

ARCHITECTURE HERITAGE and DESIGN

Carmine Gambardella

XVI INTERNATIONAL FORUM

Le Vie dei
Mercanti



WORLD HERITAGE and KNOWLEDGE

Representation | Restoration | Redesign | Resilience

ARCHITECTURE HERITAGE and DESIGN | 2
Collana fondata e diretta da Carmine Gambardella

ARCHITECTURE HERITAGE and DESIGN | 2

Collana fondata e diretta da Carmine Gambardella

Scientific Committee:

Carmine Gambardella,

UNESCO Chair on Landscape, Cultural Heritage and Territorial Governance

President and CEO of Benecon,

Past-Director of the Department of Architecture and Industrial Design

University of Studies of Campania "Luigi Vanvitelli"

Federico Casalegno,

Massachusetts Institute of Technology, Boston

Massimo Giovannini,

Professor, Università "Mediterranea", Reggio Calabria

Bernard Haumont,

Ecole Nationale Supérieure d'Architecture, Paris-Val de Seine

Alaattin Kanoglu,

Head of the Department of Architecture, Istanbul Technical University

David Listokin,

Professor, co-director of the Center for Urban Policy Research

of Rutgers University / Edward J. Bloustein School of Planning and Public Policy, USA

Paola Sartorio,

Executive Director, The U.S.- Italy Fulbright Commission

Elena Shlienikova,

Professor, Professor of Architecture and Construction Institute of Samara State Technical University

Luis Palmeiro Iglesias,

Director UNESCO Chair Forum University and Heritage,

Universitat Politècnica De València UPV, Spain

Nicola Pisacane,

Professor of Drawing – Department of Architecture and Industrial Design_University of Studies of Campania "Luigi Vanvitelli"

Head of the Master School of Architecture – Interior Design and for Autonomy Courses

Department of Architecture and Industrial Design - University of Studies of Campania "Luigi Vanvitelli"

Pasquale Argenziano,

Professor of Drawing – Department of Architecture and Industrial Design_University of Studies of Campania "Luigi Vanvitelli"

Alessandra Avella,

Professor of Drawing – Department of Architecture and Industrial Design_University of Studies of Campania "Luigi Vanvitelli"

Alessandro Ciambrone,

Ph.D. in Architecture (University of Campania) and Territorial Governance (Université Paris X)

UNESCO Vocations Patrimoine 2007-09 / FULBRIGHT Thomas Foglietta 2003-04

Rosaria Parente,

Professor in Architecture, construction and geodesy, EPU European Polytechnic University Sofia (Bulgary)

Riccardo Serraglio,

Professor in Architectural History, Department of Architecture and Industrial Design

University of Studies of Campania "Luigi Vanvitelli"

Danila Jacazzi,

Professor in Architectural History, Department of Architecture and Industrial Design

University of Studies of Campania "Luigi Vanvitelli"

Sabina Martusciello,

Professor in Industrial Design, Department of Architecture and Industrial Design

University of Studies of Campania "Luigi Vanvitelli"

Editorial Committee:

Pasquale Argenziano

Alessandra Avella

Giovanni Bello

Alessandro Ciambrone

Maria Luigia Di Bennardo

Rosaria Parente

Nicola Pisacane

Carmine Gambardella

WORLD HERITAGE and KNOWLEDGE
Representation, Restoration, Redesign, Resilience
Le Vie dei Mercanti
XVI International Forum di Studi

Editing: Giovanni Bello, Alessandro Ciambrone,
Maria Luigia Di Bennardo

Il volume è stato inserito nella collana Architecture, Heritage and Design, fondata e diretta da Carmine Gambardella, in seguito a a peer review anonimo da parte di due membri del Comitato Scientifico.

The volume has been included in the series Architecture, Heritage and Design, founded and directed by Carmine Gambardella, after an anonymous peer-review by two members of the Scientific Committee.

©

Proprietà letteraria riservata

ISBN 978-88-492-3633-0

È assolutamente vietata la riproduzione totale o parziale di questa pubblicazione, così come la sua trasmissione sotto qualsiasi forma e con qualunque mezzo, anche attraverso fotocopie, senza l'autorizzazione scritta dell'editore.

Carmine Gambardella

WORLD HERITAGE and KNOWLEDGE
Representation, Restoration, Redesign, Resilience
Le Vie dei Mercanti _ XVI International Forum

Conference Topics:

Heritage

Tangible and intangible dimensions

History

Culture

Collective Identity

Memory

Documentation

Management

Communication for Cultural Heritage

Architecture

Surveying

Representation

Modeling

Data Integration

Technology Platforms

Analysis

Diagnosis and Monitoring Techniques

Conservation

Restoration

Protection

Safety

Resilience

Transformation Projects

Technologies

Materials

Cultural landscapes

Territorial Surveying

Landscape Projects

Environmental Monitoring

Government of the Territory

Sustainable Development

**WORLD HERITAGE and KNOWLEDGE
Representation, Restoration, Redesign, Resilience**

**Le Vie dei Mercanti
XVI International Forum**

Napoli | Capri
14 - 15 - 16 June 2018

President of the Forum

Carmine Gambardella

President and CEO Benecon,
UNESCO Chair on Cultural Heritage,
Landscape and Territorial Governance

