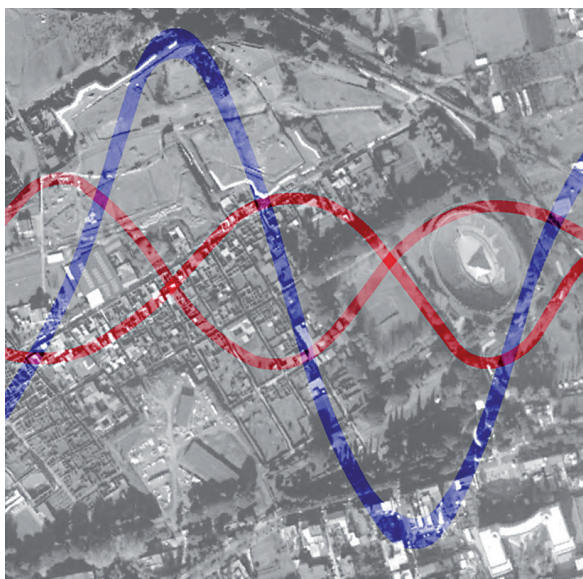


ARCHITECTURE HERITAGE and DESIGN

Carmine Gambardella

XVII INTERNATIONAL FORUM

Le Vie dei  
Mercanti



WORLD HERITAGE  
and LEGACY

WORLD HERITAGE and LEGACY

Culture | Creativity | Contamination



GANGEMI EDITORE<sup>®</sup>  
INTERNATIONAL



## **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). 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 ‘Le Vie dei Mercanti’ since its first edition in 2003. Honorary President of the Italian Committee of the National 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”, “Knowledge Factory” and “Architecture, Heritage and Design”. Component of the Scientific Committee of International Class A Magazine ‘Abitare la Terra’/‘Dwelling on Earth’. He covered various roles



Carmine Gambardella  
WORLD HERITAGE and LEGACY  
Culture, Creativity, Contamination  
Le Vie dei Mercanti  
XVII International Forum

Editing: Alessandro Ciabrone

©

Proprietà letteraria riservata

**Gangemi Editore spa**

**Via Giulia 142, Roma**

[www.gangemieditore.it](http://www.gangemieditore.it)

Nessuna parte di questa  
pubblicazione può essere  
memorizzata, fotocopiata o  
comunque riprodotta senza  
le dovute autorizzazioni.

*Le nostre edizioni sono disponibili in Italia  
e all'estero anche in versione ebook.*

*Our publications, both as books and ebooks,  
are available in Italy and abroad.*

ISBN 978-88-492-3751-1

**ARCHITECTURE HERITAGE and DESIGN | 3**

Collana fondata e diretta da Carmine Gambardella

## **ARCHITECTURE HERITAGE and DESIGN | 3**

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 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, İstanbul 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 Shlienkov**

Professor of Architecture and Construction Institute of Samara State Technical University

#### **Isabel Tort Ausina**

Universitat Politècnica De València UPV, Spain

#### **Nicola Pisacane**

Professor of Drawing  
Department of Architecture and Industrial Design\_University of Studies of Campania  
Head of the Master School of Architecture - Interior Design and for Autonomy Course

#### **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 Ciabrone**

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**

Ph.D. in "Architecture, Industrial Design and Cultural Heritage" at University of Studies of Campania "Luigi Vanvitelli"

### **Editorial Committee:**

Pasquale Argenziano  
Alessandra Avella  
Alessandro Ciabrone  
Nicola Pisacane  
Rosaria Parente

**Carminé Gambardella**

**WORLD HERITAGE and LEGACY  
Culture, Creativity, Contamination**

Le Vie dei Mercanti \_ XVII International Forum

GANGEMI EDITORE®  
INTERNATIONAL





*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 LEGACY**  
Culture, Creativity, Contamination

**Le Vie dei Mercanti**  
**XVII International Forum**

Naples | Capri  
6 - 7 - 8 June 2019

*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 Almafraq – 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, İstanbul Technical University, Turkey

**Federico Casalegno,**

Professor, Massachusetts Institute of Technology, USA

**Alessandro Ciabrone,**

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, İstanbul 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, İstanbul Technical University, Turkey

**Ilknur Kolay,**

Professor, Department of Architecture, Istanbul Technical University, Turkey

**Mathias Kondolf,**

Professor, Landscape Architecture and Environmental Planning, University California Berkeley

**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,**

Design and Communication Degree Course (President)  
University of Campania 'Luigi Vanvitelli', Italy

**Massimo Menenti,**

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,**

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,**

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

**Luis Palmero Iglesias,**

Politécnica de València UPV, Spain

**Jorge Peña Díaz,**

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

**Rosaria Parente,**

Ph.D. in "Architecture, Industrial Design and Heritage" at University of Studies of Campania  
"Luigi Vanvitelli", Benecon UNESCO Chair, Italy

**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,**

Department of foreign languages, literature and Culture, Università degli studi RomaTRE, Italy

**Elena Shlienkova,**

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,**

Head of Department, Samara State Technical University of Russian Federation

**Yaliang Xiang,**

Professor, China Academy of Art, China

**Yang XiuJing,**

Professor and Director, China Academy of Art, China

Scientific and Organizing Local Committee

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

**Rosaria Parente,** Scientific Assistant of the International Committee President

**Luciana Abate, Giuliana Chierchiello, 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 realapplications 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 papershas 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 39 countries:

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

*The XVII Forum “World Heritage and Š\*æ” addresses the issue of the handed down in the sense of transmission over time of generation, at the state of knowledge, the material and immaterial heritage that comes from the past. A generational commitment to operate, in the cyclical temporal process, in order to preserve and protect the cultural heritage; a duty of the present generations to deliver to the future generations the legacy of the past at least in the same conditions in which it is received.*

*A commitment that takes on an even more meaningful significance in a historical moment that is crossed by destructive and iconoclastic wars and by great migration phenomena involving abandonment of territories undermining the identities of places, traditions, material and immaterial culture, which characterize the Cultural Landscapes. A re-appropriation by humanity of the value of a biological continuity that is traceable in its genetic complexity as a custodian and bearer of the memory of the past and, at the same time, belonging to those who live in the future by living the present. Moreover, “to the state of knowledge” should not be interpreted as a limitation but as an exhortation not to live on the position income and above all to remind men that they were not “made to live like brutes but to follow virtues and knowledge”.*

*Knowledge therefore contains an evolutionary value in the history of progress. Where knowledge is substituted by acts or policies conducted by brutal and unreasonable actions against Humanity and its Patrimony, a fracture on historical continuity is created, which produces a negative value due to the great expenditure of economic resources and loss of human values . Therefore, in the awareness that the value produced by the past generations, which have given us and above all entrusted as heritage to be transmitted to the future is not commensurable to the value of time to re-establish and restore continuity to the regenerative space of the common good, it is impossible to activate more and more moments of reflection and I would say to monitor the behavior of supranational cultural policies.*

*This in the spirit of inducing to avoid the disastrous temporal intervals that involve serious losses of the human heritage, which break the glue that binds the generations. Architecture, Cities, Infrastructures and Landscape not only represent the form of time but all the disciplines that have contributed to and contribute to their characterization. The form of time is the body of a cultural program of society and the modifica-*

*tion project makes use of the knowledge at the date. Economics, mathematics, physics, in one the sciences are always traceable in the construction of man's works, from the simple artifact to monumental architectures, to cities, to large infrastructures. In fact, with the previous sixteen editions of the International Forum "Le Vie dei Mercanti" an interdisciplinary community has been created of about 6000 scholars and researchers, coming from over 50 Countries of the World. These have presented realized projects, theoretical research, good practices, technological innovations, which are recognized in the principles and actions to be carried out so that the Planet with its species can always adapt itself to the needs of humanity in a sustainable reciprocal relationship for the salvation of the same Planet. And if Beauty will save the world, the principles and actions shared in these sixteen previous years will find with the seventeenth Forum a moment of evaluation of the state of art so that they can increasingly reach, interest and belong to as many people as possible such as Governments, Institutions, Universities, and Enterprises.*

*This is to create and disseminate a new Humanism that acts as a generational glue through a review of the inheritance concept, or of an ongoing heritage formed by resources intended as lot, which, declined as an income statement, create solidarity, peace, trust, work with art and quality of life.*

*For these reasons and for the history of the Forum, I am sure that the scientific community will establish a debate in Naples and Capri on 6th, 7th and 8th of June which will bring further richness to the discussion among researchers who have faced the protection and safeguard of heritage handed down to us and the researchers who through their works will be the bearers of the future legacy.*

*Carmine Gambardella  
President and Founder of the Forum*





**ID 001** *Seismic vulnerability of Santa Maria Novella Basilica in Florence*

**Marco ZUCCA**  
**Pietro CRESPI**  
Polytechnic of Milan

**Emiliana PERRELLA**  
Civil Engineer  
Campobasso, Italy

This paper presents the evaluation of the seismic vulnerability of Santa Maria Novella Basilica in Florence. Santa Maria Novella is one of the most important historical churches in Italy and, for this reason, different types of studies were conducted to evaluate the structural behavior of this important monument during the last decades. In this work, attention is paid on the dynamic behavior of the church. Particularly, mechanical properties of masonries were determined through “in situ” and laboratory tests, according to the National Italian Code (Norme Tecniche per le Costruzioni 2018), and the eigenvalue analysis was performed to evaluate the fundamental vibration modes of the Basilica.

Finally, to evaluate the seismic risk index, in terms of ratio between the minimum peak ground acceleration which leads to the first collapse of a structural element and the design peak ground acceleration, a response spectrum analysis was carried out to determine the stress fields in columns and walls.

**ID 002** *The cultural heritage loss - responsive law paradigm*

**Alicja  
JAGIELSKA-BURDUK**  
UNESCO Chair on  
Cultural Property Law

**Piotr STEC**  
University of Opole  
Poland

Cultural heritage is a non-renewable resource with a significant role in the development of societies. Nowadays, with cultural heritage under attack from human and environmental threats, academic discussion of legal measures or solutions for its protection and preservation are of great importance. Incidents where national cultural heritage is under attack, as well as deliberate cultural heritage destruction by terrorists, have attracted the attention of both public and national lawmakers. Current laws on cultural heritage are based on the concept of cultural heritage protection and providing a way to pass it on to future generations. Existing approaches also demonstrate the role of cultural heritage in achieving the SDGs. Our contribution offers a new paradigm that could be useful in law interpretation and comparative studies. The cultural heritage loss - responsive law paradigm (CHL-responsive law) is based on our latest research of international law, plus trends in Polish national law. We have observed a significant shift in national legislations regarding cultural policy and cultural heritage protection pursuant to these studies. CHL-responsive law is not a result of international law cross-fertilization or EU law implementation, but originates from the history of separate countries' cultural patrimonies and current legal structure of their cultural heritage assets.

**ID 003** *The natural light as an important element in the interior spaces forming*

**Ahmed MAHMOUD  
SABER**

Helwan University, Egypt

Although with the existing numbers of theses that dealt with the phenomena of light and shadows and their application forms, yet most of them focus on the functional and environmental aspect solely, where a number of architects dealt with the phenomena of light as sacred entity that holds an inspiring energy reflected on the souls. To form various emotions created by the designer through his designs to represent light and shadow as an architectural feature.

The importance of this study is to research methods and aesthetical applications of light to be implemented by the architect through designs to achieve his uniqueness. And to impose on the receiver's attention a fragment of the architectural expressions of the interior spaces, this indicates the necessity to search this phenomenon in its various aspects from Stylistic, technical and analytical.

The possibilities of natural light transcend the functional aspect to tell a story and to give a meaning and form a metaphor through the mixing of shadows in a unified structure, that showcase the symbolic and philosophical background of light.

**ID 006** *Craftsmanship's role in safeguarding memories: three Italian cases for defining a method in cultural heritage conservation*

**Gianni DENARO**  
**Francesca Romana**  
**LUCIANI**  
**Lavinia TOMMASOLI**

Sapienza University  
Rome, Italy

Considerable attention has been paid to management of Historical and Cultural Heritage; our intention is to investigate the methods of transmission to future generations. The aim is defining a strategy to recognize, protect and safeguard values, places and products, that represent an important meaning for humanity. Time gives a double meaning to our heritage: on one hand, the historical connotation related to cultural objects, that are produced in a specific period and place, and they represent a pragmatic significance for the evolution of human being; on the other hand, the aesthetic connotation - as the phenomenology of an idea in the collective memory - defines the sense of community. Craftsmanship exemplifies the expression of this duality, while keeping traditions intact and preserving the unique identity of each city. This paper aims to validate a method for giving value to intangible heritage, redefining and maintaining materials. This will be based on the analysis of three best practices in Italy, found in the cases of Caltagirone, Fabriano and Murano, in which creativity and craftsmanship have found a way to preserve the city and historical tradition, sustaining them into the future. What was the connection between location and craft in the collective memory? And how did a city sustain its traditions in a standardized global market? After defining general principles and models, we intend to apply these results to general contexts where traditions have been lost.

**ID 007** *The Prabi hydroelectric plant in Arco - Trento: Demolition or Preservation?*

**Maria Paola GATTI**

University of Trento  
Italy

Abandoned industrial buildings currently constitute a significant part of the building stock, both in Italy and in Europe. Industrial buildings are abandoned for many reasons. These are sometimes linked to the sector: for example, economic and production changes or a decline in the quantity of materials etc. At other times, the reasons are specifically related to the building itself — to its useful technical life — but also to general factors connected to changes in policy: for example, differences in the use of the water supply or environmental factors. Sustainable regeneration is increasingly being proposed for abandoned industrial buildings to recover some of its value, in terms of architecture, technology and many other features, for posterity. We felt that it would be interesting to examine a specific set of industrial buildings i.e., those dedicated to the production of electricity. In most cases, these are located in isolated areas with a considerable environmental value. To be specific, we analysed the Prabi hydroelectric plant in Arco, this building was “transformed” into a power plant in the last few years of the nineteenth century (1892), used until 1962, and then abandoned. The building and its surroundings have existed in continual tension for over fifty years, fluctuating between conditions of permanence and modification, degradation and possible recovery, marginalisation and integration. During this time, various interventions have been proposed: demolition or, in contrast, preservation and development. However, nothing has yet been done.

**ID 008** *The night lighting dynamics and its influence in reviving the architectural building identity*

**Ahmed  
MAHMOUD SABER**

Helwan University  
Egypt

The importance of lighting emerge from the fact that humans seek knowledge and information about the surrounding world through vision and sighting, as well as how Lighting contributes to the psychological and health stability of the human being . Since the process of architectural design is a sustainable integration process without ignoring any aspects, it was necessary then for the specialists to study the form of the building and the facade under the influence of light at night, especially with the tremendous evolution in the modern technology of artificial lighting. Where the importance of the research is to redefine the mental image of the night scene of the building under the influence of light, which will contribute to the achievement of the social interaction and the emphasis on the nature and architectural identity of the environment at night, where the night lighting is an important factor for the continuous interaction between the building and the external environment.

The main objective of the research was to achieve the continued positive interaction of the building within its urban environment and to emphasize its architectural features at night which establish the sustainability of its architectural identity throughout the day. And to accomplish this goal the study been divided into two main parts.



**ID 009** *New centralities in consolidated contexts between tradition and progress. Ariano Irpino, Cesenatico, Castel Maggiore*

**Ef시오 PITZALIS**  
**Genevieve HANSEN**  
**Marco RUSSO**

University of Campania  
Italy

In relation to the new structure of the historical context, the introduction of a new building establishes a physical and visual relationship with the external landscape. In this sense, the new centrality becomes an authentic “mirador” that captures the topical images of the surrounding landscape. The general lines for the design of new centralities within consolidated contexts aim to foster a relationship of physical integration between the individual parts in order to achieve an overall unitary design. With reference to the context of considerable physical, environmental and landscape complexity, the strengths of the new integration project outline an overall framework that aims to achieve a physical and perceptive continuum between the different volumes.

**ID 010** *Comparison between the environmental performance of buildings made of reinforced concrete and timber*

**Bernardino CHIAIA**  
**Alessandro**  
**Pasquale FANTILLI**  
**Oscar MANCINELLI**

Polytechnic University  
of Turin, Italy

In order to reduce the environmental impact of the construction industry, usage of materials of natural origin (such as timber) is pursued. However, is the use of low-impact materials sufficient to decrease the overall environmental impact of a building? The answer is not trivial, because there are many parameters that affect sustainability in addition to the unitary environmental impact of the building materials. Through this article, an evaluation of the total CO<sub>2</sub> emission in buildings made of reinforced concrete and X-LAM panels is carried out. The entire life cycle (LCA) of the materials used is considered, as well as the CO<sub>2</sub> emissions derived from heating and chilling. The relationship between CO<sub>2</sub> emissions and building height is also taken into account along with weather conditions. The structure and envelope of a three – storey family house is designed from a structural and thermal point of view, respectively. In order to consider the climatic effects, three locations with very different weather conditions are assumed (Catania, Turin, Oslo). The carbon footprint of three different structural types is considered, namely r.c. frame made of cast-in-situ structural elements, precast r.c. panels and timber CLT structure. Then, the same evaluation is carried out in a multi-storey office building. The quantification of the carbon footprint allows to notice how the overall structural and thermal performances, including the thermal mass, affect the environment performance.





**ID 011** *The historical urban development as snow avalanche defense system*

**Barbara FRIGO**  
**Bernardino CHIAIA**

Polytechnic University  
of Turin, Italy

Aosta Valley is the smallest Italian region, the less densely inhabited due to its prevailing alpine environment, bordered by all the “4,000” Italian Western Alps (Mont Blanc, Monte Rosa, Cervino, Gran Paradiso, Grand Combin), with an average altitude of about 2,100 m.

Over time, this led the native population to face extreme weather and fatal events due to natural hazards, and to adapt to the hard environment by reducing hazard risk and impacts to a tolerable level.

To date, various strategies of risk-management of natural hazards have been implemented. Urban (rural) development and “oral” building design recommendations are among the most instinctive and, therefore, ancient strategies reported.

In the paper, the case history represented by the small village of Elevaz can teach us how a clever and conscious territorial expansion has made the resident community resilient to the avalanche hazard. In fact, for centuries, the life of the village continued untroubled during the long winters although it does not pass a day without the mountain discharging snow avalanches along the steep slopes just above Elevaz.

However, the village is “safe” thanks to its urban development strategy over time (with the 16th-century houses acting themselves as avalanche dams) and to the peculiar architecture of the dwellings (that can be overcome by snow flow), and finally thanks to the “divine” protection of Saint Defendens and of an ancient exorcism able to appease the fury of the winter mountains.



**ID 012** *The artistic experience of Giovanni Muzio in Islamic land between identity and contamination*

**Maria Carolina  
CAMPONE**

Military Academy  
“Nunziatella”  
Naples, Italy

The Basilica of the Annunciation in Nazareth, one of the most significant places of Christianity, designed by Giovanni Muzio (1893-1982), has often been considered the result of an eclectic fashion, far from the typical language of European twentieth century architecture. On closer examination, however, Muzio’s work is very interesting for the composite character and for the attempt to create a temple that reflects the complex cultural matrices of the Holy Land. The architect links the different traditions to create an “international” and “ecumenical” monument in a country still marked by religious and political divisions, and unites the Lombard matrix of his formation, of Roman ancestry, to classicism, declined in the light of evident contacts with the Islamic East. Muzio recovers a decorative heritage that, from the Middle Ages and especially after the Crusades, had characterized Western architecture as an ideal moment of “reconquest” of the East and the Holy Land, proposing it, in a different spirit, to the mother earth of that heritage. The result is a Romanesque Revival of Islamic flavor, which aims to reproduce the image of the temple-tent-hut, matrix of the religious architecture and able to expertly combine, in Islamic territories, local decorative traditions and European genius..



**ID 013** *The dammuso: Constructive characters of the traditional stone buildings of the isle of pantelleria (Sicily)*

**Tiziana CAMPISI**

University of Palermo  
Italy

**Manfredi SAELI**

University of Aveiro  
Portugal

Pantelleria, a volcanic island located between Tunisia and Sicily, is characterized by a highly windy territory constantly hit by the sun. Due to the harsh living conditions, the inhabitants developed a constructive typology extremely effective against the natural elements. Indeed, the dammuso, a Sicilian word meaning “vaulted-building”, still today represents a typical Mediterranean passive cooling architecture.

The constructive dominant element is the dark igneous stone historically used to build the rural houses, characterized by a cubical shape covered by a white (lime mortar) vaulted-roof. These buildings can be found almost everywhere in the isle, both old and pretty new. The dammuso traditionally represented a proper shelter for peasants and, at the same time, it was a warehouse for rural tools and goods.

They are generally located in the centre of a land tenure or on a rocky side, even built-in it. It is very rare finding in the Mediterranean environment such a perfect harmony between natural and built environment. This paper investigates the dammuso’s constructive technologies, the local materials, and the phases of construction. The minimum unit is a cube made of bearing walls and an extrados-shaped vault; a more articulate disposition is realized by means of three-dimensional cells juxtaposition.



**ID 015** *Pantalica, historical social physical reappropriation*

**Enrico BASCHERINI**

University of Pisa  
Italy

**Alessia BERRITTA**

Freelance Engineer

Pantalica (Pantegra), is a prehistoric settlement that was formed in a mountain spur, located in the territory of Sortino of Syracuse completely isolated all around from the deep valleys of the Anapo. Its surface exceeds 5 km and turns out to be a real natural fortress, presenting about 5000 tombs. Parallel to the tombs called "grotticella" in the center of Pantalica stands the famous building of the king, the Anaktoron, dated around the twelfth century. The architecture of the tombs, the composition of the furnishings, their elements of prestige (such as gold rings), authorize Pantalica to suppose as a small domain. In the various suburbs, there are some buildings of worship like the Cave of the Crucifix. This one is rectangular, with two adjoining rooms and a rectangular apse, which has in the bottom part of the room a panel framed by double red and ocher band with an image of St. Nicholas, today very ruined.

The complete area of the Necropolis of Pantalica, included in the World Heritage List, today is not in a good state of maintenance and definitely not accessible. Security problems due to continuous collapses and to a difficult practicability

risk making people forget and lose forever an invaluable asset. The research in question is intended to propose hypotheses for a social and economic physical reappropriation of the Necropolis of Pantalica.

**ID 016** *The Festival [‘Al Refaee] as a Simulation Vision of Innovative & Formative in Earth Populating in Islam between Traditionalism and Positivism*

**Wafeek Mohamed  
IBRAHIM MOHAMED**

Helhan University  
Egypt

In the era of globalization, Innovation and creativity became a crucial for the progress and backwardness of communities. As if it is the interpretative lens for the result of the architecture of the Land across different eras. Anyone who thinks about innovation and creativity in population of the earth in Islam in our contemporary reality, he will find that it is not destined to its civilized extension to last.

The purpose of the fundamental research is the trial to reach at realistic vision for creative, innovative and intellectual thought for the population of the earth in Islam as an instrument to Confrontation and observe the changes that have affected in the architecture of the land during different eras. Through knowing the controls of the ruling legitimacy (that served as definitions and laws which formulate its features) and using customs, traditions and conventions as a telescope for the population of the earth in Islam, It explained the impact of them on features of creative & innovative formation for the architecture of the land in our contemporary reality. As well as showing the role of creator and innovator Muslim architect in population the earth in Islam. The study shows a modern vision to identify creativity and innovation in the population of the earth in Islam as well as reformulating the mental image for concept thought for the architecture of the Land and monitoring its changes in Islamic heritage cities.



**ID 018** *Stereometry at Grand Master's Palace in Valletta*

**Ray AXIAQ**  
**Sephora**  
**BALDACCHINO**  
**Marie Claire**  
**FARRUGIA**

Tutor  
**Antonio MOLLICONE**

University of Malta

This contribution is the result of a collaboration in the area of taught representation in various fields of study. An experiment to suggest a method different from the one that is adopted in the various schools where the teaching of drawing is aimed towards the fields of the various professions and up till today artistic, technical and free hand drawing or drawing with tools more or less automated, is talked about.

The object of the study is a helicoidal staircase of the baroque period with the plan based on the geometrical figure of an oval.

A rigorous analysis of architectural elements and relative illustration that integrates the traditional methods using techniques considered prerogatives of artistic practice.

The aim is not to create gracious drawings but clarifying models of concrete problems without excluding theoretical research and pure creativity.

To attribute to a work the value of 'art', what should be found in it are, through a perceptive investigation, the clues that place it in the classical aesthetic/artistic categories.

The intention is not to elaborate a graphical survey model but to study/illustrate and hence communicate to a generic public the genesis of complex geometrical shapes created with a stone material opportunely modelled with essential cuts.

**ID 019** *The Second Reconstruction of Naples: the post-earthquake projects and the contribution of Michele Capobianco*

**Chiara INGROSSO**

University of Campania  
Italy

The paper will focus on the reconstruction in the suburban areas of Naples after the 1980 Irpina earthquake. This event, which took place on November 23rd, was a tremendous disaster for the provinces of Avellino, Salerno and Potenza, but also for Naples it was a dramatic episode in terms of victims and destruction. It has been calculated that in Naples alone 35.000 buildings were damaged and 80.000 families became homeless. The 1980 Irpina earthquake was also remembered for the extensive reconstruction program that was planned especially for public housing. With the law 119/1981, which gave Naples extraordinary funds for the reconstruction, in the Neapolitan suburbs and in its metropolitan area, approximately 7000 units were planned. The critics stressed how this program met with significant and substantial problems in its application. Although in districts like Soccavo, Pianura, Chiaiano, Piscinola, Marianella, Miano, Secondigliano, San Pietro a Patierno, Sant'Antimo, Ponticelli, Barra, San Giovanni a Teduccio and others, much important architecture was built. Most of these projects were the result of a significant study to recover these historical districts, once autonomous villages. Among the most important public housing complexes, we must include the works of Michele Capobianco in Miano, which contributed to redefining a new typology of courtyard housing.



**ID 020** *The Place(s) of Drawing(s) in Architectural Heritage: The Drawing, The Building, The Dwelling and its Seed. Noronha da Costa as an Architect*

**José FERREIRA  
CRESPO  
Pedro António  
JANEIRO**

University of Lisboa  
Portugal

From an architectural standpoint, drawing is the first symptom in the path towards building, as such, it is also the outset of dwelling. The inaugural line drawn out on paper gives birth to a poetical process, seeking to unveil a physical entity from an image. While in formation it already shelters a promise of existence — a dream. In gestation, it is already bringing-forth an idea: summoning life to presence, to take place. A drawing is a dawning...

Whilst still in a seminal stage, the building is already taking roots in its own drawing, it is becoming.

It unfolds towards us in search of an *anima* — a soul. This animation happens through the movement of our settling-in its realm. Whether it be lifelike or not, the drawing/building will live a life once inhabited: it will start becoming before our eyes; It will open branches out and shelters us. Why does this happen?

We do not know. Perhaps, because “[...] poetically, man Dwells on this earth.”

This text seeks to explore the poetical dimension of architecture, focusing on Drawing and Drawings: as way(s) of Building and Dwelling. Drawings belonging to the sphere of architecture reveal an underlying foundation which is invisible in actual buildings, such poetic structure is as vital as any physical structural system in sustaining the existence of architecture. In this sense, their place in architectural heritage is of unique importance.

Noronha da Costa, a case to be studied.



**ID 021** *Influence of the smart home technologies on the interior design principals*

**Maria KOKORSKA**  
**Marin MARINOV**

European Polytechnical  
University, Bugaria

The statistics shows that between 28 and 75% of the interior designers are interested in different aspects of smart home technologies, which is affirmed by the fact that in 2018 the market of the smart home devices has grown with 31% and reached about 640 millions of shipments. This penetration of the IOT and smart home technologies introduces a new smart interior design, which is a synergy of creative and technical solutions, that should integrate smart materials, furniture, electronic devices, and environment for more comfortable lifestyle of the habitants. The following features of the smart interior design are considered: area minimization, modes of operation, used materials and environmental changes.

It is shown that smart technologies minimize the needed area for normal operation in the kitchen due to the higher level of automation of the housekeepers. Different modes of operation, introduced by the IOT and AI technologies in the kitchen environment are discussed. New materials that are required by smart home technologies implementation are presented. Based on the above the extraction of new interior design principals (focused on the kitchen design) are concluded.

