

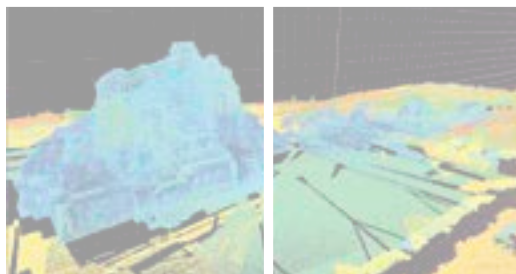
International Conference Built Heritage 2013 Monitoring Conservation Management

POLITECNICO DI MILANO



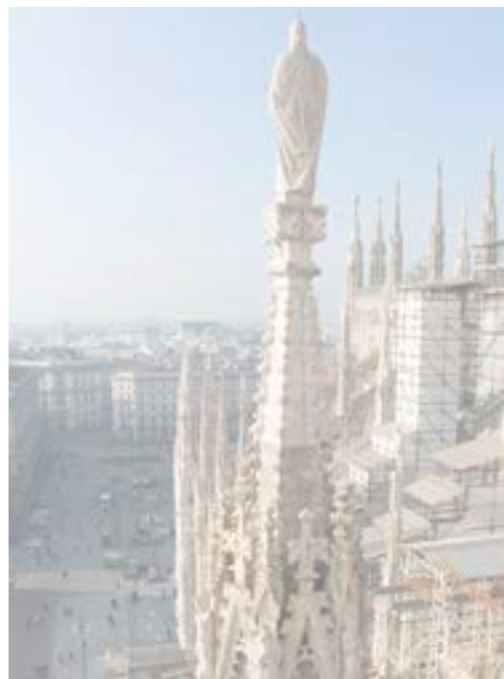
CENTRO PER LA
CONSERVAZIONE E
VALORIZZAZIONE DEI
BENI CULTURALI

POLITECNICO DI MILANO
150^o



Milan, Italy
18-20 November 2013

Program



8.00 Room Rogers - Registration

9.00 Room Rogers - Opening ceremony

9.30 Room Rogers - Key note lecture Arch. R. Cecchi The archaeological sites of Rome and Pompeii. Protection as an interdisciplinary path of knowledge

Room Rogers - Conservation and management

10.15 Session 1 - Cultural landscapes

P.M. Koufopoulos & M. Myriantheos The master plan for Wadi El Deir, Sinai Egypt: research and interventions

M. Wu, S. Hu, Z. Xue, C. Shi Monitoring and maintenance of built heritage within the daily management system: a case study of world cultural heritage Suzhou classic gardens in China

L. De Marco, G. Franco, A. Magrini Guidelines for eco-efficiency in the UNESCO site of Cinque Terre: an example of best practice

A. Cazzani & C. Sangiorgio Inventory, preservation and valorization of Historic roads In the Lombardy Region (Italy). Current policies and future plans

11.15 Coffee break

11.45 Session 2 - Historic centres and cultural landscapes

K. Basili, R. Codello, G. De Vettor, P. Gasparoli, F. Pianezze, A.T. Ronchi, G. Totaro, F. Trovò Wear processes in architectural heritage: definition, studies, contrasting measures. The case of UNESCO World Heritage Site "Venice and its Lagoon"

S. Pratali Maffei & A. Marin Forte Marghera and the entrenched field of Venice: a participatory process of planning and valorization

R. Picone Farmhouses in the Phlegrean Fields between archaeology and architectural palimpsest. A multi-disciplinary approach

C.F. Carocci & C. Circo "Needs-based architecture" in the Cyclades. A project for the enhancement and conservation of the architectural heritage and the rural landscape

F. Colosi, R. Gabrielli, E.S. Malinverni, R. Orazi Strategies and technologies for the knowledge, conservation and enhancement of a great historical settlement: Chan Chan, Perú

13.00 Lunch

14.30 Poster session A

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.15 Session 3 Architectural heritage, diagnosis and conservation

E. Ciocchini, A. Maiocchi, F. Zangheri The chapel of the Blessed Virgin of Miracles: a multidisciplinary approach for the project of conservation and reuse

D. Concas, G. De Cesare, G. Capri Santa Teresa from convent cloistered nuns to 'open' museum for the community

C. Carocci, F. Campisi, I. Tranchina The medieval Castle of Fossa (AQ). Analysis and restoration project

I. Huic, M. Vujasinović, M.O. Šćitaroci St. Mary on Lastre church in Beram, Istria, Croatia -multidisciplinary research, recommendations for restoration and further maintenance

S. Dandria, F. Gabbrielli, M. Giamello, E. Giorgi, A. Magrini, E. Manzoni, F. Randazzo Grancia of Cuna: from the complexity of the historical building to a composed knowledge for the project

