

ARCHITECTURE HERITAGE and DESIGN

Carmine Gambardella

XXI INTERNATIONAL FORUM

Le Vie dei  
Mercanti



World Heritage and Dwelling on Earth



GANGEMI EDITORE<sup>™</sup>  
INTERNATIONAL

Carmine Gambardella  
WORLD HERITAGE and DWELLING ON EARTH  
Le Vie dei Mercanti  
XXI International Forum

Editing: Alessandro Ciabrone

© 2023

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 978-88-492-4646-9

**ARCHITECTURE HERITAGE and DESIGN | 11**

Serie founded and directed by Carmine Gambardella

## **ARCHITECTURE HERITAGE and DESIGN | 11**

Serie founded and directed by Carmine Gambardella

### ***Scientific Committee:***

#### **Carmine Gambardella**

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

#### **Federico Casalegno**

Professor, Massachusetts Institute of Technology, Boston

#### **Alessandro Ciabrone**

Ph.D., UNESCO and FULBRIGHT former fellow

#### **Massimo Giovannini**

Professor, Università "Mediterranea", Reggio Calabria

#### **Bernard Haumont**

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

#### **Danila Jacazzi**

Professor, University of Campania "Luigi Vanvitelli"

#### **Alaattin Kanoglu**

Professor, Department of Architecture, Istanbul Technical University

#### **David Listokin**

Professor, Director of the Center for Urban Policy Research  
of Rutgers University / Edward J. Bloustein School of Planning and Public Policy, USA

#### **Sabina Martusciello**

Professor, University of Campania "Luigi Vanvitelli"

#### **Paola Sartorio**

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

#### **Elena Shlienkov**

Professor, Samara State Technical University

#### **Rosaria Parente**

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

#### **Nicola Pisacane**

Professor, Head of the Master School of Architecture – Interior Design  
and for Autonomy Courses, University of Studies of Campania "Luigi Vanvitelli"

#### **Riccardo Serraglio**

Professor, University of Campania "Luigi Vanvitelli"

### ***Editorial Committee:***

Alessandro Ciabrone

Rosaria Parente

**Carminé Gambardella**

**WORLD HERITAGE and  
DWELLING ON EARTH**

Le Vie dei Mercanti\_XXI International Forum

GANGEMI EDITORE<sup>®</sup>  
INTERNATIONAL



*Topics:*

*Heritage*

*Tangible and intangible dimensions*

*History*

*Culture*

*Collective Identity*

*Memory*

*Documentation*

*Management*

*Communication for Cultural Heritage*

*Architecture*

*Surveying*

*Representation*

*Modelling*

*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 DWELLING ON EARTH**

**Le Vie dei Mercanti**

**XXI International Forum**

Naples | Capri

25 - 26 - 27 May 2023

*President of the Forum*

**Carmine Gambardella,**

President and CEO Benecon University Consortium

UNESCO Chair on Cultural Heritage, Landscape and Territorial Governance

International Scientific Committee

**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 Almafraaq – Jordan

**Pilar Garcia Almirall,**

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

**Harun Batirbaygil,**

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

**Artur Beu,**

Professor, University of Art, Tirana, Albania

**Cevza Candan,**

Professor, Istanbul Technical University, Turkey

**Orazio Carpenzano,**

Professor and Director of the Department of Architecture and Design, Sapienza University

**Maurizio Carta,**

Professor, University of Palermo



**Alessandro Ciambrone,**

Benecon University Consortium, UNESCO and Fulbright Former Fellow, Italy

**Annamaria Colao,**

Professor, UNESCO Chair on Education to Health and Sustainable Development

**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

**Giuseppe Faella,**

Professor, University of Campania “Luigi Vanvitelli”

**Yankel Fijalkow,**

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

**Cherubino Gambardella,**

Professor, University of Campania “Luigi Vanvitelli”

**Stefania Gigli Quilici,**

Professor, University of Campania “Luigi Vanvitelli”

**Xavier Greffe,**

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

**Manuel Roberto Guido,**

Italian Ministry of Heritage and Culture, Italy

**Bernard Haumont,**

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

**Pedro António Janeiro,**

Professor, Faculdade de Arquitectura da Universidade de Lisboa

**Tatiana Kirova,**

Professor, Polytechnic of Turin

**Alaattin Kanoglu,**  
Professor, İstanbul Technical University

**Ilknur Kolay,**  
Professor, Department of Architecture, Istanbul Technical University

**Antonio Lampis,**  
Director Museums, Italian Ministry for Cultural Activities

**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,**  
Professor, 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

**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 the University of Campania

**Rosario Pivonello,**  
Professor, University of Naples "Federico II"

**Mosè Ricci,**  
Professor, University of Trento

**Daniele Riccio,**  
Professor, University of Naples "Federico II"

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

**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 Shlienкова,**  
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

**Ana Luiza Thompson-Flores,**  
Director of the UNESCO Regional Bureau for Science and Culture in Europe, Venice (Italy)

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

**Marco Trifuoggi,**  
Professor, University of Naples "Federico II"

**Andrey V. Vasilyev,**  
Head of Department, Samara State Technical University of Russian Federation

**Leandro Ventura,**  
Director of the Central Institute For Ethno-anthropology, Italian Ministry for Cultural Activity

**Yaliang Xiang,**  
Professor, China Academy of Art, China

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

## Organizing Committee

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

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

**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 real applications and experiences carried out on this themes. Based on blind peer review, abstracts has been accepted, conditionally accepted, or rejected. Authors of accepted and conditionally accepted papers has been invited to submit full papers. These has been again peer-reviewed and selected for the oral session and publication, or only for the publication in the conference proceedings.

## Conference report

200 abstracts and 330 authors from 30 countries:

Albania, Australia, Belgium, Bosnia and Herzegovina, Brasil, Bulgaria, California, Chile, China, Cipro, Cuba, Egypt, France, Germany, Greece, India, Italy, Japan, Jordan, Malta, New Jersey, New York, Poland, Portugal, Russian Federation, Serbia, Spain, Texas, Tunisia, Turkey

## XXI FORUM WORLD HERITAGE and DWELLING ON EARTH

Abitare la terra! Questo è l'obiettivo essenziale, sintetizzato dalla denominazione della conferenza, cui abbiamo continuamente teso con i Forum "Le Vie dei Mercanti" lungo gli ultimi ventuno anni. Ancora oggi, questa rimane per noi la stessa prospettiva di lavoro. Un intento da perseguire con ancor più forte convincimento e con persino maggiore efficacia, dal momento che tutti noi siamo coscienti di trovarci in uno stato di emergenza con lo scenario drammatico aperto dai cambiamenti climatici.

Quindi, come agire adesso rispetto a questo imperativo globale?

Per prima cosa, mi piacerebbe partire dal lavoro che abbiamo fatto in tutti i Forum annuali, dagli approfondimenti interconnessi sulla transizione ecologica, la contaminazione, il patrimonio culturale, i disastri ambientali, per ciò che concerne il loro impatto sul World Heritage. In tale modo, la preoccupazione per l'abitabilità della nostra terra ha non solo integrato capacità, esperienze, buone pratiche di ricercatori e accademici, ma ha anche creato una comunità scientifica con provenienze da ogni parte del mondo che fosse in grado di interagire in modo interdisciplinare. Ci siamo fondati sul convincimento che un'azione collaborativa richiedesse, oltre una prassi di controllo, una profonda fiducia nella capacità umana di riuscire a difendere il proprio patrimonio ereditario rigenerandolo con forte determinazione. Questa è la migliore strategia per trasmettere al futuro i beni che ci ha consegnato la storia e che noi dobbiamo difendere. Lo scopo perseguito è ovviamente non solo di quello potere agire in anticipo rispetto a un disastro ambientale, ma anche di promuovere nel nostro mondo un processo progettuale in grado di ridisegnare la relazione tra ciascun uomo e l'ambiente in cui vive.

Ribadendo in ciascun Forum che "il futuro è un eterno presente", abbiamo continuato a guardare a ciò che verrà con ottimismo, con la speranza che, cominciando sin d'ora con azioni effettive e coscienti, noi potessimo porre le basi per il mantenimento di un equilibrio globale. La recente pandemia ha mostrato come, al di là delle strategie resilienti per neutralizzare processi produttivi che si sono mostrati ostili al benessere ambientale, dovessimo ricercare una nuova omeostasi nel nostro ambiente abitabile. Solo lavorando insieme in questa direzione, potremmo efficientemente riadeguare via via le reazioni, in modo da neutralizzare persino gran parte degli impatti ambientali nella ricerca di un nuovo equilibrio.

L'argomento del Forum di quest'anno invita i ricercatori a riflettere sulle buone pratiche implementate con progetti operativi, strategie o proposte progettuali. Obiettivo principale è contrastare il processo che ha portato le persone e l'ambiente in cui vivono alle condizioni inaccettabili che riusciamo fisicamente a individuare con chiarezza nel degrado territoriale e paesaggistico. Inoltre, bisogna pensare a nuove strategie per un progetto difensivo che possa realmente dimostrarsi efficace. Ma ciò che è ancora più importante, una volta resosi conto dell'urgenza della situazione, è che l'enorme responsabilità ambientale ci impone di non fare affidamento su soluzioni semplicistiche. Non c'è alcuna semplice prestazione tecnologica che da sola possa essere assunta tout court come soluzione definitivamente ottimale, ma bisogna intervenire attraverso una dinamica osmotica di conoscenze e tecnologie. Solo attraverso un processo di conoscenze continuo le persone possono misurare lo stato del loro benessere e allo stesso tempo agire come garanti della qualità terrestre. Una nozione di "misura", fondata su una dinamica perpetua di conoscenza, può mostrarsi affidabile promuovendo nuovi modelli di sviluppo fondati su un rinnovato Umanesimo.