**ID 023** *Heritage conservation: new tools for the circular  
reconditioning of existing spaces*

**Alessandro GAIANI**

University of Ferrara  
Italy

The end of social utopias, the sustainability of our life on earth, the birth of a new approach to the sciences and the advent of digital systems, have completely subverted historically consolidated parameters, leading us to search for new strategies to understand the phenomena in progress and of their possible solution. The inclusiveness of the systems leads today to activate cross-cutting, interdisciplinary and transdisciplinary network-like strategies that integrate and contaminate. In this scenario also the strategies of intervention on the city and on its heritage must be rethought. The preservation of memory and culture based on notions and models that were considered universally usable, today they lose their condition of applicability and must cross new thresholds and enter new territories. We define a new strategy based on overlap and overwriting, that is on the inclusion of the various forms of identity present in the context. An architectural design method is proposed, closer to the circularity, to the recovery of existing resources and spaces. The objective is not only to operate on architectures simply by safeguarding, protecting or adjusting them, but it is to define new adaptive tools of intervention by overwriting the existing one. We propose “soft” systems, minimum interventions, which find the intervention strategy in the reconditioning, architectural and social.

**ID 024** *Assessment of the Residential Building Stock in the Vulnerable Areas in the City of Barcelona*

**Còssima CORNADÓ  
BARDÓN  
Sara VIMA GRAU  
Pilar GARCIA  
ALMIRALL**

Universitat Politècnica  
de Catalunya  
Barcelona, Spain

In the framework of addressing the geographical redistribution of wealth, the council of the city of Barcelona has undertaken several studies on the urban and residential impact of the raising economic and social inequalities after the financial crisis of 2008. The most vulnerable areas of the city of Barcelona, described in previous studies, are located in a set of geographically and historically very different neighborhoods, with heterogeneous urban tissues and constructive typologies. The present research focuses on the assessment of the vulnerable building stock, focusing on the current state of the residential buildings regarding their rehabilitation needs and existing damages. The analysis of the results which include the elaboration of cartographies stand out as a contribution in the understanding of deprived areas in the city of Barcelona being an accurate description of a heterogeneous reality within an already complex urban tissue.

The observation of common damages according to building typologies in different neighborhoods becomes a helpful tool for the design of future policies of improvement and maintenance of the residential building stock. Those policies can address the necessary rehabilitation of the currently degraded buildings as well as the prevention for future degradation of more extended areas, in the scope of improving living conditions in the most vulnerable residential areas.

**ID 025** *“The First Modern - Ministry of Health Building” : A Spatial Transformation of Architectural Heritage*

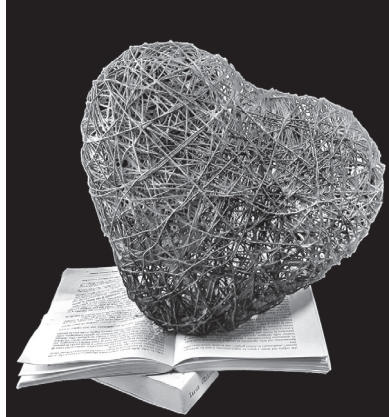
**Buşra GÜRDAĞ**

Bursa Uludağ University  
Turkey

**Duygu KOCA**

Hacettepe University  
Ankara, Turkey

Ankara, due to be made the capital of Turkey, has shaped through the government buildings especially Ministerial buildings being the symbolic structures that undertake the representation of politic power. These structures, were built primarily after the proclamation of the Republic, still exist in the city. Some of the Ministerial buildings have served to similar functions since the date of construction, while others have been transferred or discharged to different functions by the dictations of urban transformation that has become a dominant discourse after 21st century in all parts of the city for all types of buildings. Within the scope of the study, the structural and spatial transformation of one of the Ministerial buildings -Ministry of Health- has been discussed. In the researches on the Early Republican Period, this structure appears as the first modern building of the period and was designed by an Austrian architect Theodor Jost. The aim of the study is to investigate what kind of policy is followed in the renewal of this immovable cultural asset. For this purpose, a comparison was made on the original and the present situation of the building. After all, it was concluded that the minimum change was made in the façade and the mass of the building; however, the interior structure underwent radical changes.



**ID 026** *And there was light!*

**Anna MANDIA**

University of Campania  
Italy

One warm winter's day last year, I entered the classroom and, looking at my students, I said to them: I have a challenge for you!

Some faces lit up, others looked at me perplexed, but with the longing to know what was awaiting them.

With a solemn voice I exclaimed: for the end of the year you will have to design a lamp!

The reaction was panic. Darkness was in their eyes. They were asking each other how they could do it.

I reassured them saying that, as always, they would have to work using the process of idea/sketch-design/creation, and this time, too, by following these three steps, they would manage to create their final product.

But what is design? How do you make a lamp?

I told them to look at lots of images of lamps and then to let their imagination fly.

To understand what design was they would have to look first at lamps commonly in use, the ones that they had at home, to discover their qualities and possible defects and then start to observe and examine designer lamps found online.

I wanted to make the exercise enjoyable, stimulating, captivating. I wanted to take the opportunity to bring out from "pure", uncluttered minds inventive and - why not? - strange ideas...

The result? Way beyond my expectations.

**ID 027** *Perceptions mapping, a participatory tool for urban conservation planning?*

**Christian OST**  
**Ruba SALEH**

ICHEC Brussels  
Management School  
Belgium

This paper departs from questioning the relationship between the everyday maker and the tangible and intangible cultural heritage. It thus, positions the human reflections and daily interactions with the cultural capital in terms of hearing, touching, seeing, tasting and smelling at the center of its empirical research. The process of perceptions mapping is a sense-making process during which people map their cultural, natural and human assets; express their opinions, ideas, needs and aspirations but also; raise concerns and highlight conflicts related to the management, conservation and preservation of the cultural capital for future generations. The mapping is carried out through the five senses and with the help of a physical map. Departing from the perceptions, the collective memory of what a place was to the community arises. Likewise, diverging and/or converging perspectives emerge in reference to what it is today and above all, how the community would like it to be tomorrow. Moreover, perceptions mapping demonstrated to be a very useful tool not only to map tangible heritage but also to resuscitate and reinstate on the map the intangible heritage assets that the community cherishes.

**ID 028** *Historical heritages and new practices. Modern connections between design and craftsmanship in the “knowledge society”.*

**Vincenzo CRISTALLO**  
**Ivo CARUSO**

Sapienza University  
Rome, Italy

Historically, between design and craftsmanship exists a complex relationship that nevertheless characterizes a typically Italian know-how; this know-how is consequently based on the coexistence of History-linked typological and figurative values, and original artifacts born from processes and product innovations. This peculiar condition implicates a certain “cultural coexistence” of a modern design system and artisan traditions. In Italian territories, this co-presence generates cooperative communities, supportive economies and shared expertises. This scenario is upgraded through the so-called “society of knowledge”, based on social activities that interpret the knowledge as a synonym of extended and participated democracy. A society, founded on the open access to technologies (in particular to ICTs), sees figures mainly linked to an exclusive relationship with certain types of tools or machines, giving way to those with wider skills and less constrained to specific practices. In the “society of knowledge” the most required professionalisms are those able to act on relational values, data management, decision making and creative strategies. We submit a propose of full paper aimed to critically analyze this contemporary scenario, in order to investigate on a range of models understanding the artifacts and practices born from the reinterpretation of historical heritages and new knowledge.

**ID 029** *Edicola Design: "PANEquotidiano"*

**Sabina  
MARTUSCIELLO**  
University of Campania  
Italy

The newsstand, kiosk used for the sale of newspapers and magazines, represents an identifying sign of the places, "the shape of time", indicates squares and streets, is a "vase" also symbolic of culture and food for the mind, microcosm in which thousands of printed pages station for a short time - newspapers only for one day. The newsstand is an alternative against the mortification of the news facilitated by the indiscriminate use of digital technologies, which accustom to withdraw any contribution, article, reflection from a library already existing in the software. Signs, drawings, images and words are represented on floors without thickness and without smell, annihilating the reader's explorative / creative capacity.

Meanwhile, the crisis in the printed paper requires retailers to sell other items (made in China) and various services that take away value from the container (newsstand) and content (daily newspaper). How to prevent these kiosks from becoming contaminated and globalized by selling objects without a local identity? Distributing gadgets and souvenirs made in the world? Without taste? How to "produce" a plus in the same container to facilitate and enjoy the purchase of the newspaper in an appropriate way? The PANEquotidiano format combines two meanings in the same "vase": the bread and the daily newspaper have the same life cycle, daily, and the same value, anthropological and cultural.



**ID 030** *The integrated requalification of Autor's urban Peripheries. Tools and strategies.*

**Silvia NIGRO**

Sapienza University  
Rome, Italy

The actions to be taken on urban Periferias, with a view to the Agenda 2030 SDGs, need new tools, starting from the identification of contemporary quality architectures within the extended field of recent construction production. The census activities are the first step to promote heritage's knowledge and valorization and, in the long term, conservation and protection. This study, moving from the National Census of Italian Architecture of the late Twentieth Century and "Città pubblica" Census, identifies the salient points of this scientific tool and traces the development lines that can outline future scenarios in the integrated requalification of the public housing Quarters belonging to the Poetics of the large dimension with Author declination. Although these buildings, from a historical-critical point of view, are already fully included in the Cultural Heritage concept - and the Census is an evidence - still for them there is no defined technological and environmental operational strategy that adapts them to the needs and uses of contemporary society, compatibly with the "designing intentions" and with their recognized cultural value. Through the definition of technological-environmental criteria on national cases, the characteristics of the building-type are described and long-term strategies are illustrated, allowing the artefact's transmission as evidence of architectural culture's period and taking the form of a small-scale green city concept approach.

**ID 031** *The city as a place of ethnic contamination: the case of Castel Volturno*

**Claudia DE BIASE**  
**Maria MANNA**

University of Campania  
Italy

In the last years, migrations have radically changed the Italian context. The amount of immigrants, both in Italy and in Europe, has radically increased. Inside cities, in which there is a consistent presence of immigrants, integration between local citizens and immigrants is of great relevance. The phenomenon of immigration, in order to be properly managed, needs actions and programmes able to support integration between cultures at an urban level. From this, the problem of urban identity derives. This problem deals with organization of urban spaces and cultural identity – two aspects that necessarily affect each other. As a result, there is a contrast between original urban identity and the new identity linked to immigration (in particular) and globalization (as a whole).

In this setting, urban planning activities need to face two main problems. The former is related to access to services. It refers to places inside cities – urban zone, squares, and buildings – and to the fact that they can be reached by everyone. In this vein, it is very interesting the link between access to services and social inclusion that – in turn – is related to possible use of urban spaces. In reference to immigrants, access to services is linked to mobility and housing problems. The main aim to achieve deals with improving access to services for “weak” citizens.



**ID 032** *Between legacy and abandonment. The reuse of minor railways as paths of resilience*

**Chiara AMATO**  
**Chiara RAVAGNAN**  
**Francesca ROSSI**

Sapienza University  
Rome, Italy

In the framework of issues related to the regeneration of fragile territories, affected by abandonment processes that involve areas of landscape interest, the proposed reflection focuses on the experiences of reuse of underutilized or disused minor railways. These practices represent emblematic paths of innovative planning and management of common goods and define resilient integrated strategies able to recover and strengthen material and immaterial relationships belonging to the geographical, environmental, socio-economic structure of contemporary territories. Therefore, the reflection pursues the aim of identifying new methodological and operational references for the integrated reuse of railway lines in a perspective of sustainable tourism development through the establishment of new greenways and historical train services. An integration that seizes the opportunity to enhance historical memory and environmental quality, as well as the demand of socio-economic revitalization and the fostering of cultural contamination through new forms of slow mobility and new creative uses, even rooted in local culture and production. In particular, the paper intends to deepen the cases of the “Costa dei Trabocchi Greenway” from Ortona to San Salvo, the reuse of the abandoned Fano-Urbino railway, and the reopening of the historical Avellino-Rocchetta Sant’Antonio railway line.



**ID 033** *Role of Oral History in Heritage Documentation: practice and reflection of the “Documenting the Demolished” project in Wuhan*

**Ying XU**  
**Zhiliang MA**

CITIC General Institute  
of Architectural Design  
and Research, China

Oral historical data is important in heritage documentation. It is a useful way to keep indigenous knowledge as well as professional ideas. Using the method of oral history is new in China’s architectural history studies. This paper firstly introduces the current situation of oral history in recent built heritage studies in China. Then it focuses on the “Documenting the Demolished” oral history project in Wuhan, China. The project mainly aims to collect data of the recently demolished or poorly renovated historical buildings and lanes in Wuhan. Local experts, history researchers, photographers, government employers and other city lovers are interviewed and the records are published online. Based on ten case studies, which are briefly introduced in text, this paper overviews the project and shows how this oral history study links the study of architectural history and social history. With a long-term goal of rescuing and documenting the city’s common memory, this paper then points out the insufficient points of the project as well as the potential further improvement possibilities.

**ID 034** *Historical Layers of the “Belt and Road” and the World Significance of the “Great Tea Route”*

**Zhiliang MA**  
**Ying XU**

CITIC General Institute  
of Architectural Design  
and Research, China

The “Belt and Road” initiative, which is promoted by the Chinese Government, contains two commercial routes: the Silk Road Economic Belt and the Maritime Silk Road. These two routes, together with sub-routes, had a long history and formed a large cultural route system. This system has four historical layers. This paper first focuses on the cultural route features of the “Belt and Road” and its historical layers: exploration period, prosperity period, recession period, and the revival period. The “Great Tea Route” started from a large port city Wuhan in the middle region of China, and run all the way north to Mongolia and then west to Russia. This paper argues that the “Great Tea Route” is a representative route of the “Belt and Road” historical system in the recession period, after the commercial activities were cut off on the Silk Road. It is now applying for the nomination of World Heritage, and its significance is being studied. This paper then introduces Wuhan, a key city linking the roads and waterways in China, and its important role in the cultural route system. The paper finishes by rethinking of the current World Heritage nomination procedure of the “Great Tea Route” and providing new ideas on this nomination preparing.  
Key Worlds: Belt and Road, Great Tea Road, World Heritage

**ID 035** *The use of ancient techniques and materials as innovation for the present.*

**Annarita ZARRILLO**  
University of Campania  
Italy

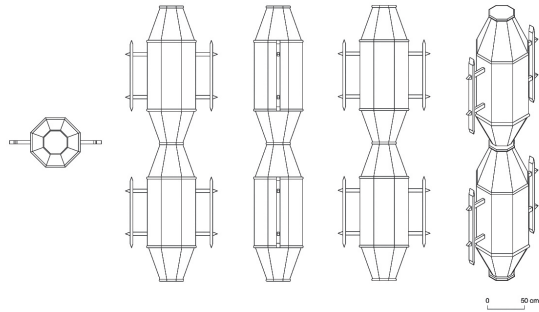
“Heritage” is something that needs to be preserved and passed down to future generations, made up of traditions and materiality. Connecting history and culture, a variety of heritage sites emerge. They consist of tangible and intangible elements, as art and historical monuments, traditional landscapes and local flora and fauna, popular practices and traditional way of life. It is a heterogeneous concept that includes every dimension of culture, even the intellectual inheritance and the cultural identity of a people. Such consideration leads that the heritage is no longer associated only with the past, but with the current use of things that come from the past. The history that repeats itself, like a cycle that brings back the past, is a concept that had already fascinated the Neapolitan philosopher Giambattista Vico when he developed his “theory of courses and recourses of history”. This argument is extremely current, with reference to today’s reuse of traditional materials. Probably the true innovation consists, not so much in inventing something new, but in the use of ancient techniques and materials, revisited in a new way. Timber is one of the first materials used for constructions. But our ancestors did not consider the problem of wood durability. For this, it has had a progressive decline. But in the last years, this problem has been solved with the technology, that has led industrial production processes.

**ID 036** *Inclusive design in cultural heritage enjoyment  
An experimental project in Ragusa Ibla*

**Francesca  
CASTAGNETO**

University of Catania  
Siracusa, Italy

Ragusa Ibla, part of the historical Centre of Ragusa, was built in late baroque style after 1693 earthquake. In Ibla are settled 14 of the 18 Ragusa monuments in the Unesco World Heritage List. The urban morphology and the acclivity of the soil determine hard diseases to whom is not able to walk. From this point of view and from a recognition of existing devices finalized to overcome architectural barriers, the researchers asked themselves about the possibilities to offer alternative instruments and measures for the use of cultural heritage to those who present different forms of difficulty connected, for example, to visual and auditory problems. The use of the design methodologies that refer to the Design for All and the Inclusive Design has appeared the most appropriate reference to address the issue and to propose strategies and solutions both on time and as a system to facilitate the approach to the historical heritage. The analysis of the Ibla fabric and the location of the Unesco Monuments allowed to draw preferential routes, to analyze the geometric and morphological characteristics, the existing equipment and the critical points in order to build a map of the needs of diffused usability. The proposed design solutions will be described and illustrated.



**ID 037** *HERITAGE + DESIGN = IDENTITY. The Ceri del Col di Lana reconstruction on the occasion of the centenary since the First World War*

**Paolo BELARDI**

University of Perugia

**Luca MARTINI**

“Pietro Vannucci” Fine  
Arts Academy of Perugia

**Giovanna RAMACCINI**

University of Perugia  
Italy

The article traces the main steps of a research realized during the centenary of the First World War, intended to determine the dimensions of the so-called Ceri del Col di Lana (literally the Candles of Gubbio), reproductions of the Ceri di Gubbio (literally the Candles of Gubbio) made on the occasion of the unusual Festa dei Ceri (literally the Feast of the Candles) held on May 15th 1917 on the south-eastern side of the front, where the Eugubino infantrymen of the 51° Infantry Regiment of the Alpi Brigade were deployed. The survey drawings, realized from a series of old-timey photos and based on a restitution procedure on the basis of a metric clue, represented the technical document that has made it possible to transmit the dimensional memory and to create three wooden replicas. These replicas were used during the commemoration of the first centenary of the race and then exhibited inside the church of the Sacratio Militare of Pian di Salesei (Belluno). An experience that claims the fundamental role of deep knowledge in the identification of the historical and artistic heritage which involved the synergistic participation of citizens, artisans and academics.



**ID 038** *Architectural heritage for the scene.  
Recovery strategies between changes in the show,  
organizational models and current production bonds*

**Vittorio FIORE**  
University of Catania  
Italy

Architecture and theater, two limbs that can be measured through space and time, are the first place of the second. The disruption of the system of spatial rules, which, starting from the first half of the 20th century, seems to affirm its independence in the new relationship between actors and spectators, causes the loss of bond between space and representation, showing useless spaces for theater. But the change of spectator point of view, his obligation to an active and participatory role, the contamination of artistic forms and theories -culminated in Italy in the conception of the Manifesto of Ivrea (1967)- have sedimented experiences that give the theater a privileged role of daily life, with social involvement, emotional and dynamic, perfectly in line with the current modus vivendi, based on indispensable technological supports. The show requires a place that allows, with a mix of genres, installations of the most recent dramaturgical research; a place where transformation can act constantly on space, returning useful to the work of the actor in his interaction with the viewer; a space that from time to time can be re-invented and re-designed.



**ID 039** *Rebuilding a cultural legacy in a New Town.  
Reshape physical and cultural continuity between Old  
and New Gibellina.*

**Angela Alessandra  
BADAMI**

University of Palermo  
Italy

In one night the town of Gibellina was destroyed by the earthquake that hit the Belice Valley in January 1968. Enthusiastically embracing the urban theories/utopias that were on trend in the 1960s, with, however, excessive and not realistic confidence, the city was rebuilt from scratch in another site. The building of infrastructures, houses and services, albeit by means of goods conceived for a city meant to be a symbol of modernity, does not have to be interpreted as a way to donate life to a whole community. It was also necessary, indeed, to take into account issues like memory, the sense of belonging, the continuity of traditions: it became necessary to construct a new identity. Therefore, under the visionary guidance of the mayor Ludovico Corrao, Gibellina sprung out “from the creative breath of art”, that gave life to a unique town qualified by the distinctive signatures of Architects such as Samonà, Gregotti, Purini, Thomé, Nicolini, Ungers, Consagra, Quaroni, Venezia. Gibellina became the land for hundreds of contemporary works of art distributed en-plein-air in the urban landscape and in museums, that turned out to be creative cells for the regeneration of the social structure.

Today, 50 years after the earthquake, not a few questions are raised on how to metabolize all the innovations, in many ways distant from local traditions, introduced by the most advanced urban, architectural and artistic culture.

**ID 040** *The role of technical manuals for the diffusion of steel construction in Italy in the 1930s.*

**Francesco SPADA**

University of Calabria  
Italy

The proposed paper is situated within the field of studies on 20th century construction techniques aimed at the restoration of the Italian 20th century built heritage.

The study seeks to analyse the contribution made by the manuals of that period to the spread of metal constructions in Italy in the 1930s.

The knowledge of structural techniques and technological components adopted at the time is a necessary condition for the restoration of steel constructions; even though they represent punctual episodes in the Italian context, the study of new building techniques based on electric arc welding and the analysis of new materials produced by the construction industry to speed up the use of the so-called "Structure/Cladding" building system constitute determining factors for a correct restoration procedure.

The specialized handbooks that spread at the time became a practical tool for designers and builders that were influenced by the US experience. In particular, the Milanese area was affected by this technological research. This study considers handbooks published in Milan, as a privileged source for understanding the development of metal constructions in Italy, in particular referring to the Hoepli steel house handbook by Fausto Masi (1933) which represented a key reference for structural and technological topics and to the Hoepli new building materials manual by Enrico Griffini (1934).

**ID 041** *Study on the spatial structure of the Rohtas Fort*

**Zeshan MUHAMMAD**  
**Shaoming LU**

Shanghai Jiao Tong  
University, China

Rohtas Fort is inseparable from the village located inside of its walls, correlation between them has a long history. Although the inhabited village is an essential part of the fort but, less attention has been paid to the connectedness and correlation of both of them as a whole in terms of master planning. To fully understand the evolution of the fort's master plans spatial structure was used for the master plan of the fort. Plans were developed from the maps constructed by UNESCO during the renovation of the fort in 1997, as well as axial images from several web mapping service. In addition to review the design details of Rohtas Fort, space syntax – axial mapping is applied to determine the flux and the relationship of different spaces with each other. This is furthermore used to provide a spatial structure of the fort and the evaluation of buildings added in different times. The complex finally became a more self-sustained village surrounded by UNESCO heritage fortified walls. This study will not only help to understand the entirety of the master plan but will argue about the new encroachments of the village. As well as stream line new research on the narrative and the correlation of the village and the fort. This paper provides a historical and architectural analysis of the famous Rohtas Fort built in 1541. It is the first and finest example of medieval/Muslim military architecture in South Asia. It was the milestone for building in the next two centuries in South Asia.

**ID 042** *Enhancing the role of resilience of cultural heritage: The role of technology.*

**Antonio  
SGAMELLOTTI  
Brunetto Giovanni  
BRUNETTI**  
University of Perugia  
Italy

**Nicola MASINI**  
CNR-IBAM Italy

Recent advances in science and technology led to relevant results within the domain of diagnostics and conservation of cultural heritage, allowing researchers and heritage operators to achieve a twofold accomplishment: 1) availability of diagnostic techniques to be used in the pre-emergence phase (ex-ante) to define artwork execution techniques and states of conservation, exploiting miniaturized spectroscopic devices suitable for effective non invasive in situ investigations; 2) innovation in conservation methods and consolidation materials and techniques, suitable for the post-emergence phase (ex-post), concerning painting, frescoes, stone and bronze artifacts, in accord with the lesson learnt from the Florence flood of 1966. The great potentiality of non invasive chemical and physical analyses, as well as of sensing technologies, in assessing and monitoring effects of natural disasters is presented. The improved performances offered by space optical and radar sensors, paved the way for application in the risk estimation and management, setting innovative operational approaches, as well as protocols and evaluations in the risk mitigation of natural disasters.

Thanks to such developments, it is nowadays feasible to achieve integrated platforms made by multivarious expertise, sharing a common aim: weaving a technological net around artworks to make them resilient.

**ID 043** *Re-live rural architecture and sustainable living*

**Marina FUMO**  
**Gigliola AUSIELLO**  
**Mariangela BUANNE**

University of Naples  
Federico II, Italy

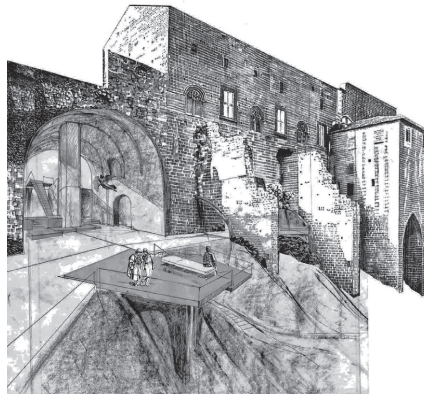
If is true that sustainability more than a philosophy, is a way of looking to the future that reinterprets living in harmony with nature, the rural building and the villages redevelopment on the edges of the city corresponds to a life expectancy in which one looks at the horizon without limitations, with a dimension of the living of freedom and breath. Today, 50% of Italians live in cities, and the trend is increasing. Thus, the suburban city widens, strengthening connections and infrastructures and characterizing a consequent progressive transformation in metropolis. This phenomenon, that sociologists define “gentrification”, is the result of an expansion that takes place according to the virtual horizontal direction, because cities represent economic and social attractors providing services, and people, especially young people, working in the same tertiary sector, live in the suburb ring of the city where the cost of living is reduced compared to the city centres. The rural heritage makes available, with its infinite potential, new opportunities to recover a more sustainable way of life and to finalize the rural building redevelopment in the future lifestyle. Therefore, beyond the programs of good intentions for the rural architecture restoration, one of the most suitable possibilities for recovery of the anthropized landscape is to experiment, with tangible materializations, a re-live as a feasible environmental recovery that rediscovers the potential of houses and rural villages and re-read them in a sustainable living dimension.

**ID 044** *What can we learn from vernacular architecture?*

**Beniamino POLIMENI**

De Montfort University  
United Kingdom

In the last three decades, scholars and professional architects have had a keen interest in the architectural style commonly known as vernacular. The reason for this attention is twofold: on the one hand, vernacular architecture has been considered a guide to design sustainable buildings that work with the climate and represent cultural, social and economic diversity; on the other and traditional dwellings have been used as sources of inspiration: a basic lexicon for the development of new ideas for contemporary projects. In this paper contributions of vernacular heritage to Environmental, cultural and economic sustainability will be identified and described. Starting from the different definitions of vernacular architecture existing in the technical literature the various aspects involved in this theme will be described using as the primary reference the UN Sustainable development goals and the Paris Agreement on Climate changes. Some contemporary examples of international architecture that reinterprets traditional forms, materials and construction techniques will be also presented.



**ID 045** *Recovery strategies for urban public heritage  
Viterbo case study*

**Paolo MARCOALDI**

Sapienza University  
Rome, Italy

In 2016 the Municipality of Viterbo commissioned to the Sapienza university the drafting of a Masterplan for the historic center of Viterbo. The enhancement of a complex system like the ancient city has imposed some preliminary observations: first of all a deep knowledge of its distinctive characters, of its main formation processes and the different shapes that the historical city assumed during time. The knowledge of all these elements is necessary but cannot be reduced to an attitude of mere interdiction. No protection is truly decisive if it is not accompanied by an idea of use of the urban heritage. The first and main theme of the masterplan concerned the re-use of the center, in all its possible ranges; from the highlighting of its values, to the reaffirmation or not of its primary centrality towards the surrounding landscape, to the culture of the city as a place of maximum concentration of heritage. It is for this reason that one of the masterplan's strategic plans has estimated the amount of abandoned public ownership, as if to draw a kind of map of underuse that, on one hand, allows the public administration to identify the main available resources, on the other it represents the real opportunity of transformation of the city center. The hypothesis of reuse proposed for the masterplan of the historical center alternates functions related to residence and receptivity to tertiary functions, linked to services for culture and leisure.



**ID 046** *The rediscovered space between arts and architecture in the restore of the former Teachers' Club of the Città Universitaria of Rome*

**Anna GIOVANNELLI**

Sapienza University  
Rome, Italy

Rediscover the lost spaces of the former Teachers' Club, - the Dopolavoro Universitario of the Sapienza- is the topic of a design path that gives the roman university community back to the memory of an important formal structure, unique in its typological dimension. The architectural framework is well known: the Città Universitaria of Rome, one of the most important Modernist Architecture in Italy, which master plan and main buildings were conceived by Marcello Piacentini, who led a team of the best Italian architects of the Thirties: Pagano, Ponti, Michelucci, Capponi, Minnucci, Muratori and others that collaborated in the design of the individual buildings. Among these the Teachers' Club by Minnucci was built on the foundation structures of an unfinished clinic of the Hospital: the new structure preserve its original layout marked by the apse, but it consists of new volumes and cantilevered floors as Minnucci's own exploration of modernist form. That's the outstanding example of ancient reuse of existing artifacts that always happens in continuation with the past, even as it invokes the spirit of its own time, in which methods and techniques are employed that belong to the original form of the architectural structures. The Teachers' Club hosted a lot of recreational areas and inside the apse there was the Salone delle Feste, a large double-height space decorated with a fresco by Giulio Rosso to witness the strength of the iconographic grafts in a close dialogue between arts and architecture.