16.30 Coffee break

17.00 Session 4 Architectural heritage, diagnosis and conservation

G. Cardani & L. Binda Guidelines for the masonry quality evaluation in built heritage

E. Bersani, M. Giambruno, S. Pistidda Planning for the historic built in developing countries: challenges and opportunities through the case study of Multan (Pakistan)

M. Faliva New York City Local Law 11/98: consequences of administrative regulations on the conservation of buildings

K. Penna, E.S. Taylor, J.L. Tinoco From paper to people: the complexities of developing guidelines for preservation education in developing countries

8.00 Room Rogers - Registration

9.00 Room Rogers - Opening ceremony

9.30 Room Rogers - Key note lecture Arch. R. Cecchi The archaeological sites of Rome and Pompeii. Protection as an interdisciplinary path of knowledge

Room IV - ICT and new technologies

10.15 Session 1 - 3D survey, modeling and monitoring

F. Fassi, C. Achille, C. Monti, L. Fregonese, S. Parri, F. Rechichi, A. Mandelli, C. Monti, F. Gaudio, L. Galbusera
A yard of the future: the main spire of Milan Cathedral

C. Pisu, P. Casu, S.M. Grillo Multidisciplinary approach to the documentation of the XVIII century marble altars in Sardinia

G. Fangi Spherical photogrammetry for cultural heritage metric documentation: a critical examen six years after the beginning

L. Pecchioli, F. Mohamed, M. Pucci, B. Mazzei Museum of the sculptures of the basilica of Saint Silvestro integrating the visit at the catacombs of Priscilla in Rome

11.15 Coffee break

11.45 Session 2 - Historic centres and cultural landscapes

C. Maierhofer, R. Krankenhagen, P. Myrach, J. Meinhardt, U. Kalisch, C. Hennen, R. Mecke, T. Seidl, M. Schiller
Monitoring of cracks in historic concrete structures using optical, thermal and acoustical methods

V. Palieraki, C.E. Adami, E. Vintzileou In-situ measurements using radar and boroscopy techniques: Case Study - Hagia Sophia Museum of Trabzon, Turkey

Telmo Dias Pereira & D. Mateus Monitoring noise and vibration emissions in Santa Clara-a-Velha Monastery

L. Giorgi & P. Matracchi The towers of San Gimignano. Architectural diagnostic for knowledge and conservation

V. Russo, P. Cappelletti, G. Ceniccola, M. D'Amore, R. Landolfo, F. Portioli Interdisciplinary conservation issues of an "unstable" architecture: researches about the bell tower of St. Augustine the Greater in Naples

13.00 Lunch

14.30 Poster session A

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.15 Session 3 3D survey, modeling and monitoring

C. Giannico, A. Ferretti, S. Alberti Satellite Radar interferometry: a new monitoring tool for cultural heritage sites

A. Furini, M. Paternò, A. Pellegrinelli, P. Russo Integrated measurement techniques for the monitoring of the ancient walls of Ferrara

A. M. Manferdini Documenting lost heritage. The experience of the survey of architectures damaged by the earthquake in the Emilia area, Italy

J. Barton & R. Parsons Use of leading edge Laser scanning and modelling technologies for Heritage conservation

16.30 Coffee break

17.00 Session 4 - Structural diagnostic and risk assessment

V. Bayarri, E. Castillo, J.M. García-Moncó, J. Calonge Diez Integration of traditional and innovative techniques to resolve a complex case: monitoring the movement and temperature influence of the canvas in the south transept of the Church of the Convent of San Luis in San Vicente de la Barquera (Cantabria)

A. Lionello, C. Rossi, P.P. Rossi Testing and monitoring for the control of strengthening interventions of Santa Maria Gloriosa dei Frari in Venice

E. Coisson & F. Ottoni Monitoring historical structures, from their past to their future

Day 1: November 18th, Monday

8.00 Room Rogers - Registration

9.00 Room Rogers - Opening ceremony

9.30 Room Rogers - Key note lecture Arch. R. Cecchi The archaeological sites of Rome and Pompeii. Protection as an interdisciplinary path of knowledge

Room G.2 - Materials, preventive conservation and maintenance

10.15 Session 1 - Diagnostic and treatments

S. Sestini, M. Sammartino, M. Laurenzi Tabasso Monitoring the performance of stone conservation treatments: technical and economic aspects

E. Tesser, L. Lazzarini, R. Ganzerla, F. Antonelli The decay of silicone resins applied for the consolidation of stone in Venice