International Scientific Committee

Components:

Aygul Agir,

Professor, Department of Architecture, Istanbul Technical University, Turkey

Ahmed Abu Al Haija,

Professor and Head, Environmental Design, Urban and Architectural Heritage,
Faculty of Engineering, Philadelphia University, Jordan

Ali Abu Ghanimeh,

Vice president Al al-Bayt University Almafraa – Jordan

Pilar Garcia Almirall,

Professor, UPC Ecole Tecnica Superior d'Arquitectura Barcelona, Spain

Harun Batirbaygil,

Head, Department of Architecture, Okan University, Istanbul, Turkey

Artur Beu,

Professor, University of Art, Tirana, Albania

Cevza Candan,

Professor, Istanbul Technical University, Turkey

Federico Casalegno,

Professor, Massachusetts Institute of Technology, USA

Alessandro Ciambrone,

Benecon UNESCO Chair, UNESCO and Fulbright Former Fellow, Italy

Joaquín Díaz,

Professor and Dean, Technische Hochschule Mittelhessen-University of Applied Sciences, Department of Architecture and Civil Engineering, Germany

Yurdanur Dulgeroglu,

Professor and Head of the Department of Architecture, Istanbul Technical University, Turkey

Yonca Erkan,

Chairholder UNESCO Chair, Kadir Has University, Turkey

Kutgun Eyupgiller,

Professor, Department of Architecture, Istanbul Technical University, Turkey

Yankel Fijalkow,

Professor, Ecole Nationale Supérieure d'Architecture Paris Val de Seine, France

Xavier Greffe,

Professor and Director, Centre d'Economie de la Sorbonne Paris, France

Manuel Roberto Guido,

Director Enhancement of Cultural Heritage, Planning and Budget Department, Italian Ministry of Heritage and Culture, Italy

Bernard Haumont,

Professor, Ecole Nationale Supérieure d'Architecture Paris Val de Seine, France

Tatiana Kirova,

Professor, Polytechnic of Turin, Italy

Alaattin Kanoglu,

Professor, Istanbul Technical University, Turkey

Ilknur Kolay,

Professor, Department of Architecture, Istanbul Technical University, Turkey

Mathias Kondolf,

Professor, and Chair, Landscape Architecture and Environmental Planning, University California Berkeley, USA

David Listokin,

Professor, Edward J. Bloustein School of Planning and Public Policy, Rutgers University, USA

Andrea Maliqari,

Professor and Rector of the Polytechnic University of Tirana, Albania

Sabina Martusciello,

President of the Degree Course in Design and Communication, University of Campania 'Luigi Vanvitelli', Italy

Massimo Menenti,

Professor, Department of Geoscience and Remote Sensing, Faculty of Civil Engineering, Delft University of Technology, The Netherlands

Rusudan Mirzikashvili,

Ministry of Cultural Heritage, Georgia

Doe Morelli,

Professor, University of Campania 'Luigi Vanvitelli', Italy

Louise Mozingo,
Professor, and Chair, Landscape Architecture and
Environmental Planning, University California Berkeley, USA

Maria Dolores Munoz,
Professor, UNESCO Chair, EULA Environmental Centre,
University of Concepcion, Chile

Florian Nepravishta,
Professor and Dean of the Faculty of Architecture and Urbanism,
Polytechnic University of Tirana, Albania

Luis Palmero Iglesias,
Professor, Director of the Forum UNESCO
University and Heritage (FUUH) Programme Universitat
Politècnica de València UPV, Spain

Jorge Peña Díaz,
Professor, Facultad de Arquitectura,
Instituto Superior Politécnico José Antonio Echeverría, Cuba

Rosaria Parente,
Professor in Architecture, construction and geodesy,
EPU European Polytechnic University Sofia (Bulgary)

Michelangelo Russo,
Professor, Università di Napoli Federico II, Italy

Paola Sartorio,
Executive Director, The U.S.- Italy Fulbright Commission, Italy

Lucio Alberto Savoia,
Ambassador, Secretary General Emeritus,
Italian National Commission for UNESCO, Italy

Maria Anita Stefanelli,
Professor, Department of foreign languages, literature and Culture,
Università degli studi RomaTRE, Italy

Elena Shlienkov,
Professor, Professor of Architecture and Construction
Institute of Samara State Technical University, Russia

Eusebio Leal Spengler,
Professor, Historiador de la Ciudad de La Habana,
Presidente de Honor del Comité Cubano del ICOMOS, Cuba

Isabel Tort,
Professor, Universitat Politècnica de València UPV, Spain

Andrey V. Vasilyev, Professor and Director, Institute of Chemistry
and Environmental Engineering,
Togliatti State University, Russia

Yaliang Xiang,
Professor, China Academy of Art, China

Yang XiuJing,
Professor and Director, China Academy of Art, China

Scientific and Organizing Local Committee

Alessandro Ciambrone, Coordinator of the scientific program and relationships with the International Scientific Committee

Rosaria Parente, Scientific Assistant of the International Committee President

Giovanni Bello, Giuliana Chierchiello, Enrico De Cenzo, Vincenzo Ferraro Graphics and layout

Dario Martimucci, Web master

Peer review

Scholars has been invited to submit researches on theoretical and methodological aspects related to Smart Design, Planning and Technologies, and show realap-plications and experiences carried out on this themes. Based on blind peer review, abstracts has been accepted, conditionally accepted, or rejected. Authors of accepted and conditionally accepted papers has been invited to submit full papers. These has been again peer-reviewed and selected for the oral session and publication, or only for the publication in the conference proceedings.