**ID 047** *The cinemas of Trastevere, between protection and transformation: the cases of Cinema America, Cinema Alcazar and Cinema Induno*

**Fabio BALDUCCI**

Sapienza University  
Rome, Italy

The recent events that concerned the cultural battle for the protection of Cinema America, in the heart of the Capitoline district of Trastevere, mark a further step on the theme of the transformation of the historical cinemas of Rome and the rules for their protection. These works, often produced by the ingenuity of great designers, are now considered unsuitable to respond to contemporary expectations. In an era, such as the current one, where the audio-visual entertainment experience consists of a vast range of offers (not least that of online streaming) and radically changes the way of producing and consuming cinema, the relationship between type and morphology of these halls for large audiences can be a limit or a resource for their possible transformation. Since the end of the last century, Rome has seen many of its historical cinemas (some dating back to the early twentieth century) undergoing radical and debatable transformations; some these buildings, often transformed into multiplexes but also in bingo halls or supermarkets, have irretrievably lost their peculiar spatial, typological and architectural characteristics. But in the urban landscape there are also few examples of sustainable transformation or restoration. In the Trastevere district there is a small sample of examples. This study deals with 3 case-studies that illustrate as many different stories for the value of the original artifact, the strategies and outcomes of the intervention.



**ID 048** *Colosseum square and museum. Moving through history in the time of global tour*

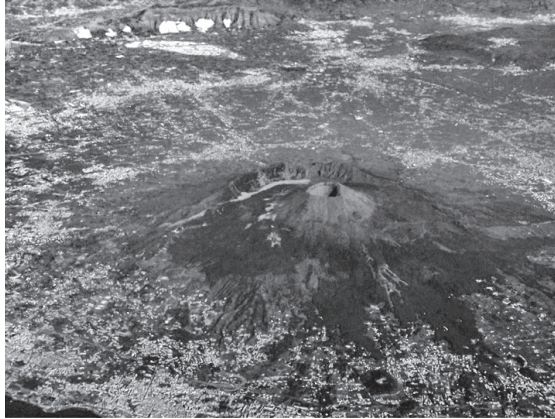
**Orazio CARPENZANO**

Sapienza University  
Rome, Italy

The Colosseum area plays a strategic role in the context of the archaeological core of Rome. Through our proposal, we intend to highlight a priority for the entire city: the enhancement of the monumental complex which sums up in itself the universal idea of Rome. For its uniqueness, this area seems particularly suited to develop a topic whose relevance will arise in parallel to the growing number of visitors and to the changing scenarios of global tourism.

At the moment, the site doesn't permit an adequate comprehension of its monuments, some of them no longer visible. Furthermore, the problem of the accessibility has always been resolved from a merely technical point of view.

Today the area, characterized by a certain lack of uniformity, seems to be the result of the logic of the urgency and requires a reorganization to communicate its themes and figures at the various levels of its fruition. In this context, the creation of a NEW SQUARE constitutes the main vector for the transmission of historical, iconic and documentary values. Our idea to place in the site a new public function, a great MUSEUM OF COLOSSEUM, will respond to the issues regarding the communicative and representative aims, that must overcome the contrast between classic /pop culture: a contrast which trivialized the real sense of the history of the past.



**ID 049** *Agriculture and Archeological Legacy: the Vesuvius Case*

**Francesca MUZZILLO**  
**Fosca TORTORELLI**

University of Campania  
Italy

The Vesuvio area is a territory of great interest with many biodiversity richness, a big variety of agricultural productions, a unique stratification of archeological history, while at the same time here remain problems in the safeguard of its identity. In the last years the implementations of innovative procedures have been launched, in order to fit new significances which could remain congruent with the traditional prominence of the different values that have got big potentialities for a new social asset.

A special mention should go to the efforts of small local business, especially in the sustainable agriculture field, which we can consider in a certain sense visionaries of a possible connection with the characteristics of the ancient heritage of the area, adopting specific strategies both from past and from present: a combination of the heritage given by the accounts of people who used to live here, craftsmen's capabilities, products, opportunities of a free artistic and cultural expression.

The paper focus onto cases studies in this reality for the promotion of a civic sense, a profound environmental strategy, definitely the chance to give sense to the local heritage. In the analyzed experimentations practical answers are given to the demand of new values into the territories, against the social distress and the lack of social awareness which is in contrast with the characteristic of such a historical and natural unique territory.

**ID 050** *Chan See Shu Yuen: A Cantonese Ancestral Clan in Malaysia as Transnational Social Support Network*

**Rachel Suet Kay CHAN**

Institute of Ethnic  
Studies (KITA)  
Malaysia

Chinese clan associations can be found in many parts of the world, due to the Chinese emigration from mainland China in the 1800s. This paper contextualises the study of Chinese clan associations, within the Asian approach to cultural heritage preservation. In particular, I take the case of Cantonese clan associations, a dialect group of the Chinese, who have been studied less extensively in comparison to other dialects such as Hokkien and Hakka. As the Asian approach to tangible and intangible cultural heritage preservation focuses on community participation, the theoretical framework of place attachment was applied. The case study used is the Chan See Shu Yuen Clan Association (CSSY), which was originally set up by a founder of Cantonese origin a century ago, in Malaysia. Members maintain relations with the ancestral temple's branch in Guangzhou, China. Fieldwork consisted of participant observation which included photography, videography, and interviews with clan members; and a content analysis of documents such as brochures, historical documents, and social media of the Chan See Shu Yuen clan association. Under the condition of transnationalism as outlined by Vertovec (1997), the clan association has undergone an evolution of its original functions and therefore remains relevant, both as a social institution and as a tourist attraction.

**ID 051** *The Production of Middle Class Apartments Offered by Heliopolis Company for Housing and Development, Cairo, Egypt*

Esraa Mohsen HAMED  
Lobna SHERIF  
Ahmed EL ANTABLY  
Hala BARAKAT

Arab Academy for  
Science, Technology  
and Maritime Transport,  
Egypt

The spatial organization of apartments submit to gradual transformations due to changes in their socio-economic context over time. This paper documents changes in the middle and the upper-middle class apartments in the affluent district of Heliopolis, Cairo, Egypt. It conducts an archival research to survey the changes in the aforementioned apartments as depicted by the plans produced by Heliopolis Company for Housing and Development since the foundation of Heliopolis until the current moment.

The paper traces the changes in the middle class inhabitants of Heliopolis from the early 20th century to the present time, from one socio-economic era to the next and the associated modifications in apartment typologies, apartments sizes, program and spatial organization. Moreover, the paper illustrates the changes in the language used for annotating the plans which reflect the changes in the local culture in each time period.

**ID 052** *Occupy Farnsworth. Imaginary project as a tool for understanding modern architectural icons*

**Francesca SIBILIO**  
**Irene ROMANO**

Sapienza University  
Rome, Italy

Dialoguing with the artistic, cultural and architectural heritage involves coming face to face not only with the tangible reality but also with the intangible: the idealization they undergo and crystallisation of the collective imaginary about them.

It is about facing the limits of these visions to overcome them and produce new stratified values on the existing. The goal is to collectively take back the value of the heritage, no longer through idealization and contemplation but by searching for what could have been or could be, what has not been or is not yet.

The first submitted work plays with one of the masterpieces of a twentieth century master: the Farnsworth house by Ludwig Mies van der Rohe. Based on solid scientific research aimed at reconstructing the misty events that have affected the house, we want to understand and overcome the collective imagination through research and the practice of a project based on fantasizing.

Starting from the research on the Farnsworth house we intend to address the issue of the architectural and imaginative re-elaboration and remodeling of masterful architectural works. We want to prove how the reinterpretation and the exercise, even of a provocative kind, of design fantasies allow us to reach a real knowledge of the heritage and its value stratifications.

**ID 053** *The architecture of the 'Monobloc' and its potential of initiating a new interdisciplinary educational concept for Cultural Diversity*

**Anna Marie FISKER**  
**Jeppé Heden**  
**CHRISTENSEN**

Aalborg University  
Denmark

The Monobloc is a chair, known in every corner of the world, despite the ubiquity of the white plastic it can be regarded as an item that is completely without context. In this regard, we find that this anonymous chair has a unique role in the world heritage creating a tie between different cultures.

It is our belief, that the perception of the chair is the same in Africa as in Europe since materials, productions and expressions are uniform throughout the world.

In CRAFT, an EU Erasmus project, we work with a new interdisciplinary educational concept focusing on the cross-examinations of traditions of sitting; investigating the comparative historical, cultural and metaphorical differences the chair embodies as artefact and functional object.

Cultural heritage is a complex matter, to use a concise definition it is the value of the past that we distinguish in the present in order to be able to preserve it for the future. It is our thesis that design is the engineering of the Humanities - and in CRAFT we investigate the chair as a transcultural design discourse.

We examine the connection between the Monobloc and society, and, importantly, we investigate if the chair has contributed to the world heritage. Furthermore we ask; can the Monobloc create new cultural expressions through interdisciplinary education?



**ID 054** *Design for Digital Cultural Heritage. Archives as driving force for innovation*

**Margherita TUFARELLI**  
**Elisabetta**  
**CIANFANELLI**

University of Florence  
Italy

The role of digitization of historical-artistic heritage, in relation to safeguarding, activation and enhancement is now truly consolidated. Digitization has gradually enriched the amount and the variety of objects stored in digital archives, which according to UNESCO are recognized as Digital Cultural Heritage (DCH) themselves and, therefore, in need to be safeguarded and enhanced. This study is rooted in the awareness that a design research in cultural heritage, whether physical, intangible or digital should be focused on its use and, moreover, in the ability to put it into production processes of new culture. DCH stored in archives, needs to be related to the community to exist and manifest itself as a cultural identity; in this scenario design culture applied to the dynamics of cultural participation can be able to find new meanings in the use of those digital archives. In cultural and creative industries such as fashion or design, digital archives have proven to be instruments capable of reconstruct or reactivate the know-how of companies and designers, becoming a driving force for innovation. Hence, the aims of this paper are on one hand find how, considering archives as an open system of knowledge, designers can use them as a project tool to encourage participation. On the other hand, this paper wants to discuss about how a design research focused on the meaning of digital archives can be a driving force for a radical innovation.

**ID 055** *Altarpiece pigment study of Nossa Senhora da Conceição Church in Recife- Brazil*

**Márcia HAZIN**

Patrimônio Histórico  
e Artístico Nacional -  
IPHAN, Brazil

**Viviane ASFORA**

Federal University of  
Pernambuco, Brazil

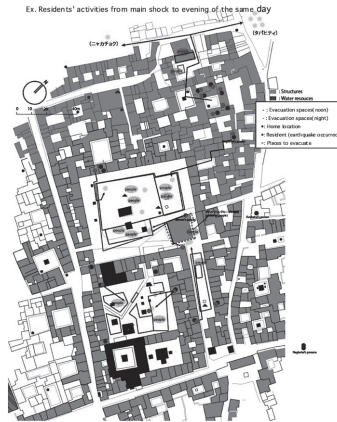
This paper presents the results of the pigments analyses of an Altarpiece from Nossa Senhora da Conceição Church located in Recife/ PE, Brazil. The Altarpiece has a Portuguese National style and it being identified as a representative of the baroque style first stage. The qualitative determination of the chemical elements present in the pigments on the Altarpiece was undertaken using an x-ray fluorescence unit of a Bruker model Artax 2000, using 50kV e 700 mA during 300s for each point. In order to determine the color palette and light decoding of the NCS (Natural Color System) system it was used a colorimeter Colourpin. The both techniques were used in the same 33 points on the piece. The fluorescence measurements showed the quantitative elements of each colors points: red, green, black, yellow and brown. Then, it was possible to identify the probable pigments. coloration The colorimeter results at the same point of x-ray analyses showed the NCS system of each pigment. For example, the red points analyzed by fluorescence showed the higher presence of the elements: Ca, Fe and Pb. The result was corroborated by the colorimeter results. Thus, probably the red pigments used was the red lead pigment. So, with these results it was possible to find a correlation between the pigments used in the XVIII century with the colors used, classified under the NCS system, promoting a bridge between the past and the present.

**ID 056** *Cultural legacy and cultural contamination in a changing world: travel, diplomacy, and architectural patronage of Leonardo Donà dalle Rose (1536–1612) in early modern Venice*

**Giulia CERIANI  
SEBREGONDI**

University of Campania  
Aversa, Italy

For centuries diplomats and merchants served as intermediaries in Europe and the Mediterranean basin, forging intercultural contaminations. Focusing on the early modern “global turn”, the paper investigates Venetian patronage of architecture as an attempt, promoted by a part of the political elite, to preserve a legacy endangered by globalisation. The topic is explored concentrating on the travels and ambassadorial assignments of a key political figure of late sixteenth-century Venice, Leonardo Donà dalle Rose (1536–1612), who became doge at the end of his career. He had a unique role in the building of Venice, actively participating in all the commissions responsible for the city’s major architectural works of the period (Renditore, Fondamenta Nuove, Procuratie Nuove, Rialto Bridge, San Giorgio Maggiore, Palmanova, in addition to his own palace and tomb). But to what degree did he determine the built aspect of Venice? To reply to this question, it became fruitful investigating what he had possibly retained of his life of diplomatic practice and cross-cultural exchange. In spite of the fact that it was intensely international (he went on the Adriatic coasts, Cyprus, Spain, Rome, Istanbul, Vienna) and culturally open (he was in contact with leading minds such as Bruno, Galilei, and Sarpi), one can argue that, in searching for the creation a true “venetian architecture” tied to ancient civic traditions, Donà was trying to maintain an independent culture in a changing world.



**ID 057** *The Utility Functions of Historical Courtyards as Evacuation Sites for Gorkha Earthquake 2015 - At the Patan District, Kathmandu Valley, World Heritage Site in Nepal*

**Takeyuki OKUBO**  
**Sanshiro TAKASUGI**  
**Lata SHAKYA**

College of Science  
and Engineering  
Ritsumeikan University  
Institute of Disaster  
Mitigation for Urban  
Cultural Heritage  
Kyoto, Japan

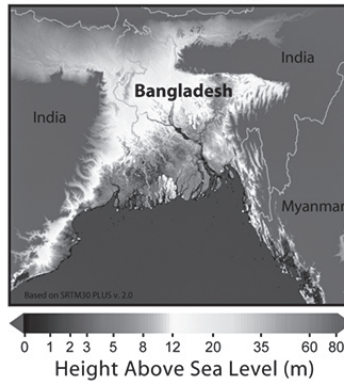
Nepal is located at the place where the Eurasian plate collides with the Indian plate and large earthquakes have been often to occur. The biggest earthquake of M8.4 occurred in 1934, the Gorkha earthquake of M7.8 occurred on April 25, 2015, and the M7.3 aftershock occurred on May 12, resulting in major damages. However, due to its social and economic background, it is difficult for Nepal to conduct drastic change for disaster prevention. Therefore, disaster prevention plans and education that make use of the existing regional heritage, such as traditional courtyard spaces and local communities that exist abundantly in Nepal are necessary considered. This survey clarified the actual situation in historical courtyards in case of the evacuation phase for Gorkha Earthquake 2015 in Patan, World Heritage Site, Kathmandu. For understanding how the local community used their courtyards at the time of main shock and after shock, the change in utilization of spaces and traditional elements, the activities by local residents, and the problems of the evacuate life in the courtyards were reviled by the research with individual interviews and group interview. For example, the large courtyard spaces of Nagbahal and Ilanani were filled with a lot of residents and a large-scale evacuation life was carried out. Historical courtyards became useful evacuation sites at the time of the earthquake even in present age.

**ID 058** *From architecture to the landscape. A casket in which the sedimentary layers of collective conscience are deposited*

**Piero BARLOZZINI**  
University of Molise Italy

This paper is the result of research undertaken in the territory of the Molise region that aims to link the buildings of greatest historical and architectural value through the thread of knowledge, independently of their original or present functions, of the period, the construction materials and state of preservation. The aim is to identify and catalogue such buildings in order to facilitate programmes of restoration and conservation and save them from the negligence of their owners, from the destructive force of weathering and from improper reuse, thus also safeguarding the history and culture of Molise; but also to stimulate new itineraries for the purposes of tourism. For the research in the field, it was decided to use the transhumance routes crossing the region from north to south as a 'lines of enquiry'. We identified and mapped the buildings in question along these channels of knowledge and documented their state both graphically and with photographs. Next, archive materials were studied, and then work was done on understanding the formal, distributive, structural and technological aspects. Lastly, when the cultural matrices that had generated the buildings were clear, they were catalogued. The research undertaken to date has catalogued a good number of buildings, some of which had no graphic documentation and so specific surveys were carried out in these cases. The framework for these varied buildings, the links with the territory and more generally their spatial-temporal collocation constitute the object of this ongoing research.

### Sea Level Risks - Bangladesh



**ID 059** *Landscape and climate change: projects to contain and transform CO<sub>2</sub>*

**Maria Gabriella  
ERRICO**

University of Naples  
Federico II, Italy

We live in the awareness of the present as a time limit. Our choices should guarantee for future generations the same opportunities for the enjoyment of resources. Currently we realize how our landscapes, as a product of multiple factors, are likely to disappear due to climate change. Global warming, the consequent risk of drought and flood and the disappearance of biodiversity are all factors that refer to issues that are not merely local but which belong to international and global politics. London, Stockholm and Singapore have already taken steps to reduce carbon emissions through an urban greening policy with parks and roofs, but also with the urban agriculture development. According to the index that assesses the vulnerability of countries subject to the effects of global warming in 2015, the Climate Change Vulnerability Index, Bangladesh is among those most exposed, so that it has been estimated that within just over thirty years, over forty million people could lose their livelihood as well as their homes. All this turns into design measures to counteract the effects of climate change, so that the Bangladeshi government has invested over \$ 10 billion to strengthen river embankments, build anti-cyclonic shelters and adapt agricultural systems in rural areas. These problems are not insignificant, but they remain tantalizing because of the prospects they raise. The debate is much broader than can be summarized here because there are so many factors involved.



**ID 060** *Precious design\_creative cultural artifacts*

**Maria Dolores  
MORELLI**

University of Campania  
Aversa, Italy

The contribution starts from the enlarged meaning of the term jewel, precious metal ornament worked, or, object finished with great care, a precious cultural artifact symbol “in the time of generation to generation, the state of the knowledge, the material and intangible heritage that comes to us from the past (...) a revisitation of the concept of inheritance, or of heritage in the making formed by resources intended (...) that, declined as in an income statement, create solidarity, peace, trust, work with art and quality of life” (C. Gambardella, XVII Forum, 2019). The paper intends to provide the reader directions on: the characteristics of the jewel-substitute object (De Fusco, D’Auria, 1992) with respect to measurement, system and form; the concepts of function, form, functional aspect of the form, morphology, basic type and functional-based typology, typological sequence to recognize the formal variability of composition of the parts of the artifact to be used also in different ways: accessory-jewel; the formative and design process e-duco/pro-duco, born from the cultural recovery, of the materials of the territory, for the design of artifacts precious or the beauty and well-being of people; description of the precious micro-collections made with natural elements, born from the relationship between culture and creativity: Corall, Aurea Mile, Colligo, Gioglio, precious contaminations responding to 3 F (form, function, feasibility) and 3 E (ecology, economics, empathy).

**ID 061** *The application of Minimum Environmental Criteria (CAMs) construction and sustainable transformation of public building stock*

**Antonella VALITUTTI**

“Niccolò Cusano”  
University of Rome  
Ministry of the  
Environment

**Salvatore Roberto  
PERRICONE  
Andrea GREPPI**

SOGESID - Ministry of  
the Environment

Urban and territorial regeneration involves important economic, social and cultural advantages, enhancing public building stock degraded from a structural, typological, energetic and environmental point of view. Buildings are responsible for approximately 40% of energy consumption and 36% of CO<sub>2</sub> emissions in the EU. Currently, about 35% of the EU's buildings are over 50 years old and almost 75% of the building stock is energy inefficient. Each year only 0.4-1.2% of the building stock is renovated. The aim of this paper is highlight how to transform the public building stock having a testimonial value, through the circular economy and energy efficiency to make urban reuse strategies more sustainable so it allows future generations to recognize the same cultural, social and environmental values that we can recognize today. In line with the above, the National Action Plan refers to specific decrees issued by the Ministry of the Environment identifying a set of “minimum” environmental criteria for the diffusion of “green” tenders in construction. In this context, the executive project assumes a fundamental role since the contracting stations, in case of works, must have an executive project already in conformity with the CAMs. Through a critical analysis of cases studies, the paper intends to provide operational indications for the correct application of CAMs, showing how this innovative tool is able to generate new social and economic value in existing buildings.



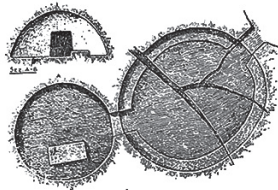
**ID 062** *Urban Revitalization: "Conocchia" Area, in Curti*

**Francesco Pio  
ARCELLA**

University of Campania  
Aversa, Italy

The project area is located on the border of Curti and Casapulla, located on the Via Appia near the walls of the ancient Capua. The design objective of the intervention provides for the regeneration of a lot adjacent to one of the major assets of cultural interest in the town: "the Conocchia", funerary monument of the first century a.C. The monumental sepulcher located along the Via Appia is characterized by a height of over 16 meters and by a peculiar architectural development. Its current state is largely due to the restoration carried out at the end of the eighteenth century by the will of Ferdinando IV, as evidenced by the text of the epigraph on the facade of the monument.

The design intent allows to give a precise aesthetic quality to the two batches ensuring the protection and enhancement of the archaeological excavations in the site. The intervention work is integrated in the context in a non-invasive way, respecting the principles of reversibility and compatibility, evoking a strong modernity of technique and urban planning, with the aim of welcoming and informing visitors about the monument and the city.



**ID 063** *Memory and presence of thólos in architecture*

**Paolo DE MARCO**

Universitat Politècnica  
de València, Spain  
University of Palermo  
Italy

**Antonino  
MARGAGLIOTTA**

University of Palermo  
Italy

Marsilio Ficino wrote that men attribute value to stones. The stones, with their testimony, document the role played by some men in the large scenario of events. The thóloi, stone architectures, probably from the Greek-archaic, Etruscan and then Roman origins, are widespread throughout the Mediterranean basin, even in distant territories (Greece, Armenia, Cappadocia, Iran, Tunisia, Italy) and Sicily retains more of any other (the Gurfa, in the countryside of Alia, is the largest thólos in the Mediterranean), evidence of mythical times that tell of the presence of Daedalus. These architectures, often dug into the mountains (places in themselves sacred), initially intended for ritual and sepulchral functions, express the spirit of sacrifice (as Ruskin would say) and values that have had continuity in the history of architecture. The thóloi represent universal concepts and archetypal principles: the idea of refuge, of excavation, of light, of sacredness. Other related themes concern the idea of materiality and duration expressed by the presence and use of lithic materials, the sense of decor, the tension between earth and sky, the relationship between human and divine. Other questions also concern important spatial principles: the central plan, the bell-shaped structure and the dome, the verticality and the zenithal light (which materialize the axis mundi), the excavated space. These concepts, present in contemporary architecture, update the memory and the poetics of the thólos.

**ID 064** *Preserve by transforming.  
Transformation as gateway to the past*

**Barbara BONANNO**  
University of Campania  
Aversa, Italy

Material heritage is stratified in our unconscious, therefore it produce complex images, consciences rich in plurality. What we are, and even more what we will be able to be, is, and will be, strongly connected to this idea. The heritage around us, working on our feelings and creating emotions, determines our way of being and act into society.

From this point of view, heritage conservation represents the perceivable memory of our ancestors. The choices they have made relaps on us tangible and we “suffer” them in a passive way, because we can not close our eyes to the world.

As a materialization of the intuitions of our ancestors, historical stratifications are living and rich matter, which can still change and shine with new light. Our task as architects and researcher is to recognize the importance of stratifications. We must pay attention, as well as to the eminent constructions, above all to the minor buildings that surround people in everyday life. Moreover, since it is undeniable that it is not possible to preserve without adapting to the needs of the contemporary, we must not forget that the right key to conservation is transformation. Act in a different way, it means to relegate the memory to an object to be observed without using, recognizing in him something dead. This is evident whenever the inflexible conservation is experienced.

**ID 065** *When a legacy becomes heritage. Part I*

**Małgorzata  
DOROZ TUREK**

Technical University in  
Kielce, Poland

The cultural heritage of Poland, where the legacy of the country's political enemies was acknowledged as national heritage, is a unique example on a world scale. Independence gained by Poland in 1918 brought about an unusual situation in which the Polish historical buildings and the legacy of the former occupying nations became assimilated. On the one hand, invoking national pride in the cultural heritage was both a mission and an obligation. On the other hand, demolishing all the objects constructed by the oppressors seemed unreasonable, as some of the residential buildings were well worth using. Such cultural legacies were approached in a variety of ways, depending on their formal status. Russian Orthodox churches were demolished, whereas protestant churches were converted into catholic ones. Military complexes were adapted by the Polish Army. There were also many individual cases when the foreign legacy was taken over, adapted and later integrated into the cultural heritage of Poland. The situation in Poland changed dramatically after the Second World War, when the new Polish borders were established under the terms of the agreements in Yalta and Potsdam. The loss of the national and cultural heritage of the Eastern Poland was compensated for in the west with a German legacy of various character. Historical castles, great palaces, manor houses and protestant churches became a focus of cultural policy of the socialist government.

**ID 066** *When a legacy becomes heritage. Part II*

**Marek BARAŃSKI**

Kielce University of  
Technology Poland

The II WW brought massive destruction to Poland and was a period of the Holocaust of the Polish Jews and the extermination of the Polish nation. Destroyed during the war and reconstructed after it, Warsaw is listed as a UNESCO World Heritage Site. Auschwitz-Birkenau Concentration Camp is another heritage property that has achieved UNESCO status. Both sites are related to the Nazi German presence in Poland. But the 6-year long occupation resulted in many more examples of the German legacy left in Poland, which poses interpretation problems. In order to understand the sense and find the basics of logic in receiving UNESCO recognition, specific cases should be viewed and assessed individually. Both aggressors, Nazi Germany and the Soviets, had fixed plans of destruction of Poland and its cultural heritage. The destruction of the Polish heritage and the construction of modern German cities and towns that were supposed to replace the Polish historical sites was a basic concept that lay behind the plans. The heritage sites related to the German history were protected as evidence and a confirmation of the German presence in the East, whereas decisions how to incorporate other historical objects into the heritage of the Third Reich were to be taken in the future. From 1940, German architectural studios effectively designed and elaborated on the plans for the Polish cities and towns under the German occupation.

**ID 068** *Adaptive Re-use of Medieval Caravanserais in Central Anatolia*

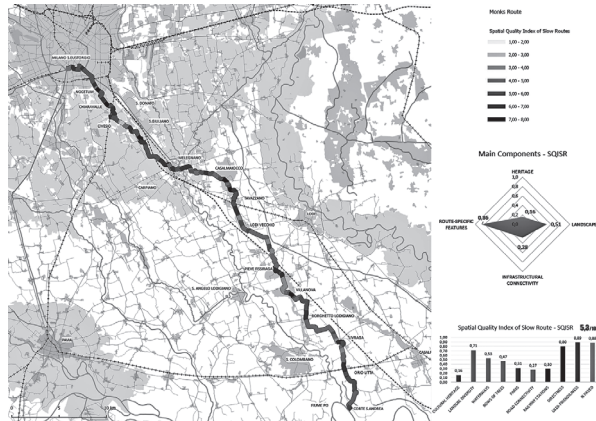
**Nilüfer BATURAYOĞLU**  
**YÖNEY**  
**Burak ASİLİSKENDER**  
**Bahar ELAGÖZ TİMUR**

Abdullah Gül University  
Turkey

**Nur URFALIOĞLU**

Yıldız Technical  
University, Turkey

Kayseri, located at the junction of two major trade routes from northeast to southwest and from southeast to northwest, has been a commercial center for at least 4,000 years. The 23,500 tablets found at the Assyrian trade colony in Kanesh-Karum dating around 2,000 BCE and located 20km from the modern city provide ample proof. The great number and relevant size of Medieval caravanserais around the city as well as commercial buildings at the center indicate that this importance continued. Some of these caravanserais are already in use, albeit with inadequate architectural preservation measures while others are abandoned and/or partially destroyed. Indeed, the preservation, restoration and adaptive re-use of Medieval buildings is a major problematic, bringing out issues and interventions related to lacunae and reintegration, liberation or clearance of additions, structural strengthening with traditional/contemporary technologies, partial reconstruction, consolidation, cleaning and conservation of original building materials, and preventive maintenance. This paper aims to consider the possible presentation and adaptive re-use of Seljukid caravanserais over and inventory of accessible and at least partially preserved examples, focusing on eight case studies from the late 12th and early 13th centuries: Karatay Han (1240), Tuzhisar Sultan Han (1232-1236), Eshab-ı Keyf Han (before 1235), Cırgalan Han, Saruhan, Ağzıkarahan (1231-1240), Alayhan and Öresin Han.