G. Bearman, E. Doehne, L. Beegle, W. Hug, R. Reid, R. Bhartia Remote Detection of Biofilms on Stone

S. Sasso, L. Scrano, E. Ventrella, M.G. Bonomo, A. Crescenzi, G. Salzano, S.A. Bufo Natural biocides to prevent the microbial growth on cultural heritage

11.15 Coffee break

11.45 Session 2 - Diagnostic and treatments

A. Velosa, F. Rocha, A. Haugen Mortars in Norway from the Middle Ages to the 20th Century: conservation strategy

S. Voltolina, C. Aibéo, T. Cavallin, E. Egel, M. Favaro, V. Kamenova, L. Nodari, A. Pavlov, I. Pavlova, S. Simon, P. Scopece, E. Verga Falzacappa, A. Patelli Assessment of atmospheric plasma torches for cleaning of architectural surfaces

P. Ortiz, R. Ortiz, J.M. Martin, M.A. Vázquez RIVUPH: an Andalusian project for risk analysis in historical cities

R. Vecchiattini, G.L. Pesce, G. Quarta, L. Calcagnile Sampling problems in the radiocarbon dating of old mortars and plasters with the "pure lime lumps" technique

13.00 Lunch

14.30 Poster session A

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.15 Session 3 - Environmental monitoring

G. Litti, A. Audenaert, J. Braet, L. Lauriks Energy environmental monitoring in historical buildings; a simplified methodology for modeling realistic retrofitting scenarios. The case study of Schoonselhof Kasteel in Antwerp (Belgium)

J. Sasaki, K. Koizumi, D. Ogura, T. Ishizaki, K. Hidaka Research project on the conservation of Hagia Sophia, Istanbul - results of environmental monitoring

R. Hendrickx, H. De Clercq, F. Decock, F. Descamps Hygrothermal analysis of the façades of the former veterinary school in Anderlecht (Belgium) for the risk assessment of internal thermal insulation

A. Caratelli, A.M. Siani, G.R. Casale, A. Paravicini, C. Bertolin, D. Camuffo Indoor measurements of microclimate parameters in the Mithraeum in the Baths of Caracalla (Rome, Italy)

H. Norrström The EEPOCH Project - Multidisciplinarity in a multiple case study

16.30 Coffee break

17.00 Session 4 - Diagnostic and treatments

I. Papayianni, M. Stefanidou, V. Pacht Survey of repaired and artificial stone at archaeological site of Pella five years after restoration works

D. Gulotta, C. Tedeschi, S. Goidanich Long-term evaluation of the salt decay susceptibility of NHL repair mortars

A. Calia, D. Liberatore, N. Masini Approach to the study of conservation of historical masonry mortars by means of the correlation between porosimetry and penetrometric test. First results

8.30 Room Rogers - Registration

9.00 Room Rogers - Key note lecture Prof. P. Matthiae Ebla: a Great Archaeological Discovery and an unaccomplished Park in the Scenario of the Syrian Tragedy

Room Rogers - Conservation and management

9.45 Session 5 - Archeological heritage

M. Landoni Conservation project on Nandin hall at Vat Phou archaeological site (Laos PDR)

J. Cassar, S. Cefai, M. Galea, R. Grima, K. Stroud, A. Torpiano Preserving the Megalithic Temples of Malta - the interdisciplinary approach

R. Buzancic Restoration of Diocletian's mausoleum in Split

G. Bagnasco Gianni, S. Bortolotto, P. Favino, A. Garzulino, M. Marzullo, E. Riva, R. Simonelli, S. Valtolina, A. Zerboni Past&Present at Tarchna & Tarquinia: a flexible approach to make visible the invisible

11.00 Coffee break

11.30 Session 6 - Archeological heritage

W. Terlikowski & P.L. Narloch Specificity of research and reconstructions of ancient wall constructions in Syria, the area of Palmyra

P. Pesaresi The Herculaneum Conservation Project's programmed maintenance cycles for the archaeological site of Herculaneum

D. Cavezzali & A. Giovagnoli Conservation works of the Hall of Masks in the Domus Aurea, Rome

G. Putaturo Restoration of the Villa Reale of Monza

12.45 Free time for lunch

14.15 Poster session B

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.00 Room Rogers - Key note lecture Prof. E. Vintzileou The seismic behaviour of historic buildings tested on earthquake simulator

15.45 Session 7 - Architectural heritage, diagnosis and conservation

P.N. Barrera & P.E. Bartholomew Anthropology of Design: how traditional Korean architecture is redefining the terms of conservation, collaboration, and sustainable management

A. Baila, L. Mazza, A. Anzani Conservation and restoration of polychrome stone mosaics in the architectures of the historical park of Villa Tatti Tallacchini: the music pavillion - Cafe house

T.L. Park The process surrounding the preservation of historical wooden architecture in Japan