Prof. Carmine Gambardella  
General Chair XXI Forum 'World Heritage and Dwelling on Earth'  
President and CEO of the Benecon University Consortium  
UNESCO Chair on Landscape,  
Cultural Heritage and Territorial Governance

## XXI FORUM WORLD HERITAGE and DWELLING ON EARTH

Abitare la terra! Dwelling on Earth! That is the essential goal, synthesized by the title of this conference, towards which we have been working with “Le vie dei Mercanti” forum over twenty-one years. It still remains today the same perspective for us. An intent to be pursued with greater commitment and providing even higher effectiveness, as we all are now aware of being in an emergency with the dramatic scenario opened by climate change.

Therefore, what are we to do now with respect to this global imperative?

First, I would like to start from the work we have done in every annual forum, the interconnected focus on Ecological Transition, Contamination, Legacy, Knowledge and Disaster, as regards their impact on World Heritage. In that way, the concern for the habitability of our Earth has not only integrated skills, experiences, good practices of Scholars and Academics, but has also created a scientific community from around the world for discussing such multidisciplinary topics. We had the conviction that collaborative action requires not only practices for control, but also a reliance on human ability to ever succeed in defending his patrimonial value with the strong determination to re-design our everyday places. This is the best way for transmitting to the future the values that heritage has passed on to us and we must protect. The pursued goal is obviously not only to act in advance with respect to an environmental disaster, but also to promote in our world a design process in order to re-design the relationship between each man and his living environment.

Emphasizing in each forum that for us the future is as an eternal present, we have continued to look at the future with optimism, with the trust that, beginning now with effective conscious actions, we can put the basis for maintaining a global equilibrium. Recent pandemic has shown that, apart from resilient strategies for neutralizing productive processes which showed to be hostile to the environment, we need to search for a new homeostasis into our habitable environment. Working towards this direction, we could effectively adjust responses to environmental changes, in order to neutralize even most of their consequences for reaching a new equilibrium.

So, the topic of this year's forum invites researchers to reflect on good practices implemented with operative projects, design proposals or strategies. The main goal is reversing the trend which has led people and the environment in which they live to the unacceptable conditions we can physically recognize into territory and landscape decay. Then, we must think about new strategies for an adequate defensive design which can ultimately provide an efficient aid. But which is more important, once we have suddenly become aware of the urgency of the situation, the new enormous environmental responsibility requires us not to rely only on simple solutions. There is no easy technological performance to be assumed as a definitively optimal solution. Only the continuous practice of a “measure” that has been built upon continuous education process may give reliance; people, only with an adequate formation, can measure the state of their wellness and at the same time they can act as the guarantors of earth quality, for a new development model based on a renovated Humanism.

Prof. Carmine Gambardella  
General Chair XXI Forum ‘World Heritage and Dwelling on Earth’  
President and CEO of the Benecon University Consortium  
UNESCO Chair on Landscape,  
Cultural Heritage and Territorial Governance



**ID 001** *World Heritage Sites in Germany and Dwelling on Earth*

**Natasa  
ZIVALJEVIC-LUXOR**

*Director National Heritage  
Foundation Belgrade, Serbia*

**Hartmut PASTERNAK**

*Brandenburg University  
of Technology Cottbus,  
Germany*

Many times our civilization has neglected that the locations which human species has chosen for its habitats are also inhabited by other species. On the territory of Germany, there are 51 listed WHSs, out of which 48 are cultural sites, and there are 8 on tentative list. Although, none of the sites is categorized as “mixed”, landscape has a role in each case. Our initial hypothesis was that none of heritage sites would have survived without balance with nature, therefore we examined all 48 cultural heritage sites looking for better understanding of relation between anthropogenic and natural environment of WHSs in Germany. Among other factors, we researched if choices of material and construction technics reflected respect for natural environment.

In this paper, we particularly used case study of sites in the area of Harz mountains which are several: Quedlinburg, Goslar, Alfeld, to mention a few. Our aim was to take “a second look”, but not so much at the disclosed unique universal values due to which the sites were listed. We focused on hidden values of these locations, which are so deeply woven into their essence that they are almost “taken for granted” but unmistakably point to the fundamental values and principles behind all of them related to their relation to nature.

**ID 002** *Territorial restoration and redevelopment. The case of the Pentimele Hill*

**Caterina GATTUSO**

*Calabria University, Rende  
(Cosenza), Italy*

**Domenico GATTUSO**

*Mediterranea University of  
Reggio Calabria, Italy*

The issue of degraded territorial environments redevelopment is quite complex. Attention is often directed to urban areas (abandoned historic centers, neighborhoods characterized by modest architecture and housing problems, old industrial areas, suburbs that have grown up without a logical plan, agglomerations that have suffered disastrous phenomena from natural disasters such as floods or earthquakes). And there are now numerous urban regeneration experiences that follow a cultural current aimed at limiting the expansion of cities and the consumption of precious land. Less attention is paid to the redevelopment and care of valuable territorial and environmental areas which, for different reasons, have undergone an action of impoverishment or desertification.

The paper focuses precisely on this issue, with the aim of bringing out the opportunity for targeted and coordinated actions that can give new life to interesting ecosystems. Some bibliographical references are proposed and an integrated planning methodological approach is outlined, based on multidisciplinary contributions, aimed at the restoration and environmental regeneration of a degraded land. Finally, an emblematic case study is proposed for the planning of balanced measures for the environmental regeneration and enhancement of a hill located on the edge of the city of Reggio Calabria, which has long been left in a state of abandonment and is now almost deserted due to several fires over the past decades.





**ID 003** *Drawing the walls of time and space: the Fontana dei Ciechi at Bonefro*

**Piero BARLOZZINI**  
*University of Molise, Italy*

**Fabio LANFRANCHI**  
*Sapienza University of Rome  
Italy*

This study, focused on one of the historic fountains in the village of Bonefro, grew out of the desire to give new impulse to small cultural sites in Molise and is aimed, as suggested by the Piano Nazionale di Ripresa e Resilienza (PNRR) - National Plan for Recovery and Resilience, at enhancing the architectural heritage of the rural landscape, as well as the recovery and development of a new post-pandemic tourism.

The study is based on archive documents and published material available in the Molise's cultural centres, as well as on the information published in the General Catalogue of Cultural Heritage. This research also involved an architectural survey using the 'Structure From Motion' method, which uses a dataset of ground and aerial images that are georeferenced and scale-adjusted in post-processing using topographical points.

Additionally, the presence of an earlier architectural survey, made using traditional methods, allowed us to compare the results obtained in the past with those we attained using advanced survey techniques.

The processes of discretizing and measuring, and of graphic synthesis have therefore produced an integral vision of the historical-architectural knowledge of the fountain, conveyed with traditional line drawings and three-dimensional models created through the processing of photographic images and aerial videos, which clearly show its identifying characteristics, archetypal features and geometrical matrixes become evident.



**ID 004** *The measurement of decorum as a practice of knowledge in the expanding Naples of the early twentieth century: some examples*

**Maria MARTONE**

*Sapienza University of Rome  
Italy*

**Alessandra Marina  
GIUGLIANO**

*I.I.S.S. Caravaggio Rome  
Italy*

Adopting the goals of the Forum and with the intention of preserving the assets that history has given us, this paper proposes a path of analysis aimed at the knowledge and enhancement of some Art Nouveau architectures built in the expanding Naples of the first half of the 20th century, where the architectural sign of the full-field decorations creates a cultural relationship between man, architecture, and the environment. In order for these assets to become a collective resource, it is vital to promote increasingly in-depth knowledge analysis, also thanks to the most recent digital survey technologies, and greater dissemination to develop new strategies for a sustainable future of the city in defense of the urban environment.

The analysis of building facades leads to identifying the features of an urban environment that can be recognized as identifying a place and as a cultural attraction in the context of a development strategy.

Therefore, it is necessary to spread and consolidate the imperative of dwelling on earth with respect to history, projecting into the future the assets we inherited to defend our cultural identity and for sustainable development.

Three buildings were chosen as case studies: Palazzina Rocco in Chiaia, Villa Loreley in Vomero, and Villa Pappone in Posillipo, investigated with the aim of “measuring” decorum as a practice of knowledge of a rich architectural heritage, an authentic attraction that can be used in the cultural and tourist chain of Naples.



**ID 005** *Vanished landscapes. New scenarios for dwelling on earth with the awareness of the past for a sustainable future. The ancient Vallis Regia, now Lake Barrea*

**Maria MARTONE**

*Sapienza University of Rome  
Italy*

This contribution will document the transformations that have taken place in a territory which, after man's intervention, has been flooded with water, changing its configuration from a valley to a lake. The objective is to disseminate and defend the history of a territory as a common asset and resource for sustainable development. The case in question is the ancient Vallis Regia in the province of L'Aquila, close to the town of Barea. In 1951, when a dam was built across the River Sangro, the valley was flooded with the river's waters, turning it into an artificial basin used as both a reservoir and to produce electricity.