**ID 069** *Spatial quality index of slow routes. A GIS-based method for measuring spatial quality in the landscape of southern Milan*

**Alessandro  
SCANDIFFIO**

Polytechnic University of  
Milan, Italy

The current research aims at investigating a GIS-based method for measuring spatial quality of slow mobility routes, through mapping and statistical tools. In the field of cultural tourism, slow routes have a great potential for cultural, economic and social development, and need to be assessed also in relation to their spatial quality implications. The Monks route, that crosses the agricultural landscape in the southern Milan, has been considered as case study. The GIS-based method refers to a set of criteria, that have been chosen for measuring the spatial quality of the route: the crossed landscape quality, the cultural heritage density, the level of infrastructural connectivity, the route-specific features. Each criteria have been assessed through different indicators with GIS tools. The landscape components have been measured through: the waterways, the rows of trees, the land-use diversity, the protected areas; the level of infrastructural connectivity of the route has been estimated with: the number of route-roads intersections, but also the railway stations; the route-specific features have been evaluated through: the directness, the slope and the paved surface percentage. The spatial quality index of the route has been made with two different outputs: the first one as graduated track in the map; the second one as index. The GIS-based method can be used: to assess and compare existing alternative routes through a ranking, but also to support design-choices of new routes.

**ID 070** *The landscape along paths of Mary in Basilicata (Italy):  
chance of knowledge and promotion*

**Enza TOLLA**  
**Giuseppe DAMONE**

University of Basilicata  
Italy

Basilicata has been inhabited for centuries and its territory still holds traces of many cultures and important infrastructures at the time, trails and roads, taken during the centuries even by pilgrims. The country of many towns of Basilicata is rich of extra moenia chapels, in most cases voted to Mary they have a particular anthropological, architectural and religious interest.

Linked to rural culture, they had a largest diffusion from Middle Ages, most of all they were built close to ancient pagan sanctuaries devoted to female Gods related to cyclic nature.

These are small architectures with dimensions and formal elements comparable with each other and they are an opportunity of knowledge where survey has a main role for the comprehension of the complexity of change dynamics they suffered during the centuries. The architectural peculiarities of this small buildings are represented with the help of survey tools by allowing a typological comparison but especially by creating a first step for their restoration and preservation. In a region with a strong tourist vocation, study and promotion of these ancient architectures and paths becomes an important chance. These elements shall be read within the landscape they form part of, aiming to preserve its own peculiarities.

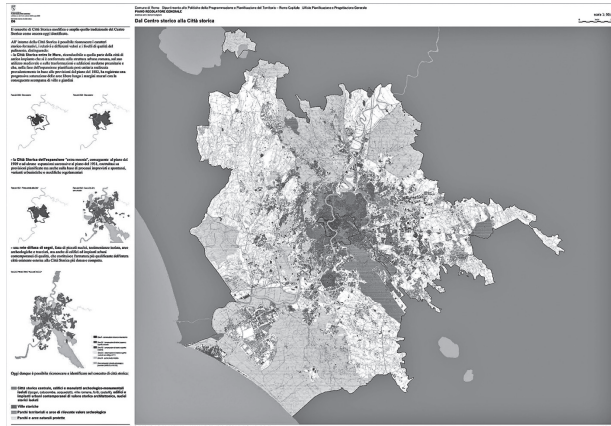


**ID 071** *Cultural accessibility as a multidimensional condition for a real sharing of cultural heritage*

**Michela BENENTE**  
**Valeria MINUCCIANI**

Polytechnic University of  
Turin, Italy

Conservation, protection and transmission of heritage over time require above all that its value be shared. Current world events often show us how it is precisely this universal value that is being questioned today. But Heritage cannot have a universal value if it is not, in the strict sense of the word, accessible to all. For many years “accessibility” has been relegated to pure physical matters, further limited to mobility impaired people. Over time, other physical disabilities have also been taken into account, but more recently accessibility barriers have come to be considered much more pervasive and often even invisible to the inattentive eye. They consist primarily of cognitive barriers, but have finally led to cultural ones. The sharing of cultural contents therefore becomes a fundamental condition for the appreciation of cultural heritage as belonging to all: this renewed sensitivity has already been recalled in the principles and contents of the Faro Convention. In recent years, the attention of primary institutions at national and international level has finally turned to these aspects. This paper aims to take stock of the situation with respect to these issues and presents good practices and case studies that show an increased sensitivity, although these are quite isolated cases. Finally, it also aims to stimulate a deeper reflection on a really inclusive approach to Heritage accessibility, focusing in particular on cultural accessibility to content.



**ID 072** *History for urban regeneration: a new perspective  
The PRG (Masterplan) '08 of the Municipality of Rome*

**Laura RICCI**  
**Carmela MARIANO**

Sapienza University of  
Rome, Italy

The metropolisation processes that in recent decades have brought about deep transformations of the territory, together with the identity connotations and the intrinsic characteristics of fragility of the contemporary city, recall the need for a unitary, integrated and interscalar public government strategy aimed at urban regeneration. A strategy able to seize the specificity of places at all scales, as a form of self-representation of local communities and as a mean for the recomposition of the links between physical continuity and social integration and between formal specificity and historical-cultural identity. In this framework, the paper focuses on the role of historical-cultural permanences within the processes of urban regeneration, starting from the experience of the PRG '08 of the Municipality of Rome, which, in particular, introduces a new perspective assuming, among its priority options, the role of history for high-quality transformation and recalling, on one hand, the need for an interpretative description of the historical and cultural structure of the territory in all its expressions and specificities, and, on the other, the need to reaffirm the centrality and transversality of the design dimension for the protection and enhancement of the components of the historic city. In particular, this perspective is actualized through the description of the urban project of the Anagnina-Romanina Centralità, one of the 18 urban and metropolitan centralities of the Masterplan.



**ID 073** *Between stratum and substratum: an urban design project for the Lotti and Tronari quarries in Naples*

**Pasquale MIANO**  
**Bruna DI PALMA**

University of Naples  
Federico II, Italy

The story of the cities construction is written into the shape of their underground stratum: it is a sort of urban radiography which clarifies the building process of the surface reality. Many cities are characterized by this relationship between stratum and substratum, but Naples is certainly an emblematic case of this condition. For this city and for the people who live there, the connection between the different urban levels represents a strong identity feature that has allowed its recognition over time and that has been specified according to the needs of each historical periods. On several occasions many attentions have been paid on this relation between stratum and substratum, as in the case, for example, of the International Underground Naples Laboratory (1988), during which some international architects were called to develop design proposals for the urban Neapolitan substratum spaces, but all their hypotheses and visions remained unrealized.

Through a recent design experience of urban reconnection linked to the enhancement of the Lotti and Tronari quarries in the Sanità district, this contribution aims to underline the huge improvement potential that the urban design project for the stratum-substratum sequence could lead to the overall functioning of the contemporary city of Naples, at the same time opposing the abandonment and therefore the loss of memory and use related to these specific spaces.



**ID 074** *The Educating City as a Cultural and Creative Industry*

**Isabel TORT AUSINA**  
**Ricardo Ignacio YUSIM**  
**Ricard HUERTA RAMÓN**

Universitat Politècnica  
de València, Spain

The research addresses the knowledge of the city as a Cultural and Creative Industry (CCI) to promote heritage education, through training from a multidisciplinary perspective that will allow us to understand its social, material and immaterial dimension. The city represents a patrimonial element whose scale of study of the territory, as a cultural landscape, allows us to analyze its impact on the global economy, tourism, local development and cultural diversity. The educating cities are composed of various elements that are summarized in tangible and intangible goods. The material components turn out to be infrastructures, buildings and formal and non-formal institutions, whose educational work must intentionally intervene in the planning of the cultural management, collaborating in the active design of a city through its heritage experience. Cultural diversity is a reality in today's cities, so the educating city should be nourished by this variety of cultures to develop a new local idiosyncrasy, achieving a balance between the diversity and the particular identity of each of its inhabitants. Therefore, if the CCI is considered an important factor in the new conception of the economy of culture, being the educating cities a fundamental sector of them, then the cities become a strategic element for productive development, assuming a new economic scheme, based on social cohesion, cultural diversity, information technologies and value of culture.

**ID 076** *Representing the city in progress.  
From industry to City Park, Torino ex Michelin*

**Nadia FABRIS**

Polytechnic University of  
Turin, Italy

This contribution wants to relate to a recent past that has given a big change to the face of the city of Turin, to keep alive the memory of its transformations. The research was carried out to propose the artifacts in memory of the Michelin factory, some preserved others only photographed and filed before demolition. In the great urban redevelopment of brownfield sites from post industrial Turin, implements in its Master Plan a large revaluation of the area formerly called Spina 3 Michelin. This is the area of greatest transformation of the PRG, amounting to over one million square feet (for a total investment of about 800 million euro). The area is divided into seven districts, based on the same number of abandoned industrial buildings: the three former steelworks CimiMontubi (Valdocco, Vitali, Valdellatorre), former factories Michelin, Paracchi, Fiat Nole, Savigliano. Many of the changes in the Spina 3 have already been made: first the Environment Park, one of the two technology parks Turin born from operations of urban transformation; stands on the former Teksid areas (approximately 25,000 square feet) and was built between 1997 and 2000 to a design by Emilio Ambasz, Benedetto Camerana and John Durbiano, with funding from the European Union. Faced all'Envipark, active since 2003, we find the Mall Dora (with multiplexes, shopping mall, parking), stands on a former Michelin (approximately 100,000 square meters) between the streets Livorno, Treviso and over Umbria.

**ID 078** *Landscape planning. Issues and tools*

**Francesco CRUPI**  
University of Rome, Italy

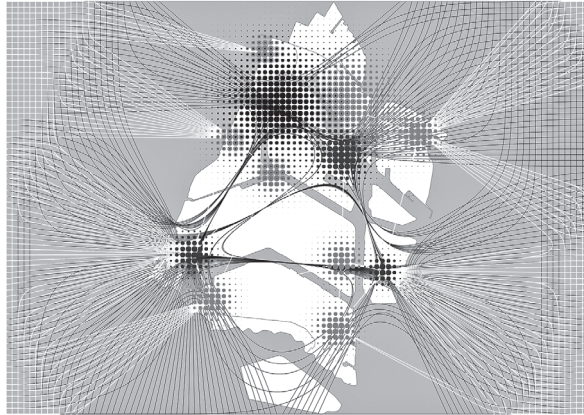
The attention to the concepts of landscape, environment and territory and their mutual interrelations, have engaged, since the early twentieth century, the political class, the cultural and disciplinary world in the definition of new approaches to landscape protection and planning. The legislative provisions that followed over the course of more than a century of discussions reflect the evolution of theoretical and cultural thought matured around the themes of definition, representation, evaluation and planning of the landscape. After the initial and ambitious objectives of recognition, conservation and protection (Law 778/1920 and 1497/1939), the themes of management, enhancement, redevelopment, restoration or creation of landscapes are becoming increasingly important (European Landscape Convention, 2000, Legislative Decree 42/2004). Starting from a careful examination of the cultural contributions and the political-institutional, economic and social changes that have deeply influenced the definition of the tools for the protection and enhancement of the common identitary assets and the analysis of some case studies, the paper the goal of outlining the state of implementation of landscape planning as an instrument to deliver to future generations our cultural heritage, today more than in the past, undermined in its physical-morphological, landscape-environmental and symbolic-perceptive continuity.

**ID 079** *Invisible modern residential heritage: spatial analyses in Turin real estate submarkets.*

**Alice BARRECA**

Polytechnic University of  
Turin, Italy

The post-industrial city is undergoing continuous transformations due to the new requirements of world socio-economic changes. Among the various phenomena linked to built heritage and to the socio-economic context, a focus on 20th century buildings was inspired by recent literature and changes in the Italian heritage protection regulations. This paper aims to illustrate the characteristics and distribution of residential modern heritage in the city of Turin characterized by high architectural value and widely recognized authorship, whose value is not adequately commonly recognized. In particular, the study focused on the correlation between the modern residential buildings not properly perceived and their location, the presence or absence of vulnerable socio-economic and housing contexts and the concentration of high and low real estate values. Analyses were carried out by means of territorial segmentation and spatial statistics, comparing indicators and focusing on two modern heritage buildings sited in different areas of the city of Turin. Results showed that not all modern residential buildings considered are adequately preserved and commonly known and all of them risk being undervalued, not being recognized either by citizens or by real estate market point of view. The construction of a geographical network of this "invisible" heritage, could promote their understanding, their enhancement, increase their market value, develop the attractiveness of their neighborhood and may start innovative social practices.



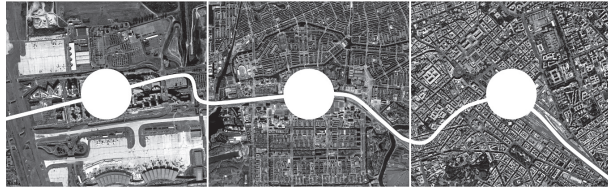
**ID 080** *Remediation shapes.  
Adriatica Malhouse, scenarios despite the neglect.*

**Irene PERON**

Iuav University of Venice  
Italy

The research centers on the industrial areas' issue. The pretext is of a more local nature, Porto Marghera's Venetian industrial district re-composition: a local start for a wider reflection, globally speaking, at least in terms of brownfields and Industrial heritage regeneration. It is particularly important if referred to in connection with its environmental jeopardizing context: the land shaped as a result of remediation. By changing perspective, however, what can be taken into consideration is that the remediation may also become a place where to recreate interests through a morphological design, that is not only a simple result of chemical-physical operations or security procedures, but the first step of a strategy able to generate virtuous alternatives. Therefore, one of the aims pursued by this research is codifying possible government strategies related to the remediation process, to bring back an architectural direction. A new awareness is reported: no sustainable regeneration will be possible unless remediation is taken on right inside the design project and its possible forms. The project presents a renewal strategy of the district starting from single areas to arrive only later on at a general re-composition of all Porto Marghera. Among these, The Adriatica Malthouse area was chosen for its suitable features making it an ideal starting point of the regeneration process.





**ID 081** *Heritage built as enhancement opportunities to Contemporary City - Infrastructure Nodes and Railway Stations: three different case studies.*

**Arturo BECCHETTI**  
**Fabrizio FELICI**  
**Alessandra**  
**PUSCEDDU**

Roma Tre University  
Sapienza University of  
Rome, Italy

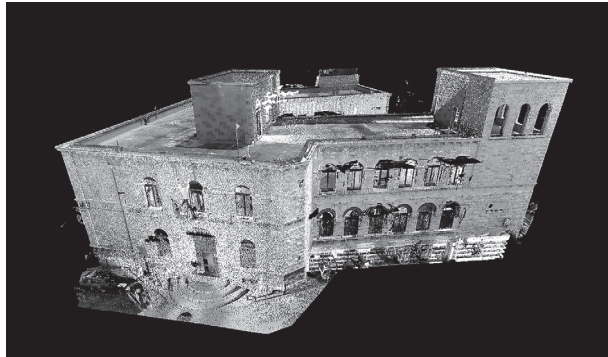
Contemporary cities are experiencing a crisis generated by unsustainable models of development that have distorted the idea of modern city. Urban sprawl has led to a loss of identity and to socio-economic and environmental crises, directing the new themes of regeneration towards compact and polycentric city models. The built heritage therefore represents an opportunity for recovery, regeneration and enhancement to large areas, considering its spatial and identity potentials as well as its “container”. In this context has been given increasing importance to infrastructural nodes and railway stations, considered to be of great architectural and representative value, despite being congested places and degradation catalysers. The rearrangement of transport towards more integral models is changing the role of the stations in hub and the strategic interchange nodes, modifying hence the areas around them as well. Therefore we open up scenarios for the enhancement of public spaces, the increase of services in the central areas and the inclusion of functions able to re-define the polarities in order to improve life in the consolidated city. The subject covered has been applied to three case studies of different complexity: The improvement of the public space of the Roissypole station at Charles de Gaulle airport - Paris; New services for the Amsterdam Zuid - Amsterdam Zuid station area; The recovery of the historic center of Rome around the Termini station - Rome

**ID 082** *The building heritage of the early Twentieth Century. A tourist project for the renovation of eclectic castles. The case of the Duke of Misterbianco castle (CT).*

**Fernanda CANTONE**

University of Catania  
Italy

The building heritage claims the unity of a culture that uses different linguistic structures, all referable to a single expressive code. It is also an expression of “conflict between oblivion and memory, between protection and abuse, between Viollet-le-Duc and Ruskin, between present and future, between tourism and museum ...”. Today the interventions on the building heritage approve an overlap of traces and documents that make it a protected asset but above all usable. The theme of the research is the project to recover the built heritage of the early twentieth century and its applications to buildings of a certain value: the Sicilian castles. In particular, the castle on which the study is focused is an impressive building, located inside the oasis of the Simeto, near Catania, which is in a state of ruin. The important naturalistic vocation of the area, the lack of tourist facilities and the strong identity of the building offer redevelopment / reuse strategies linked to the tourist development of the area. In addition, the research objective is to preserve these unique testimonies of a very interesting and particular past, in a climatically and culturally rich area. A study that aims to reconcile conservation and change, defining the possibilities of transforming the building property, enhancing its identity. The pre-existence becomes, in this sense, the main reference system, in a contemporary vision of intervention: the tourist project marries the past and becomes the instrument of valorization.



**ID 083** *3D data acquisition and processing for implementing cognitive systems. The school building "F. Corridoni" in the old town of Bari*

**Cesare VERDOSCIA**  
**Antonella MUSICCO**  
**Riccardo TAVOLARE**

Polytechnic University of  
Bari, Italy

Nowadays, digital surveys employ highly technological acquisition systems, from which semantic 3D models with an advanced level of accuracy (See Docci, Bianchini 2016) can be produced. Such models are useful to start a knowledge building process that can make use of relational databases for the collation of tangible information and immaterial information (See Fai et al., 2011). This is a representation based on a new simulative understanding of reality, that uses visualisation techniques able to captivate also non-expert users. Furthermore, it allows to start a new workflow on the rendering process, that is supported by the development of the digital technology, as suggested in the 2009 London Charter (See Brusaporci, Trizio 2013). This paper deals with a study applied to the survey and the rendering of a historic building, seat of "Corridoni" school in Bari. The study has been carried out trying to achieve the greatest possible integration of the more innovative data acquisition techniques within a process of three-dimensional visualisation of the cultural property. This test, made in collaboration with the offices of the Bari Municipal Council, has been intended to define standard procedures capable of producing virtual models whose visualisation could be employed and evaluated as part of the Research, Communication and Valorisation of the cultural property; thus promoting its use for a more efficient and effective management of the good itself.

**ID 084** *'Value networks' systems for integrated conservation.  
Proposals and reflections for inner areas in central Sicily.*

**M. Teresa CAMPISI**  
University Kore of Enna  
Italy

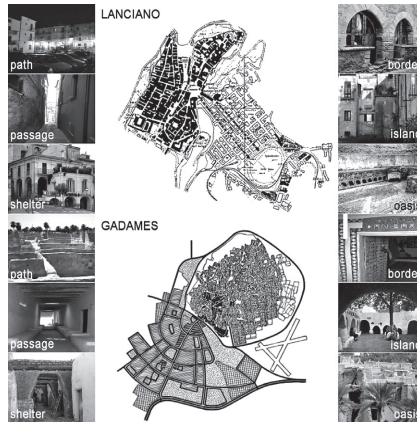
Identity values in inner areas consisting of both intangible and tangible heritage even through habits and traditions persistence preserved by marginalization of settlements process from more fast consumption affecting metropolitan areas, constitute now a significant resource. The proposed theme focuses on how to construct different systems of 'recognitions networks'. One in the relationship of the landscape/ matter built for physical conservation of historic settlements (reconnecting even in terms of conservative maintenance, historical materials and technologies with training of specialized operators able to recognize local material and technologies); another, in recognition and reconnection of value system on landscape (defensive, productive, archaeological), linked by relationships between history and territory, mainly spatial; and finally through the connection between material and immaterial goods. The proposed networks aim to construct a coherent 'presentation' of history of places as landscape history, telling their historical-anthropological complexity, built and maintained over time in territory, through significant contaminations (Manacorda 2010). The proposed multirelational reading methodology, according to holistic and multidisciplinary processes (Capriotti, Cerquetti ,2016), could represent an adequate instrument to achieve integrated conservation, a genuine understanding of cultural processes, so as to offer different way of places awareness. (Della Torre, 2009).

**ID 085** *The construction of a monument. Palazzo Te in Mantua*

**Ludovica  
CAPPELLETTI**

Polytechnic University of  
Milan, Italy

This paper would like to focus on the issue of cultural heritage of architectures built through time, by proposing a case study, Palazzo Te in Mantua. From its construction on Giulio Romano's design around 1525, until today, Palazzo Te has been the object of numerous designs, restorations and interpretations: its architecture does not identify with just one of these works, but is defined by the sequence of interventions alternating across the time of the monument. This paper proposes to analyse the construction of the monument as the result of these stratifications, aiming to bring the history of this civil building back to its intrinsic discontinuity, to the relationship between each design and the architect who drew it, acknowledging the elements that testify through time such a continuous and ever changing research in architecture. This research proposes to consider this succession of constructions as the heritage and legacy of Palazzo Te, to be valorised and preserved for transmission over time, as suggested by the peculiarity of the city of Mantua within the UNESCO program; it aims to provide operating knowledge and instruments, sources and methods for the protection and transmission of its heritage; finally, it could also contribute to a research method able to analyse situations and architectures analogous to Palazzo Te, where the true architect of the monument cannot be identified with one individual, but with the long process of transformation itself.



**ID 086** *Re-connective interfaces in the historical urban open spaces. A comparison between two small cities in Italy and Libya*

**Filippo ANGELUCCI**  
**Hanan ELFRAITES**

University of  
Chieti-Pescara, Italy

Lanciano (City of Culture 2020 candidate) and Gadames (UNESCO historic centre) are both located along routes of strategic importance. Elements of the Roman and Arab urban structure can be found in both cities. The modern expansion has similarities that still allow the use of the historical areas without erasing original settlement configurations. The intense flows of merchants were thus replaced by intense flows of tourist activities (cultural, religious, recreational, archaeological) that maintain the vitality of historical centres of these two cities. However, the change of users and functions can involve transformations oriented to modernize the inhabiting uses, to intensify/simplify the access, to modify the typological-constructive identity of urban open spaces and their relations with the historical-architectural heritage. Through a comparison between studies on these two cities, authors underline the importance of the technological-environmental reconnection interfaces (empty/full, open/closed, nature/artifice, public/private, external/interior) in the transferring process of historical-architectural legacies to the future generations. The paper will focus on recurring open space elements (paths, passages, shelters, borders, oases, islands) analyzing their meanings, roles and performances to preserve characteristics of the historical settlements and to compatibly reactivate, uses, relationships and links with contemporary cultural, behavioural and climatic changes.



**ID 088** *The Sirocco's chamber of Micciulla manor in Palermo\_ A bioclimatic archetype symbol of legality and civil redemption.*

**Tiziana FIRRONE**  
**Carmelo BUSTINTO**  
**Davide CARELLA**

University of Palermo  
Italy

The Sirocco' Chamber in Micciulla manor is one of more than thirty examples of a forerunner hypogeum passive cooling system, which spread in Palermo between the seventeenth and eighteenth centuries. Artificial caves dug under or near the palermitan mansion where the rich families took refuge to escape the high summer temperatures, often made unbearable by the hot African Sirocco wind. Among all, the Sirocco' Chamber in Micciulla manor is perhaps the best known not only for its particular and unique "open-air" structure, but also and above all for the historical past linked to it. This contribution intends to retrace the most significant phases of the history of this asset: the casual discovery of the natural cave and a qanat inside a calcarenite pit, the periods of complete abandonment and those of great interest on the part of the owners - Jesuit fathers, Holy Office, local nobility - who succeeded in the ownership of the manor; and then the years of illegality and decay, under the mafia control and the years of redemption thanks to the work of brave men, first of all the judge Giovanni Falcone who made the Micciulla manor and the Sirocco' Chamber to this pertinent, the first asset confiscated from the mafia. Today the manor hosts a Scout base managed by the Agesci association to which the asset has been assigned. The young volunteers, despite the continuous acts of intimidation by local criminals, have recovered the entire area from the degradation, returning it to its original beauty and taking care of its preservation and maintenance.

**ID 089** *Narration of the visual identity of a city: reading of languages and perception of authorial signs*

**Massimo MALAGUGINI**  
**Maria Elisabetta**  
**RUGGIERO**  
**Ruggero TORTI**

University of Genoa  
Italy

It is now an acquired consideration that - by dealing with contemporary buildings - the images of buildings in urban centers belonging to any geographical context are often confused or interchangeable; this phenomenon can be verified during a trip or by browsing architecture books. Less critical is the critical evaluation of the factors that have determined and that still determine this possible confusion or - on the opposite - positive sharing of models, so much so that in order to understand the essence of a place we must rely on its natural form and his "historical" built or the built up not yet contaminated by contemporary technological potentialities. What are the main factors and the role of representation for understanding the active constants that still could make a significant contribution to the translation of elements of the past in a current model? This study intends to highlight the most incisive aspects of the question: from the power of representation itself that is the foundation of the circulation of possible shared visual references, to the technical-conceptual strength of the survey, that offers comparisons and analysis to understand the evolution of forms and styles, to visual perception, that puts the observer in the conditions of "seeing", even before he has rationalized, similarities and differences, for example in the presence of languages of authors that go beyond tradition and collective memory to set and suggest a new one based on personal choices.





**ID 091** *Creativity of the Cultural Heritages and the Landscapes.  
Redevelopment experiences at compared*

**Teresa CILONA**

University of Palermo  
Italy

The Italian cultural heritage - material and immaterial - represents an extraordinary resource for our country of economic growth, production, cohesion and social inclusion. This heritage of inestimable value recognized all over the world, is not always adequately valued, known and shared. It is often not usable and is left in a state of total abandonment and degradation. The enhancement and protection of cultural heritage and landscape can instead fuel the potential for development in the territories, activate a sustainable economy, improve the quality of life of communities, create a wealth not only economic but also for the ability to maintain high level of beauty. That same beauty that makes our country among the most loved and visited in the world. This study intends to present some Sicilian realities in which good practices of protection and enhancement of material and immaterial heritage have been actualized. Enchanting places in the Agrigento territory, of great interest and beauty, destination for many travelers. Sites in which art, history, culture and traditions are inextricably combined becoming engines of economic development and promoters of experiential and emotional tourism.

**ID 093** *The design and the community map to preserve and pass on innovation*

**Francesca FILIPPI**  
**Elisabetta BENELLI**  
**Laura GIRALDI**

University of Florence  
Italy

The community map, introduced in England at the beginning of the eighties, it's an indispensable tool to know in full and in depth the socio-cultural aspects of a given context. In particular, the community map is an archive of material and immaterial knowledge, constantly updated by unwritten sources. In fact, the inhabitants of a given place have the opportunity to tell the traditions and values in which they identify and intend to transmit to the new generations. In particular, this research targets to use cultural heritage to generate new innovation scenarios. In this way, the cognitive background acquired through the maps isn't dispersed and, at the same time, provides useful elements for the planning and promotion of the territory. The present study hypothesizes to design a service that can collect, analyzing and allocating data coming from the community map to suitable project areas. The use of ICT (Information and Communication Technologies) is important for the design of this service. In fact, this type of knowledge applied to the territory provides highly effective solutions in the development of communication and data sharing processes. The expected result's therefore a model of innovation capable of collecting the data contained in the community maps and transferring them to a service.