16.30 Coffee break

17.00 Session 8 - Architectural heritage, diagnosis and conservation

F. Ottoni, F. Aureli, C. Mambriani, P. Mignosa An integrated conservation process between history and hydraulics. The case of the ancient masonry "Tower of waters" in Colorno, Parma

M. Borsotti & C. Campanella An architectural project for existing buildings from understanding to writing

M. Carlessi & A. Kluzer Past, present and future of the forgotten places in the ancient "Ospedale Maggiore" (Ca' Granda) in Milan. Studies, surveys, analysis, prospects and projects

A.C. Glória The "private" cultural heritage: management, right and public fruition. The case of Cedovim manor's house (Vila Nova de Foz Côa, Portugal)

19.30 Social dinner

8.30 Room Rogers - Registration

9.00 Room Rogers - Key note lecture Prof. P. Matthiae Ebla: a Great Archaeological Discovery and an unaccomplished Park in the Scenario of the Syrian Tragedy

Room IV - ICT and new technologies

9.45 Session 5 - 3D survey, modeling and monitoring

S. Janvier-Badosa, C. Stefani, X. Brunetaud, K. Beck, L. De Luca, M. Al-Mukhtar Documentation and analysis of 3D mappings for monument diagnosis

S. Bortolotto, A. Castiglioni, A. Castiglioni, N. Cattaneo, S. Massa Complex Archaeological Sites: An integrated stratigraphic framework for progressive knowledge acquisition and representation

A. Versaci, A. Cardaci, D. Indelicato, L. Fauzia Integrated survey methodologies for the knowledge, restoration and valorization of modern architecture. The case study of the archaeological museum of Siracusa designed by Franco Minissi

G. Bearman, E. Doehne, J. Voss, K. Merrill, R. Bagaria Citizen Science and Mobile Phone cameras as tools for monitoring World Heritage

11.00 Coffee break

11.30 Session 6 - Structural diagnostic and risk assessment

T.E. Boothby Ars sine scientia: how incorrect design theories lead to correct designs

S. Arangio, S. Molinaro, F. Bontempi Basic modeling for the forensic investigation of the collapse of a masonry structure

K. Papadopoulos & E. Vintzileou The new 'poles and empolia' for the columns of the ancient greek temple of Apollo Epikourios

M. Vasic, D. Coronelli, C. Poggi A multidisciplinary approach for the assessment of great historical structures: ties of "Duomo di Milano"

S. Arangio, F. Bucchi, F. Bontempi Pushover seismic analysis of masonry buildings with different commercial codes

12.45 Free time for lunch

14.15 Poster session B

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.00 Room Rogers - Key note lecture Prof. E. Vintzileou The seismic behaviour of historic buildings tested on earthquake simulator

15.45 Invited lecture: Dr. N. Proctor Can talk save our cultural heritage? How the Smithsonian is bringing mobile social media to UNESCO's World Heritage Sites

Session 7 - Cultural heritage communication and valorization

B. Benedetti & S. Montanari Methodology and technology in two new museums in Saudi Arabia

16.30 Coffee break

17.00 Session 8 - Cultural heritage communication and valorization

M. Negrini & N. Di Blas Digital storytelling for Cultural Heritage: a modular, multi-channel, multi-scenario approach

G. D'Amico, A. Del Bimbo, A. Ferracani, L. Landucci, D. Pezzatini Onna project: a natural interaction installation and mobile solution for cultural heritage

M. Barcaro & E. Oliviero Scigno, enriching the visitor's experience with a tablet

19.30 Social dinner

Day 2: November 19th, Tuesday

8.30 Room Rogers - Registration

9.00 Room Rogers - Key note lecture Prof. P. Matthiae Ebla: a Great Archaeological Discovery and an unaccomplished Park in the Scenario of the Syrian Tragedy

Room G.2 - Materials, preventive conservation and maintenance

9.45 Invited lecture: Prof. R. Prykryl Pre- and post-restoration investigation of stone monuments and buildings: approaches, interpretations, and consequences

Session 5 - Environmental monitoring

C. Pasquarella, C. Balocco, E. Marmonti, G. Petrone, G. Pasquariello, R. Albertini An integrated approach to the preventive conservation of cultural heritage: Computational Fluid Dynamics application

C. Pasquarella, G. Pasquariello, C. Balocco, E. Saccani, M. Ugolotti, O. Maggi, R. Albertini An integrated approach to the preventive conservation of cultural heritage: indoor biological environmental monitoring

E. Rosina & E. Rotta Environmental protection and control systems for architectural and archaeological heritage

11.00 Coffee break

11.30 Session 6 - Diagnostic and treatments

A. Bonazza, I. Natali, I. Ozga, G. Bartolozzi, C. Cucci, V. Marchiafava, M. Picollo Pollution effects on typical Florentine lithotypes: a multidisciplinary approach