There are many, incisive interventions of this kind on our planet; they have not only redesigned a territory, but also changed the way indigenous populations dwell on earth. The aim of the contribution is to find evidence of this vanished landscape and document how such a radical environmental transformation has not only influenced the life of the inhabitants, their culture and traditions, but also created new scenarios. In fact, we believe that understanding the history of a territory is the key tool we need to safeguard it; a precious resource to be transmitted to future generations in order to achieve economic, environmental and above all cultural sustainability



**ID 006** *Landscape and history in the tip of the leaf. Preservation and enhancement of the historical olive grove of the Grottoes of Catullus.*

**Flora BERIZZI**

*Director of the Grottoes of  
Catullo in Sirmione and of the  
Roman Villa ib Desenzano  
del Garda, Italy*

**Nicola CASTOLDI**

*Grottoes of Catullo in  
Sirmione, Italy*

On the promontory at the tip of the peninsula of Sirmione there are the monumental remains of a Roman Imperial villa, known as Grottoes of Catullus, that dates back to the end of the I century B.C. They stand in awesome panoramic position surrounded by the water of Lake Garda and immersed in a large and ancient olive grove. The grove covers 7 ha and today it represents a plant archaeological layer which is inextricable from the ruins. The centuries-old olive trees are living testament of the usage of the area from the abandonment of the villa to the first agricultural utilization during the Middle Age and until the XX century, olive growing becoming a part of the social context sustaining the local communities. What is today an international archeological site, until a few decades ago was the vegetable garden of the Sirmione's citizens who cultivated native varieties of plants passed down from one generation to another.

The particular microclimate has allowed the development of crops and spontaneous flora different from the typical one of the Po Valley. The promontory of Sirmione is partially isolated limiting the movements of plant and animal populations. The reduced genetic exchange has given rise to a peculiar ecological niche of environmental importance from both an agricultural and a floristic point of view.

The preservation and the enhancement of this cultural and agricultural heritage are the keywords for a new telling of the history and the agriculture of the area.

**ID 007** *From waste to resource for a sustainable future*

**Anna CATANIA**

*University of Palermo, Italy*

Every day we produce waste that constitutes an environmental and economic problem.

A quantity of this waste is recycled, reused or composted and a quantity is sent to landfills.

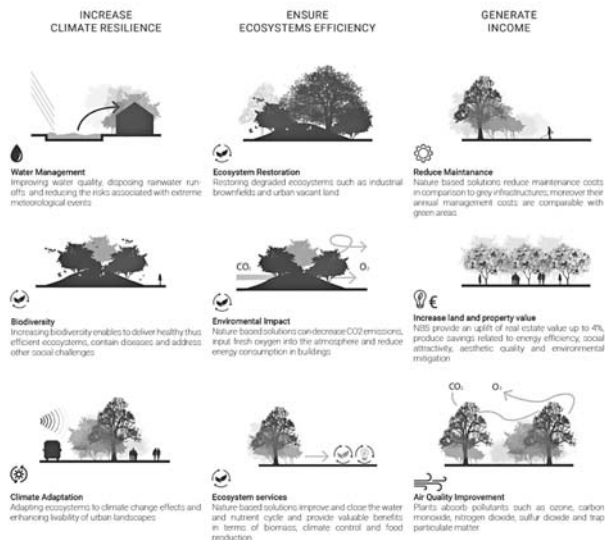
How can we produce less waste and using waste as a resource?

Reducing waste is one of the objectives of the circular economy and their recycle asks us to rethink production and consumption models, this implies that design is a strategic element.

In fact, in recent years design played a key role in the transition from a linear to a circular economy with a design based on the efficient use of materials, the reduction of the amount of waste generated, intervening on durability, repairability, the possibility of updating and recyclability of the products themselves.

This article will analyse the contributions of design from processes optimization to waste prevention strategies, up to process circularity. The sector of stone materials and recycled materials born from processing/production or consumption waste and reintegrated into the biological cycle will be considered. The aim of this article is to show the connection of contemporary design with the environment, products and materials and to show that wastes will be a problem or a resource depending on their management.

## NATURE-BASED SOLUTIONS



### ID 008 *The Greener Europe. Ecosystem Services and Green Infrastructure for Resilient Cities*

**Patrizia BURLANDO**  
*University of Genoa, Italy*

Rethinking smart cities with fewer impacts and without gas emissions by 2050 is part of the European Green Deal. Using a more resilient green is one of the elements on which to invest in the process of urban transformation. Undoubtedly, the landscape project in the past has always interpreted the needs of the society to which it belongs, proposed a cultural model to be followed and put into practice scientific innovations. Cities are evolving into intelligent super-organism and seal become capable of searching for opportunities of co-evolution within Urbansphere. The contribution of landscape architecture has become a necessity in solving the problems of contemporary society.

In the solution of various environmental problems the use of a set of green solutions, resilient and at different spatial scales from the city, the neighborhood, the block and the single building has become a necessity.

The objective of this paper is to present some highlights strengths and weaknesses of green infrastructure projects in European cities, which are based on the key concepts of sustainability, multifunctionality, adoption of Nature Based Solutions, increased ecosystem services and multiscale.

The main strategies will be exemplified through the analysis of case studies at different scales. In terms of planning and some specific interventions such as sustainable parks, rain gardens, drainage trenches, green roofs, green facades and systems for the collection of water in European cities.



**ID 009** *Ancient construction and new technologies. An experiment for the "Borgata" of Syracuse*

**Fernanda CANTONE**  
**Francesca CASTAGNETO**  
**Vittorio FIORE**

*University of Catania, Italy*

Attention to existing assets is a contemporary imperative. The architectural project on the identity of the historical building needs to confront the contents of technological innovation, providing a contemporary vision of the old/new relationship.

Through the use of natural materials, you can make an important contribution to the theme, also to rethink and build in an ecological key because these are fields that affect the environment. They affect resources and energy consumption. The choice to use natural materials, recyclable and easily available, such as clays suitable for the technique of raw earth, can represent a virtuous response.

The raw earth technique is now a tool of innovation through 3D printing, able to optimize the production process.

The proposed experimentation concerns a part of the urban fabric of Syracuse, the Borgata, nineteenth-century expansion of the historic center. The urban scheme is a closed block. In particular the study focuses on incomplete corner lots because they lack the second floor. The research involves the study of the identity characters of nineteenth-century buildings and the completion of dwellings, according to the principles of bioclimatic architecture, using prefabricated elements in raw earth. It is a process that enhances the existing building and offers a traditional technology in a contemporary and historical context.



**ID 010** *Environmental recovery strategies for sustainable and resilient regeneration*

**Francesco CRUPI**

*Sapienza University of Rome  
Italy*

The physical degradation, the indiscriminate exploitation of non-renewable resources, socio-economic marginality, environmental fragility, the increase in climate-altering emissions and polluted sites, the effects of global warming, require, today, necessarily, a paradigm shift with a view to responding to major changes and crises, and enhancing resilience to future challenges. An interscalare and multidisciplinary approach hinged on new policies, procedures and tools, involving urban planning, landscape planning, technological-environmental design, design, promoting adaptation and mitigation actions to climate change, the twin transition, the enhancement of brownfields and drosscapes, through the widespread use of innovative technologies for the environment, mobility, energy efficiency, waste recycling, human welfare and health. In this framework, the contribution, starting from the analysis of a case study, proposes a reflection on the need to implement environmental recovery strategies capable of counteracting dissipative dynamics and activating a new urban metabolism, with the aim of prefiguring new spatial configurations, economic and energy cycles, restoring with natural solutions (nature-based solutions), biodiversity and the quality of environmental matrices (air, water and soil), for a sustainable and resilient regeneration.



**ID 011** *The existing building as a source of energy: proposal of a method for the development of operational procedures for reuse*

**Roberta ZARCONE**

**Anahita MIRANI**

*École Nationale Supérieure  
d'Architecture  
Paris-Malaquais, France*

In the last decades the strategies of waste recovery are at the center of the legislator's reflections for the transition to a circular model. At the same time, the need for urban densification compatible with today's environmental requirements entails the risk of functional and socio-economic obsolescence of the existing building stock.

While the principles of design for disassembly are beginning to be increasingly integrated into the project process, for existing buildings, designed with technologies that did not provide for disassembly operations, this practice can encounter economic and technical barriers.

To define a reuse management model for the existing building, thus reducing the technical obstacles, we rely on the concept of embodied energy, defined here as the difference between the energy required by all the elements that make up the building and the energy obtained by their valorization at the end of life. This definition poses problems when the analysis must be extended over time intervals in which significant technological evolutions have taken place.

Overcoming these difficulties require a revision of the relationship between elements and building to assess the energy that can be extracted from the building through an appropriate set of procedures at the given time.

This article proposes a method for the development of operational procedures capable of increasing the potential of reuse as a system of exploitation of the energy incorporated in the existing buildings.



**ID 012** *Genua Picta 1982-2023*

**Giulia PELLEGRINI**

**Francesca SALVETTI**

*University of Genoa, Italy*

In 1982 the conference-exhibition entitled *Genua Picta*- Proposal for the research and recovery of painted façades was held in Genoa, which launched the systematic study of the survey and restoration of the pictorial decorations of the façade also opening up to the various aspects of intervention planning involving various local authorities: the Ministry of Cultural Heritage, the Cultural Heritage and Activities sectors of the Municipality of Genoa and the Liguria Region, the Faculties of Letters and Philosophy, Architecture, Science and Law of the University of Genoa, giving ample scope to the intervention proposals that took into consideration all the aspects related to the theme in question. Thirty years after the Conference, the theme of color in architecture in historic centres, its recovery and enhancement remains an administrative and cultural emergency. In Genoa in the 1980s, around 100 very damaged painted façades were identified, of which only forty still appeared with legible chromatic and graphic traces which were then investigated through a targeted filing investigation. This contribution presents a study on the current state of the never cataloged painted architectural heritage of the historic center of Genoa, using as an example the methodological approach of integrated survey, filing and restitution in the case study of the buildings in Piazza Pinelli.