**ID 094** *Leptis Magna: “a heritage in war uniform” to be protected*

**Rossana NETTI**  
Polytechnic of Turin  
Italy

As stated by former Director-General of UNESCO Irina Bokova, “the heritage protection is the best way to create resilience in society, to recognize the past, but also to look to the future, as it is closely linked to the concept of identity. Without respect for the identity of peoples, it is not possible to achieve peace or reconciliation or even hope for the future”. This important warning that appeals to culture as an instrument of cohesion, leads us to reflect on the theme of preservation of cultural and historical heritage in war zones and - more generally - towards the protection of endangered cultural heritage. Currently, more than 50 UNESCO sites are included in the list of the heritage of humanity at risk, of which more than half due to wars and ruthless interests of terrorist networks. In 2016 the UNESCO commission has included in this list the ancient city of Leptis Magna, along with four other important sites in Libya, due to the massive damage caused by the civil wars that followed the fall of Gaddafi (in 2011) and due to threats that still weigh on these settlements. Result of a particularly fertile historical sedimentation, Leptis Magna remains an exceptional archaeological site for wealth and diversity. We cannot interrupt scientific research focused on this important heritage; everything that can be carried out in terms of documentation, cataloging, survey, restitution, can be used to compensate the injured assets and restore their identity when the conflicts will be over.



**ID 095** *Visualized Hypotheses – Architectural Ideas as Intellectual Legacy*

**Dominik LENGYEL**

University of Technology  
Cottbus-Senftenberg  
Germany

**Catherine TOULOUSE**

Lengyel Toulouse  
Architects Berlin  
Germany

Legacy is ambivalent: Built architecture mostly consists of ruins while the immaterial heritage is described in its interpretation. While the former suffers from deterioration and needs protection in order to preserve its condition, the latter undergoes a cyclical process of creating and reprobating interpretations. The concerned knowledge is itself exposed to an evolutionary process, while the ruins pass a cyclical, generational reexamination. Protection and interpretation correlate, but the ruins may be protected covered while their interpretation will be created, confirmed or discarded infinite times. Still, it is not visible. As good practice we developed a principle of translating hypotheses into vivid visualisations that adhere to the scientific content without adding fictional content. Abstract geometry seen as virtual photography. We consider this a humanist approach and rely on the persuasive power of the idea, ideal representations that represent intellectual legacy. The presentation illustrate this method by several projects developed by the authors in their University Chair and in their architectural office in cooperation with archaeological research institutions like Cologne Cathedral and its Predecessors (by order of and exhibited in Cologne Cathedral), The Metropolis of Pergamon (within the German Research Fund Excellence Cluster TOPOI) and The Palatine Palaces (by order of the German Archaeological Institute, both latter exhibited in the Pergamon Museum Berlin).



**ID 096** *Projects to save the sites of salvation*

**Matteo  
DALLAGIACOMA**

Building Engineer

**Anna MARAGNO  
Giovanna A. MASSARI**

University of Trento  
Italy

The air-raid shelters built in Trento in the early years of the Second World War, partly adapting the ground and underground floors of already existing buildings and partly opening up new underground areas with the use of explosives, are a reality largely unknown to citizens and scholars. The spaces of these shelters, many of which are hypogeal, could perfectly represent the pages of *Invisible Cities* by Calvino: walking through them, you are projected into the same surreal world evoked by the story of Eutropia, Bersabea, Argia and many others; by observing them, you can perceive the gap between the way of life they were used to in the past, and the sense of abandonment they suffer from today, which does not depend on their physical invisibility, but rather on the unaware cultural and political choices. The research that is being carried out at the University of Trento, conducted almost exclusively with free and open source software, aims to restore the importance that these places deserve, as being both witnesses of urban history and main actors of its renovation. The archive research led to a first census and a subsequent transcription on urban cartography by the GIS. A case study was then chosen in order to test the cognitive and design phases: the public bunker “Alla Busa”, a gallery of about 1,200 square meters built in 1943-44 under the seventeenth-century convent of S. Bernardino.

**ID 098** *Living the Mediterranean rural landscape: the grotto houses of Ponza between identity and preservation*

**Paolo CAMILLETTI**

University of Roma Tre  
Italy

The contemporary touristic image of Ponza - the widest and most populated island of the Pontian Archipelago – results from the appreciation of its sea quality, coastal landscape and traditional historic centres dating back to the Bourbon Kingdom. Nevertheless, the inland denotes remarkable architectural and environmental heritage. The aim of this paper is to identify the traditional typology of grotto houses and reflect upon their conservation.

Man-made grotto houses contributed to the success of the 18th century Bourbon colonisation of higher areas of Ponza called Scotti, Guarini, Sopra Giancos, Le Forna. Such rural dwellings, excavated in the volcanic grey-yellow tufa, were deeply related to the geo-morphology of the terraced cultivated landscape, also witnessing the socio-economic structure of the Pontian settlement. As building type, they show peculiar distributive features, evolution, materials and sustainable techniques, including rain water collection. Currently, the urban and landscape protection plans (i.e. PTPR, 2007) do not propose forward-looking actions for grotto houses, leaving their restoration and transformation to case-by-case authorisation process. The pressures of the real estate market and contemporary living requirements may lead to the loss of some traditional elements or spatial relationships with the surrounding landscape.

**ID 099** *Africa, between regionalism and modernism*

**Massimiliano  
RENDINA  
Francesco IODICE**

University of Campania  
Italy

In connection with key words such as culture, creativity, but above all contamination, a planning reflection made a few months ago comes back on the issue of health emergency in Tanzania (Africa) that involved a hospital to be dislocated in Zanzibar, a small tourist island immersed in the Indian Ocean. The hospital unit should have arisen as an aid to serve a large district of villas for medium-high international tourism, with architectural connotations at least of questionable modernity. In dealing this issue, our thought, before choosing the path of a critical contextualization with the existing in progress, has obviously gone to the many twentieth century colonial architectures; but also to those ones built in maximum economy by the pioneers of health care, in deference to the sedimented forms of typically African spontaneous architecture. After the recent news of the death of Neapolitan architect Fabrizio Carola, a passionate experimenter in Africa of simple and economic construction techniques, and thinking about everything he put in place in the construction of entire villages, hospitals and places of worship, by analogy of themes, the idea of comparing in a critical reflection the two distinct forms of contamination came out: the self-construction of Carola's regionalist matrix and the obligatory adaptation to the globalisms of modernity that modify the autochthonous in internationalism, of our recent project experimentation in Tanzania.

**ID 100** *Historical network for the regeneration of the contemporary city*

**Marika FIOR**

Polytechnic University of  
Milan, Italy

**Irene POLI**

**Giulia BEVILACQUA**

Sapienza University  
Rome, Italy

The paper aims to investigate the cultural heritage role relating to the contemporary city. In particular, it analyses some case studies where planning highlight the role of historical network within strategies useful to regenerate the contemporary city, taking the opportunity to rebuild the territories collective memory. The contemporary city influences the concept of cultural heritage because its shape and topics (e.g. urban sprawl, environmental fragmentation, traffic and pollution, etc.) are a hazard for the preservation of the historical values (i.e. abandoned historical centers, fragmented signs impressed on the palimpsest, dispersion of local cultures) and so it represents the place where rediscover the rooted traces of today's dispersed identity. These traces could constitute, in the regeneration strategies of the contemporary city, a network of value useful to protect what already exist (even giving a new role for the society) and, at the same time, to structure and re-shape the contemporary city (homologated, trivialized), integrating conservation and innovation, socio-economic revitalization and socio-cultural enhancement. It is not only important to preserve the historical features itself, but also the relationship that they create together and the historical continuity of the social evolution. This network of values (often unusual, opposite) is both the material and immaterial dimension of the public space where the contemporary society could enhance its identity.





**ID 102** *The Shrine of the Alamo and its Roof: History and Strategies of Recovering*

**Marco FELLI**  
**Simonetta CIRANNA**

University of L'Aquila  
Italy

**Angela LOMBARDI**

The University of Texas  
at San Antonio  
United States of America

This paper aims to study the development of one of the most important monuments and architectures of Texas: San Antonio de Valero, one of five Spanish missions established by Franciscans in what is now San Antonio, is most commonly known as the site of the battle of the Alamo (1836). The mission was started in 1709 by Father Antonio de San Buenaventura and, during the years, it maintained its religious purpose till the secularization; later, it was occupied as a military presidio and changed in the aspect. After the battle of the Alamo, the building was going in ruin before the interest of the Daughters of the Republic of Texas (DRT) in the first years of 20th century, which found the money for the preservation projects, that maintained the building in its aspect till today.

The history of the building is strongly connected also to the development of its roofing system, which continually changed during the times. It is interesting to analyze how the roof, initially not constructed at the beginning of the mission, grew and has built in different ways and materials, as stone, wood and steel and concrete; also, the DRT's efforts of preservation constituted an important starting point, thanks not only to the work of Alfred Giles, the architect of the project, which performed an unusual approach to the preservation, but also thanks to the use of the new technologies, as, in this case, the reinforced concrete.



**ID 103** *The Industrial Heritage valorization: reuse projects in the town of Valencia, Spain*

**Mariangela DE VITA**  
**Ilaria TRIZIO**

Construction  
Technologies Institute  
of the Italian National  
Research Council  
L'Aquila, Italy

**Luís Manuel**  
**PALMERO IGLESIAS**

Universitat Politècnica  
de València, Spain

This research focuses on intervention methodologies used in the conservation and valorization of the Industrial Heritage in Valencia. Retracing the industrial archeology sites is an important tool for reading the hidden traces of the recent town history. Valencia is full of outstanding historical factories which - although their function were merely productive - represented arts and style laboratories for those designers capable of capturing the architectural meanings of that time both in volumes and details. Today these structures, imbued with stratified values, insist in a city that is facing the challenge of the contemporary living with ambitious projects and infrastructures. The reuse of the old factories is therefore aimed at integrating them into an urban fabric with renewed functions and the redevelopment of the industrial places becomes an architectural, political and cultural issue. This study reports on the inspection activities, surveys and the identification of best practices in order to enhance a large portion of Valencia's Cultural Heritage. The research highlights the specific features of a project that can not be limited to the recovery of the historical structure: the knowledge of elements and systems that interact at different scales (construction technology, ancient production techniques, tools and artifacts) leads to the identification of interventions which are compatible with the Industrial Heritage.

**ID 104** *Sustainable conservation:  
guidelines to protect and enjoy archaeological sites*

**Giuseppe  
DE GIOVANNI**

**Cesare SPOSITO**

University of Palermo  
Italy

Within the scientific debate on the conservation of Cultural Heritage in general and Archaeological Heritage in particular, due to its twofold nature (material and immaterial) and consistently with the interest of Technological Culture in the importance of those process aspects crucial for their proper development and broad enjoyment, this paper proposes, as an operational stage after having understood 'what' to preserve and 'why' for a sustainable development (cultural, social, economic), the critical thinking of some (significant) protection interventions that are highlighted, enjoyable and accessible (not only physically but also culturally) made or planned in archaeological sites.

The good practices analysed, with the support of the knowledge acquired from the various humanistic and scientific disciplines, allow us to render operational methodology and a Code of Practice – although the need of a 'case-by-case' evaluation is recognized – useful to guide conservation operators towards a 'conscious' sheltering system with architectural value, promoting the identification of the morphological, typological and technical-constructive solutions most suitable to return the potential significance of the Asset – and therefore to its enjoyment – preferring the reversibility and reliability of the systems added with the aim of its 'sustainable' transmission to future generations.

**ID 105** *Universal Legacies of Mankind: Heritage in Praise of Contamination*

**Giorgia AQUILAR**

Technical University of  
Munich, Germany

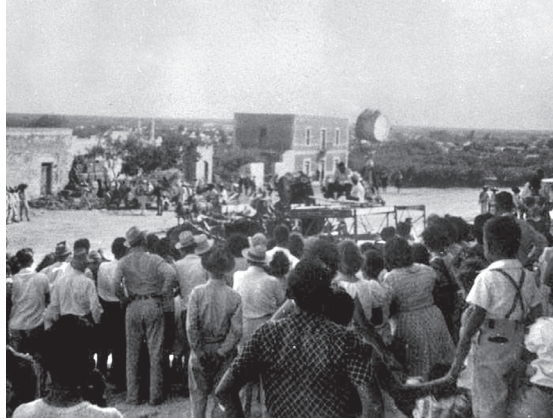
«There is no world heritage. It does not exist» – declared a spokesman for one of the Islamist groups controlling northern Mali, in the aftermath of the destruction of the sacred shrines of Timbuktu in 2012. In 2017, Rem Koolhaas incited «to push for universal humanism in architecture again». These two statements capture the challenge that this paper intends to discuss. Focused on the contemporary global discussion on the uses and abuses of architectural heritage, the proposed contribution engages a meta-theoretical inquiry on the rebirth of a universal humanist drive in the discourses and practices of the built legacy and its transmission. In the wake of recent natural disasters, war damages, and manmade demolitions, catastrophic consequences are relentlessly soaring in the inhabited world, increasingly stressing the polarization between the little enclave of the few quarantined historical relicts and the intentional or unintentional destructive *carte blanche* of the rest of the environment. Quests for truth, battles for authenticity, ethical and aesthetic challenges to preserve an alleged integrity meet and collide in the rediscovery of the possibilities of copies, replicas, forgeries, as potentially able to reread heritage as trajectory, translation, transference. Paraphrasing the words of Julian Huxley – first UNESCO Director-General – might it be possible to imagine «a heritage remaining heritage, but transcending itself, by realizing new possibilities of and for his nature»?



**ID 106** *The past in the present: the anthropized landscape as an instrument of memory legacy*

**Manlio MONTUORI**  
University of Ferrara  
Italy

The paper aims to investigate how Memory, intended as a “permanence” of interactions between historic and environmental resources, outlines the identity of places through the practice of landscape design, interpreted as the process of transforming and taking care of the territory able to counteract phenomena of degradation and abandonment. This permanence implies a cultural and symbolic investment that goes far beyond the treatment of the signs and the headings of the memory, and it subjects them to reuse and re-elaborates the landscape with non-neutral overlays. It involves taking into charge the current state, recognizing its characters and the stories, but assumes its transformative potentialities, as an incessant realization of territorializing actions that express the peculiar character of making architecture, while interacting with nature. Far from resolving into a pietism musealization, this perspective of signs sedimentation bearing memory will be illustrated by the interventions in the UNESCO World Heritage Sites of Jelling in Denmark and Lorsch in Germany. While documenting the transformations of the landscape, the interventions demonstrate that, by appropriating the ever singular manifestations of the genius loci, it is possible to renew the landscape though remaining in agreement with the peculiar characteristics of the place that a material culture chooses to highlight and transmit its memory.



**ID 108** *Rescuing a Border Town along the Rio Grande: Roma, Texas*

**Christina Michelle  
GARZA  
Angela LOMBARDI**

University of Texas at  
San Antonio  
United States of America

Located along the Texas-Mexican border, the city of Roma, Texas, was designated in 1993 as National Historic Landmark District, under the National Register of Historic Places. Despite its designation as a national monument and the numerous preservation efforts since then, the best remaining Spanish colonial townsites in the lower Rio Grande Valley is dramatically underutilized and poorly maintained. Some of its vacant buildings are used as refuge by illegal immigrants crossing the border along the Rio Grande. This paper discusses the cultural significance and the integrity of Roma's urban fabric while, through visualization mapping, providing adaptive reuse proposals for some of the better-preserved structures. The option of expanding the period of significance of Roma historic district is also investigated, to include the 1920s Roma-San Pedro International Bridge, which is the last surviving suspension bridge across the Rio Grande. Through surgical interventions to its built heritage, Roma Historic District has potentials to become a heritage tourism destination. Used as a movie setting and located along the Camino del Rio, a rough 120-mile trail along the Rio Grande, the town features a unique strategic location to spark economic prosperity and to become a paramount example of what a Southern border town could be today. Expected outcomes of the proposed project will go far beyond the mitigation of damages caused by the illegal refugees seeking shelter.

**ID 109** *Renaissance of Downtown San Antonio: Hemisfair Park as New Urban Core*

**Angela LOMBARDI**  
**Sedef DOGANER**

University of Texas at  
San Antonio  
United States of America

The city of San Antonio has a unique historic urban landscape, renowned for its Riverwalk, the Alamo and for five 18th century Franciscan missions, a World Heritage site since 2015. The city is one of the Nation's top tourist destinations, and the downtown districts have been for a long time exclusively domain of tourists. In the last decade, local movements, effectively supported by public and private investments, have embraced the challenge to transform the center of the city from a tourist district into a real urban neighborhood, characterized by functional 'mixite'. This paper examines the urban rehabilitation efforts carried out at the 1968 Hemisfair Park, an area of 78 acres connected with the Riverwalk physically and historically. Prior to its redevelopment for the 1968 World's Fair with funds from the Federal Government, the area under analysis was previously occupied by a thickly populated neighborhood with over 1,000 structures, including two churches and a synagogue. Of the historic neighborhood, only 22 are the extant buildings. After the World's Fair, Hemisfair Park became a neglected area, disconnected from the city and sadly underutilized. The recent master plans had the goal to reconnect HemisFair to its surrounding neighborhoods, while sparking the tourist economy. This paper discusses how Hemisfair urban rehabilitation can be considered a model of sustainable development worth to be replicated, with the creation of a blended urban residential and tourist destination.

**ID 110** *Role of Knowledge Management Systems in Heritage Preservation Case specific inquiry into Indian practices*

**Ishita SHAH**

Srishti Institute of Art  
Design & Technology  
Bengaluru, Karnataka,  
India

Today, we live in an era where many forms of practices pertaining to heritage conservation are thriving. Heritage sites are thus subjected to different kind of treatments, depending on the contextual wellbeing, changing times, cultural aspirations and creative strengths. Issues like growing population versus lack of inhabitable space, liabilities arising out of ownership, socio-economic and political hierarchy, decline of patronage and craftsmanship, are some of the key issues affecting heritage practices in the Indian subcontinent. In this scenario, what kind of practice would potentially allow for a more panoramic and non-contextual framework for heritage preservation? Would such a practice leave room for building connections? Through classroom exercises and site-based inquiries in contested sites like Hampi-Anegundi, Jew Town, Heritage Village (Manipal), Jog Falls, Gulbarga, and Bidar, concerns about heritage interpretation and presentation were addressed. An exchange between formal and informal knowledge systems allowed for more meanings to evolve organically. Ananta Dutta's initial exercise of mapping cultural practices, led to designing of cultural trails in Gulbarga; whereas Shama Pawar's work under the The Kishkinda Trust has grown immensely to be built into a community archive. This paper intends to probe further and arrive at a theoretical understanding about relevance of knowledge management systems in heritage preservation practices.



**ID 111** *The restoration is a trauma that leaves incurable signs". Is planned maintenance possible?*

**Stefano D'AVINO**

University  
"G. d'Annunzio"  
Pescara, Italy

In the early 1970s, Giovanni Urbani spearheaded a series of research works aimed at achieving a heritage protection system based on the concept of planned conservation. These studies culminated in the drawing up of the Piano pilota per la conservazione programmata dei beni culturali in Umbria (1973) extending the concept of preventive conservation to planning understood as an essential element of action at the various territorial levels, thus guiding studies and research on analyzing the risks and the various factors of decay.

With the 'Piano' Giovanni Urbani posed, for the first time in systematic terms, the problem of the most consistent processes for the enduring conservation of artworks. The 'Piano', then, aims to place the perspective of art conservation well beyond the potential offered by restoration, by placing emphasis on planning the processes needed in order to recognize and prevent the causes exacerbating progressive deterioration.

This paper offers a reflection as to the possibility of reducing the scope of the restoration interventions in favour of a rigorous maintenance programme, as trialled in some projects following the seismic events of 2009. Furthermore, within the framework of a critical path, it relates the theme of conservation to the environment – all while placing its faith in the resilient characteristics typical of historical and architectural heritage.

**ID 115** *The Twentieth-Century: a fragile century, to be safeguarded and consciously nurtured.*

**Paolo MELLANO**  
Polytecnic of Turin  
Italy

While the 1900s can be considered the short century of History (Hobsbawm), we can also define it as the fragile century of Architecture: in a short space of time, we saw the production, across the world, of an unparalleled quantity of constructions but with an undoubted decline in architectural quality. The construction techniques of this historical period are now at the centre of the debate on the future of late Twentieth-Century heritage. It is a tricky issue, precisely because the materials and technologies with which this heritage was built have now revealed a series of problems of degradation and physical decay, not only due to exogenous factors.

The “short century” is also fragile for historiography and critics, still vitiated by many prejudices and lack of objectiveness.

However, there is another issue of fragility that, until now, has not been properly considered: this relates to copyrights. At first glance, it may seem to have nothing to do with construction quality; however, it hits the mark as, if a building needs “care”, this should be implemented in respect of and in safeguarding the authorship of the work. This, however, often does not happen.

It is an issue that relates to the Culture of the City: we must first get to know the Heritage that we have before us and learn how to interpret, analyse and assess it critically, to propose its regeneration in an informed manner.

**ID 116** *The Dromo, ancient connecting route of the Magna Graecia cities*

**Domenico GATTUSO**  
**Caterina GATTUSO**

University of  
Reggio Calabria

Along the Italian Ionian coast, within 1 km distance from the sea, in ancient times, a road axis known as “Dromo”, connected the urban settlements of Magna Graecia (Greater Greece). The name derives from the Greek language and literally means “street”, “fast road”. Some traces of the Dromo are also along the Sicilian Ionian coast. This circumstance suggests that the Greek and the indigenous communities at the time were connected not only by sea, but even through a longitudinal route over 700 km long. Also known as Gromo or Gromu, this road of Magna Graecia still today appears in local place names, especially in the area of the old Locri Epizefiri, through urban and peripheral road sections called “via Dromo”. In some cases, such as between Bovalino and Locri, by means of modern website maps based on high quality aerial photos, it is possible to look at a substantial continuity of “Dromo”, which stops only at the rivers. A specific study has been addressed to a first research aimed at rebuilding the old route along the Calabrian coast, highlighting its relationship with the crossed urban contexts and with the Ionian landscape. The intent is to bring out the main features and characteristics of this route and to find identity elements, in order to elaborate, in the near future, a project of cultural heritage enhancement, along the “Magna Graecia way” or “Magna Graecia Dromo”; a path open, as the Spanish “Camino de Santiago” (pilgrims’ way), to the travelers and tourist walkers interested in following the historical-cultural tracks of an extraordinary historic past.



**ID 119** *Knowledge and transmission of intangible heritage: Raimondo D'Aronco's drawings and architecture for Turin International Exhibition of 1902.*

**Maria Paola  
MARABOTTO**

Polytechnic of Milan  
Italy

With the industrial revolution every state feels the need to make known to the general public new products and technologies to capture the market and to be relevant at the international level. In this environment the Universal Exhibitions are developed, real display of power commercial and prestige technical and artistic, which assume the function of showcase for new ideas and new ways of thinking about the relationship between art, crafts and industry.

In the fervent atmosphere of Turin between nineteenth and twentieth centuries were held National Expositions of 1884 and 1898, the first International Exhibition of Modern Decorative Art of 1902 and the great International Exhibition of 1911. Object of the present research is the Exhibition of 1902 that had international openness; the theme of the decorative art including all the products of industry, from bricks to fabrics, but also complete entity environmental, projects of buildings and urban accommodation. The competition for the construction of the exhibition halls was won by Raimondo D'Aronco one of the leading exponents of Art Nouveau architecture in Italy; of these architectures today there is nothing but the drawings and papers written by him, accompanied by sketches of details and comments. The study of the drawings of D'Aronco helped deepen the figure and work of this great architect in relation to one of the largest International Exhibitions of the early twentieth century.

**ID 121** *Small farmers' Food Production as heritage. Evidences from a Survey in Kenya*

**Nunzia BORRELLI**  
**Giulia CORTI**  
**Maura BENEGIAMO**

University of Milan  
Bicocca, Italy

The main aim of this paper is to discuss how the small farmers' food production can become heritage in a country like Kenya. Small farmers are commonly referred as small-scale farms based predominantly on family-labour and producing goods and services for both markets and subsistence. Land size is often used as a primary indicator to give a definition of small farmers. The FAO and the WB generally adopt a threshold size of 2 hectares as a broad measure of a small farm. Small farmers constitute the dominant production model in Sub-Saharan rural areas, accounting for up to the 80-90% of all farms (They make up most of the active rural population) and include more than half of all economically active African women. Our hypothesis is that if we understand which are the main characteristics of small farmers we will be able to give some indications about how food production can become heritage and more oriented to sustainability. In order to reach the aim defined above and to discuss the hypothesis we organize our paper in three sections. The first one is the literature review; the second one is presentation of a survey carried out in Kenya with 100 questionnaires filled in by 100 small farmers. Last section is about conclusions. The main results of our research concerns the characteristics of small farmers that are discussed and represented in some maps using ArcGis.

**ID 122** *Interior space as communicator of cultural significance*

**Nilufer SAGLAR ONAY**  
**Valeria MINUCCIANI**

Polytechnic of Turin  
Italy

The conservation of heritage buildings can include a wide range of approaches but existing theories recommend reuse of buildings, which ensures the continuity of their life. On the other hand, proposing a sustainable and compatible use necessitates the continuation of the buildings' cultural significance. In this perspective, the role of interior architecture is extremely important as it provides an authentic interaction between users and spaces. So, reuse proposals need to integrate existing buildings to contemporary life by considering all spatial aspects that contribute to their architectural identity and cultural significance. In this sense the conservation of interior envelope and interior elements of cultural significance rises as a very important issue to be discussed. Thus today the conservation practice and reuse proposals focus on preserving the architectural envelope of buildings rather than interior aspects. Conversely, interiors need specific safeguard not only due to their cultural significance but also because they are the most "volatile" part of the architectural heritage, being closely connected to the real life of users. This paper aims to discuss the dialectic relationship between interior environments of heritage buildings and users, and the importance of preserving internal elements as communicators of cultural significance.

**ID 124** *Graphic and constructive analysis of the anti-aircraft shelters under both the Ribalta Institute and the Tetuan Square in Castellón de la Plana*

**Manuel CABEZA  
GONZÁLEZ  
Beatriz SÁEZ  
RIQUELME  
Alba SOLER ESTRELA**

Universitat Jaume I  
Castellón de la Plana,  
Spain

The City of Castellón de la Plana (Spain) was the target of many air raids during the Spanish Civil War, which caused a large number of victims and damage to property. Since the first bombing took place in the spring of 1937, the main objective of the municipal bodies was to protect its inhabitants. For this reason, the city's Junta de la Defensa Pasiva was commissioned to build the necessary shelters to house the entire population. These constructions became a complex network of connected tunnels that extended through the city's underground. However, with the arrival of rebel troops in the summer of 1938, the building of the projected shelters stopped at a time when only 43 had been built. After many years of neglect and most of them disappearing, the current Archaeological and Ethnological Heritage Catalogue of the PGOU includes two of these shelters as locally relevant goods: one was built under the Francisco Ribalta Institute and another is located under the Tetuan Square. They are the only existing testimonies of this defensive architecture that forms part of the city's cultural heritage.

This article shows the graphic and constructive analyses that have been done on these two elements to help their conservation and maintenance, and which constitute unpublished documents, which allows their comparison to other similar elements and, thus, contributes to further knowledge of this architectural typology.

**ID 129** *New Dialogue Between Old Crafts and Contemporary life*

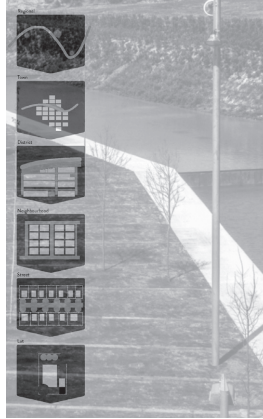
**Dalia SHEBL SAID**

Kafr Elsheikh University  
Egypt

Historical remains for old building in old city "Fouah" telling us the history of old traditional craft that Fez hats "Tarboush" factory , which was established in Ottman era during the reign of "Muhammad Ali Basha" in eighteen century 1824, he was established a two factories for military uniform and fez on the bank of River Nile.

The research record the current situation of one of the oldest Tarboush factory which was considered the only unique crafts in Egypt, as an attempt to put a strategy to intervene and restore the old remains and recovery the historical image of the factory design, its facades and architectural features by reference to similar factory which had been established in the same era 1826 for same purpose in Izmer , Turkey and from the other side the research suggest a plan for integrate the remains historical gats of old factory with surrounded open spaces in old city .





**ID 130** *Ecological network from regional to municipal scale. The case-study of San Tammaro (Ce)*

**Salvatore LOSCO**  
**Claudia DE BIASE**

University of Campania  
Italy

The ecological network involves the whole territory, the elements that make it up are recognizable:

- at regional scale in national and regional parks, in sites of Community importance, in important bird area, in agricultural and forest areas and in ecological corridors;
- at provincial scale in areas of high naturalistic value, in natural areas of naturalistic completion, in urban and peri-urban areas for widespread ecological reconstruction, in gates and in contaminated areas;
- at municipal scale in primary and secondary nodes, in buffer zones of these nodes, in areas of environmental protection, in ecological connections, in linear and punctual elements of local ecological network, in gates of this network, in eco-fruitive connections between area with diffused naturalness or in anthropized areas, in fruition routes and in support areas. Ecological network represents the fundamental sub-network of the green infrastructure that is an equipped macro-network able to perform multiple functions and consists of a system of interconnected networks with green spaces that preserve the natural values and functions of the ecosystems and provide multiple benefits to the human population. Planning, design, implement and manage an efficient ecological network helps to stem climate change, rising temperatures, decreasing rainfall, increasing extreme weather events and the urban heat island effect.