C. Di Benedetto, S. Bianchin, A. Langella, M. Favaro, A. Gambirasi, A. Colella, G. Luca, M. Soranzo, M. de' Gennaro, P. Cappelletti The Neapolitan Yellow Tuff: experimental investigations about effectiveness of antisealing treatment

S. Lugli, S. Minghelli, P. Zannini Barium silicate consolidation of historical sandstones

V. Tornari & A. Moropoulou Crack micromorphology detection in stone samples by digital holographic speckle pattern interferometry

L. Brizi & P. Fantazzini Internal structure of porous media studied by the apparent water self-diffusion coefficient in the field gradient of a portable single-sided NMR instrument

12.45 Free time for lunch

14.15 Poster session B

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.00 Room Rogers - Key note lecture Prof. E. Vintzileou The seismic behaviour of historic buildings tested on earthquake simulator

15.45 Session 7 - Diagnostic and treatments

N. Proietti, D. Capitani, V. Di Tullio, R. Olmi, S. Priori, C. Riminesi, A. Sansonetti, F. Tasso, E. Rosina MODiHMA at Sforza Castle in Milano: Innovative Techniques for Moisture Detection in Historical Masonry

M. Rossetto Capillary rising damp in historical buildings: electrophysical charge neutralization technology - a needful "zero impact" instrument to prevent and resolve the problem once and for all

A. Goppion, A. Gioria, G. Cotrufo Museology meets conservation: Goppion display-cases with multiple microclimate

16.30 Coffee break

17.00 Session 8 - Environmental monitoring

A. Bernardi, F. Becherini, A. Vivarelli, C. Ghiretti, E. Mendez Bertolo, L. Pockel , M.D. Romero-Sanchez, N. Tellado, R. Wandsdr n Application of innovative technologies for energy storage to Cultural Heritage buildings

M. Filippi, M. Rota, P. Picchi The accreditation process for Museums in Regione Piemonte. Preventive conservation and indoor environment monitoring

A. Grimoldi, D. Del Curto, A. Landi, C. Manfredi, L. Valisi From rest/cons to en/eff: indoor environment and building preservation

L. de Santoli, C. Calice, V. Coccia, V. Fazio Multidisciplinary approach for renewal of historical center: the case study of Ceglie Messapica (BR)

19.30 Social dinner

8.30 Room Rogers - Registration

9.00 Room Rogers - Key note lecture Prof. E. Vassallo The Palladian Basilica in Vicenza: knowledge, conservation and promotion

Room Rogers - Conservation and management

9.45 Session 9 - Architectural heritage, diagnosis and conservation

A. Saisi, M. Guidobaldi, C. Gentile, L. Cantini Dynamic and seismic assessment of the Gabbia tower in Mantua, Italy

I. Stoyanova Promoting a Nineteenth-century Italian Technology: the Crystal Skies of the Milanese Gallery "Vittorio Emanuele II"

G. Vella & E. Messina Fruition and valorization of disused manufacturing settlements: the "tonnare" of the Gulf of Castellammare case-studies

11.00 Coffee break

11.30 Session 10 - 20th Century and industrial architectural heritage

A. Sanna & G. Monni Recovery, reuse of designs of the Carbonia's dwelling. Proposal for a "Handbook for the Recovery of Modernist Building"

Y. Salman, Z. Önsel Atala, N.B. Yöney A model for an integrated multi-disciplinary approach for the preservation of 20th Century and modernist architectural Heritage

R. Lozano Galvez The multidisciplinary in the protection of the 20th Century architectonic patrimony

P. Dellavedova Instruments for the preservation and promotion of the 20th century built heritage: the case study of Legnano (MI)

D. Sarti & L. Varra The organization of a districtal museum: the Textile Museum of Prato between the preservation of an industrial heritage and the development of a sustainable system

12.45 Lunch

14.15 Poster session C

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.00 Session 11 - Historic centres and cultural landscapes

E. Invernizzi & M.M. Locatelli Central Karakorum National Park and the Northern Areas territory: the "Cultural Heritage Routes" Project

N. Berlucchi A fortress for Brescia: the enhancement of the Castle and the Cidneo Hill

K. Rajangam & P. Modi Nakshay - a community led culture mapping initiative an attempt towards best practices and successful conservation

P. Giandebiaggi, M. Rossi, C. Tedeschi The "survey of memory". Cultural heritage in cemeteries: development of a catalogue protocol from the "representation" of multidisciplinary researches