Conference report

300 abstracts and 650 authors from 36 countries:

Albania, Australia, Benin, Belgium, Bosnia and Herzegovina, Brasil, Bulgaria, California, Chile, China, Cipro, Cuba, Egypt, France, Germany, Italy, Japan, Jordan, Kosovo, Malta, Massachusetts, Michigan, Montserrat, New Jersey, New York, New Zealand, Poland, Portugal, Russia, Slovakia, Spain, Switzerland, Texas, Tunisia, Turkey, United Kingdom.

160 papers published after double blind review by the International Scientific Committee

Preface

In the present era, technologies are becoming increasingly important in helping and supporting man in research, knowledge and production activities, almost as if they were smart prostheses. With the theme of the XVI Forum “World Heritage and Knowledge”, I propose to the International Scientific Community to debate and establish a comparison of knowledge carriers to communicate methodologies of good practices adopted and experiences in the use in the protection, conservation and safeguarding of cultural heritage and landscape as well as in the design of the “new, ”that, adopting in the building processes and building construction Innovative Building Modelling, can realise a non-contemporaneity of what has the same date (Giulio Carlo Argan) respectful of the values of the pre-existing, legitimate because it participated ex ante and monitored becoming all its ethical, aesthetic and performance connotations.

With the Internet of things, for example, sensors that are used to produce data autonomously that widen the processes of knowledge on all levels, from the territory with its infrastructures, to the environment, to the artefacts entering into the body itself of their physicality, or, in the case of the new, building the project as a prediction throughout physical consistency.

Nevertheless, the use of new technologies allows for economies of scale, both temporal and economical, not only for the surveying and representation of the built and the territory in the analysis phase but above all for the management of the resulting data that makes the design activity of the restoration of the historical heritage and landscape or of the newly constructed in a single process no longer divided into steps but also unitary in concrete constructions and the realisation of the works, in the intermediate checks, in the testing, in the monitoring and in the programmed maintenance.

In conclusion, it is indispensable for the scientific community to highlight how technologies, without a responsible attitude that commit man’s choices and knowledge in dealing with and planning appropriate responses to the issues and needs of the collective, can create a deception that unfortunately materialises with the subtle persuasion of uncontrolled astonishment that overwhelms the imagination.

Carmine Gambardella

President and Founder of the Forum

Table of content

P 12	Preface Carmine GAMBARDELLA
13	ID 004 Drawings and Paradoxes: The Image and the Three Fictional Dimensions of Architecture Pedro António JANEIRO
19	ID 006 Reconstruction, Addition, Grafting, Overlapping and Subtraction. Five Approaches to Intervention in Historic Contexts Antonello MONACO
23	ID 009 The knowledge as an instrument for recovery and valorize the rural architecture in Sicily Andrea D' Amore
34	ID 011 An evaluation on how to implement the Historic Urban Landscape (HUL) approach in a critical case study: the city of Valparaíso, Chile Andrea ORTEGA
43	ID 012 From recovery manuals to historic and construction BUILDING INFORMATION MODELLING (H-BIM). Strategies for historical sicilian centres Tiziana CAMPISI, Daniela SIDELI
53	ID 013 SWOT analysis for the redesign of historic university building stock Simone LUCENTI
62	ID 014 Metric survey and possible representations of Historic Architectural Heritage: the case of the Santa Giustina Abbey Alessandro PIOVANO, Fulvio RINAUDO, Roberta SPALLONE
71	ID 017 Research and design in the area of Early Christian basilicas in Cimitile Pasquale MIANO
81	ID 018 The landscape as a testimony, or a resource for the future? Nadia FABRIS
87	ID 019 The newly founded centers in the Agro Pontino: from the local to the global, from the past to the contemporary, to the future Alberto BUDONI, Maria MARTONE
97	ID 020 Conversions and Resilient Materials Emanuele Walter ANGELICO