In the spirit of the New European Bauhaus, this study stands as a creative and interdisciplinary initiative that places beauty and ethics at the basis of enriching, sustainable and inclusive practices that concern the character and general appearance of a city.

**ID 013**    *Protecting the past to save the present*

**Maria NATALE**

*Pegaso University, Italy*

The task of protecting the heritage inherited from those who preceded us determines for the law multiple objectives: control, prevention, safeguard, enhancement, conservation, use, regeneration. Each of these goals represents an essential step in transmitting, to those who will succeed us, not only the tangible and intangible goods that history has given us, but also their meaning, the intrinsic value of each of them, as an expression of the human ability to mark the flow of history and to leave a trace. The task of jurists is to establish rules, norms, laws, capable of imposing good practices which, also using the results of scientific-technological research, are capable of rebalancing the relationship between man-environment-heritage by promoting a vision of global well-being, pushed beyond the borders of individual States in the belief that the goods of each are the heritage of all humanity.

In this framework, a focus on the evolution of the juridical instruments set up to protect cultural heritage can constitute, at the same time, an interesting research and a useful tool for identifying new paths to follow. In this field, the examination of some socio-institutional and legal contexts, considered as relevant laboratories for reflection and promotion of new legal instruments, will demonstrate that, sometimes, even the responses elaborated in the past have been able to offer an answer to the various needs that the protection of humanity's heritage makes us a priority.



**ID 014** *Restoration, industrial design and drawing. A renewed Humanism for a renewed design concept the journal "Arte Italiana Decorativa e Industriale"*

**Saverio CARILLO**

*University of Campania, Italy*

«Only the continuous practice of a "measure" that has been built upon continuous education process may give reliance; people, only with an adequate formation, can measure the state of their wellness and at the same time they can act as the guarantors of earth quality, for a new development model based on a renovated Humanism». By sharing the ideas expressed by Carmine Gambardella for the Call of the XXI edition of the Forum on Le vie dei Mercanti for 2023, the proposed contribution intends to recover the cultural positions of one of the fathers of Italian architectural culture, Camillo Boito.

The Milanese intellectual, original 'inventor' of the 'didactics for drawing' and director of the magazine "Arte Italiana Decorativa e Industriale", shows with his work in the realization of editorial initiatives, a particular attention to the innovation processes to be introduced in the field of furniture, architecture and conservation of building works built by human creativity.

In this regard, the note that Editor to the Journal puts to explain how significant it must be to teach the essential characteristics of drawing in view of the project in Basic Training Schools is very significant.

It also appears significant to have to note how a conservative like Boito appears, however, in this paper, as one of the most convinced supporters of innovation processes.



**ID 015** *'Historical' ecology and new Humanism: the perspective of the ancients.*

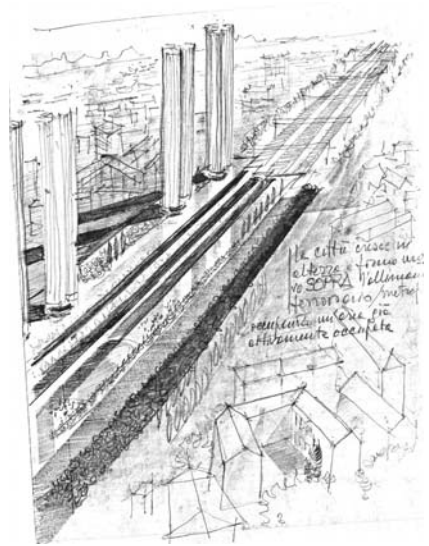
**Maria Carolina CAMPONE**

*Militar Academy "Nunziatella"  
Naples, Italy*

The debate on environmental issues and on the relationship between man and nature is a highly topical topic. However, it has a significant precedent in the classical world, where the problem of environmental alterations, due to an excessive exploitation of the earth's resources, was already very much felt. In fact, although the ancient world, due to the scarcity of the population compared to today's one, was not able to produce quantities of non-biodegradable residues such as those connected to extraction and waste deriving from industrial processes, yet many authoritative exponents of classical culture they are concerned with the growing risks associated with the progressive depletion of essential resources and have even designed technologically advanced solutions.

If these solutions are little known today, due to the serious shipwreck of scientific production of Hellenistic period and the scarcity of interdisciplinary studies in this regard, the fact remains that reflecting on good practices for designing adequate solutions implies knowledge of the past and of philosophical speculation-literature and scientific on topics that are not a prerogative of contemporary man.

The reflection of the classical world on environmental issues therefore constitutes an inescapable premise for facing the future and promoting new models of development based on a renewed Humanism that has its roots in the past in order to preserve the future.



**ID 016** *The future of the metropolis above active railway*

**Carlo MORETTI**

*Architect, Cassano Magnago, Italy*

Today architecture represents contemporaneity NOT through the grandiosity of its conquests or the vastness of issues, BUT through a inadequacy in relation to those same conquests and issues. Architecture today is incapable of interpreting History: the settings of these past seventy years accuse it and condemn it

These reflections are radicalised by analysing the precipitation of contemporary events which, in their entity and vastness, are without precedent in the entire arc of History and are:

The thrusting of hundreds of millions of people, by upsetting all the methods, processes, habits and stereotypes of the present architectural discipline, cannot but impose upon its design a radical change of direction, as a challenge of the 21st century.

The proposal.

Above all the network stations, heavy density urban hubs (in height and in new forms), that is the recovery and enhancement of the public heritage represented by the "void" above these stations and above their related yards (in activity), that can be transformed, without compromising the rail movement, into cities above cities, by lending a formally defined imprint to the metropolitan-city, constitute the core point of a future urban territorial dimension.

The project rediscovers richness of public heritage capable of launching the creation of a new metropolis.

**ID 017** *AI and green transition: solutions for to nudge people towards correct waste management practices*

**Michela SCAGLIONE**  
*University of Genoa, Italy*

Artificial Intelligence (AI) can play a significant role in accelerating the green transition by enabling more efficient use of resources, reducing emissions, and promoting optimisability in various analysing: it can optimise waste management by analyzing data on waste production and identifying opportunities for recycling and reducing waste.

Here are some examples of nudging in waste management:

- Recycling reminders: AI-powered chatbots or mobile apps can send recycling reminders to users based on their location or the types of materials they have recently disposed of;
  - Gamification: AI-powered games can be designed to encourage users to recycle and reduce waste;
  - Personalized feedback: AI algorithms can analyze an individual's waste disposal patterns and provide personalised feedback on how they can improve their waste management practices;
  - Social influence: AI algorithms can be used to analyse social media data and identify influencers who are promoting sustainable waste management practices;
  - Behavioural intervention is used to identify behavioural barriers to correct waste management practices and develop targeted interventions to address these barriers.
- This article aims to analyse the future of waste management, and AI-powered nudging looks promising, with many possibilities for improving efficiency, sustainability, and behaviour change.





**ID 018** *Dwelling on Earth by learning from Nature. Urban and building systems more sustainable and resilient through the use of Nature Based Solutions and Biomimicry*

**Caterina MELE**  
*Politecnico Torino, Italy*

In the last two and a half centuries, an instant compared to the 4 billion years of the Earth's life, the human species has compromised every ecological niche on the planet, upsetting the delicate balances of homeostasis that regulate the biosphere. In 2020, the mass of all man-made artefacts made by humanity, over one trillion tonnes, exceeded the mass of all living organisms. The growing impact of the human footprint on the planet is accompanied by a strong increase in urbanisation even in the oldest economies, where population growth is almost zero. UN projections predict that by 2050 some 70 % of the world's population will live in urban areas. This will lead to an inevitable growth in the number and volume of new buildings. Globally, according to the Global Alliance for Building and Construction (GABC), there are about 245 billion square metres of buildings on earth today. Without corrective measures, another 230 billion will be built in the next forty years and 70 % of these will not be covered by mandatory and shared energy and environmental efficiency standards. One can therefore understand how cities and buildings constitute a strategic and necessary area for achieving the environmental and decarbonisation goals of Agendas 2030-2050. In relation to these goals, the contribution intends to explore the potential of Nature Based Solutions (NbS) and the biomimetic approach to regenerate and transform urban and built environments.



**ID 019** *Landscapes in visualisations of architectonic hypotheses*

**Dominik LENGYEL**

*University of Technology  
Cottbus-Senftenberg, Germany*

**Catherine TOULOUSE**

*Lengyel Toulouse Architects  
Berlin, Germany*

The relationship between man and his living environment is the cultural landscape. Culture created a landscape that is no longer archetypical, but nevertheless formative for the perception and the appreciation of the environment, of nature itself. Making this appreciation visible in historical visualisations of architecture, even when the underlying hypotheses are shaped by the uncertainty in the knowledge of archaeology, is a particular challenge. In the course of various scientific visualisations presented by the authors at the last four conferences, including Pompeii, Palatine, Cologne Cathedral, Bern Minster and others, the focus has always been on architecture. However, in the two projects of the ancient metropolis of Pergamon, situated on a ridge of the Kaikos Mountains, and the Caliphate city of Medina Azahara, situated in a valley of the Guadalquivir in Analusia, the view into the wide landscape, towards the harbour in the first case and into the valley in the second case, was found to be formative for the genius loci. In both cases the landscape, especially the view into the far distance, plays a central role, and in both cases it was necessary to adapt the representation to the uncertainty in order to obtain an overall picture that is able to convey a vision of architecture in its context. The two projects are good practices in the communication of science and, in their by no means speculative appearance, contribute to the formation and reflection of their viewers.