P. Gasparoli & A.T. Ronchi Crespi d'Adda. Beyond the Management Plan: regulatory instruments for the management of built heritage transformations

M. Achenza, I. Giovagnorio, L.G.F. Cannas The 'earthen cities' itinerary

J. Bruin et al. Knowledge is Power: Monitoring the World Heritage site of Amsterdam, a policy analysis

K. Rajangam & P. Modi Heritage information management package (himp) -technology and experience driven approach towards efficiently managing india's built heritage sites

17.00 Room Rogers - Closing remarks

8.30 Room Rogers - Registration

9.00 Room Rogers - Key note lecture Prof. E. Vassallo The Palladian Basilica in Vicenza: knowledge, conservation and promotion

Room IV - ICT and new technologies

9.45 Session 9 - 3D survey, modeling and monitoring

S. Hermon, F. Niccolucci, K. Yiakoupi, A. Kolosova, G. Iannone, M. Faka, P. Kyriacou, V. Niccolucci Documenting architectonic Heritage in conflict areas. The case of Agia Marina Church, Derynia, Cyprus

L. Guerriero, S. Barba, E. De Feo, F. Fiorillo, A. Manco Multidisciplinary analysis: the early christian complex in Cimitile (Italy)

G. Verdiani, A. Peruzzi, M. Gualandi The Piacenza Cathedral, from the digital survey to a complete multimedia documentation

N. Masini, F. Gabellone, G. Leucci, R. Persico, F. Soldovieri Enhancement of the information content available from non invasive diagnostics for restoration and knowledge of architectural heritage

11.00 Coffee break

11.30 Session 10 - Structural diagnostics and risk assessment

C.F. Carocci & A. Scudero The restoration project of the church of Saint Agata in Tussillo (AQ, Italy) within the framework of the post-earthquake reconstruction plan

M. Dolce, E. Speranza, R. Dalla Negra, M. Zuppiroli, F. Bocchi Constructive features and seismic vulnerability of historic centres through the rapid assessment of historic building stocks. The experience of Ferrara, Italy

R. Fabbri Complex monumental heritage: problems and operational programs for post seismic restoration

A.G. Mazzeri Mantua Ducal Palace: one year after the earthquake. From emergency management to seismic improvement and programmed maintenance

K. Nedvěďová & R. Pergl Cultural Heritage and floods

12.45 Lunch

14.15 Poster session C

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.00 Session 11 - 3D survey, modeling and monitoring

F. Niccolucci, A. Felicetti, N. Amico, A. D'Andrea Quality control in the production of 3D documentation of monuments

G. Guidi, P. Rodríguez Navarro, S. Gonizzi Barsanti, L.L. Micoli, M. Russo Quick textured mesh generation in Cultural Heritage digitization

P. Ronzino, F. Niccolucci, A. D'Andrea Built Heritage metadata schemas and the integration of architectural datasets using CIDOC-CRM

E. Demetrescu, G. Lucci Baldassarri, A. Pagano, S. Pescarin CONNEXT: CONNecting metadata to web3D interactive applications of large archaeological contEXTs

16.00 Session 12 - Structural diagnostics and risk assessment

M. Riggio, J. Sandak, A. Sandak, I. Santoni, L. Babinski Degradation of wooden surfaces in historical buildings: integrated sensing and modeling techniques for monitoring and conservation

M.S. Okten, C. Haydaroglu, B.B. Okten A structural design case study on reconstruction of a historical timber mansion

V. Sousa, T. Dias Pereira, D. Silva Asset management of built heritage: application to wood-framing elements of the National Palace of Sintra, Portugal

17.00 Room Rogers - Closing remarks

8.30 Room Rogers - Registration

9.00 Room Rogers - Key note lecture Prof. E. Vassallo The Palladian Basilica in Vicenza: knowledge, conservation and promotion

Room G.2 - Materials, preventive conservation and maintenance

9.45 Invited lecture: Prof. E. Doehne Measuring Change in Art: The case for citizen science and time-lapse imaging of material cultural heritage

Session 9 - Diagnostic and treatments

L. Brambilla, P. Condoleo, S. Perego, G. Zerbi, L. Binda Experimental study on the influence of the environment on the properties of vegetal resins used in the conservation of Cham temples in Vietnam

A. Verganelaki, N. Maravelaki, V. Kilikoglou, I. Karatasios, I. Arampatzis, K. Siamos Synthesis and characterization of a calcium oxalate-silica nano-composite for stone conservation

G. Cappelletti, P. Fermo, A. Piazzalunga, G. Padeletti Transparent hybrid films for stone preventive conservation

11.00 Coffee break

11.30 Session 10 - Diagnostic and treatments

T. Dreyfuss & J. Cassar Ammonium oxalate treatment application in the presence of soluble salts: laboratory results on soft limestone