Table of content

- 104 ID 021**
Analysis of Masonry Ancient Neapolitan Helical Staircases
Francesco FABBROCINO
- 112 ID 022**
Recomposition of architecture in the historical city. The San Bernardino area in Padua, Italy
Enrico PIETROGRANDE, Alessandro DALLA CANEVA
- 122 ID 023**
Facades of Krakow's townhouses from the turn of the 19th and 20th century – protection and restoration
Beata MAKOWSKA
- 131 ID 024**
Sustainable rehabilitation and reconversion of Palácio da Rosa (Lisbon) in a dance school
Sara CARVALHO, António LEITE, Jorge RIBEIRO
- 141 ID 025**
Change of urban landscape in correlation with archaeological heritage in contemporary Serbia and knowledge
Natasa ZIVALJEVIC-LUXOR, Nadja KURTOVIC-FOLIC, Hartmut PASTER-NAK
- 153 ID 026**
The recovery of illegal settlements: a case study
Claudia de BIASE
- 162 ID 027**
Piazza Medaglie d'Oro and the Vomero hill in the Società per il Risanamento's projects in Naples. 1885-1964
Elena MANZO
- 172 ID 028**
The cycle highway RS1 in Essen: a model of green-oriented mobility to promote urban history
Ilaria PONTILLO
- 177 ID 031**
A place for technology transfer and digital techniques applications for survey and representation: the ancient fort of Nagaur in Rajasthan, India
Minakshi JAIN, Pietro MASSAI, Luca ROSSATO
- 187 ID 032**
The Chinese house inside the ex-foreign concession in Hankou: description of Lifen
Francesco MAGLIOCCOLA
- 197 ID 033**
Literature as a representation of changes in urban landscapes after 1945 (on Polish, Czech and Slovak examples)
Joanna CZAPLIŃSKA

Table of content

- 203 ID 034**
App and Go Edutainment for Micro_Cities on the Sicilian Ionian Coast
Marinella ARENA
- 212 ID 037**
Traditional Knowledge of Disaster-Resilient Design in World Cultural Heritage, Japan - For Consisting Cultural Conservation and Disaster Mitigation -
Takeyuki OKUBO
- 220 ID 039**
Geo-climatic applicability of sunspaces in European climates including resilience to climate changes
Giacomo CHIESA
- 229 ID 040**
Design of indoor climate-control passive systems in buildings: experiences for a PhD course
Giacomo CHIESA, Mario GROSSO, Mehrnoosh AHMADI, Matteo BO, Giovanni MURANO, Marianna NIGRA, Elisa PRIMO
- 239 ID 041**
The Sanctuary of Castel Petroso: reflections on architectural representation
Piero BARLOZZINI, Fabio LANFRANCHI
- 247 ID 042**
Abandoned Railways and Cultural Heritage. Networks for spread regeneration
Francesca CASTAGNETO, Stefania DE MEDICI
- 257 ID 044**
Innovative instruments of territorial environmental management: the need for a regulatory approach
Michele RUSSO
- 263 ID 045**
The Redesign of Boundary between River and Ground. A Technological-Environmental Approach for the Resilience of River Corridors and Health of Inhabitants
Michele DI SIVO, Filippo ANGELUCCI, Cristiana CELLUCCI, Daniela LADIANA
- 272 ID 046**
To save from oblivion and destruction. A historical-juridical perspective on the cultural heritage's protection
Maria NATALE
- 280 ID 047**
Structural morphology of the oldest Church in Capocastello (AV)
Ingrid TITOMANLIO

Table of content

- 288 ID 048**
Seismic safety evaluation and push over analysis of the oldest church in Capocastello (AV)
Ingrid TITOMANLIO, Giuseppe FAELLA, Vito IANNACCONE
- 297 ID 049**
Ancient roads of Southern Etruria: historical evolution and digital investigation
Michele MAGAZZU'
- 304 ID 050**
PCM in the energy redevelopment of social housing
Frida BAZZOCCHI, Vincenzo DI NASO, Ilaria TORTORELLA
- 314 ID 051**
The Visibility of the Monumental Heritage and the Network Society
Matteo Giuseppe ROMANATO
- 323 ID 052**
Ziride and Hammadite palatial architecture and its influence on Norman architecture in Sicily
Lamia HADDA
- 333 ID 054**
A spatial multi-criteria analysis model to identify intervention strategies for the recovery of abandoned olive groves. The case study of Lucca Hills
Simona BONELLI, Massimo ROVAI, Maria ANDREOLI
- 343 ID 055**
Landscape redevelopment as a tool for the enhancement of rural areas. A project proposal for the case study area of Padule di Bientina (Lucca – Italy)
Silvia MICHELOTTI, Massimo ROVAI, Maria ANDREOLI
- 353 ID 056**
The reconstruction of an Image. The experiences of Quaroni and Piacentini in Basilicata
Antonio BIXIO, Giuseppe DAMONE, Enza TOLLA
- 361 ID 057**
The aggregation of the building elements in horizontal structures
Francesco Pio ARCELLA
- 368 ID 058**
New trends in local government policies: between the need for reducing land consumption and participatory urban regeneration models
Marco CALABRO'