**ID 020** *Knowledge aspects of cultural heritage: digitalisation and virtual dissemination*

**Martina CASTALDI**

**Sara ERICE**

*Scuola Politecnica Genova, Italy*

The conservation and enhancement of cultural heritage requires detailed documentation, both in terms of location, shape, colour and geometry, but also in terms of more historically and artistic characteristics.

Today's digital technologies make it possible to accurately measure and represent three-dimensional objects at different scales, from architectural structures to archaeological objects, and thus to represent - qualitatively and quantitatively - all the features of the rich and diverse heritage. The aim of this article is to describe how new digital methods can be used in the field of cultural heritage, not only to document the current state, but also to trace its philological exegesis, whose significant transformations will thus be preserved and represented in digital form.

In the last few years, the development of integrated acquisition and representation methodologies for the three-dimensional documentation of heritage can increase the possibilities of heritage understanding and valorisation.

The specific case of Via Garibaldi in Genoa, proposes a methodological approach to develop a digital platform dedicated to the built cultural heritage and the items preserved in it through high resolution 2d visualisation, historical-urban reconstruction of the site and detailed holographic visualisation.

**ID 021** *Stefania Filo Speciale's palazzina at the Parco Grifeo in Naples. An example of private housing for the middle-class*

**Chiara INGROSSO**

*University of Campania, Italy*

After introducing the figure of Stefania Filo Speciale (1905-1988), the first Neapolitan female architect and her fundamental role in second post-war Neapolitan architecture, the paper will focus on the building realized in the Parco Grifeo in Naples between 1955 and 1959 by her studio. Straddling the Chiaia and Vomero districts, not far from the contemporary masterpiece of Palazzo Della Morte (1951-57), the palazzina is another example of a middle-class dwelling on the slopes of the Neapolitan hills, establishing a strong relationship with the landscape and the sea facing the South. It also represents a further example of auteur architecture in the park, a kind of middle-class enclave, originally a noble property occupied by trees and gardens, sold since the end of the 19th century and urbanized mostly after WWII, which hosts a series of interesting architectures, from the Castle by Lamont Young (1902) to Palazzo Decina by Michele Capobianco and Giulio De Luca (1956-60).

Through a series of archive drawings, the paper will highlight the modifications that the building by Filo Speciale underwent during its construction, also describing its current state.



**ID 022** *Survey, analysis and model. Digital reconstruction and virtual fruition of Raphael's original Stables in the Villa Farnesina*

**Maria Rosaria CUNDARI**

*University of Padua, Italy*

**Giuseppe ANTUONO**

*University of Naples 'Federico II'  
Italy*

**Gian Maria BAGORDO**

*I.I.S. Blaise Pascal - Pomezia, Italy*

**Gian Carlo CUNDARI**

*Architect, Rome, Italy*

The objective of ecological transition makes it possible to look at the recovery of rural architecture from a new perspective that focuses on processes of economic growth to preserve the environment. This allows us to look at this heritage as a resource, in the sense of built economic capital.

The paradigm shift seeks sustainability with even stronger tones that emphasise the need for action. The PNR promotes the development and valorisation of rural areas by adding new meanings and new opportunities to challenge the depopulation of agricultural territories.

As a resource, the rural built heritage favours the preservation of the landscape and cultural and building traditions, but it is also a model for formulating a correct methodological approach to support sustainable recovery policies. In addition, today's living looks to the environmental context to meet an ever-increasing need for sustainability. It is true that the bioclimatic character belongs naturally to the rural building tradition, but today the design approach to renovation should be integrated with the possibility of producing energy from renewable sources.

Therefore, rural architecture is particularly suitable to be inhabited according to a more than active energy balance ("Plus Zero Energy Building").

**ID 023** *Built environment, art and strategies for landscape care and maintenance: artist residencies in Massa Lubrense*

**Francesca CIAMPA**

*University of Naples Federico II, Italy*

**Stefania DE MEDICI**

*University of Catania, Italy*

**Maria Rita PINTO**

*University of Naples Federico II, Italy*

The paper shows a Best Practice, based on the topics of beauty, art and landscape, which are the core issues in strengthening the identity of communities. The artist residence: “Art, Landscape and culture of food”, in Massa Lubrense was funded by an agreement between the Associazione Ristoratori Lubrensi (ARL), the Department of Architecture (DiARC) of the University of Naples Federico II and the Municipality of Massa Lubrense. It also involves synergy with schools, associations and citizens. In this scenario, artistic production is a driver to rebuild deep links with the tangible and intangible cultural resources of the Historic Urban Landscape (UNESCO, 2011). The strategy implemented, engages the actors on the territory in a path of reading and reinterpreting places, recognized as identity features by the community, in order to share the responsibility of their care and maintenance (EC 2005). The pilot project, carried out in the area of S. Costanzo Mount, is a pilgrimage destination and scenic point that embraces the Gulf of Naples and the Gulf of Salerno in a single view. The project identifies artist residencies as a method to promote awareness processes, triggering a collective dimension of responsibility. To face the disappearance of co-evolutionary dynamics, which for centuries have bound communities and places, art is proposed as an engine for the awareness and cohesion of civil society toward beauty. This to counter the disruptive pressures that alter environmental and architectural heritages.



**ID 024** *A new Museum of the suburbs in Rome*

**Fabio BALDUCCI**

*Sapienza University of Rome  
Italy*

On the eastern outskirts of Rome, the boundary between the urban area and the rural landscape is defined by the great redent of Tor Bella Monaca, designed by Pietro Barucci in 1980. Today, this huge modern monument stands as a witness to an ideology that has failed to unravel the tensions between urbs and polis, an emblem of a society that marginalises its edges in pursuit of an idea of perpetual centralisation.

In this context, the Plan promoted by Roma Capitale aims to reinterpret Tor Bella Monaca as a material and cultural heritage to be valorised and transformed, favouring the construction of a new sense of urban community. The think tank coordinated by XXX has developed a regeneration project to redeem the area physically and functionally, with a focus on the relations between the center and the periphery, as well as on typological and environmental aspects.

The symbol of this desire for rebirth is the project of the RIF - Museo delle Periferie, a museum-lab that develops architecturally in the underground level and emerges into the north courtyard of the complex with three large patios, which rewrite a new sampling of possible uses in the intermediate space between the collective dimension of the city and the domestic dimension of the house. The project recognizes the periphery as the habitat for the birth of a new idea of civic culture: inclusive, collaborative, dialogic, and future-oriented, characterized by the vitalistic charge that defines borderline spaces.

**ID 025**    *The re-use of Lilong in Shanghai*

**Barbara GALLI**

*Politecnico di Milano, Italy*

The paper aims to explore and analyze the processes ongoing in contemporary metropolis of Shanghai, with reference to the emergent phenomenon of architectural reuse of the Lilong (lane neighborhoods), a type of social house developed in Shanghai in the 19th century, which has so characterized the city as to be considered an architectural icon. Stylistically, it is a hybrid of Western architectural languages and spatial organization, typical of Chinese tradition. The main aim is to understand how reuse is contributing to a more historically and culturally conscious design and how these places have influenced the city not only architecturally, but above all from a social point of view, an aspect that also typifies the conservation projects that have affected them. Re-use projects will, also, be analyzed with reference to the legislative system governing the valorization and protection of cultural Heritage in China to deeply understand the elements that led to the decision to conserve through re-functionalization and re-use projects these parts of the city. This architectural type represents an important historical moment in the transformation of China into a Republic, and through the spatial and social relations generated in its spaces, it allows us to understand certain peculiarities of Chinese culture, which is rich in symbols that remain stable in form. In Chinese philosophy, in fact, every reality is whole: everything in the universe is like the universe.

**ID 026** *BIM and Blockchain a contribution for the security of building heritage system*

**Giovanni MONGIELLO**

*Polytechnic University of Bari  
Italy*

**Gennaro MONGELLI**

*Engineer*

Blockchain technology originates with the creation of Bitcoin and technically indicates a sequence of data divided into blocks connected in a chain.

This chain is immutable, and each block is linked to the previous one and to the following one thanks to a system of hash codes, developed to prevent fraudulent actions. This technology has aroused great interest mainly for its interaction model based on a distributed trust system, characterized by the absence of a “trusted” third party.

Due to the great security of the data stored in the blockchain, many companies that produce products subject to counterfeiting, have adopted this technology to protect their final product. If well designed and implemented, the blockchain can be exploited in various digital fields, including BIM which has revolutionized the construction world, creating a strong collaboration between all the players involved in the design process. Implementing BIM with blockchain would solve the problems of intellectual property of a project, privacy and improve trust between those who sign a contract. This paper describes the main critical issues of BIM and how the blockchain could make them strengths, provided that this technology is technically and legally implemented to allow for the development of Smart Contracts, contracts written in computer language and made secure thanks to the of the blockchain.