**ID 131** *Inno School Project and AHP*

**Giuseppe D'ANGELO**  
**Rosaria SAVASTANO**

University of Campania  
Italy

In the last few years several plans and strategies for renovating and modernising school buildings have been developed. One of the most significant experiences is represented by Inno School (in Finland). The research for Inno School is carried out by four sections:

1. Inno Edu (Education with Innovation), which analyses all educational and didactic aspects; 2. Inno Play, which studies educational and learning processes through games; 3. Inno Serve, which is connected to support services and to interaction with the learning process; 4. Inno Arch, which is in charge of designing the spaces dedicated to learning activities.

The aims of the project are listed below: - Supporting learning with specific architecture, urban and design solutions; - Using architecture technical applications in the concrete and virtual construction of the spaces dedicated to learning; - Promoting a shared understanding of a town.

The space where these problems develop is not a static entity, but rather a dynamic one. In such a context, the Analytic Hierarchy Process (AHP) is instrumental in the improvement of the procedural rationality that underlies complex decision-making problems. It actually guarantees a transparent integrated multidisciplinary approach to the entire evaluative process. The aim of this work is to examine the possibility either to modernise an old school building or to build a new one by means of AHP.

**ID 132** *A study of the folklore festivals actors in the safeguard of the intangible cultural heritage through music – dance.*

**Javier GOMEZ  
CHAVARRO**

Universidad Politécnica  
de Valencia, Spain

The folklore festival is a cultural meeting in a specific period of time, it is a space where artists, festivals managers, local people and general audiences meet to generate cultural value. This research shows how folklore's artists and cultural managers have become the base to safeguard the intangible cultural heritage. The paper analyzes how the management and artists creation have developed to the maximum level promoting the cultural dialogue among society. This work is based on a conceptual mix of three study axes (intangible cultural heritage, folklore festivals, and, artists and festival managers) with the aim to answer the question: Could folklore festivals add value and support the appropriation of intangible cultural heritage? An analysis is made from the cultural exchange environment lived inside festivals and it is taken directly from people involve within the festival. By analyzing this environment and interaction, a dynamic and objective vision about the importance of the folklore festivals is obtained as well as it is shown how this interaction really contributes to safeguard the intangible cultural heritage through music – dance.

Finally, the results of the analysis and methodological approach are exposed. The results reveal the special role they play in the diffusion of the intangible cultural heritage and how much they contribute to the achievement of the UNESCO's objectives.

**ID 134** *Our Common Built Heritage:  
Legacy and Prevention from Contamination of Our Urban  
Culture*

**Natasa  
ZIVALJEVIC-LUXOR  
Nadja  
KURTOVIC- FOLIC**

National Heritage  
Foundation, Serbia

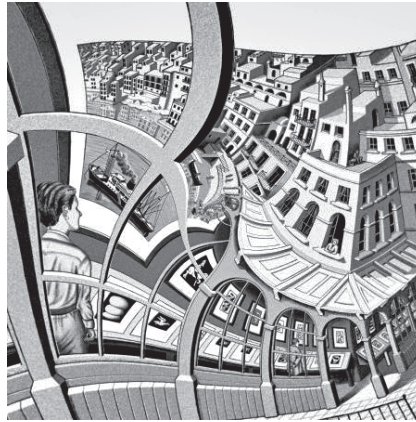
**Habil Hartmut  
PASTERNAK**

Brandenburg University  
of Technology, Germany

Our civilization faces rapid change of urban living closely related to new, broad and diverse technologies. They are evidently changing streams according to which our cities and metropolitan areas develop, and therefore also according to which they must be planned, guided and managed.

We are confronted with overwhelming, buzz words as: proptech, blockchains, artificial intelligence and machine augmented intelligence, machine learning, internet of things, computer vision, deep learning, Big data etc., and we cannot help wondering how they impact our everyday world.

This paper argues how built heritage interacts with new technologies and how it helps humanity in this stage of its development. Taking in consideration that impact is bidirectional, we argue what we additionally know nowadays about unique and irreplaceable impact that our heritage has for society based on scientific methods founded on new technologies.



**ID 135** *The cultural paradigm in the smart development of slow cities*

**Mariacarla  
PANARIELLO**

Pompei, Italy

In an age of change, such as ours, the models of interpretation of social and environmental processes need reflection, taking into account the holistic approach and the systemic logic, it is necessary to evaluate the differences between the cities concerning the factors of size, demographic and social context, resources, memory and landscape, synthesizing one's own cultural heritage. The three social, cultural and technological aspects added to the human factor will be the founding base of new territorial management policies aimed at creating inclusive and eco-sustainable cities. If we mean by City as a System of Systems (living, mobility, services, culture, energy, safety, environment, ...) smartness develops in terms of interaction network through research projects and initiatives.

The interaction, the relationship between man and space according to Heidegger "is nothing but the living thought in its essence"; in seeing the city as a set of "places and not places" and assessing the quality of life through the ways of living in the city, in the construction of a possible scenario, in the redefinition of models, the actions to trigger new processes of smartness able to indicate trajectories of evolution to reduce urban entropy and restore social capital, are developed in continual palimpsests of identity and relationships. Based on of these premises the Slow City can represent a possibility in a perspective of a new humanism of being and living in order to make use of the heritage in an inventive and sustainable approach.



**ID 137** *The northern arch of the Augustus Bridge in Narni*

**Alberto CUSTODI**

University of Bologna  
Italy

**Flora SCAIA**

Integrated  
Archaeological and  
Territorial Systems SNC,  
Narni (TR), Italy

The Augustus Bridge is a monumental bridge viaduct on the river Nera, north of the town of Narni, built in Roman times and attributed to the reorganization of the Via Flaminia by Augustus (27 BC). The bridge, made up of four arches, of which only the first survives to the south, has always been a source of admiration for the size and the shape and has been the subject of technical studies and artistic representations. In recent times it has been the subject of some laser surveys and of various structural models, also via finite elements, moreover, also following some seismic events, works have been made to consolidate the surviving parts. Despite the various studies, due to the changes that have taken place over the centuries, both due to natural collapses and due to degradation from anthropic actions, there are still many questions that have not received a precise answer: the slope with the exact dimensions of the arches, the shape of the access routes, the origin of the materials, the absence of breakwaters, the diversity of the shape of the remaining piers and arches. In the present work, the authors, as a complement to papers written in the last years, have focused on the appearance of the northern arch of the bridge, which has a particular ribbed shape, similar in some respects to that of roofing vault of the temple of Diana in Nimes, and after having sought its diffusion in other Roman contexts.



**ID 138** *Between function and use of spaces and of the Neapolitan urban landscape. Proposal to read Piazza del Plebiscito*

**Saverio CARILLO**  
University of Campania  
Italy

The contribution proposed, starting from two essays little used by the historiography of architecture (The Secular City -1965- and L'invention du quotidien -1980 - both written by scholars engaged on spiritual themes), wants to offer an interpretative key to the substantial modification that recent culture has taken on in the traditional idea of Monument.

These two books, very attentive to the evolutionary aspects of the anthropology of urban life, allow us to understand how the idea of Monumento is updated in terms of function and implicitly intended for use.

A 'secularization' of spaces and 'representative functions' transforms the monument into an 'experience' in which, by focusing on new uses, it is possible to grasp greater fruition characteristics, sometimes making them look like the so-called Non-lieux.

The case of Piazza del Plebiscito in Naples, on the basis of the thought of the two recalled scholars, can be investigated in order to be able to read the variations that the globalized culture introduces into the modern use of monumental spaces and the urban landscape.

**ID 139** *Wood in the structural restoration of masonry buildings*

**Luciana DI GENNARO**  
**Giorgio FRUNZIO**

University of Campania  
Italy

There is a vast building heritage composed mostly of masonry buildings and monuments, that describes and characterizes the face of today's cities. There is a need to intervene on the built to safeguard the own life of this historical-architectural heritage, respecting its nature and therefore preserving the memory of ancient technologies and original configurations that reveal to the history and evolution of humanity. That's how the "route of restoration", the working methods, the materials used and the structural schemes become as relevant as the final goals that are to be achieved. Masonry buildings are often characterized by the presence of wooden structural elements. Wood was anciently used in its natural configuration by working on different types of wood exclusively by peeling and shearing the stems, thus obtaining slender elements to be used for horizontal structures. The versatility of wood combined with modern technologies, as of today, has allowed the development of innovative high performance elements such as laminated wood, and X-Lam panels, which have exceeded the limits of solid wood elements such as limited mechanical resistance, anisotropy, constitutive defects, restricted availability of profiles. Therefore wood represents an opportunity to realize structural retrofit strategies where the ancient and the modern find a right synthesis. In this paper we describe studies, surveys and wood realizations for structural use in restoration interventions.



**ID 140** *Analysis of degradation for the conservation of reinforced concrete*

**Ersilia BIONDI**  
**Giorgio FRUNZIO**

University of Campania  
Italy

Knowing and recognizing the cases in which structural elements and components of building systems of our built heritage are subject to pathologies and forms of degradation is the first step towards a culture of prevention of catastrophes and risks to which citizens and housing would be subjected. Specifically, in the wake of the recent events that occurred not only in our country, due to negligence of professionals and technical underestimations, they undergo a preliminary study of diagnosis and treatment of reinforced concrete structures, starting from the material matrix. We focus on pathologies that are recognized in the corrosion of the reinforcements and in the consequent cracks, of which a variegated system of causes and origins has been found. Knowing them, in the pre-design phase, involves a correct realization of the structures, from the implementation to the creative, environmental and functional choices. The work is based on the study of specific pathologies, such as corrosion by carbonation, by attacks of chloride ions and those by sulphates, and the relative behaviors of the concrete subjected to them, so as to prevent discomfort, prohibit its enduring over time and stop threatening contaminations.

**ID 141** *Know, Understand, Valorize*

**Luca MENEGATTI**  
University of Rome 3  
Italy

As part of a Roma Tre Architecture Department research project, and in order to know and appreciate the peculiarities of the southern metropolitan area of Rome, as well as to propose itineraries intended to enhance specific matters within the archaeological park of Ostia, an analysis at urban scale of the location was carried out through an AutoCAD geo-referenced vector file. The above is structured following a specific organization system, which includes the insertion of different layers describing different subjects according to pre-defined filters complying with ICCD Institute standards. The methodology adopted, which applies to any territorial or urban context, whether archaeological or modern, makes it possible to elaborate a database associated with a multi-layered interactive cartography that allows, in turn, to manage data at both territorial and building scales and in addition to manage historical-archival documentation. The AutoCAD geo-referenced vector file has been elaborated during the university studies, combining both educational and research initiatives aimed at deepening information on both the ancient processes of planning and development, as shown by the building distribution in the north-eastern urban area of the Ostia archaeological site. The result of the above analysis consists in providing directions for the touristic enhancement of selected areas of the archaeological park, through the implementation of an ICT program and set-up of thematic routes.

**ID 142** *A Multi-criteria analysis tool for rethinking cultural heritage in evolving cities*

**Alessio CACCAMO**  
**Silvia NIGRO**  
**Lavinia TOMMASOLI**

Sapienza University  
Rome, Italy

Collective memory and individual identity in society are increasingly losing their importance in contemporary cities. Both material and immaterial heritage has to become a strategic element by which a citizen can recognize himself in the spaces of his everyday life. In 2018, the municipality and universities of Barcelona provided a moment of international consideration - using the hackaton instrument. This reflection was focused on the infrastructural heritage represented by the “Rondas” – originally developed as a connective element while today being seen as separating structure. The question was how this ring road might evolve during the next twenty years, forming new patterns between citizens and transportation. The transdisciplinary approach by a team of the Sapienza PDTA department has produced a multi-criterial analysis tool based on economic, functional and social indicators, which reconsider the infrastructure as connective element. Using “Ronda” as a model case, the paper looks at the metabolist model, rethinking it as an updated element of multi-level connection and proposing a neighbourhood future vision by inserting naturalistic-technological, urban-planning and territory-identity solutions. The aim is to demonstrate how the developed methodology can be reproduced in other heritage evaluation scenarios, adapting variations of indicators in the analysis, all the while being a generative and dynamic tool with data visualization techniques as an integrated element.

**ID 143** *The role of Intangible for Built Heritage Conservation*

**Davide MEZZINO**

University  
UNINETTUNO  
Italy

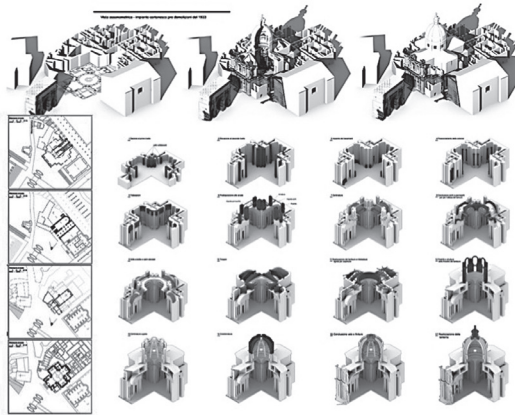
Starting from the analysis of the affirmation of the importance of the intangible values in the Cultural Heritage debate, this contribution clarifies the potential role of intangible aspects in supporting and orienting built heritage conservation workflows.

**Tatiana K. KIROVA**

Pegaso University  
Italy

Focusing on the Cultural Built Heritage, intangible aspects are intended as knowledge, skills, and know-how associated with building construction phases, assembly of materials, building techniques employed, adaptive systems to local weather conditions, spatial design, decorative elements with different functions (pedagogic, symbolic, functional, structural, environmental, etc.), building orientation and localization.

Conscious of the elusive nature of the intangible, this contribution prepares the ground to set up strategies for the documentation of intangible aspects associated with built heritage. These issues are faced by considering how intangible aspects affect built heritage conservation from a technical as well as social and economic point of view.



**ID 144** *Design and experimentation of a Dynamic Atlas for historical knowledge and landscape planning*

**Antonio PUGLIANO**

University of Rome 3  
Italy

This work describes an applied research related to the production of an “organized form of knowledge” aimed at enhancing of the landscape. The object of the research is the city of Rome in the frame of its territory, as far as administration and culture are concerned. The topic of the research is the landscape, as a synthesis of the Nature and Anthropization significances from the point of view of the Actuality and the History. The main goal of the study will consist in testing an exportable and shareable methodology, suitable to document architectures and sites. This methodology will be in compliance with the principles of the European Convention on Landscape, that are also involving the immaterial heritage. The research output will be a Digital Platform (DP) useful in managing the data set to be triggered in supporting the design of ‘urban museum itineraries’ for selected sites. These itineraries set up by the Information Computing Technology (ICT) will be achieved to support both the heritage fruition “on site” and “on line”. The DP will organize a knowledge data set as required basis for an Atlas to be continuously updated, suggesting solutions aimed at virtuous using the territory by means of specific unpublished cartographic synthesis

**ID 145** *Experimentation of tools and methods for the organization of archival data in support of a 'Dynamic Atlas', useful for the knowledge and fruition of Rome*

**Lorenzo FEI**  
University of Rome 3  
Italy

The proposed study is included in the Research Project conducted by the Department of Architecture of the University of Roma Tre, in the context of an applied research aimed to propose initiatives to enhance the city of Rome. The aim is to experiment and develop, within a digital platform, the methodology for archiving and systematization of archival sources documenting historical consistency of important Roman factories, included in urban museum paths, in order to highlight their role of cultural and tourism attractors. The historical-critical description of these architectures, drawn up on an archival basis, represents a fundamental moment for the identification and transmission of immaterial, cultural, historical-artistic and anthropological values, of which the material history of architecture is an expression.

The final result consists in the organization of a documentary repertoire, written in the form of manual synthesis about the pre-modern constructive lexicon and referred to a geo-referenced cartography; the repository of cards, consistent in the nomenclature to the standard encodings used by the ICCD, composes the vectorized informative apparatus of the digital platform, functional to the story telling that completes the ICT layout of urban museum itineraries.

**ID 146** *A Multi-criteria analysis tool for rethinking cultural heritage in evolving cities – naturalist approach*

**Lavinia HERZOG**  
**Francesca Romana**  
**LUCIANI**  
**Alessandra BATTISTI**

Sapienza University  
Rome, Italy

Collective memory and individual identity in society are increasingly losing their importance in contemporary cities. Both material and immaterial heritage has to become a strategic element by which a citizen can recognize himself in the spaces of his everyday life. In 2018, the municipality and universities of Barcelona provided a moment of international consideration - using the instrument of a hackaton. This reflection was focused on the infrastructural heritage represented by the “Rondas” – originally developed as a connective element while today being seen as separating structure. The question was how this ring road might evolve during the next twenty years, forming new patterns between citizens and transportation. The transdisciplinary approach by a team of the Sapienza PDTA department has produced a multi-criterial analysis tool, based on economic, functional and social indicators use, which reconsider the infrastructure as connective element. Using “Ronda” as a model case looking at one of two alternatives, the naturalist approach proposes a neighbourhood future vision by inserting naturalistic-technological, urban-planning and territory-identity solutions. The aim of the paper is to demonstrate how the developed methodology can be reproduced in other heritage evaluation scenarios, adapting variations of indicators in the analysis, focusing especially on how green infrastructure and technology can be inserted effectively while keeping alive the values of the cultural heritage of a city.

**ID 147** *Chieri, a textile town: the legacy of the former “Felice Tabasso” cotton mill*

**Michela BENENTE**  
**Cristina BOIDO**

Polytechnic of Turin Italy

Tabasso cotton mill was built at the beginning of the 20th century inside the 18th century city walls, bringing about a deep transformation in a large urban area close to the historic city center. During the 20th century, this mill was one of the most productive factories in the Chieri area, thus initiating economic and social changes and promoting the physical and functional transformation of this town. In the 1980s' the globalization and the relocation of production affected the textile industry in general and brought this plant to bankruptcy and closure. The building and the surrounding area were bought by the municipality. Projects of urban redevelopment, although only partially implemented, have been defining new urban dynamics. Recently, the recognition of the building as a “common good” started off a process involving the community in the definition of future development scenarios for this area with the main goal of preserving the historical memory of this place.



**ID 149** *Towards the knowledge of cultural heritage for conservation*

**Brunella CANONACO**

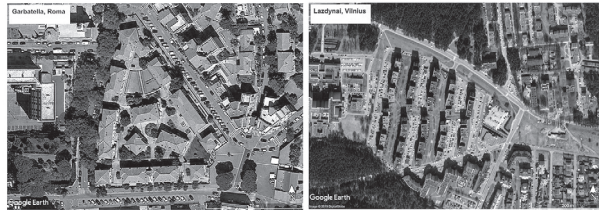
University of Calabria  
Italy

The essay proposes protocols for the knowledge of historical contexts, it researches renewed procedural actions for conservation interventions and requalification of architectural assets. Addressing actions of valorization on heritage means referring to analytical procedures from which to draw the significant characteristics of the assets and their architectural and urban evolution. This process leads to the formulation of the project of knowledge that precedes the conservation project. A first cognitive phase is identified in the exegetical reading of the documents, indispensable for the historical reconstruction and the diachronic phases of the asset. The study of ancient iconographies from which testimonies are made for the understanding of permanences and changes over time is determining. The cognitive phases are articulated in other analytical moments such as the buiding evaluation, of the types and of the aggregative logics, the comparison between the historical cadastals, the studies of stylistic characteristics, the analysis of materials, construction techniques and degradation. The method phases have been verified on architectural assets in many historical centers of Calabria, the essay proposes some of the results achieved. Lastly, the method is specified in operations of comparison and overlapping of the data extracted from the sources and from the different analyzes, thus configuring the project of knowledge, which is essential for conservation actions and for returning assets to the contemporary.

**ID 150** *Routes to the royal palace of Venaria Reale (TO):  
research for the valorization of the urban context*

**Daniele DABBENE**  
Polytechnic of Turin  
Italy

Walking through the village of Venaria Reale, we observe how the restoration of the palace, started at the end of the last century and ended in 2007, has determined a complex reality on the urban level in which the monumental asset shows difficulties in relation to a fabric historically connected to this in an inseparable way. More than ten years after the inauguration, the relationship between the palace and the old town has not yet completely reassembled: the main axis of via Mensa has benefited from extraordinary measures for the redevelopment to the detriment of the rest of the fabric that today is scarcely permeable and compromised by phenomena of material and anthropic degradation. From this premise comes the idea to analyze an urban axis that crosses via Mensa (via XX Settembre - via Cesare Battisti) historically documented since the foundation of the village and with a privileged role in relation to the connection routes to the palace. The proposed essay aims to present the results of a research carried out within the School of Specialization in Architectural Heritage and Landscape of the Polytechnic of Turin with the aim of providing valorization actions able to balance the interventions along a single road axis that does not ensure an adequate urban relapse. The desired operation could have a cultural value of recovering the usability of the historical nucleus by defining a much more permeable urban fabric.



**ID 151** *Interpreting the urban transformation of the historical city.  
The Garbatella district in Rome, Italy and the Lazdynai  
district in Vilnius, Lithuania*

**Antonella SALUCCI**

University Gabriele  
d'Annunzio of Chieti Italy

**Donatella SCATENA**

University Sapienza  
Rome, Italy

The present contribution proposes some reflections on two residential social housing districts aiming at analyzing the complexity of the transformations of the historical urban texture and highlighting their legacy. As a result of a multidisciplinary collaboration in the fields of Architectural Drawing and Architectural Design, two parallel paths of investigation deal with two geographically distinct case studies, both based on social housing policies. On the one hand we look at an Italian experience, with particular reference to the model houses drawn by Masters of the Roman School: an experimental block known as lotto 24 (project by Marconi-Aschieri 1929), in the garden city of the Garbatella in Rome. On the other hand, the analysis is aimed at the Soviet experience and the Lazdynai model district in Vilnius, Lithuania (project by Brėdikis-Čekanauskas 1962); a story that comes from the 'thaw policy' of Nikita Krusciov and the great urban transformations in the Soviet Union. Lazdynai, a model district, which stands out for its characteristics of refined Modernism in the large, inexpressive and standardized mass of the prefabricated neighborhoods of the time. The study aims at documenting three thematic aspects of the transformation dynamics on going: analysis of archival textual and iconographic documents; communication of the current material aspect; representation of the immaterial dimension generated on the one end by socio-cultural transformations, on the other by the media system that has represented them in different ways.

**ID 158** *Digital Detox Tourism as a Resource for the Enhancement of Cultural Heritage. A Development Study for Certosa di Pisa in Calci (PI)*

**Agnese AMATO**  
**Massimo ROVALI**  
**Maria ANDREOLI**

University of Pisa  
Italy

Public cultural heritage demands innovative solutions to raise the required funds for maintenance and management in a context of reduction in public financial resources. This issue especially affects museum centers located in buildings of artistic and historic value requiring huge investments for restoration and maintenance. A proper mix of public and private activities is necessary to guarantee economic sustainability when public funds are scarce.

The paper proposes the case of Certosa di Pisa in Calci (PI), a publicly owned museum center located in a former monastery. A study by the University of Pisa propose to create a foundation for managing it, with the aim both to have access to private funds and to include new activities in the areas of the building that are currently unused. In particular, the study proposes the creation of an accommodation structure for a specific tourist niche market, i.e. digital detox.

Digital detox tourism is born to deal with the increasing number of people dependent on technology. Digital detox accommodations are usually set in isolated buildings surrounded by nature, to help people unplugging from digital devices. Since old monasteries usually recall old spiritual life experiences, using them as locations where provide services of digital detox would be a modern reinterpretation of the original function of these buildings and might well help to rise resources for their maintenance.



**ID 162** *Digital Storytelling. Interactive multimedia supporting the cultural experience*

**Mauro Attilio  
CECONELLO**

Polytechnic of Milan  
Italy

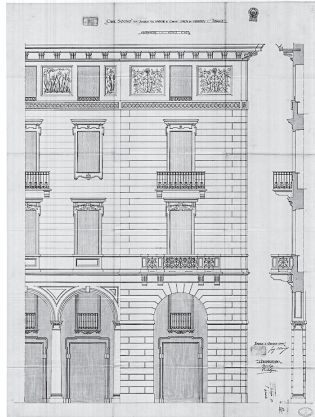
Interaction design and human computer interaction in the cultural field have literally transformed languages and fruition codes through original ways for dissemination and engagement not only based on visual and sound stimuli. Low attention span or absent-minded enjoyment are the main problems to avoid while developing multimedia installations: movies, three-dimensional models and graphics used as information support in museums or architectural heritage, often reflects the obsolescence of a passive reception in the age of information overload. Tangible interaction removes the gap between physical and digital world and allows access to digital contents in cultural institutions; embodied interaction promote dialogue with applications through body and gestures which create engaging and realistic learning experiences. The designer's choices become the key to the cultural experience: the definition of the context, the frame, the style in which digital interactions will take place could provide a panorama of possibilities to involve users and their behavior. We discuss how interactive exhibit and digital character affected visitors' behavior, effectively capturing their attention and fostering interaction; an intriguing research that combines cultural operators and interaction designers in the development of an effective design and exhibits to access culture in an entertaining and involving way.

**ID 164** *Dario's Inscription Under the Siege of Neglect:  
Rediscovery of Tangible and Intangible Value of Dario I  
Inscription*

**Sara  
POURYOUSEFZADEH**

Ferrara University  
Italy

The great monumental bas-relief of Darius I and inscription on the sheer cliffs carved in 521 BC. On Bisotun mountain, what is now located in western Iran. When Darius the Great delegated for accession to the throne of the Persian empire he commanded for creating this tri-lingual royal inscription that contains a proclamation in Elamite, Old Persian, and Babylonian languages, that is nearly inaccessible thanks to its high location. The Darius I relief and inscription in Bisotun (D.I.B) as the longest outstanding Achaemenid written evidence is a well-known immemorial masterpiece in Persian art expression. The authentic value of this inscription is not only referring to its tangible aspects, but also it has the strong impact on multi-disciplinary research scopes in the region like: Persian civilization, Linguistics, Persian art history, global geopolitics, ethnic geography, socio-cultural structures, Chronography and commemoration calendar. Alongside these intangible values, this inscription according to precise description of Persian cultural pillars, its key role in Iranian collective memories and identity is irreplaceable. The inter-related narrative history as the pioneer of Persian epic literature identifies in this cultural heritage. This article focuses on descriptive-analytic method and field observation of (D.I.B), proposes these objectives on the cutting-edge theoretical concepts



**ID 169** *Ingegnere Carlo Losio icon of the Turin society of the late nineteenth century*

**Federica CAPRIOLO**

Nichelino (TO), Italy

At the end of the nineteenth century there remain signs of crisis following the shift of the capital from Turin to Rome. The city leadership collaborated with the scientific community to launch an innovative program, oriented on new technologies. The goal to be reached was summarized in the maxim “Work and Think” assumed that found space and coagulation in the National Exhibition of 1884 which gave further impetus to economic growth whose beneficial effects reverberated even in the following decades. The range of interests of Carlo Losio (1856 - 1913), an imposing figure of Positivism, ranges from the architecture where he distinguished himself for the sober taste and attention to the new culture of living, to Health Engineering specifically the contribution on Hygiene of the Housing. He dealt with the problem of the removal of wastewater in urban centers, taking into account the planning of local operational situations. Orientation that was confirmed at the Brussels International Hygiene Congress. In the multifaceted territory of the technique where the application problems rise, the Fiorini Prospettograph patent was awarded and it was awarded at the 1890 Exhibition of Architecture held in Turin. An instrument that was used to obtain representations of objects in perspective with variable points of view from the orthogonal projections. The gaze and the imagination freely range.

**ID 170** *Seismic principles for hotel project*

**Ingrid TITOMANLIO**

University of Campania  
Italy

**Sergio MAGLIO**

Avellino, Italy

Italy has a long earthquakes history. Respecting correct principles of seismic design is useful for the purpose of seismic prevention. This paper will analyze the principles of residential seismic design, in particular referring to a hotel for which an extension has been planned. It will describe the strategies for designing earthquake-resistant buildings to ensure the health, safety, and security of building occupants and assets. The extension of the hotel has been conceived not only in respect of local materials and design of the place, also from the point of view of the “weight”, ie the greater the mass (weight of the building), the greater the internal inertial forces generated. Light-weight building with less mass is typically an advantage. The balancing of the masses is important to avoid the torsion under earthquake forces. Symmetrical arrangement of masses, however, will result in a balanced stiffness against both direction and keep torsion within a manageable range. Building configuration determines the way seismic forces are distributed within the structure. Irregular configurations of the buildings are those that differ from the “Regular” definition and have problematic stress concentrations and torsion. Seismic design objectives can greatly influence the selection of the most appropriate structural system and related construction systems for the project. Structural and architectural details and construction quality control are very important to ensure natural ductility and damping and to maintain damage to a limited and repairable range.