Table of content

- 376 ID 059**
The main pillars reconstruction of the Basilica di Collemaggio
Alberto FRANCHI, Pietro CRESPI, Marco ZUCCA, Nicola GIORDANO, Nicola LONGARINI
- 383 ID 060**
The Promotion of the cultural heritage: brand new challenge, same old problems
Antonio LIGUORI
- 389 ID 061**
The earthen architecture culture and Campidanese house. Strategies for recovery and enhancement of the Quartu Sant'Elena's Old Town Centre
Alessandra PUSCEDDU, Mario CERASOLI
- 399 ID 062**
Sicilian rural borghi, urban and architectural entities between concreteness and immateriality
Alberto GNAVI, Silvia Maria RIPA
- 409 ID 064**
The built heritage copied and replicated. Reproduction processes of the urban heritage: transcription, restitution and displacement
Giuliana QUATTRONE
- 417 ID 065**
The built heritage copied and replicated. Reproduction processes of the urban heritage: transcription, restitution and displacement
José Miguel SILVA
- 427 ID 068**
The role of Italian cultural heritage in sustainable urban regeneration. New references from four case studies
Francesca ACCICA, Irene POLI, Chiara RAVAGNAN, Francesca ROSSI
- 436 ID 069**
Smart Heritage Strategy: a new intelligence for resilient historical centers
Chiara AMATO, Giulia BEVILACQUA, Silvia URAS
- 446 ID 070**
An inclusive approach to Digital Heritage for knowledge and conservation of European assets: the INCEPTION project
Federica MAIETTI, Federico FERRARI, Marco MEDICI
- 456 ID 071**
"The commercial relations between Great Britain and the Kingdom of the Two Sicilies in the XIX Century"
Vincenzo PINTAUDI

Table of content

- 467 ID 072**
“The Value of Social Media for Reconstructing Lost Heritage in the British Overseas Territory of Montserrat, Site of an Ongoing Volcanic Crisis.”
Gracelyn CASSELL
- 477 ID 073**
Architecturale experiences in the churches of the foundation centers of the “Opera Nazionale per i Combattenti”
Riccardo SERRAGLIO
- 487 ID 074**
Functional behaviours in the requalification of public residential buildings
Carla CHIARANTONI
- 495 ID 076**
Observing urban landscapes. View-points for the representation of contemporary city
Antonella SALUCCI, Niccolò SARDO, Marta MAGAGNINI
- 505 ID 077**
The Design to valorise local tradition in exhibitions for future generation
Laura GIRALDI, Isabella PATTI
- 512 ID 080**
Made in stone
Agnieszka KOSIK WOLNY
- 521 ID 083**
Integrating governance of the National Reserve of Coyhaique, Chile, into regional sustainable development
Theresa TRIBALDOS, Stephan RIST
- 529 ID 084**
Increasing resilience of Cultural Heritage Assets: the “BIMtoBAcademy” project
Marcello BALZANI, Fabiana RACO, Theo ZAFFAGNINI
- 535 ID 085**
Enjoyment of the Cuban Contemporary Architectural Heritage: an innovative cultural visitor route to connect the UNESCO site of Old Havana to the National Schools of Art
Cristina COSCIA, Rocco CURTO, Valeria GADALETA, Jorge PEÑA DÍAZ, Diana ROLANDO
- 545 ID 086**
Applying Resilience Thinking for the Cultural Landscape of the inner areas: new tools of knowledge and adaptive management
Maria Rita PINTO, Katia FABBRICATTI, Lucie BOISSENIN

Table of content

- 555 ID 087**
The complex dialogue between contemporary language and preservation of the ruins in the restoration of Paul II's fortress at Cascia
Stefano D'AVINO
- 563 ID 088**
Landscape analysis of railway structures in heritage assessment: Bridges on the Victoria-Temuco railway line
Ignacio BISBAL GRANDAL, Françoise Anais LOUBIÈS, Nicolás Andrés MORAGA HERRERA
- 573 ID 090**
Architectural Representation: a Tool for Urban Regeneration The Colour Plan of Egadi Islands
Angela Alessandra BADAMI
- 583 ID 091**
From the traditional to the virtual museum: a strategic cultural, social, environmental and economic resource for Europe
Cristiana CARLETTI
- 594 ID 092**
Wedge-shaped bricks spires and domes. Construction and decorative aspects
Francesco DI PAOLA, Giovanni FATTA, Calogero VINCI
- 606 ID 093**
Pottery from the south-west area of the Castle of the Monte in Montella: the decorative repertoire
Iolanda DONNARUMMA, Gaetana LIUZZI
- 617 ID 097**
Principles of cultural landscape Restoration
Sara POURYOUSEFZADEH
- 626 ID 098**
The representation of complex systems. New communication strategies
Maria Elisabetta RUGGIERO
- 633 ID 100**
How the historical heritage affects the urban flow of people? The case study of Lecco
Mattia ALBERGANTI, Chiara BONAITI
- 642 ID 101**
The tomb of Henenu, Luxor, Egypt: underground surveying
Ernesto ECHEVERRÍA, Flavio CELIS, Antonio MORALES, Fernando da CASA

Table of content

- 651 ID 102**
The preservation of the architectural heritage of the twentieth century: the laminar structures of reinforced concrete
Monica MARTINEZ, Ernesto ECHEVERRIA, Gonzalo GARCIA-ROSALLES, Kevin MORENO
- 659 ID 104**
Decline and Resilience of a Mediterranean City: the Case of Syracuse during Thirteenth Centuries
Elina GUGLIUZZO
- 665 ID 105**
The Sanctuary of Santa Maria delle Grazie at Fornò: studies for the restoration and seismic strengthening
Alberto CUSTODI, Nicola SANTOPUOLI
- 675 ID 106**
Urban design and sprawled archaeology. From the “ancient vs new” dichotomy to pre-existence as design material
Raffaele SPERA
- 684 ID 107**
Material and immaterial heritage as a strategic resource facing structural shifts: the case of the Fès-Meknès region (Morocco)
Letizia DI PASQUALE, Maria Rita GISOTTI
- 694 ID 109**
Derna: a gateway of Libya. The ethical value of identity and the vision for the birth of a new urbanity
Calogero MONTALBANO
- 704 ID 110**
“...But what use is this art history?”
Anna MANDIA
- 709 ID 111**
The representation for the use of hidden heritage: the case of Genoese artificial caves
Massimo MALAGUGINI
- 719 ID 112**
The color of the city. Restoration and conservation of the painted facades of Palazzo Boschetti-Dalanzo then Avagnina in Carrù
Maria Paola MARABOTTO
- 728 ID 113**
A Resilient Environmental and Social Design Strategy
Francesca MUZZILLO, Fosca TORTORELLI