**ID 027** *Study for Improvement of Evacuation Safety of Cul-de-sacs Roads in Historic Streets – A Study on the Installation of Emergency Evacuation Doors in Kamigyo-ward, Kyoto Japan*

**Takeyuki OKUBO**

*Ritsumeikan University Kyoto, Japan*

**Yuki NAGASAWA**

*Taisei Corporation Tokyo, Japan*

**Dowon KIM**

*Ritsumeikan University Kyoto, Japan*

In Kyoto City, the site of this study, there are many densely wooded urban areas, and among them are cul-de-sacs where buildings cannot legally be reconstructed, which may pose problems for evacuation and rescue operations in the event of a disaster. For this reason, Kyoto City is currently implementing a road designation system, but since this system is based on the premise that buildings must be rebuilt and cul-de-sacs expanded, cultural values cannot be maintained. In order to address this urgent issue, it is necessary to study evacuation plans and methods to eliminate cul-de-sacs without the need to rebuild. This study targets Kamigyo-ward, Kyoto City, and aims to improve evacuation safety by examining a substantial evacuation plan for cul-de-sacs, which are infeasible for two-way evacuation, and a method for eliminating cul-de-sacs while preserving the historical townscape. The current status and characteristics of cul-de-sacs were clarified through field surveys in the Seishin and Demizu school districts, which are the most dangerous of the two. Furthermore, an evacuation simulation was conducted to evaluate the effect of improving accessibility to evacuation centers, assuming the addition of evacuation doors to walls and fences along cul-de-sacs, and taking into account the road closure rate. Furthermore, interviews were conducted with residents and others who have installed emergency evacuation doors to identify the factors necessary to improve the number of emergency evacuation doors installed. Based on the results, we evaluate the effectiveness of emergency evacuation doors and make recommendations regarding their installation.

**ID 028** *Maintaining the built environment through community engagement tools and strategies: playground as experimentation platform*

**Maria Giovanna PACIFICO**

**Anna Rita VILLANO**

**Katia FABBRICATTI**

*University of Naples Federico II, Italy*

The proposed research investigates community engagement processes in built and urban heritage care strategies, aim to control the built environment quality with a view to users' involvement, awareness, and education.

Focusing on places intended for school-age users, the research experiments with methods and tools for transferring a shared monitoring strategy, where parents and children experience tools to detect information about the quality of the playground system and its sub-systems (UNI EN 1177; UNI EN1176-1; UNI 11123). These tools, designed according to the specific abilities and skills of the users, enable knowledge of their changing needs over the playground's life cycle, guiding managers in planning maintenance and redevelopment activities.

Through the analysis of three selected case studies, within the municipality of Naples and located in three different settlement systems, from a physical, social, and economic point of view, strategies for the activation of training workshops for playground maintenance and redevelopment are outlined.

Built environment is assumed as the research entry point and maintenance as the connection with the community: the user becomes an actor within the maintenance process capable to have an influence on the activities and their scheduling.



**ID 029** *Architecture and biomechanics*

**Efisio PITZALIS**  
**Barbara BONANNO**

*University of Campania, Italy*

The execution is the only way to fully understand the method, this is a cornerstone of Mejerchol'd theatrical theory, as well as of making architecture. The workshop activity included in the architecture courses is the only useful way to experiment, make mistakes, understand and, in this way, train as designers.

Therefore, some works by the students of the fourth-year architectural design laboratories are proposed, these are part of the continuous research activity on teaching and on design. In recent years, students have had the opportunity to deal with the consolidated fabric of the city of Rome, a fabric overflowing and rich in historical stratifications, therefore with a fragile balance. They were urged to produce projects for the community that had a relationship with the places close to them and with the aura of the Eternal City. The outcome were projects with different approaches, recalling the past, its forms, and materials; of relationship with the contemporary, national and international, and of projection towards the future which together contains the two previous ones and gets rid of them. These approaches relate to the three moments that make up movement in biomechanics: intention, balance, execution. This proves that there is parallelism between all the arts because every form of art whether it is painting, music, theatre or architecture shares the same values.

**ID 030**    *Landscapes, Emergencies and Architecture*

**Enza SANTORO**  
**Gigliola AUSIELLO**

*University of Naples  
Federico II, Italy*

The link between man and landscape has always characterized the process of natural anthropization, which starts from inhabiting places and creating conditions of belonging destined to survive over time. The building practice creates new ways of occupying the territory, which are driven by the needs of living, and determine identity values. The environmental, social, political emergencies or calamities, catastrophes and human tragedies often create the conditions to occupy new territories where the nature is unspoiled and the landscape shows few signs of anthropization. Living and building not only feed temporary anthropization processes, but also generate social, economic and scientific values such as producing architectures. The physical and emotional involvement of those who experience these kind of emergencies creates a sense of belonging to that place and time that underlie the architecture itself. Every landscape and every person retains its own economic, social and cultural identity; in the same way, any emergency has a specific approach. The architectural value, though, manifests itself in the link between living and building in that place and that time, to the point of rewriting the history of a context. The sense of participation, fueled by self-construction practices, is a strong value that transforms a group of people that are experiencing the emergency into a new society. Nowadays emergencies create new architectural languages through strategies of respect for the environment, use of innovative materials and dry building technologies.



**ID 031** *Dwelling the spaces below the road. Urban design strategies in the wake of the circular economy*

**Luigi SIVIERO**

*University of Padua, Italy*

**Raffaele SPERA**

*University of Naples  
Federico II, Italy*

This paper aims to provide some possible urban design strategies for the upcycling of infrastructure residual pockets, in line with the principles of the circular economy applied to urban design.

In the building of specialised infrastructure, the functional efficiency of the connections and the safety of the users prevail over the architectural quality of the urban space generated below them. This condition generates the paradox that the “above”, responding to the criteria of functionality and safety, contrasts with a “below” in which it is difficult and dangerous to move, characterised by urban fragments, whose connections have been severed by insurmountable infrastructural barriers, difficult social conditions, degradation and crime.

The upcycling of these residual spaces, which cannot exclude an interdisciplinary approach, would make it possible to return considerable reserves of urban space to the community and to face the phenomenon of land consumption. In this scenario, the urban design has the task of identifying the ways in which the residual spaces of the infrastructures can be used, occupied, transformed, the way in which it is possible to create physical or perceptive connections between the urban fragments divided by the infrastructural bundles, recovering the signs of the paths and urban fabrics.

The case study on which this contribution is based is the eastern area of Naples, a former industrial area and an important Italian logistics hub, marked by roads, railways and pipelines.

**ID 032** *Preserve the human*

**Mariacarla PANARIELLO**

*Pompei, Italy*

We often hear talk of ecological beauty, of raising the value chain and of conscious choices, we find ourselves living in a complex, articulated, altered world in which our activities unfold by untangling themselves between countless ambiguities and dichotomies.

In this constant dialogue between man and nature, knowledge is shared and transferred through a design faculty that is not additional but multiplicative, outlining a suspended contemporary living.

Man comes to the perception of himself, he comes to understand his own identity in the face of something that transcends him, through an experience of communication with the transcendence of something that exceeds and limits him at the same time. The experience of wonder interrupts the regularity of nature and puts us in relationship with an aspect of reality.

The sustainable turning point in the design sector with the New European Bauhaus indicates new project perspectives based on empathy, cohesion and a new recognition of meaning for contemporary aesthetics. Thinking then of the Bauhaus as a historical movement and of its founders such as Kandinsky in his publication "the spiritual in art" speaks of a new advent of art, defined by Elena Pontiggia as a secular prophet who announces a new art. A new concept of total art makes room that hurls against materialism and is deeply connected to an inner dimension, perhaps we can say to an inner need, in fact we find in the first production of the Bauhaus a strong connection with the artisan production.

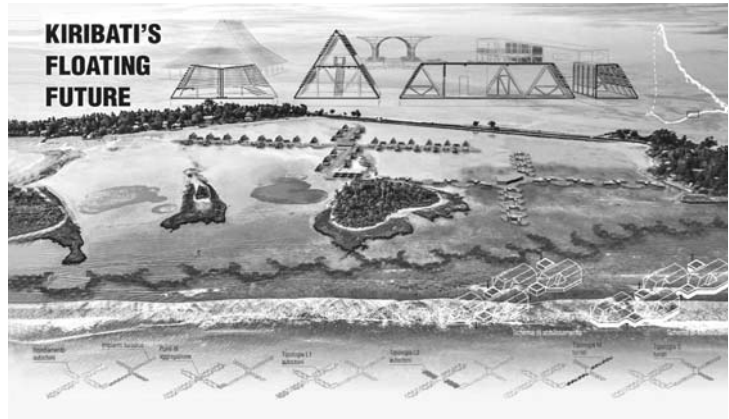
Can we say that we have reached a moment of necessity, a point in which we can make choices that lead us to an "eighth day"?

**ID 033**    *Transform of Traditional Urfa Houses Located in the Historical Area of the City*

**Fatma Sebnem  
KULOGLU YUKSEL**

*Harran University, Turkey*

The city of Sanliurfa is located on the Syria border, in the southeast of Turkey. The traditional houses of Urfa were built with limestone found in the region, in the late of 18th century. The architecture, buildings and streets were created an urban texture that attracts attention. Due to the shift of the city center to the north and the fact the life in the modern reinforced concrete apartments in the newly urbanized areas was more comfortable, by the time, the traditional houses were abandoned one by one, and the buildings remained empty for many years. In recent years, after the discovery of neolithic settlements such as Göbeklitepe or Karahantepe occurred intense tourist visits, caused demand of hotel accommodation in the city. Today, traditional houses located in the historical area of the city are being restored and re-functionalized as boutique hotels. During this new functionalization, various reinforcements such as wet areas (bath, kitchenet), heating and lighting systems equipment, etc. were inserted to the buildings. These new functions and restorations prevent the building from being demolished and destroy, but they also bring intervention and an additional load to structure. In this study, a discussion was made about the balance of protection and use in cultural heritage by examining local examples in terms.



