT. DEFINITIONS, CHALLENGES AND POTENTIALS*

Author: *Dr. Wissam Wahbeh*

Affiliation: *University of Applied Sciences and Arts Northwestern, Switzerland.*

Title: *ENABLING DISTRIBUTED DIGITAL TWIN ECOSYSTEM OF BUILT ENVIRONMENT FOR RESOURCE-EFFICIENT AND SAFETY-RESPONSIVE PUBLIC MANAGEMENT*

Author: *Dr. Alessandra Corneli*

Affiliation: *DICEA, Università Politecnica delle Marche, Italy.*



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**SPECIAL SESSION 2: #HIGH-END DIGITIZATION OBJECTS, MONUMENTS AND SITES
#DIGITAL TWINS**

Wednesday 10:00 - 11:00
CHANNEL A

Coordinator: *Eva Savina Malinverni*

Title: CLOUD DATA SHARING AND EXCHANGE OF HBIM PROJECTS FOR
ARCHAEOLOGY: POSSIBLE SOLUTIONS AND PROPOSALS
Author: *Filippo Diara, Fulvio Rinaudo*
Affiliation: *Department of Architecture and Design (DAD), Politecnico di Torino, Italy.*

Title: BIM INTEROPERABILITY: OPEN BIM-BASED WORKFLOW FOR HERITAGE
BUILDING INFORMATION MODELLING (HBIM). A MULTIDISCIPLINARY
APPROACH BASED ON ADVANCED 3D TOOLS AND EXCHANGE FORMATS
Author: *Jacopo Alberto Bonini^a, Alessandro Mandelli^b, Stefano Marco de Gennaro^c,
Fabrizio Banfi^b*
Affiliation: *^a AB Studio Archiettura, Italy.
^b Department of Architecture, Built Environment and Construction Engineering
(DABC), Politecnico di Milano, Italy.
^c Politecnico di Milano, Italy.*

Title: 3D GIS FOR A SMART MANAGEMENT SYSTEM APPLIED TO HISTORICAL
VILLAGES DAMAGED BY EARTHQUAKE
Author: *Alban Gorreja, Francesco Di Stefano, Fabio Piccinini, Roberto Pierdicca, Eva
Savina Malinverni*
Affiliation: *Dipartimento di Ingegneria Civile, Edile e Architettura (DICEA), Università
Politecnica delle Marche, Italy.*

Title: DIGITAL TWINS: COMBINED SURVEYING PRAXIS FOR MODELLING
Author: *Cecilia Maria Bolognesi, Martina Signorini*
Affiliation: *Department of Architecture, Built Environment and Construction Engineering,
Politecnico di Milano, Italy.*

COFFEE BREAK

Wednesday 11:00 - 11:30



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PhD FORUM:

#ROUNDTABLE

Wednesday 11:30 - 13:00
CHANNEL A

Coordinator: *Roberto Pierdicca*

Affiliation: *Dipartimento di Ingegneria Civile, Edile e dell'Architettura, Università Politecnica delle Marche, Italy.*

Coordinator: *Valentina Bonora*

Affiliation: *GeCO Lab, Dipartimento di Ingegneria Civile e Ambientale, Università degli Studi di Firenze, Italy.*

Coordinator: *Giulia Sammartano*

Affiliation: *Department of Architecture and Design (DAD), Politecnico di Torino, Italy.*

Coordinator: *Nannina Spanò*

Affiliation: *Department of Architecture and Design (DAD), Politecnico di Torino, Italy.*

Coordinator: *Mattia Previtali*

Affiliation: *Department of Architecture, Built Environment and Construction Engineering (DABC), Politecnico di Milano, Italy.*

LUNCH

Wednesday 13:00 - 14:00



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SHORT ORAL 9:

**#DIGITIZATION AND DOCUMENTATION OF CULTURAL HERITAGE
#SEMANTICS, OBJECT LIBRARIES, CATALOGUES AND VOCABULARIES**

Wednesday 14:00 - 15:00

CHANNEL A

Coordinator: Àngel Marqués

Title: DOCUMENTATION AND ENHANCEMENT OF A ROMAN WATERMILL WITH ALL ITS STRUCTURAL ELEMENTS
Authors: Josefina García-León, Jesús A. González-García, Pedro E. Collado-Espejo
Affiliation: Department of Architecture and Building Technology, Technical University of Cartagena, Spain.

Title: VOCABULARY ALIGNMENT FOR SHARING ARCHITECTURAL CONSERVATION DATA
Authors: Marta Acierno^a, Donatella Fiorani^a, Athanasios Velios^b
Affiliation: ^a Dipartimento di Storia, Disegno e Restauro dell'Architettura, Sapienza University of Rome, Italy.
^b Ligatus, Chelsea College of Arts, University of the Arts London, UK.

Title: THREE-DIMENSIONAL SURVEY AND MATERIAL CHARACTERIZATION OF THE TEMPIO-MASSERIA DEL GIGANTE IN CUMAE
Authors: Raffaele Amore, Federica Carandente
Affiliation: Department of Architecture, University Federico II of Naples, Italy.