**ID 171** *Hotel project in seismic area*

**Ingrid TITOMANLIO**

University of Campania  
Italy

The hotel sector has a large part of the financial market in Italy. This is because our country is full of fascinating and attractive landscapes well served by the tourism industry. With the possibility that currently give social networks and Home sharing networks like Airbnb, the tourism industry has several ways to approach hospitality. The tourist is always looking for more emotions that make his stay unique. In addition to excellent exposure and internal division, hotels must offer security, not only in terms of thermo-hygrometric comfort but in terms of seismic security of the host construction. The materials and techniques with which they are built, especially when in seismic area, are very important. The tourist experience in the hotel must not only reflect the cultural identity of the places but be a messenger of the architectural quality of the building. A well designed hotel is a celebration of what is unique and special in the area. In order for a space to be authentic, it must be made of local natural materials. The construction materials thus conceived reflect the sense of environmental protection. They are important, but there are also other ways to achieve authenticity in design: structural or functional structural components can be revealed. A design can celebrate the history of a building or area. In this paper will be exposed the principles useful to address the design of a hotel in the seismic area with a practical application of the project to expand a hotel in southern Italy.

**ID 173** *Strongly wanted by the Kings Charles III and Ferdinand IV of Bourbon, the Royal sites of Carditello and Persano are united in the creation of the Royal House Breed: an excellence project of Southern Italy*

**Antonella DIANA**  
Royal Palace of Caserta  
Italy

**Raffaele ZITO**  
Association Agenda 21  
Real site of Carditello  
Italy

From the mid-eighteenth century on, the Royal House of Bourbon started an extremely successful and visionary project: the breeding of a Royal Horse. The Royal Household dedicated itself to the selection of a specially designed royal breed horse with passion and intuition by involving dedicated staff to the horses breeding, care and training following the historical Neapolitan riding school tradition. Especially selected by King Charles III and King Ferdinand IV of Bourbon, the mares and stallions were intended for the creation of a “modern” horse breed, able to meet the new war demands. This strong and very elegant exceptional breed was particularly suitable for hunting and contributed in creating the best European war breeds up to the early decades of the twentieth century. The result was an unparalleled synthesis of beauty, resistance, harmony, strength and courage making this type of horse the main characters in the war arena before and subsequently in European sport competitions. In their policy of modernization of the Kingdom of Naples, the Bourbon royals began, in the eighteenth century, the creation of several “Royal Delights”. In each of them the essence of the kingdom places was represented by the close connection between the local work activities and the royals’ passions. Today in the Real Sites of Persano and Carditello we can admire the deliberate plan to design spaces with the sole purpose of breeding the Royal Breed, a breed so special that has experienced and suffered the many and remarkable ups and downs of the Kingdom.

**ID 174** *The role of the community-resilience for a circular regeneration led by the cultural heritage*

**Maria Rita PINTO**  
**Katia FABBRICATTI**

University of Naples  
“Federico II”, Italy

**Martina BOSONE**

CNR - IRISS, Italy

The value of cultural heritage for sustainable and resilient human settlements is recognized in international documents and agendas. These documents underline the importance of protecting and enhancing the identity values of places to guarantee an inclusive and fair human-centered development. This is to interact actively with the communities, bring them together and reinforce the sense of belonging. The values contained in the cultural heritage contribute to the creation of a heritage community and to the strengthening of community resilience. The research investigates the role of community resilience in starting a circular processes for urban regeneration. Case study is the Historical Urban Landscape of Ercolano, Italy. It emerges for the environmental and archaeological resources, including the Vesuvius National Park and the archaeological excavations, UNESCO World Heritage Site, and also for the presence of powerful social actors, such as University of Naples, “Federico II” in the municipality of Portici. At the same time, the potential of goods is strongly unexpressed and subject to risks of a different nature and to the growing degradation of cultural heritage. In a circular economy scenario, the research methodology analyzes the “waste”, produced in the city by the cultural, social, environmental and economic system, and develops a map of the actors of the local society (community), that play a strategic role for the urban regeneration.



**ID 175** *Urban landscape cacography: an ethical cacophony*

**Belmessaoud  
Boukhalfa BAYA**

École Polytechnique  
d'Architecture et  
d'Urbanisme, Algeria

The current urban landscape reveals seemingly the contradictory goals of our postmodern world. On the one hand, it shows a flow of ideas, values, images, and lifestyles that are increasingly hegemonic, dense and interconnected. On the other hand, it represents a way to express an identity quest. In the end, it is only the sign of an identity malaise, because of confused values, norms and behavior. Therefore, beyond the aesthetic characteristic, the current city is experiencing an ethical reversal materialized at the morphological level. In order to understand this state, this article aims to define ethical reversal. Then, it endeavors to clarify the urban cacography, generated through the comparison and interpretation of images of contemporary urban landscapes. The method is based on the iconological and iconographic analysis. The results show that old cities have undergone an ethical reversal translated into an urban cacography. The recommendations shed new light on the thorny issue of the quality of urban landscape.

**ID 177** *The productive green between tradition and innovation*

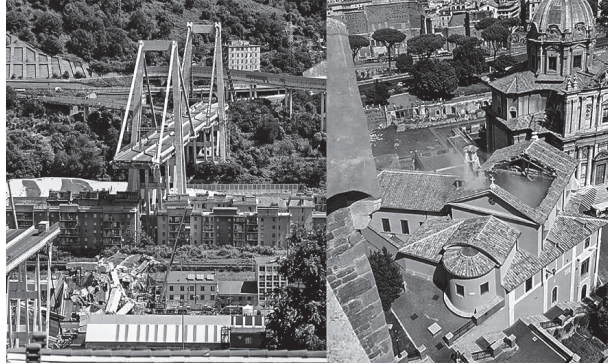
**Rossella FRANCHINO**  
**Caterina**  
**FRETTOLOSO**  
**Francesca MUZZILLO**

University of Campania  
Italy

The scientific debate on the problems related to the changed environmental conditions of the city and the adaptation needs dictated by climate change pushes to rethink the urban spaces in a renewed way in the attempt to combine the changed needs of life organization with those related to quality (from food accessibility to wellbeing in its various forms).

The productive green is inserted in this context of reflection as an opportunity to increase the resilience of our cities and, in particular, can represent an interesting tool for preserving the peculiarities and traditions of a given territorial context. Starting from these premises, the authors, in fact, propose a series of considerations on the role that the productive green can take in transferring the “tradition” in an environment that has undergone and continues to undergo many transformations (from anthropogenic pressure to climate changes). Particular attention will be paid to the aspect of “connection”, an important parameter that makes it possible to analyze and design the productive green systems more effectively, with a view to a systemic vision of the urban context

This study, based on research activities and didactic exercises, is also accompanied by an appropriately structured case study that highlights the particular potentials of the proposed technological strategies.



**ID 178** *Cultural heritage: A bequest to be preserved and valued. You don't preserve if you don't know. Who is responsible for the preservation?*

**Cesare CUNDARI**  
**Gian Carlo CUNDARI**

University Sapienza  
Rome, Italy

**Maria Rosaria**  
**CUNDARI**

University of Padua  
Italy

To consider Cultural Heritage as a bequest is right, because it constitutes the inheritance that we have received from the past generations – over the millennia! – and whose management presents, however, a lot of problems which are not sufficiently considered despite the international community being committed to the protection of cultural heritage for several decades. Specific international organisations (also articulated in national committees, such as UNESCO and ICOMOS) are committed to this effect in accordance with the national organisations involved in this issue. Some Declarations and Charts that have been adopted at international level and which concern methodological aspects and principles, but also cultural strategies, are numerous. Also due to some events that occurred in Italy in August 2018, among the problems that Conservation presents is necessary to highlight two in particular: 1) You don't preserve if you don't know; 2) Conservation requires expertise and awareness in those who are responsible.

About the first problem, it is necessary both a broad action to sensitise people so that the value of the monument as a significant element of collective memory (to achieve a "participatory preservation"), and a continuous action of Documentation and Disclosure. A large part of the Italian monumental architectural heritage is not documented by geometrical surveys, made in the last eighty years.

**ID 179** *European cities addressing climate change: a better integration between mitigation and adaptation to preserve the legacy and plan for climate proof cities*

**Giada LIMONGI**  
**Adriana GALDERISI**

University of Campania  
Italy

The impacts of climate change on urban systems are constantly increasing and they will still grow in the next years. These impacts mostly affect cities, where key resources, services as well as social, cultural and natural heritage are gathered: they are nowadays largely recognized as key players in addressing climate change (Luise 2014), by turning global goals and strategies into actions tailored to the peculiarities of local contexts. In order to give an effective feedback to the objectives set in international agendas, the EU has launched, starting from the early 2000s, some initiatives aimed to support European cities in achieving two main goals: firstly, reducing the causes and, secondly, the effects of climate change. Current international trends lead to consider these goals as synergistic (Duguma et al. 2014), more than complementary, looking at actions addressing causes and impacts of climate change as opportunities for regenerating urban areas, redefining current socio-economic development models and preserving historical and cultural heritage.

Hence, this contribution aims, on the one hand, to explore the path that, starting from the end of the Nineties, led to a growing integration between mitigation and adaptation strategies, with particular attention to the key role played by the European Initiatives; on the other hand, to shed light on the role, still insufficiently explored in practice, of planning tools in ensuring a better integration between mitigation and adaptation strategies



**ID 180** *Stability of the Abbey of San Lorenzo ad Septimum cloister in Aversa*

**Claudia CENNAMO**  
**Concetta CUSANO**  
**Domenico DI SANTO**

University of Campania  
Italy

Masonry constructions represent an important part of the Italian Architectural Heritage, to be preserved. As well known, the analysis of masonry buildings presents some peculiarities mainly related to the nature of the material, being a heterogeneous type of material, characterized by different textures and sizes, which means that it behaves anisotropically. Moreover, the fragile behavior of its constituents makes the response of the material highly non-linear. In this context, the development of an accurate and efficient computational model becomes significant not only for the evaluation of the stability of these kind of constructions, but also for the design of appropriate maintenance interventions. The present research takes care the mechanics of historical masonries through the case study of the Main Cloister of the Abbey of San Lorenzo ad Septimum in Aversa. There are many historical and survey studies on the cloister, but so far there has not been a structural study with this methodology, so by analyzing, of the entire complex, only the most damaged part to date. In order to understand the mechanical behavior of the whole complex of the cloister, the structural analysis is carried out with reference to the modern theory of Limit Analysis applied by Heyman to masonry structures. In addition, the study features an interdisciplinary character, taking into account three different aspects which, in the case of masonry constructions, are closely interconnected: geometry, construction and stability.





**ID 181** *Open spaces: the new merchandise of contemporary city*

**Lorenzo CAPOBIANCO**

University of Campania  
Italy

In the transformation of their spaces, cities record the flows of the movement, the needs of everyday life, the experiences of sociality, the modification of collective uses: signs and materials, often “resistant” to the project, which nevertheless determine the destiny of the cities giving back meaning to the places that transform. Today, compared to the themes of the recovery and transformation of open spaces in the city, the paths that the architectural project cross seem to separate into different choices and strategies, also depending on the economic, political and geographical conditions of the countries in which these transformations take place. The public space, in a new and more inclusive meaning which widens its borders to include the whole open space of the city, still offers itself to our attention as the first place where the “spirit of the time” it’s completely expressed. From the analysis of the experiments that the project accomplishes in these places, the attitudes and orientations of a project that, in Italy, find declinations and indicate different directions not only compared to the rest of Europe but also far from what we can observe in the other continents of the world, are traceable: today, strategies that derive from a “mending” theory seem to be accredited and urgently require a critical reflection on the new role of the architect and of the public intervention in the processes of governance of the recovery and transformation of the city’s territory.

**ID 182** *Co-participation, Synchronization, and Improvisation.  
Phenomenon of Sep Community and its Humanitarian  
Practices*

- Elena SHLIENKOVA**  
Samara State Technical  
University, Russia
- Alexander YUMINOV**  
State Museum Exhibi-  
tion Center ROSIZO,  
Russia
- Olga YUMINOVA**  
Nonprofit Organization  
KAMA Records, Russia
- New humanitarian practices capable of transforming everyday life of small territories and creating a true space of action and interaction are always directly connected with the internal demand for change. Our research and project team leaders have almost a ten-year practice of cooperation with the community of Sep village located in the Udmurt Republic. A number of social and cultural projects have been implemented in the village: from Authentic Geography (2008-2011) to the opening of the Community Museum of Disappeared Villages (2017) and Cultural Quarter (2018). In the next 2.5 years, a new stage of the joint activity is connected with a peculiar institutionalization of the local community (the establishment of the Sep Community Cultural Center in a typical village House of Culture) and its intervention beyond the village boundaries in the territory of the district's center (the creation of an immersive exposition built around Sep's audio content in Igrinsky District Local History Museum). A full-fledged creative cluster with stable horizontal ties with other settlements, professional and expert community, and the region and Republic authorities is being formed. Moreover, there is a rare possibility for the village residents to get competences in the field of museum work, collecting and archiving material and intangible heritage, its preservation, popularization, and promotion.

**ID 183** *Russian approaches to estimation of noise influence to human health taking to account other physical factors*

**Andrey VASILYEV**  
Samara State Technical  
University of Russian  
Federation

Negative noise influence to the population health may be significantly amplified in combination with other physical factors (vibration, electromagnetic fields etc.). Principles of noise influence estimation in combination with other physical factors are discussed. Acoustic comfort in urban areas cannot be completely separated by other factors influencing the quality of life.

Russian experience of approaches to estimation of noise influence and effects to human health in combination with other physical factors is considered. Results of combined estimation of noise influence in combination with electromagnetic fields for the territory of Samara region of Russia are presented. Data of different illnesses ranging and of correlation-regression analysis are discussed. Results of development of software for estimation of noise together with other physical pollutions are described.

The results of analysis of noise influence to the population health in combination with other physical factors are showing the amplification of negative impact and are proving the importance of the problem. The results of work are allowing to reduce negative impact of noise to the human health more efficiently.

**ID 184** *Experience and results of automobile tire road noise calculation and reduction*

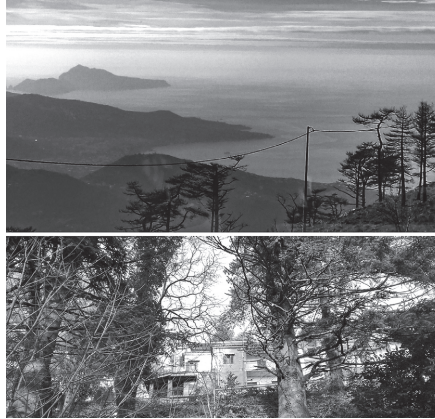
**Andrey VASILYEV**  
Samara State Technical  
University of Russian  
Federation

Noise is a serious problem environmental pollution in conditions of urban territories. One of the main sources of acoustical pollution of urban territories is automobile transport. Noise sources from automobile transport are described. If the speed of automobile exceeds 50 km/h, tire road noise became one of the most significant noise vehicle's sources. Main tires noise sources are analyzed. Main processes of noise generation of the system "vehicle's tires – road surface" are described.

Program provision have been created allowing to determine sound pressure level caused by vehicle's tires during vehicle movement taking to account the following factors: - velocity of vehicle movement; - characteristics of road surface; - climate characteristics (environmental temperature, rain, snow etc.); - construction characteristics of vehicle's tires; - dimensions and mass of vehicle; - engine capacity etc.

Experimental data showed good coincidence with results of calculations by using of program provision.

Approaches to automobile tire road noise reduction are suggested. Results of in approbation in the territory of Samara region of Russia are showing the good effect of tire road noise reduction.



**ID 185** *Past, present, and future of the village of Faito*

**Maria MARTONE**  
**Alessandra Marina**  
**GIUGLIANO**

Sapienza University  
Rome, Italy

Located on the top of Mount Faito, one of the most panoramic summits of the Lattari mountains, in Campania, there is small semi-abandoned village, once a thriving tourist and sports resort destination, built at the beginning of the fifties of the last century in the municipality of Vico Equense. Born to be self-sufficient with a church, garage, theatre, farm, residences and hotels, today the village is in a state of severe decay, inconsistent with what the place could offer for its natural beauties.

The history of the village dates back to the early twentieth century, when the Giusso family, owner of the Faito estate, turned a mule-track into a footpath going from Castellammare up to the mountain, where the only existing buildings were Villa Giusso and the small basilica of San Michele Arcangelo. Over the years the access to the top of the mountain was made possible with the construction of a cableway from Castellammare and a new road that went up the mountain from the town of Moiano.

Through a critical analysis of the design choices on which the village was built, and through a comparison between historical and current documentary sources, this paper proposes a critical documentation of the places, aiming at safeguarding and enhancing this territory, taking into account the remarkable chances of flourishing as tourist attraction and generate new opportunities within a sustainable development that the site still offers today.

**ID 186** *Sustainable urban planning for the revival and development of an African rural area*

**Liala BAIARDI**  
**Marco E. M.TALIANI**  
**Michele UGOLINI**

Polytechnic of Milan Italy

Mozambique's problem today is no longer only represented by the exceptional conditions of the emergency (floods, cyclones, epidemics) but by the rapid and uncontrolled urbanization. The paper objective is to determine guidelines that define the potential of an urban planning project for the revival and development of a rural area, through the urban restructuring of a location fallen into disuse. The text describes the application testing of a methodology of investigation, time to outline a cognitive basis to trace possible actions for improvement in respect of the identity of the place. Through the analysis of benchmarks and case studies the urban planning strategy is defined. It envisages the creation of an Ecological Municipal Park, as a tool for the sustainable development of the area, combined with the introduction of a university research centre that allows the restoration of the existing historical buildings. The results show that the establishment of the natural park can be used as guideline for the proper growth of the region, reducing the pressure of Maxixe urbanization process. Also, that the presence of an economic activity in the village improves the social and economic conditions of the surrounding rural communities. The research illustrated is part of the project development and experimentation awarded by the "Polisocial Award" of Politecnico di Milano.

**ID 187** *Two emblematic experiences in comparison*

**Mario PISANI**

University of Campania  
Italy

Two experiences: the restoration and the new use of a building in the small village of Qianwuxiang, in Pujiang, and a larger one, in Saudi Arabia: the village of Rijal Almaa. Two places, two fragments of earth to which man has given a name, which can show us what use can be made of that inheritance that belongs to the world heritage, for what concerns creativity and contamination of languages, or the possibility of safeguarding the memory of the past, I would like to say the essence of what constituted the ancient buildings, without giving up the comforts. Look at the images of the buildings

I visited in these villages: the essentiality of the buildings, the inner courtyard in China, the small open spaces and the lanes, the rare decorations and the absence of exemplary architecture are attacked by a series of suggestions related to the reflection of what life could be like in these places. An existence "minimal", linked to the mother earth that produces everything necessary for sustenance. However with a strong connection with the nature of the surroundings, in some cases hard and hard like that of the desert where it was essential to find the grass for the animals and the rare pools of water, in the other case a more luxuriant aspect for the rainfall intensity on cultivated land and woods that seem to surround the small Chinese village.

**ID 188** *Old city/Smart city*

**Antonio BOSCO**

University of Campania  
Italy

One of the problems of the contemporary city is represented by the marked incommunicability among the citizens, who tend to isolate themselves physically to become part of the virtual friendly groups made possible by the increased power of communication gadgets. For this reason we are witnessing a marked loss of sense of the physical spaces of the city, already established because of other urban phenomena such as, for example, the replacement of the old inhabitants with the arrival of new citizens arrived for work or necessity. The loss of sense derives therefore from their lack of rootedness in the urban places with the consequent drastic decrease of the common sense of belonging. Perhaps a more appropriate use of ICT supports, proposed by the smart revolution underway in many of our cities, could concern, in addition to the consolidated sectors of energy saving and rationalization of mobility, the definition of new paradigms for a newfound use, healthy and shared, of urban spaces. The use of interactive totems located in strategic points of the city could give new citizens the opportunity to feel part of a common project, building a new urban identity. This would be achieved through the exchange of news and information between the administration and the citizens in which, the first, would provide information on available services but also historical and cultural information about spaces and places that are symbols of the city while, the second, could enter news about meetings, events, exhibitions organized by individuals and associations.

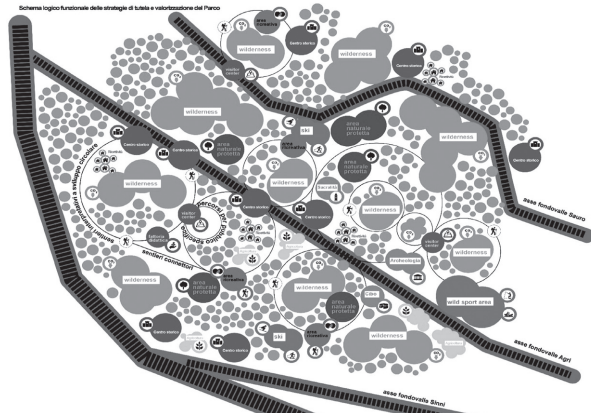


**ID 189** *Planning the Fluid City: the Palermo Creative Waterfront*

**Maurizio CARTA**

Polytechnic School  
University of Palermo  
Italy

Port-cities and urban waterfronts are today one of the most creative and prolific variants of those cities that I define Augmented Cities, understood as enabling physical and social spaces, capable of increasing the urban resources and the opportunities and quality of life of their inhabitants. They are based on fluid and hybrid places, where resources, opportunities, aspirations and ambitions of the contemporary cities translate into visions of the future, new social relations and living space projects. The paper presents the Masterplan of Palermo's Port as part of the approach to the fluid city paradigm, proposing itself as a complex tool encompassing function of scenarios, guidance and planning through which the Port Authority of the Western Sea of Sicily implements the strategy of valorisation and competitive development of the Port of Palermo, also through its redesign as terminal of the Highways of the Sea and of the Finnic-Mediterranean Corridor. The city-port interaction in the Masterplan is implemented through the identification of the urban-port interface areas for which specific Integrated Port Transformation Projects, which contain detailed planning and preliminary design of the functional, operational, structural and infrastructural, environmental and landscape aspects, also through design competitions able to generate the necessary design vitality and dynamism on the most interesting areas.



**ID 190** *The Lucania Apennines. A Neo-Anthropocene landscape*

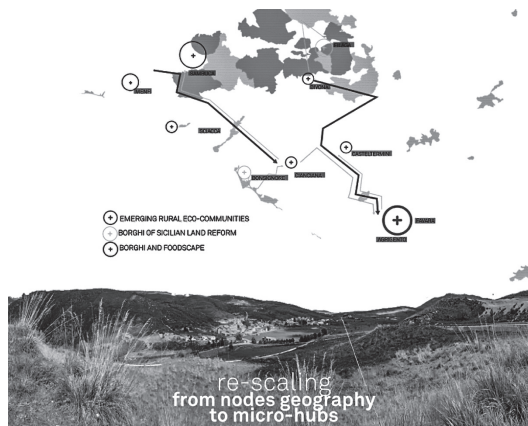
**Daniele RONSIVALLE**

University of Palermo  
Italy

The contribution offers a cross-section of the situation of the Italian landscape through the reflection about the principle of “landscape as a human right” and looking at the way in which territorial policies are able to create, or deform, landscapes through targeted and specific actions in agriculture or energy policies fields.

The specific condition of the Park of the “Appennino Lucano Val d’Agri Laonegrese” in Southern Italy (Basilicata) is used to show how a process of territorial planning of the Park can be an opportunity to rethink the creation of landscapes under the light of conditions related to uses agricultural and energy resources of the territory, in a compatible way with the protection of nature.

Keywords: landscape,



**ID 191** *New rur-urban alliances: Experiments of Social Innovation in Terre Sicane Inland Area in Sicily*

**Barbara LINO**

University of Palermo  
Italy

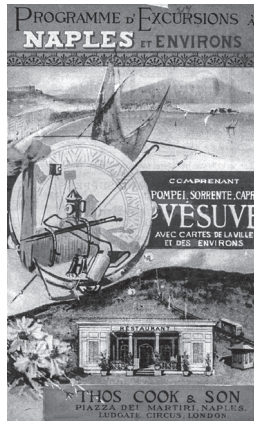
“Rural” and “Urban” are not terms of a dichotomic opposition but they become elements of a necessary alliance that enfold an actualized view of the territory development and the transformation of rural economies and communities. New types of rural-urban interaction, recovering the value of a territorial vision, can put in value, in original forms, creative, innovative potential of new relations between urban and rural areas. In this framework, the Italian national strategy named “Strategia Nazionale Aree Interne” (SNAI) represents an existing and emerging governance approach looking at official authorities but also at informal governance groups to overcome the classic opposition between rural and urban. The Sicilian case study of Terre Sicane, in particular, can be considered a starting point to work on the idea that “rural” is a critical element to understand the contemporary and new sustainable life styles as possibility of change.

**ID 192** *Places of memory and urban landscape in the mining town of Lota*

**Maria Dolores MUÑOZ**

University of  
Concepción, Chile

This article proposes a new interpretation of the urban landscape and cultural heritage in Lota, the most emblematic mining town of Chile, taking as reference the places where the collective memory lies because they express cultural values that give meaning to everyday life. This perspective was built with a participatory methodology, based on dialogues with the community, which allowed us to discover the meanings that the landscape and heritage have for the inhabitants of Lota due to their relationship with the sense of belonging. The places of memory concern the public spaces of Lota, where day after day expressions of a way of community life strongly rooted in mining history are reproduced; they are places that shelter traditional urban rites and their cultural character is reinforced by the presence of heritage elements. On the other hand, the most characteristic urban landscape of Lota due to the prominence of industrial facilities is also socially valued as the basis of identity and collective memory. However, despite its importance, some components of the mining landscape have been altered by actions related to the urban and social transformations that affect the city since the closure of the coal mines in 1997. The changes generated by the process of industrial reconversion have been combined with subsequent initiatives aimed at protecting the mining heritage.



**ID 193** *“Visiting the excavations in the evening, in the moonlight and on horseback”: the tourist organization of Pompeii in historical times*

**Danila JACAZZI**

University of Campania  
Italy

The ancient city of Pompeii, since its first emerge from the volcanic ash, attracted scholars and artists. However, at the beginning, the site was not adequate for the reception of visitors, as it is testified by the famous letter written in 1792 by the engineer La Vega to the King, in which La Vega complained about the lack of facilities to accommodate the visitors and travellers. In this letter, the engineer encouraging the construction of a sort of ‘educational- museum’ ante litteram, thus suggesting to build an inn and a tavern, on the model of the Pompeian houses, to show to the guests the real configuration of the ancient dwellings. In case of prestigious travellers predetermined touristic paths: visits ‘in the moonlight’, horseback riding, visits on carriages, breakfasts and refreshments were accurately planned and organized within the ancient walls, sometimes including the direct participation of the prestigious guests to the excavation activities. These initiatives have been discovered recently through an in-depth analysis of the documents, and their narration has enabled us to reconstruct in a very precise way the routes and the means of access, as well as the organization of the archaeological site.

**ID 194** *Secular and Sacred Spaces – Dargahs of Delhi*

**Uzma KHAN**

Manipal School of  
Architecture and  
Planning, India

The cultural identity associated with sufism is manifested in the art forms and intangible heritage through historical layers of architecture and urban spaces, and is in a constant state of evolution with time. The complex interweaving of the tangible and intangible heritage is narrated and imprinted in it spatially. Delhi has been the cultural and administrative capital of India since past many centuries. It was a major centre of Sufism from 12th century onwards. Dargahs – the sacred centres associated with the mystic saints called sufis play a pivotal role as places for the communities in the urban neighborhoods of Delhi. Traditions of khanqahs, qawwali, sama and festivals ensure a living heritage with a secular culture for the communities. The paper is an attempt to study the spaces in terms of the correlation between arts and architecture through spatial manifestation, the cultural identities, concept of evolution of the art forms associated with Sufism, understand the significance manifested in the historical layers and tombs of the saints in order to relate the tangible and intangible in an integrated manner through a holistic approach to safeguard the heritage associated with the same. The paper aims to study the character of the spaces with respect to the traditional knowledge systems, rituals, festivals, belief systems, culture, folklores over the layers of history which are manifested in the spatial context of the belief systems and heritage to determine the architectural and artistic identity.