**ID 034** *A future for Kiribati. New models for resilient housing settlements*

**Tiziana FIRRONE**

*University of Palermo, Italy*

**Stefano PUGLISI**

*Architect, Palermo*

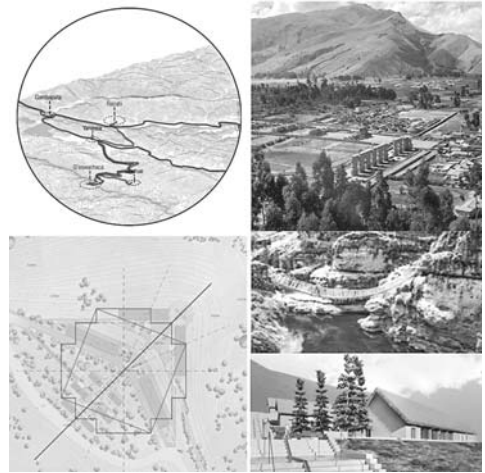
**Andrea SILIGATO**

*Architect, Palermo*

According to the Special Report on the Ocean and Cryosphere in a Changing Climate, the sea level has grown at a rate of 3.6 mm per year in the period between 2005 and 2015, increasing faster over the last century due to the melting of ice caps and the thermal expansion of the ocean. This increases the risks for populations living in coastal areas and in particular for those living in arctic regions and in the atolls, like the islands of Kiribati which, by the middle of the century, could become uninhabitable. The coastal protection systems and the adaptation processes that use ecosystems and solutions derived from nature (ecosystem-based adaptation), foresee rather long realization times and the population of Kiribati runs the risk of being forced to move elsewhere in a short time.

From these premises, the study conducted at the Department of Architecture of the University of Palermo takes its cue, aimed at identifying new housing models capable of facing imminent emergencies and avoiding the abandonment of the lands of origin. Sustainable housing solutions, designed in accordance with the local settlement tradition and able to satisfy the needs of a community that, although not having no role in the production of greenhouse gases, it must adapt to the new environmental conditions imposed by industrial development policies from which it is totally foreign.





**ID 035** *Intervention strategies for the enhancement of the Peruvian route of the Inca royal path Qhapaq Ñan*

**Tiziana FIRRONE**

*University of Palermo, Italy*

Qhapaq Ñan, a UNESCO World Heritage Site, was a complex administrative communication and transport system that connected the immense territory of the Inca empire for over 30 thousand km, intercepting sites of great historical and cultural interest today, first of all the Sanctuary of Machu Picchu. The consequences of climate change and the high tourist presence, which is mostly concentrated in Machu Picchu, are seriously jeopardizing the survival of this precious asset. The heavy rains that hit the monuments produce dangerous infiltrations of water between the masonry structures, compromising their stability; the transit of people along the paths and stairways erodes the rock and the soil.

A further burden is the new airport, nearing completion, located a few kilometers from the entrance to the Sacred Valley of Machu Picchu, aimed at strengthening the national and international tourist network, with irreversible damage to the territory and local communities. For these reasons, in 2016, UNESCO included Machu Picchu in the list of "World Heritage Sites in Danger".

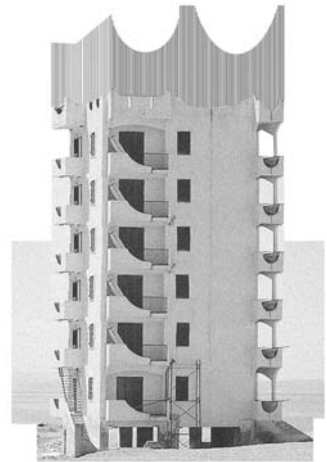
The present study proposes an alternative that can shift the tourist flow towards other sites intercepted by the Qhapaq Ñan, less known but equally rich in history, culture and art, including the archaeological site of Raqchi and the Q'eswachaka bridge, for which interventions are proposed aimed at improving their accessibility through the redevelopment of the existing infrastructures and the construction of temporary reception facilities in respect of the identity of the places.

**ID 036** *Visions, strategies, and projects. The names by the new Italian Design and Craft movement*

**Luca PARODI**

*University of Genoa, Italy*

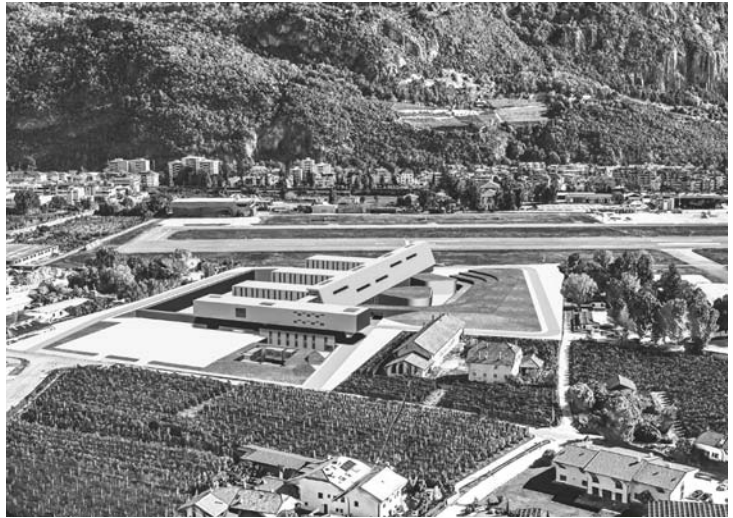
The relationship between the design system, traditional applied arts, and local culture is clearly transforming. This is confirmed by exhibitions, publications, and events that have seen many designers cooperating with the handmade sector over the past decade. These collaborations confirm the spread of an experimental approach, more aware of the urgency of sustainability and ready to design new paths. In this scenario, craftsmanship is an irrefutable, sustainable resource that is mindful of production impacts. Although manufacturing represents a Made in Italy excellence, for many years it has been associated with beliefs and stereotypes that have penalized it. In this regard, it seems that craftsmanship today can be projected into different logics. The paper explores the role of the design discipline as an activator-facilitator, with reference to the Mediterranean area. From a methodological perspective, it investigates the design approach of thirty under-40 designers whose work is based on tradition, geography, and identity. Their approaches enhance an intangible heritage that does not fear the post-industrial and globalized world. The goal of the operation is realized in the codification of a potentially virtuous process that validates the role of design as an element of innovation, in line with a production sensitive to local cultural-material peculiarities and resources.



**ID 037** *A new legacy. The shape of contemporary reuse*

**Concetta TAVOLETTA**  
*University of Campania, Italy*

The theme of legacy, of what “remains”, has always questioned the action of the project which over time has faced different spolium conditions. The mythical practice of the city, as described by Michel de Certeau, is represented by the unexpected, by stratified places which in the common image appear as incidents along the way, as conditions on which the seal of error stands, the scarlet letter of speculation. Yet, the relationship with the ruins has always been described by Piranesi’s beautiful drawings as a fantasy world so exceptional that observation alone builds new possible views of elements that appear lifeless. The contemporary appears to us uncomfortable, insidious and a source of continuous rewriting which, very often, is limited to adding, increasing the quantity of volumes which will themselves be a further legacy to deal with. In this multitude of accidents and unexpected beauty, this research tries to lead the observer towards scenarios in which our new concrete-frame legacy can be an inexhaustible forge of beauty.



**ID 038** *A new model of detention. The Bolzano prison*

**Filippo MARCONI**

*University of Trento, Italy*

The need for a transformation of the Italian prison system is constantly emphasised in the news; this is mainly due to the state of the existing building stock, which is not in line with the principle of rehabilitative punishment, marked by the Italian and European constitutions. Structural deficiencies, overcrowding and the planimetric conformation of the buildings are only some of the reasons for the difficulties of the Italian prison system. The architectural project must be central in contributing to the cultural change of course; it is an indispensable tool for rethinking a new model of prison 'open' to the city.

The article explores scenarios for the gradual decommissioning of the current prison in Bolzano, in favour of a new construction outside the city centre. Such a solution allows the study of innovative spatialities, with a focus on the single dimension of the prisoner; at the same time the progressive decommissioning of the old prison allows the reuse of a building of symbolic value and historical interest, as a cultural space.

The method and experimental results in this historical, theoretical and experimental study of detention spaces in the city of Bozen can also be extended to other Italian realities, which are no longer sustainable, spatially or socially, and for which the thought of an "advanced" detention architecture, with respect to current models, and a complex process of decommissioning, construction, reuse in several stages are necessary.



**ID 039** *The analysis of values as a strategy for the conservation of cultural heritage*

**Michela BENENTE**

**Irene RUIZ BAZÁN**

*Polytechnic of Turin. Italy*

The relationship between cultural heritage and the topics of sustainability and resilience requires a reflection on the cognitive analyses underlying the conservation and valorization project. The theme is particularly complex because it relates systems of “measurement” and objective analysis with subjective assessments such as the attribution of value. The value analysis stands as a distinction with respect to the planning actions that can be of safeguarding, conservation or valorization. Although cultural heritage is often experienced and remembered as immutable, careful analysis shows how this apparent stability is the expression of a constantly changing process. Identitary elements are formed and reformed through the interaction of numerous human and non-human factors. The scientific debate on the way in which heritage values can be defined and evaluated has recently assumed a role of primary importance in the light of the reflections conducted in relation to the UNESCO sites registered in the WHL. Among the first studies, the Nara Grid represents in this sense a tool of proven interest but which perhaps needs further developments to adapt it to a situation in which there is an increasing need for a weighing criterion. This paper proposes a reading of this methodology in relation to the application of quantitative analysis matrices linked to hazard and risk phenomena and how these can be read depending on a qualitative factor as well.

**ID 040** *Puzzle design. Between Vision, Speed, Design and Sustainability*

**Andrea MARCUCETTI**  
*Tabriz Islamic Art University, Iran*

The cultural and methodological trend in project elaboration follows increasingly specialized dynamics and abilities that are mostly autonomous compared to other themes.