Table of content

- 732 ID 115**
Natural disaster and environmental risks. Facts, needs and challenges in Italy
Benedetto DE VIVO
- 738 ID 116**
Ductility-based incremental analysis of masonry structures strengthened with composites
Giancarlo RAMAGLIA, Francesco FABBROCINO, Gian Piero LIGNOLA, Andrea PROTA, Gaetano MANFREDI
- 747 ID 117**
The technology of reinforced concrete elements.Determination of project parameter: concrete cover
Roberto CASTELLUCCIO, Maria INFANTE, Veronica VITIELLO
- 757 ID 118**
The “Cartilla de mantenimiento” as a tool for the protection and maintenance of the earthen architectural heritage in Tunja, Colombia
Elena ZANET, Francesca DE FILIPPI
- 767 ID 119**
The Deception of Colour: Digital Reconstruction of finctae et pictae Architectures
Gabriella LIVA
- 776 ID 120**
The role of overstrength in damage propagation and monitoring of architectural heritage
Bernardino CHIAIA, Antonio VENTURA
- 783 ID 121**
ICTs to train on World Heritage and Tourism: the case of “Tourism Management at UNESCO World Heritage Sites” MOOC
Ilaria ROSANI, Silvia DE ASCANIIS, Maria GRAVARI-BARBAS, Lorenzo CANTONI
- 792 ID 122**
Local identities & excellences. An industrial network to re-produce uniqueness through waste reutilization
Elisabetta BENELLI, Laura GIRALDI, Francesca FILIPPI, Jurji FILIERI
- 799 ID 123**
Sinkhole hazard in the metropolitan area of Naples,Italy
Anna SCOTTO DI SANTOLO, Melania DE FALCO, Giovanni FORTE, Antonio SANTO
- 807 ID 124**
A requalification project hypothesis for the Bagnoli/Agnano (Naples, ITALY) ex NATO Headquarter Area
Mariateresa RUGGIERO

Table of content

- 816 ID 125**
Strategy to re-active an urban landscape
Valeria SCAVONE
- 823 ID 128**
Two outstanding examples of vernacular architecture in Talas town, Anatolia
Duygu TURGUT
- 831 ID 129**
Paul Bellot architecture: between resilience and redesign of “sacrum”
Maria Carolina CAMPONE
- 841 ID 133**
Greek Orthodox merchants in Western Mediterranean sea: commercial and canonical matters
Antonio MATASSO
- 845 ID 134**
Protection and Integration of linear watercourse cultural landscape in urban development ----- A case study of Orléans and Yangzhou
Liang PENG
- 857 ID 136**
Russian approaches to estimation and experience of monitoring of radon radiation
Andrey V. VASILYEV
- 862 ID 137**
Approaches and results of estimation of noise impact to the health of population
Andrey V. VASILYEV
- 870 ID 138**
Automobile transport noise modeling and estimation in town conditions
Andrey V. VASILYEV
- 875 ID 139**
Majolica and Architecture. Treatment of the lacune. The case of the bell tower of San Paolo Bel Sito
Saverio CARILLO
- 885 ID 140**
The historical context and the urban regeneration
Federica CAPRIOLO

Table of content

- 894 ID 141**
Typological classification of vaulted structures in masonry churches
Daniela CACACE, Gianfranco DE MATTEIS
- 904 ID 142**
Innovative systems for the redevelopment of historical buildings: BIM application
Simona COLAJANNI, Giusy Emanuela LO CACCIATO, Achille Roberto PORCASI
- 914 ID 143**
Evaluation of the indoor comfort of the Arabic-Norman architecture for its valorization
Simona COLAJANNI
- 922 ID 144**
Structural behaviour of masonry vaults according to architectural types
Gianfranco DE MATTEIS, Daniela CACACE
- 932 ID 145**
Design with Nature: The connection between Critical Regionalism and Biomimicry in a Moroccan village
Pedro MARTINS-MOURÃO, Pedro JANUÁRIO
- 942 ID 146**
Preservation of historic buildings: two examples in Sant'Agata de' Goti, Italy
Annachiara PIRO, Annalaura VUOTO, Filomena de SILVA, Pierpaolo D'AGOSTINO, Fulvio PARISI, Francesco SILVESTRI, Anna SCOTTO di SANTOLO
- 952 ID 147**
Sports Architecture: the soccer stadiums of the twentieth century in Brazil and Portugal
Beatriz ATTA, Pedro JANUÁRIO, Jorge BOUERI, João SOUSA MORAIS
- 960 ID 148**
Data taking and quality control for complex surveys: Case study Sagrada Família
Juan CORSO, Jordi CASALS, Adria MARCO, Daniel LÓPEZ, Pilar GARCIA ALMIRALL
- 971 ID 151**
Territory visions: dimensions of observing, measuring and returning
Laura FARRONI, Marco CANCIANI, Matteo Flavio MANCINI, Silvia RINALDUZZI
- 981 ID 153**
Reuse or Recycle?
Ludovico ROMAGNI