M. Matteini, C. Colombo, G. Botticelli, M. Casati, C. Conti, R. Negrotti, E. Possenti, M. Realini Ammonium phosphates to consolidate carbonatic stone materials: an inorganic mineral treatment greatly promising

E. Sassoni & E. Franzoni Evaluation of hydroxyapatite effects in marble consolidation and behaviour towards thermal weathering

M. Favaro, M. Chiurato, P. Tomasin, F. Ossola, N. El Habra, I. Svensson, E. Beckers, V.J. Forrat Pérez, M.D. Romero Sánchez, A. Bernardi Calcium and magnesium alkoxides for conservation treatment of stone and wood in built heritage

S. Tamburini, M. Favaro, A. Magro, E. Garbin, M. Panizza, F. Nardon, M.R. Valluzzi Geopolymers as strenghtening materials for Built Heritage

12.45 Lunch

14.15 Poster session C

All posters will be displayed for the duration of the Conference. Authors are invited to stand near their posters during the session indicated in the poster program

15.00 Session 11 - Environmental monitoring

R.S. Adhikari, E. Lucchi, V. Pracchi Historical buildings: energy performance and enhancement

M. Legnér & A. Luciani The historical indoor climate. A long-term approach to conservation environments within heritage buildings

F. Romano, M. Gaudenzi, C.M. Joppolo, L.P. Romano Temperature and humidity in museum display case: a simulation tool and experimental validation

G. Cavaglià, M. Mangosio, I. Caltabiano, C. Curti Intervention strategies for the energy retrofit of the built heritage: a case study in Turin

17.00 Room Rogers - Closing remarks

Poster session A - Conservation and management

- A01 E. de Almeida** Historic Center of Salvador, Bahia, Brazil: dilemma between conservation and cultural consumption
- A02 G.M.A. Balayet Hossain** Historical imprints of Panam Nagar
- A03 T. Basirico & K.B. Fazio** A multidisciplinary approach to the sustainable restoration of historical buildings: the case study of the San Francesco ex-convent in Piazza Armerina in Italy
- A04 J.N. Bastos** The Algarve XVI-th century Rural House – intervention for survival
- A05 J.N. Bastos** The Fortress of Sagres (Portugal) - an heritage and restoration practice
- A06 J. Bruin et al.** Uncovering mono-functional developments in a Seventeenth-century canal-zone block in the Canal District of Amsterdam World Heritage
- A07 S. Bruni et al.** Post-earthquake recovery of architectural heritage: diagnostics, GIS documentation and restoration
- A08 G. Buyukmihci & A. Ozkan** Integrity of conservation and sustainability techniques in a special historic site
- A09 P. Chiodi et al.** A multidisciplinary approach: the conservation of an ancient bridge over the greater Zab river as part of community development plan of Deralok hydropower project under japanese international cooperation agency loan
- A10 V. Cinieri & E. Zamperini** Lifecycle oriented approach for sustainable preservation of historical built heritage
- A11 S. Colombo** An application of memory studies to museology: the case of Pinacoteca Ambrosiana between 1960s and 1990s
- A12 F. Converti** The technological innovation of the knowledge areas: The Tourist Board of the City of Peastum
- A13 T. Dreyfuss et al.** Transmitting Malta's legacy of forts and fortifications through the reuse of an abandoned 16th century warehouse
- A14 R. Fabbri & S. Ciliani** For the valorization of the Monumental UNESCO Heritage: the system of signs pedestrian tourism in Ferrara and Modena
- A15 B. Ferri & A. Maturo** Built cultural heritage and urban development: elements for a cultural planning in Pescara city
- A16 C. Gentile et al.** Diagnostics and preservation strategies applied to historic iron infrastructures: the Paderno arch bridge (1889)
- A17 P. Giandebiaggi & C. Vernizzi** The Roman amphitheater in Durres: the survey as a means of multidisciplinary knowledge for urban regeneration, architectural recovery and archaeological excavation
- A18 K. Keutgens & B. Delmotte** Study of the architectural history of the St. Martin's Church, Zaventem, Flanders, by means of preliminary material-technical research
- A19 C. Mura** Knowledge of modern architectural heritage in Sardinia through construction techniques. The case of rural architecture of Arborea (OR)
- A20 B. Davide Petriaggi et al.** The restoration of the Domus of the Mithraeum of the Painted Walls (Ostia): a methodological approach
- A21 S. Sadeghi** A concealed garden: critical view on the restoration of Ghasr Prison, Tehran, Iran
- A22 G. Sanfilippo et al.** A systemic approach for the restoration project: the church of St. Anna in Piazza Armerina (EN)
- A23 G. Verdiani et al.** Ad impossibilia nemo tenetur. Three case studies on built heritage elements at risk
- A24 M.R. Vitale et al.** Methods and strategies for the 'sustainability of the ancient built-up: studies and preliminary analysis on the "Monte" quarter in Piazza Armerina