Title: MONITORING LANDSCAPE DEGRADATION IN MEDITERRANEAN AREAS INTEGRATING MEDALUS AND REMOTE SENSING FOR FRAGILE ARCHEOLANDSCAPE PLANNING: THE BASILICATA CASE STUDY
Authors: Marzia Gabriele^a, Raffaella Brumana^a, Mattia Previtali^a, Alberta Cazzani^b
Affiliation: ^a Department of Architecture, Built Environment and Construction Engineering, Politecnico di Milano, Italy.
^b Department of Architecture and Urban Studies, Politecnico di Milano, Italy.



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Title: THE COMPLEX OF SANTA CROCE IN RAVENNA AS A CASE STUDY: INTEGRATION OF 3D TECHNIQUES FOR SURVEYING AND MONITORING OF A HISTORICAL SITE

Authors: Gabriele Bitelli^{a,b}, Ester Barbieri^b, Valentina Alena Girelli^{a,b}, Alessandro Lambertini^a, Emanuele Mandanici^a, Eleonora Melandri^b, Domenico Simone Roggio^b, Angela Santangelo^{b,c}, Maria Alessandra Tini^a, Simona Tondelli^{b,c}, Andrea Ugolini^{b,c}

Affiliation: ^a DICAM, Department of Civil, Chemical, Environmental and Materials Engineering, Alma Mater Studiorum, University of Bologna, Italy.
^b Interdepartmental Centre for Industrial Research in Building and Construction, Alma Mater Studiorum, University of Bologna, Italy.
^c Department of Architecture (DA), Alma Mater Studiorum, University of Bologna, Italy.

Title: SPACE-BASED APPLICATIONS FOR BUILT CULTURAL HERITAGE: EXPERIENCE OF COPERNICUS4REGIONS PUBLICATION

Authors: Branka Cuca, Raffaella Brumana

Affiliation: Department of Architecture, Built Environment and Construction Engineering, Politecnico di Milano, Italy.

ORAL 6: #ARTIFICIAL INTELLIGENCE, DEEP LEARNING, BIG DATA, AND 5G
#DIGITAL TWINS

Wednesday 15:00 - 16:30
CHANNEL A

Coordinator: Raffaella Brumana

Title: GENERATIVE NETWORKS FOR POINT CLOUD GENERATION IN CULTURAL HERITAGE

Authors: Roberto Pierdicca^a, Marina Paolanti^b, Ramona Quattrini^a, Massimo Martini^b, Eva Savina Malinverni^a, Emanuele Frontoni^b

Affiliation: ^a Dipartimento di Ingegneria Civile, Edile e dell'Architettura, Università Politecnica delle Marche, Italy.

^b Dipartimento di Ingegneria dell'Informazione, Università Politecnica delle Marche, Italy.

Title: THE ROLE OF EXTENDED REALITIES IN HERITAGE BUILDINGS REPRESENTATION

Authors: Ahmed Khalil^a, Spyridon Stravoravdis^b

Affiliation: ^a School of Design, Faculty of Liberal Arts & Sciences, University of Greenwich, UK.

^b School of Architecture, University of Liverpool, UK.



ARQUEOLÓGICA 2.0

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INTERNATIONAL CONGRESS ON ARCHAEOLOGY, COMPUTER GRAPHICS, CULTURAL HERITAGE AND INNOVATION

GEORES2021



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DE VALÈNCIA

Title: SIMULATION OF PAST PROCESSES THROUGH LINEAR PROGRAMMING. THE CASE OF THE DISTRIBUTION OF SUPPLIES DURING THE SIEGE OF BILBAO IN 1874

Authors: Álvaro Rodríguez^{a,b}, Patricia Ferreira-Lopes^c, Gorka Martín^a, Jaione Korro^a

Affiliation: ^a GPAC - Built Heritage Research Group, University of the Basque Country (UPV/EHU), Spain.
^b Department of Applied Mathematics, University of the Basque Country (UPV/EHU), Faculty of Engineering of Vitoria-Gasteiz, Spain.
^c Instituto Andaluz de Patrimonio Histórico (IAPH), Spain.

Title: TOWARDS AN INTEGRATED DESIGN METHODOLOGY FOR H-BIM

Authors: Eugenio Pellis^a, Andrea Masiero^a, Grazia Tucci^a, Michele Betti^a, Pierre Grussenmeyer^b

Affiliation: ^a Department of Civil and Environmental Engineering, University of Florence, Italy.
^b Photogrammetry and Geomatics Group, ICube Laboratory UMR 7357, INSA Strasbourg, University of Strasbourg, France.

Title: FRESCO PHOTOGRAMMETRY: DOCUMENTING THE IMPERIAL CULT CHAMBER AT LUXOR TEMPLE

Authors: Owen Murray

Affiliation: Owen Murray, Oriental Institute, University of Chicago, USA.

CLOSING CEREMONY

Wednesday 16:30 - 17:00

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