Table of content

- 989 ID 159**
Survey between protection and orientation of transformations. The case study of Floridia
Rita VALENTI, Claudia FARACI, Sebastiano GIULIANO, Emanuela PATERNÒ, Flavio SPADARO
- 998 ID 160**
Public Buildings accessibility in Fortaleza's Historical Center
Camila BANDEIRA PINHEIRO LANDIM, Pedro Miguel GOMES JANUÁRIO, Márcia Maria VIEIRA HAZIN, Geórgia MORAIS JEREISSATI
- 1009 ID 161**
The museum building and its role in conservation of artifacts in Albania
Etleva BUSHATI, Florian NEPRAVISHATA
- 1019 ID 162**
The use of new technologies in the commemoration projects of the centenary of the apparitions of Fatima
Geórgia MORAIS JEREISSATI, Pedro Miguel GOMES JANUÁRIO, Márcia Maria VIEIRA HAZIN, Camila BANDEIRA PINHEIRO LANDIM
- 1029 ID 163**
The implementation of the Smart City paradigm in complex and user-centric domains
Mariacarla PANARIELLO
- 1037 ID 164**
Traditional games and culture
Antinea AMBRETTI
- 1041 ID 165**
The "Right" to the quality of the "Preservation" for Italian architecture of the Second half of the 20th century
Carla BARTOLOZZI, Gentucca CANELLA
- 1051 ID 167**
Design 4.0. Practices and processes of diffuse and circular design for the enhancement and development of local cultural heritage
Jurji FILIERI, Elisabetta BENELLI, Laura GIRALDI
- 1060 ID 171**
Historic urban centers. Construction characters and seismic vulnerability
Tiziana CAMPISI
- 1070 ID 172**
Internet of things and artificial intelligence technologies preserve cultural heritage
Marin MARINOV, Maria KOKORSKA

Table of content

- 1078 ID 175**
Italian grain silos from the 1930s: inventory, knowledge, conservation and reuse
Stefania LANDI
- 1088 ID 178**
Destructive tests for mechanical characterization of in situ structural timber
Francesco GUARINO, Alberto MANDARA, Gianfranco DE MATTEIS
- 1098 ID 179**
Correlation between NDT results and mechanical strength of structural timber
Gianfranco DE MATTEIS, Francesco GUARINO, Alberto MANDARA
- 1108 ID 180**
From information to knowledge Building new learning strategies in heritage field through graphics and new technologies
Marina PUYUELO, Pedro FUENTES, Mónica VAL
- 1118 ID 183**
Three Schools: Torino, Avellino, Palermo
Efisio PITZALIS
- 1128 ID 184**
Mediterranean Bio-Cultural Landscape: network of expertise
Marina FUMO, Gigliola AUSIELLO, Monica CANNAVIELLO, Antonella VIO-LANO
- 1138 ID 185**
Virtual community content sharing to support decision making process in protection, conservation and promotion of cultural heritage and landscape
Antonio TUFANO, Roberto VALENTE, Modestino MATARAZZO, Enza GRAZIANO
- 1148 ID 186**
Design 4.0. Practices and processes of diffuse and circular design for the enhancement and development of local cultural heritage
Caterina GATTUSO
- 1155 ID 187**
Hidden river: recovering the memory of a city
Maria Grazia CIANCI, Francesca Paola MONDELLI
- 1165 ID 188**
The role of evaluation in B.I.M. models: from the representation to the simulation of the design
Giovanna ACAMPA, Fabiana FORTE

Table of content

- 1172 ID 189**
Adaptive and dynamic facade: a new challenge for the built environment
Sergio SIBILIO, Roberta IAVARONE, Simona MASTANTUONO, Maria MANTOVA, Luigi D'AUSILIO
- 1183 ID 190**
Preliminary energy analysis of the school building stock in the Province of Caserta
Sergio SIBILIO, Nicolò FALCIONE, Anna IMPROTA, Antonio ROSATO
- 1191 ID 193**
Post-seismic rebuilding in Irpinia and resilience
Maria Antonietta FALCI
- 1201 ID 194**
A simplified analysis for seismic risk assessment of reinforced concrete school buildings
Gianfranco DE MATTEIS, Pasquale BENCIVENGA, Francesco GUARINO, Carmela NOLA
- 1210 ID 196**
The Mudéjar Style: An interpretation key of the Ibero-American Baroque architecture
María Fernanda GARCÍA MARINO
- 1220 ID 197**
The rediscovery and enhancement of the historical "Wool Road" through its recognition and reuse project
Paola CONDOLEO, Andrea ROLANDO, Daniela ORENI, Alessandro SCANDIFFIO
- 1230 ID 198**
Sewell mining settlement: Construction of a unique landscape as an adaptive process to a complex and hostile territory
María Dolores MUÑOZ, Ignacio BISBAL
- 1240 ID 200**
REDESIGN + RESILIENCE= Stories of Alternation
Maria Dolores MORELLI
- 1247 ID 201**
A resilient pedagogy. The LANDesign® Project for "school-work alternation"
Enrica PAGANO
- 1256 ID 202**
Know to preserve: Archaeological remains of the triconch architectures in Turkey
Danila JACAZZI, Raffaella FIORILLO