Poster session B - ICT and new technologies

- B01 F. Agnello & R. Prescia** Integrated studies for the enhancement of complex historic monuments
- B02 W. Bagiński** Using location-related knowledge to maintain a historic residence
- B03 V. Bayarri-Cayón et E. Castillo** New processing tools for heritage conservation and documentation
- B04 N. Benabdelkader & M. Morandotti** The historical site of Mansourah
- B05 R. Cacciotti et al.** MONDIS Knowledge-based system: application of semantic web technologies to built heritage
- B06 I. Cerato et al.** From the dig to 3D reconstruction and AR dissemination. The case study of the Roman kiln of Massa (IT)
- B07 S. Karaman et al.** MNEMOSYNE: visual profiling for personalized cultural content delivery
- B08 G. Leucci et al.** The Foggia Cathedral: an in situ integrated geophysical and mechanical study on the wooden structures of the ceiling
- B09 M.F. Mancini et al.** From video sequence as a database for the generation of 3D models to video as a tool for architecture communication
- B10 S. Pallara & C. Caiulo** Energy saving for historical heritage: the domotised lighting system of the Cathedral of Nardò (Lecce - Italy)
- B11 B. De Roo et al.** Conservation of past times: data models for ensuring the future of our heritage
- B12 I. Rubino** Step by step: exploring heritage through a mobile augmented reality application at Palazzo Madama - Museo Civico d'Arte Antica (Turin, Italy)
- B13 E. Sassoni & C. Mazzotti** Assessment of masonry mortar compressive strength by double punch test: the influence of mortar porosity
- B14 G.M. Ventimiglia** Role of diagnostic surveys in the conservation of the former mother-church of Santa Margherita di Belice in Sicily: preliminary tests and restoration site checks
- B15 S. Zambruno et al.** Photographing the past: using cloud computing and photo-modelling for 3D historical architecture modelling

Poster session C - Materials, preventive conservation and maintenance

- C01 A. Alomari et al.** Experimental study on the role of freezing-thawing in the degradation of stones in the castle of Chambord
- C02 P. De Berardinis et al.** Strategies for improving energy of the historic masonries of the minor centres of Abruzzo Region
- C03 A. Bonazza et al.** Climate impact and innovative materials for the preservation of Built Heritage: the EC NANOMATCH project
- C04 C. Conti et al.** First results on diethyl oxalate as a new product for the conservation of carbonatic substrates
- C05 M. Coppola et al.** Analysis and conservation of ancient Egyptian gypsum-based binders and mortars from the temple of Ramesses II in Antinoe
- C06 G. Corso et al.** Pigments and binders in Pompeian four styles wall paintings
- C07 C. Daffara et al.** The challenge of infrared imaging of frescos: thermal quasi-reflectography unveils hidden features of artworks
- C08 E. Galán & P. Aparicio** The environmental risk assessment applied to cultural heritage. A methodological approach
- C09 M. Jadicicco Spignese & Z. Faravelli** Historical buildings current value
- C10 C. Kyi et al.** Investigations into the suitability of the free-radical molecule nitric oxide (NO•) in the treatment and control of biodeterioration
- C11 E. Lombardi et al.** Strategies for increasing the scale of biocleaning treatment through sulfate crust bioremoval
- C12 T. Meier et al.** Ultrasonic surface measurements for the investigation of superficial alteration of natural stones
- C13 A. Osman & J. Kościuk** Characterization of binding lime mortar used in the ruins of Anba Bishoi Monastery near Sohag (Egypt)
- C14 M. Pretelli et al.** Indoor Microclimate effect on heritage buildings: the case study of Malatestiana Library
- C15 A. Proto et al.** Ca-based absorbents for NO_x measurement in atmospheric environments surrounding monumental and archeological sites
- C16 M. Stella et al.** Testing of nanostructured products for the protection and consolidation of biocalcarene
- C17 R. Terra et al.** Restoration of San Petronio Basilica: four year project between innovation and eco-sustainability
- C18 D. Vandevoorde et al.** Influence of environmental conditions on water adsorption measurements performed by non-destructive in situ applicable techniques
- C19 C. Kapridaki & N. Maravelaki** TiO₂-SiO₂-PDMS nano-composite with self-cleaning properties for stone protection and consolidation
- C20 C. Zambella et al.** Environmental monitoring of the St. Gennaro and St. Gaudioso catacombs in Naple