**ID 195** *Vincent Callebaut: towards an ecologically additive architecture*

**Carlo COPPOLA**

University of Campania  
Italy

Faced with the growing demand for urban development (in 30 years' time there will be a global population of 9 billion, with 80% of people living in large urban areas) research on buildings that can achieve an effective integration between the built and the natural environments is currently a hot topic.

The idea of integrating the built environment with cultivated nature goes back to ancient times, starting emblematically from the Tower of Babel – one of the seven wonders of the ancient world – then running through the entire history of architecture seen as places for living.

The breakdown of this relationship happened with industrialisation, when the relationship between the land and its use caused changes to the ancient status quo, where the city was a market and the land its goods, as Carlo Doglio stressed in the early Seventies, combining the production site with the marketplace. Subsistence production, until then predominantly agricultural, was replaced by the production of goods and services which gradually took over and competed for the market in a very aggressive and conflictual process, starting with the use of weapons and continuing with financial investments.

**ID 198** *Unavoidable destiny between Drawing / survey from above and Drawing / survey from the canonical point of view*

**Rosaria PARENTE**

Benecon University  
Consortium  
Pegaso University  
Italy

This contribution that traces completed research activities, intends to define the essential role that can be detected beyond the visible, as indeed is beyond the visible, if not represented, the thought of the investigator who generates protocols and methodologies of investigations that determine a new condition of the Survey Design in itinere, I dare say cinematic, as is the evolution of the Landscape and its material and immaterial elements over time. Unavoidable destiny between drawing / survey from above and Drawing / survey from the canonical point of view of the terrain line engages the critical thought of the observer who investigates using technological prostheses. A theoretical research that actualize it into practice and application activities where knowledge, tangible and intangible values can contribute to the definition of an result estimated at the time of the survey carried out and could also be updated in time with subsequent management actions and knowledge of government as measurable value and trackable in constitutions aspects, geometric, dynamic and formal of the Territory. The goal is therefore drawing to represent the complexity, to monitor, manage, re-establish the multi-dimension present in the works at various disciplines of reading scales, in order to provide the drawing a descriptive and connotative value.



**ID 199** *From Traditional Territory Representation to new Information Acquisition techniques*

**Luciana ABATE**

University of Campania  
Italy

The science of representation today stands as an instrument of protection, modification and government of the territory.

He takes the field to regulate the analytical rules for a correct analysis, evaluation and management of the territory itself.

In the past this discipline was used as a cognitive tool for planning, to acquire updated quantitative information at the date of drawing up the paper map, as a testimony to pass on to the posterity the experiences and the knowledge acquired up to that moment and above all for military uses.

Representation is the process by which a content of perceptions, imaginations, judgments, experiences, concepts presents itself to our consciousness, and how it reproduces it in this way. In the proper use of geographic language the concept of territory implies a precise spatial delimitation, arising from the action of recognition of a subject with respect to that specific geographical space. The union of these two terms identifies the instrument of knowledge of the territorial system and the graphic transcription of all its components.



**ID 200** *World Heritage and Legacy: the case studies of Shanghai, Hangzhou, Mount Wuyi*

**Alessandro  
CIAMBRONE**

Benecon University  
Consortium  
Pegaso University  
Italy

The paper focuses on the study of the main urban development in Shanghai and it analyses the cultural heritage representation in the West Lake Cultural Landscape of Hangzhou and Mount Wuyi World Heritage Properties. The author participated in a research project coordinated by Carmine Gambardella as invited specialist by the China Government and the Academy of Fine Arts in Hangzhou. From 28 to 31 October 2017, institutional representatives of China Government at different territorial scales and invited distinguished professors worldwide participated during the International Summit on Village Protection in Yuyan Village to find out best practice and methods to preserve and enhance cultural and landscape heritage in China as well as in ancient villages protected by the UNESCO. The method for the critical reading of historical and modern architectures and landscape is linked to the principles of multi-criteria and multi-disciplinary analysis. The atmosphere of the consolidated Chinese cities or villages protected by international Conventions is a theme of extreme interest for researches in the field of complex representation, considering both cultural, material and intangible assets. In this framework it is necessary to preserve local traditions in a changing world, with new constructions and architecture development. When the relationship of sustainability between the quality of life and anthropic action is saturated, new policies should be developed in a regenerative process involving all the territorial stakeholders.

Table of content

- 15** ID 001. *Seismic vulnerability of Santa Maria Novella Basilica in Florence*  
Marco ZUCCA, Pietro CRESPI, Emiliana PERRELLA
- 16** ID 002. *The cultural heritage loss - responsive law paradigm*  
Alicja JAGIELSKA-BURDUK, Piotr STEC
- 17** ID 003. *The natural light as an important element in the interior spaces forming*  
Ahmed MAHMOUD SABER
- 18** ID 006. *Craftsmanship's role in safeguarding memories: three Italian cases for defining a method in cultural heritage conservation*  
Gianni DENARO, Francesca Romana LUCIANI, Lavinia TOMMASOLI
- 19** ID 007. *The Prabi hydroelectric plant in Arco - Trento: Demolition or Preservation?*  
Maria Paola GATTI
- 20** ID 008. *The night lighting dynamics and its influence in reviving the architectural building identity*  
Ahmed MAHMOUD SABER
- 21** ID 009. *New centralities in consolidated contexts between tradition and progress. Ariano Irpino, Cesenatico, Castel Maggiore*  
Efisio PITZALIS, Genevieve HANSSEN, Marco RUSSO
- 22** ID 010. *Comparison between the environmental performance of buildings made of reinforced concrete and timber*  
Bernardino CHIAIA, Alessandro Pasquale FANTILLI, Oscar MANCINELLI
- 23** ID 011. *The historical urban development as snow avalanche defense system*  
Barbara FRIGO, Bernardino CHIAIA
- 24** ID 012. *The artistic experience of Giovanni Muzio in Islamic land between identity and contamination*  
Maria Carolina CAMPONE
- 25** ID 013. *The dammuso: Constructive characters of the traditional stone buildings of the isle of pantelleria (Sicily)*  
Tiziana CAMPISI, Manfredi SAELI
- 26** ID 015. *Pantalica, historical social physical reappropriation*  
Enrico BASCHERINI, Alessia BERRITTA
- 27** ID 016. *The Festival [Al Refaeef] as a Simulation Vision of Innovative & Formative in Earth Populating in Islam between Traditionalism and Positivism*  
Wafeek Mohamed IBRAHIM MOHAMED
- 28** ID 018. *Stereometry at Grand Master's Palace in Valletta*  
Ray AXIAQ, Sephora BALDACCHINO, Marie Claire FARRUGIA, Antonio MOLLICONE
- 29** ID 019. *The Second Reconstruction of Naples: the post-earthquake projects and the contribution of Michele Capobianco*  
Chiara INGROSSO
- 30** ID 020. *The Place(s) of Drawing(s) in Architectural Heritage: The Drawing, The Building, The Dwelling and its Seed. Noronha da Costa as an Architect*  
José FERREIRA CRESPO, Pedro António JANEIRO
- 31** ID 021. *Influence of the smart home technologies on the interior design principals*  
Maria KOKORSKA, Marin MARINOV
- 32** ID 023. *Heritage conservation: new tools for the circular reconditioning of existing spaces*  
Alessandro GAIANI
- 33** ID 024. *Assessment of the Residential Building Stock in the Vulnerable Areas in the City of Barcelona*  
Còssima CORNADÓ BARDÓN, Sara VIMA GRAU, Pilar GARCIA ALMIRALL
- 34** ID 025. *"The First Modern - Ministry of Health Building": A Spatial Transformation of Architectural Heritage*  
Buşra GÜRDAĞ, Duygu KOCA

- 35 ID 026. *And there was light!*  
Anna MANDIA
- 36 ID 027. *Perceptions mapping, a participatory tool for urban conservation planning?*  
Christian OST, Ruba SALEH
- 37 ID 028. *Historical heritages and new practices. Modern connections between design and craftsmanship in the "knowledge society".*  
Vincenzo CRISTALLO, Ivo CARUSO
- 38 ID 029. *Edicola Design: "PANEquotidiano"*  
Sabina MARTUSCIELLO
- 39 ID 030. *The integrated requalification of Autor's urban Peripheries. Tools and strategies.*  
Silvia NIGRO
- 40 ID 031. *The city as a place of ethnic contamination: the case of Castel Volturno*  
Claudia DE BIASE, Maria MANNA
- 41 ID 032. *Between legacy and abandonment. The reuse of minor railways as paths of resilience*  
Chiara AMATO, Chiara RAVAGNAN, Francesca ROSSI
- 42 ID 033. *Role of Oral History in Heritage Documentation: practice and reflection of the "Documenting the Demolished" project in Wuhan*  
Ying XU, Zhiliang MA
- 43 ID 034. *Historical Layers of the "Belt and Road" and the World Significance of the "Great Tea Route"*  
Zhiliang MA, Ying XU
- 44 ID 035. *The use of ancient techniques and materials as innovation for the present.*  
Annarita ZARRILLO
- 45 ID 036. *Inclusive design in cultural heritage enjoyment*  
Francesca CASTAGNETO
- 46 ID 037. *HERITAGE + DESIGN = IDENTITY. The Ceri del Col di Lana reconstruction on the occasion of the centenary since the First World War*  
Paolo BELARDI, Luca MARTINI, Giovanna RAMACCINI
- 47 ID 038. *Architectural heritage for the scene. Recovery strategies between changes in the show, organizational models and current production bonds*  
Vittorio FIORE
- 48 ID 039. *Rebuilding a cultural legacy in a New Town. Reshape physical and cultural continuity between Old and New Gibellina.*  
Angela Alessandra BADAMI
- 49 ID 040. *The role of technical manuals for the diffusion of steel construction in Italy in the 1930s.*  
Francesco SPADA
- 50 ID 041. *Study on the spatial structure of the Rohtas Fort*  
Zeshan MUHAMMAD, Shaoming LU
- 51 ID 042. *Enhancing the role of resilience of cultural heritage: The role of technology.*  
Antonio SGAMELLOTTI, Brunetto Giovanni BRUNETTI, Nicola MASINI
- 52 ID 043. *Re-live rural architecture and sustainable living*  
Marina FUMO, Gigliola AUSIELLO, Mariangela BUANNE
- 53 ID 044. *What can we learn from vernacular architecture?*  
Beniamino POLIMENI
- 54 ID 045. *Recovery strategies for urban public heritage*  
Paolo MARCOALDI
- 55 ID 046. *The rediscovered space between arts and architecture in the restore of the former Teachers' Club of the Città Universitaria of Rome*  
Anna GIOVANNELLI
- 56 ID 047. *The cinemas of Trastevere, between protection and transformation: the cases of Cinema America, Cinema Alcazar and Cinema Induno*  
Fabio BALDUCCI
- 57 ID 048. *Colosseum square and museum. Moving through history in the time of global tour*  
Orazio CARPENZANO

- 58 ID 049. *Agriculture and Archeological Legacy: the Vesuvius Case*  
Francesca MUZZILLO, Fosca TORTORELLI
- 59 ID 050. *Chan See Shu Yuen: A Cantonese Ancestral Clan in Malaysia as Transnational Social Support Network*  
Rachel Suet Kay CHAN
- 60 ID 051. *The Production of Middle Class Apartments Offered by Heliopolis Company for Housing and Development, Cairo, Egypt*  
Lobna SHERIF, Ahmed EL-ANTABLY, Hala BARAKAT, Esraa Mohsen HAMED
- 61 ID 052. *Occupy Farnsworth. Imaginary project as a tool for understanding modern architectural icons*  
Francesca SIBILIO, Irene ROMANO
- 62 ID 053. *The architecture of the 'Monobloc' and its potential of initiating a new interdisciplinary educational concept for Cultural Diversity*  
Anna Marie FISKER, Jeppe Heden CHRISTENSEN
- 63 ID 054. *Design for Digital Cultural Heritage. Archives as driving force for innovation*  
Margherita TUFARELLI, Elisabetta CIANFANELLI
- 64 ID 055. *Altarpiece pigment study of Nossa Senhora da Conceição Church in Recife- Brazil*  
Márcia HAZIN, Viviane ASFORA
- 65 ID 056. *Cultural legacy and cultural contamination in a changing world: travel, diplomacy, and architectural patronage of Leonardo Donà dalle Rose (1536–1612) in early modern Venice*  
Giulia CERIANI SEBREGONDI
- 66 ID 057. *The Utility Functions of Historical Courtyards as Evacuation Sites for Gorkha Earthquake 2015 - At the Patan District, Kathmandu Valley, World Heritage Site in Nepal*  
Takeyuki OKUBO, Sanshiro TAKASUGI Lata SHAKYA
- 67 ID 058. *From architecture to the landscape. A casket in which the sedimentary layers of collective conscience are deposited*  
Piero BARLOZZINI
- 68 ID 059. *Landscape and climate change: projects to contain and transform CO<sub>2</sub>*  
Maria Gabriella ERRICO
- 69 ID 060. *Precious design creative cultural artifacts*  
Maria Dolores MORELLI
- 70 ID 061. *The application of Minimum Environmental Criteria (CAMs) construction and sustainable transformation of public building stock*  
Antonella VALITUTTI, Salvatore Roberto PERRICONE, Andrea GREPPI
- 71 ID 062. *Urban Revitalization: "Conocchia" Area, in Curti*  
Francesco Pio ARCELLA
- 72 ID 063. *Memory and presence of thólos in architecture*  
Paolo DE MARCO, Antonino MARGAGLIOTTA
- 73 ID 064. *Preserve by transforming. Transformation as gateway to the past*  
Barbara BONANNO
- 74 ID 065. *When a legacy becomes heritage. Part I*  
Małgorzata DOROZ TUREK
- 75 ID 066. *When a legacy becomes heritage. Part II*  
Marek BARAŃSKI
- 76 ID 068. *Adaptive Re-use of Medieval Caravanserais in Central Anatolia*  
Nilüfer BATURAYOĞLU YÖNEY, Burak ASİLİSKENDER, Bahar ELAĞÖZ TİMUR, Nur URFALIOĞLU
- 77 ID 069. *Spatial quality index of slow routes. A GIS-based method for measuring spatial quality in the landscape of southern Milan*  
Alessandro SCANDIFFIO
- 78 ID 070. *The landscape along paths of Mary in Basilicata (Italy): chance of knowledge and promotion*  
Enza TOLLA, Giuseppe DAMONE
- 79 ID 071. *Cultural accessibility as a multidimensional condition for a real sharing of cultural heritage*  
Michela BENENTE, Valeria MINUCCIANI

- 80 ID 072. *History for urban regeneration: a new perspective*  
*The PRG (Masterplan) '08 of the Municipality of Rome*  
Laura RICCI, Carmela MARIANO
- 81 ID 073. *Between stratum and substratum: an urban design project for the Lotti and Tronari quarries in Naples*  
Pasquale MIANO, Bruna DI PALMA
- 82 ID 074. *The Educating City as a Cultural and Creative Industry*  
Isabel TORT AUSINA, Ricardo Ignacio YUSIM, Ricard HUERTA RAMÓN
- 83 ID 076. *Representing the city in progress. From industry to City Park, Torino ex Michelin*  
Nadia FABRIS
- 84 ID 078. *Landscape planning. Issues and tools*  
Francesco CRUPI
- 85 ID 079. *Invisible modern residential heritage: spatial analyses in Turin real estate submarkets.*  
Alice BARRECA
- 86 ID 080. *Remediation shapes.*  
*Adriastica Malhouse, scenarios despite the neglect.*  
Irene PERON
- 87 ID 081. *Heritage built as enhancement opportunities to Contemporary City - Infrastructure Nodes and Railway Stations: three different case studies.*  
Arturo BECCHETTI, Fabrizio FELICI, Alessandra PUSCEDDU
- 88 ID 082. *The building heritage of the early Twentieth Century. A tourist project for the renovation of eclectic castles. The case of the Duke of Misterbianco castle (CT).*  
Fernanda CANTONE
- 89 ID 083. *3D data acquisition and processing for implementing cognitive systems. The school building "F. Corridoni" in the old town of Bari*  
Cesare VERDOSCIA, Antonella MUSICCO, Riccardo TAVOLARE
- 90 ID 084. *'Value networks' systems for integrated conservation. Proposals and reflections for inner areas in central Sicily.*  
M. Teresa CAMPISI
- 91 ID 085. *The construction of a monument. Palazzo Te in Mantua*  
Ludovica CAPPELLETTI
- 92 ID 086. *Re-connective interfaces in the historical urban open spaces. A comparison between two small cities in Italy and Libya*  
Filippo ANGELUCCI, Hanan ELFRAITES
- 93 ID 088. *The Sirocco's chamber of Micciulla manor in Palermo\_ A bioclimatic archetype symbol of legality and civil redemption.*  
Tiziana FIRRONE, Carmelo BUSTINTO, Davide CARELLA
- 94 ID 089. *Narration of the visual identity of a city: reading of languages and perception of authorial signs*  
Massimo MALAGUGINI, Maria Elisabetta RUGGIERO, Ruggero TORTI
- 95 ID 091. *Creativity of the Cultural Heritages and the Landscapes. Redevelopment experiences at compared*  
Teresa CILONA
- 96 ID 093. *The design and the community map to preserve and pass on innovation*  
Francesca FILIPPI, Elisabetta BENELLI, Laura GIRALDI
- 97 ID 094. *Leptis Magna: "a heritage in war uniform" to be protected*  
Rossana NETTI
- 98 ID 095. *Visualized Hypotheses – Architectural Ideas as Intellectual Legacy*  
Dominik LENGYEL, Catherine TOULOUSE
- 99 ID 096. *Projects to save the sites of salvation*  
Matteo DALLAGIACOMA, Anna MARAGNO, Giovanna A. MASSARI
- 100 ID 098. *Living the Mediterranean rural landscape: the grotto houses of Ponza between identity and preservation*  
Paolo CAMILLETTI
- 101 ID 099. *Africa, between regionalism and modernism*  
Massimiliano RENDINA, Francesco IODICE

- 102** ID 100. *Historical network for the regeneration of the contemporary city*  
Marika FIOR, Irene POLI, Giulia BEVILACQUA
- 103** ID 102. *The Shrine of the Alamo and its Roof: History and Strategies of Recovering*  
Marco FELLI, Simonetta CIRANNA, Angela LOMBARDI
- 104** ID 103. *The Industrial Heritage valorization: reuse projects in the town of Valencia, Spain*  
Mariangela DE VITA, Ilaria TRIZIO, Luís Manuel PALMERO IGLESIAS
- 105** ID 104. *Sustainable conservation: guidelines to protect and enjoy archaeological sites*  
Giuseppe DE GIOVANNI, Cesare SPOSITO
- 106** ID 105. *Universal Legacies of Mankind: Heritage in Praise of Contamination*  
Giorgia AQUILAR
- 107** ID 106. *The past in the present: the anthropized landscape as an instrument of memory legacy*  
Manlio MONTUORI
- 108** ID 108. *Rescuing a Border Town along the Rio Grande: Roma, Texas*  
Christina Michelle GARZA, Angela LOMBARDI
- 109** ID 109. *Renaissance of Downtown San Antonio: Hemisfair Park as New Urban Core*  
Angela LOMBARDI, Sedef DOGANER
- 110** ID 110. *Role of Knowledge Management Systems in Heritage Preservation Case specific inquiry into Indian practices*  
Ishita SHAH
- 111** ID 111. *The restoration is a trauma that leaves incurable signs". Is planned maintenance possible?*  
Stefano D'AVINO
- 112** ID 115. *The Twentieth-Century: a fragile century, to be safeguarded and consciously nurtured.*  
Paolo MELLANO
- 113** ID 116. *The Dromo, ancient connecting route of the Magna Graecia cities*  
Domenico GATTUSO, Caterina GATTUSO
- 114** ID 119. *Knowledge and trasmission of intangible heritage: Raimondo D'Aronco's drawings and architecture for Turin International Exhibition of 1902.*  
Maria Paola MARABOTTO
- 115** ID 121. *Small farmers' Food Production as heritage. Evidences from a Survey in Kenya*  
Nunzia BORRELLI, Giulia CORTI, Maura BENEGIAMO
- 116** ID 122. *Interior space as communicator of cultural significance*  
Nilufer SAGLAR ONAY, Valeria MINUCCIANI
- 117** ID 124. *Graphic and constructive analysis of the anti-aircraft shelters under both the Ribalta Institute and the Ttetuan Square in Castellón de la Plana*  
Manuel CABEZA GONZÁLEZ, Beatriz SÁEZ RIQUELME, Alba SOLER ESTRELA
- 118** ID 129. *New Dialogue Between Old Crafts and Contemporary life*  
Dalia SHEBL SAID
- 119** ID 130. *Ecological network from regional to municipal scale. The case-study of San Tamaro (Ce)*  
Salvatore LOSCO, Claudia DE BIASE
- 120** ID 131. *Inno School Project and AHP*  
Giuseppe D'ANGELO, Rosaria SAVASTANO
- 121** ID 132. *A study of the folklore festivals actors in the safeguard of the intangible cultural heritage through music – dance.*  
Javier GOMEZ CHAVARRO
- 122** ID 134. *Our Common Built Heritage: Legacy and Prevention from Contamination of Our Urban Culture*  
Natasza ZIVALJEVIC-LUXOR, Nadja KURTOVIC- FOLIC, Habil Hartmut PASTERNAK
- 123** ID 135. *The cultural paradigm in the smart development of slow cities*  
Mariacarla PANARIELLO

- 124** ID 137. *The northern arch of the Augustus Bridge in Narni*  
Alberto CUSTODI, Flora SCAIA
- 125** ID 138. *Between function and use of spaces and of the Neapolitan urban landscape. Proposal to read Piazza del Plebiscito*  
Saverio CARILLO
- 126** ID 139. *Wood in the structural restoration of masonry buildings*  
Luciana DI GENNARO, Giorgio FRUNZIO
- 127** ID 140. *Analysis of degradation for the conservation of reinforced concrete*  
Ersilia BIONDI, Giorgio FRUNZIO
- 128** ID 141. *Know, Understand, Valorize*  
Luca MENEGATTI
- 129** ID 142. *A Multi-criteria analysis tool for rethinking cultural heritage in evolving cities*  
Alessio CACCAMO, Silvia NIGRO, Lavinia TOMMASOLI
- 130** ID 143. *The role of Intangible for Built Heritage Conservation*  
Davide MEZZINO, Tatiana K. KIROVA
- 131** ID 144. *Design and experimentation of a Dynamic Atlas for historical knowledge and landscape planning*  
Antonio PUGLIANO
- 132** ID 145. *Experimentation of tools and methods for the organization of archival data in support of a 'Dynamic Atlas', useful for the knowledge and fruition of Rome*  
Lorenzo FEI
- 133** ID 146. *A Multi-criteria analysis tool for rethinking cultural heritage in evolving cities – naturalist approach*  
Lavinia HERZOG, Francesca Romana LUCIANI, Alessandra BATTISTI
- 134** ID 147. *Chieri, a textile town: the legacy of the former "Felice Tabasso" cotton mill*  
Michela BENENTE, Cristina BOIDO
- 135** ID 149. *Towards the knowledge of cultural heritage for conservation*  
Brunella CANONACO
- 136** ID 150. *Routes to the royal palace of Venaria Reale (TO): research for the valorization of the urban context*  
Daniele DABBENE
- 137** ID 151. *Interpreting the urban transformation of the historical city. The Garbatella district in Rome, Italy and the Lazdynai district in Vilnius, Lithuania*  
Antonella SALUCCI, Donatella SCATENA
- 138** ID 158. *Digital Detox Tourism as a Resource for the Enhancement of Cultural Heritage. A Development Study for Certosa di Pisa in Calci (PI)*  
Agnese AMATO, Massimo ROVAI, Maria ANDREOLI
- 139** ID 162. *Digital Storytelling. Interactive multimedia supporting the cultural experience*  
Mauro Attilio CECONELLO
- 140** ID 164. *Dario's Inscription Under the Siege of Neglect: Rediscovery of Tangible and Intangible Value of Dario I Inscription*  
Sara POURYOUSEFZADEH
- 141** ID 169. *Ingegnere Carlo Losio icon of the Turin society of the late nineteenth century*  
Federica CAPRIOLO
- 142** ID 170. *Seismic principles for hotel project*  
Ingrid TITOMANLIO, Sergio MAGLIO
- 143** ID 171. *Hotel project in seismic area*  
Ingrid TITOMANLIO
- 144** ID 173. *Strongly wanted by the Kings Charles III and Ferdinand IV of Bourbon, the Royal sites of Carditello and Persano are united in the creation of the Royal House Breed: an excellence project of Southern Italy*  
Antonella DIANA, Raffaele ZITO
- 145** ID 174. *The role of the community-resilience for a circular regeneration led by the cultural heritage*  
Maria Rita PINTO, Katia FABBRICATTI, Martina BOSONE



- 146** ID 175. *Urban landscape cacography: an ethical cacophony*  
Belmessaoud Boukhalfa BAYA
- 147** ID 177. *The productive green between tradition and innovation*  
Rossella FRANCHINO, Caterina FRETTOLOSO, Francesca MUZZILLO
- 148** ID 178. *Cultural heritage: A bequest to be preserved and valued. You don't preserve if you don't know. Who is responsible for the preservation?*  
Cesare CUNDARI, Gian Carlo CUNDARI, Maria Rosaria CUNDARI
- 149** ID 179. *European cities addressing climate change: a better integration between mitigation and adaptation to preserve the legacy and plan for climate proof cities*  
Giada LIMONGI, Adriana GALDERISI
- 150** ID 180. *Stability of the Abbey of San Lorenzo ad Septimum cloister in Aversa*  
Claudia CENNAMO, Concetta CUSANO, Domenico DI SANTO
- 151** ID 181. *Open spaces: the new merchandise of contemporary city*  
Lorenzo CAPOBIANCO
- 152** ID 182. *Co-participation, Synchronization, and Improvisation. Phenomenon of Sep Community and its Humanitarian Practices*  
Elena SHLIENKOVA, Alexander YUMINOV, Olga YUMINOVA
- 153** ID 183. *Russian approaches to estimation of noise influence to human health taking to account other physical factors*  
Andrey VASILYEV
- 154** ID 184. *Experience and results of automobile tire road noise calculation and reduction*  
Andrey VASILYEV
- 155** ID 185. *Past, present, and future of the village of Faito*  
Maria MARTONE, Alessandra Marina GIUGLIANO
- 156** ID 186. *Sustainable urban planning for the revival and development of an African rural area*  
Liala BAIARDI, Marco E. M.TALIANI, Michele UGOLINI
- 157** ID 187. *Two emblematic experiences in comparison*  
Mario PISANI
- 158** ID 188. *Old city/Smart city*  
Antonio BOSCO
- 159** ID 189. *Planning the Fluid City: the Palermo Creative Waterfront*  
Maurizio CARTA
- 160** ID 190. *The Lucania Apennines. A Neo-Anthropocene landscape*  
Daniele RONSIVALLE
- 161** ID 191. *New rur-urban alliances: Experiments of Social Innovation in Terre Sicane Inland Area in Sicily*  
Barbara LINO
- 162** ID 192. *Places of memory and urban landscape in the mining town of Lota*  
Maria Dolores MUÑOZ
- 163** ID 193. *"Visiting the excavations in the evening, in the moonlight and on horseback": the tourist organization of Pompeii in historical times*  
Danila JACAZZI
- 164** ID 194. *Secular and Sacred Spaces – Dargahs of Delhi*  
Uzma KHAN
- 165** ID 195. *Vincent Callebaut: towards an ecologically additive architecture*  
Carlo COPPOLA
- 166** ID 198. *Unavoidable destiny between Drawing / survey from above and Drawing / survey from the canonical point of view*  
Rosaria PARENTE
- 167** ID 199. *From Traditional Territory Representation to new Information Acquisition techniques*  
Luciana ABATE
- 168** ID 200. *World Heritage and Legacy: the case studies of Shanghai, Hangzhou, Mount Wuyi*  
Alessandro CIAMBRONE

GANGEMI EDITORE®  
INTERNATIONAL

FINITO DI STAMPARE NEL MESE DI MAGGIO 2019

[www.gangemeditore.it](http://www.gangemeditore.it)

including the Pro Rector of Institutions, Academic Senator, 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 is author of numerous scientific papers on 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**



Organisation  
des Nations Unies  
pour l'éducation,  
la science et la culture



UNESCO Chair  
Forum 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



MINISTERO  
PER I BENI E  
LE ATTIVITÀ  
CULTURALI



**GANGEMI EDITORE®**  
S.p.A.  
INTERNATIONAL



THE US - ITALY FULBRIGHT COMMISSION  
Linking Minds Across Cultures