Table of content

- 1264 ID 203**
Green infrastructures and Eco-Planning: the Aversa conurbation
Salvatore LOSCO
- 1274 ID 204**
A New Role of Museums in Industrial Type Cities and Renovation Programs for the “Center-Periphery” Opposition: the Case of the Museum Quarter Togliatti Concept
Elena SHLIENKOVA, Elena SPERK
- 1285 ID 205**
Documenting the Architectural Heritage. From the survey to the three-dimensional modelling
Pamela MAIEZZA
- 1293 ID 206**
The connection between the Architectural Roman heritage and the Theory of Nodes as a management tool
Isabel TORT AUSINA
- 1302 ID 207**
Productive green in the city: opportunities for eco-oriented transformations
Raffaella DE MARTINO, Barbara DI VICO, Rossella FRANCHINO, Caterina FRETTOLOSO
- 1313 ID 208**
Aldo Rossi: Berlin, 1960-1997
Maria Luigia DI BENNARDO
- 1322 ID 211**
The Real Estate Fund for the redevelopment of Public Administration Properties
Francesco VERDE
- 1331 ID 212**
Complex Representation of Knowledge
Gilda EMANUELE
- 1335 ID 226**
Designing the resilience. A masterplan for the Opportunity Areas of Bromley
Giovanni BELLO
- 1341 ID 230**
The evolution of information disclosure through the Open Institutes
Luciana ABATE

Table of content

- 1351 ID 231**
Knowledge and representation between ethics and aesthetics
Rosaria PARENTE
- 1361 ID 232**
The Future of Representation: parametric modeling in the HBim environment
Giuliana CHIERCHIELLO
- 1371 ID 270**
Representing World Heritage properties, cultural landscapes and contemporary architectures: Amsterdam and Rotterdam
Alessandro CIAMBRONE
- 1382 ID 271**
Itineraries of urban identity
Isabella PATTI



CARMINE GAMBARDELLA

UNESCO Chair on Landscape, Cultural Heritage, and Territorial Governance; President and CEO of Benecon SCaRL Research Centre on Cultural Heritage, Ecology and Economy (Consortium of five Universities: University of Campania "Luigi Vanvitelli", Pegaso University, University Federico II of Naples, University of Salerno, University of Sannio). Pro-Rector at the European Polytechnical University, EPU. Professor of Drawing at the Pegaso University and at the University of Campania. President of the International Forum of Studies 'Le Vie dei Mercanti' since its first edition in 2003. Honorary President of the Italian Committee of the Nation Fulbright Sector on Cultural Heritage Sustainable Development, Urban Planning, Architecture and Management of UNESCO World Heritage Sites. Editor and Founder of the series "Surveying is/or Project" and "Knowledge Factory", "Architecture, Heritage and Design". Component of the Scientific Committee of International Class A Magazine 'Abitare la Terra' / 'Dwelling on Earth'.

During his academic career he has covered various roles including the Pro-Rector of Institutions, Academic Senator, Member of the Board, Director of the Department of Architecture and Industrial Design Luigi Vanvitelli, Dean of the Faculty of Architecture Luigi Vanvitelli, Director of the Department of Culture of the Project, Director of Doctoral School in the Discipline of Architecture, Coordinator of the PhD in Protection, Safety and Representation of the Environment and Structures and Territorial Governance, Coordinator of the PhD Program in Surveying and Representation of Architecture and the Environment, President of the Course Degree in Industrial Design. He has also been scientifically responsible for noteworthy national and international research project. He is author of numerous scientific papers on the important issues of the surveying and representation of the built and natural heritage.



- UNESCO Chair on Landscape, Cultural Heritage and Territorial Governance
- BENECON Research Centre of Competence of the Campania Region for Cultural Heritage, Ecology and Economy, Naples, Italy



PATRONED BY



**UNIVERSITÀ DEGLI STUDI DELLA CAMPANIA
LUIGI VANVITELLI**

SCUOLA POLITECNICA E DELLE SCIENZE DI BASE

**DIPARTIMENTO DI ARCHITETTURA
E DISEGNO INDUSTRIALE**



forum UNESCO
UNIVERSITY AND HERITAGE



**UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA**



Organizzazione
delle Nazioni Unite
per l'Educazione,
la Scienza e la Cultura



Commissione Nazionale
Italiana per l'UNESCO



UNIFARCO



THE US - ITALY FULBRIGHT COMMISSION
Linking Minds Across Cultures

DOLOMIA
LUCE, VITALITÀ, RESPIRO