They must be achieved quite rapidly, thus losing sight of processes and integrations of many other subject matters that should bring forth innovative and sustainable solutions, thus becoming most attractive in the territories they are set up in, sites that nowadays most often need urban-regeneration interventions. Living on Earth is a complex theme to plan.

Taking into account the lengthy realization and rapid social mutations, the complexity is even greater if the areas being considered include Cultural Heritages. These themes cannot be managed by using solely political, philosophical, economical or urban considerations; nor can the architects, archeologists or restorers be left alone in their abilities and competence. The method-model that is used is practically always carried out by one of the figures mentioned above. The context “to be sought after” and the socio-cultural composition of the site is however forgotten.

Thus said, it would be wise to use a multi-disciplinary model of research beforehand, reflecting and sharing thoughts among the various competent entities that participate together (we shall call this Puzzle Design). Prior to the projection and realization of the project, it is necessary to have the various analytical aspects interact.

**ID 041** *Emotions and memory to change behaviours*

**Michela BENENTE**

**Valeria MINUCCIANI**

*Polytechnic of Turin, Italy*

The environment and landscape decay that we are currently experiencing today is not recent but it is the result of policies, collective and individual behaviours, rooted in times long past. It is not enough to draw up defensive projects if at the same time we do not act on these behaviours. People's well-being is not simply the passive outcome of external strategies, but derives first and foremost from intimate transformations in citizens themselves. Objective well-being is certainly the result of external conditions, but subjective well-being also depends on awareness, behaviour and positive expectations.

This paper focuses on the contribution that Cultural Heritage can give to this process enhancing the citizens' memory of the past. However, the current attention devoted to tangible and intangible heritage makes use of unidirectional (top-down) communication, focused on 'cultural learning' and a basically cognitive approach. Conversely, neuroscience (still applied at an experimental and pioneering level to Cultural Heritage) today shows us that the emotional component can elicit responses at a deep, transformative level.

Citizens know what should be done to safeguard the environment, but this is not enough to change their behaviour if they don't really feel deeply affected by this. This paper describes some ongoing studies and experiments, suggesting new participatory practices on the part of citizens, also with Neuroscience's support.





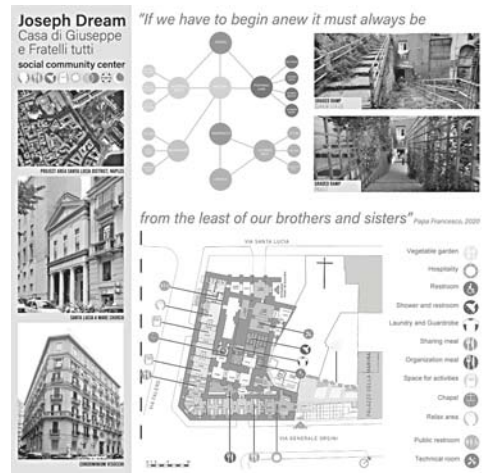
**ID 042** *Urban spaces of cultural contamination. Creative places of sociality, integration, inclusion*

**Teresa CILONA**

*University of Palermo, Italy*

The well-being of the person is closely linked to the spaces in which they live and the resources they access. The recent slogan and urban paradigm “happy city and healthy city” brings attention back to the person and investigates the role of the built environment, individual, social and cultural well-being, as indicated between in the sustainable development objectives of the 2030 Agenda. However, the city, health and well-being of citizens requires an overall vision. It is necessary to graft a plot that can create - through resilient planning - interconnected and engaging open spaces, open and multiform specialized areas and, at the same time, incorporate pre-existing places and buildings in the city, safeguard them in their identity, but related and used in an innovative way. The interventions already carried out in some international and national urban realities confirm the importance and role of urban public space in the redevelopment of cities. Projects that promote architectural quality and favor a climate of social well-being and civil coexistence. In this study we will deal with the “rediscovery” of some urban squares in southern Sicily that reflect and identify the state of “health” of the cities, the work of local governments and reflect the “goodness” of business ideas. They are degraded urban areas, poorly cared for by the administrations, mainly used as parking lots. A good reason to transform them, in the near future, into places of cultural contamination and creativity.





**ID 043** *Goal 1. No to poverty: a social community center for access to basic human needs for health, education, sanitation*

**Sabina MARTUSCIELLO**

**Carlo COPPOLA**

**Silvia BUONOMANO**

**Francesco DI FIORE**

*University of Campania, Italy*

“Joseph Dream, casa di Giuseppe e Fratelli Tutti” is a social community center located in the Santa Lucia district in Naples for and with the homeless, a center to defeat poverty, a transversal poverty that concerns not only the lack of house but the generalized lack of services, spaces for treatment, spaces for attention. In 2023 the data regarding the number of homeless people reported a very significant increase compared to the previous year, more and more people are turning to Caritas. The Campania chief town is among that lead the ranking. Among the many facilities in Naples that offer services for the homeless, there is the one that belongs to the Santa Lucia a mare Church, which currently provides 80 meals a day. “If we have to begin anew it must always be from the least of our brothers and sisters” so he quotes the Encyclical of Papa Francesco, incipit of the project.

“Joseph Dream” is the title of the project developed for Santa Lucia a mare Church, in Naples, through the redevelopment of an abandoned building. The project is also a concrete response to goal 1 of the UN 2030 Agenda for Sustainable Development: “defeating poverty”, countering the pandemic of indifference (Papa Francesco, 2020).



**ID 044** *Dwelling the Mediterranean Heritage. Regenerative Networks for Inclusive and Resilient Communities and Territories*

**Irene POLI**

**Francesca ROSSI**

*Sapienza University of Rome, Italy*

Semantically, the Mediterranean recalls a landscape lapped by waters that evokes historical, cultural and socio-political flows and traditions, as the context of a widespread and handed down civilisation. A territory that can be defined in terms of 'reciprocity', in the framework of a specific and unique historical, cultural and infrastructural context, which, at the same time, represents an ecosystem that is among the most vulnerable and most seriously endangered, both from a structural as well as a morphological and ecological point of view, for being affected by different forms of anthropic and environmental pressure, which erode their values, traces and memories in an increasingly diffuse process of homologation and banalisation. A progressive loss of identity, of disappearance, of abandonment and exploitation which make them uncertain and fragile places.

The paper moves from the definition of an existing historical Mediterranean territory, composed of networks and relationships, both material and immaterial, that link populations to places, as well as islands to coasts and coasts to hinterlands, to define, through an instrumental narrative based on population flows, trade routes and landscape networks, expressed in historical and contemporary terms, new references to support and connote integrated strategies for the regeneration, rebalancing and re-actualisation of Mediterranean networks. In particular, across the Aegean and the Tyrrhenian Seas.



**ID 045** *Between image and logos: the paradigm of a visual language in the Valcamonica rock drawings*

**Stefano CHIARENZA**

*San Raffaele Roma  
Open University, Italy*

Since the most remote moments of its history man has tried to discover, read and understand reality, interpreting its mysteries through a set of signs, shapes, colours, manifestation of that cognitive aspiration that has always prompted the human soul to act, trying now to record, now to change the surroundings. The artistic expression of prehistoric peoples represents a fundamental investigation element capable of highlighting the product of significant mental operations that express aspirations and intellectual processes. Introspecting prehistoric art, and relating the forms of expression to the cultures that produced them, certainly appears satisfactory from a historical point of view. But investigating such a great expression of the human spirit from the point of view of the image makes an even greater possibility: that of connecting areas of knowledge that are also very distant from each other but united precisely by the paradigm of representation which therefore arises as a reading tool since the first anthropic landscapes. The present study concerns the relationships between image and language and analyzes the aesthetic manifestations of primitive art as a construction of communication models. Particular attention is paid to the importance of semiotic systems developed in prehistoric times and to their possible pre-linguistic values. The area of analysis is assumed to be that of the rock art of Valcamonica, the first Italian site included in the UNESCO World Heritage list, by comparing the vast existing literature relating to interpretative studies. The fundamental objective is to bring semiological attention from the logos to the image.

**ID 046** *The project of public space. Towards adaptive infrastructures for more flexible and ecological city*

**Rosalba BELIBANI**

**Michele LAZAZZERA**

**Pina CIOTOLI**

*Sapienza University of Rome, Italy*

The contribution aims to investigate, on the basis of projects and theories, the possibility of considering infrastructures and soil as a project material and as a new portion of public space. While on the one hand, new technologies allow forms of digital socialization, creating a strong disenchantment with the metaverse and estrangement from reality, on the other, the quality of public spaces still seems to be strongly compromised by overly specialized places and the result of a twentieth-century design approach according to which they are inadequate for contemporary urban social welfare. Among these places, the roads and large infrastructure nodes, in many cases truly autonomous metropolitan landscapes, play a central role. Their iconographic incident within the city introduces a scenario that obliterates the urban habitat and does not establish any direct mutation with it. The survey starts from the recognition of the French experience of the Vtk studio within which the E-40 Brussels project questions the future and the alternative role of infrastructures. The goal is to evaluate the feasibility of these scenarios that rethink in a more ecological perspective areas of public cities trapped and colonized by infrastructures.

**ID 047** *Innovative methodologies to support sustainable urban regeneration*

**Barbara MESSINA**

**Carla GIORDANO**

*University of Salerno, Italy*

Dealing with the enhancement of the existing heritage means improving the quality of life in the urban environment. In fact, promoting regeneration actions on heritage means recognizing social and cultural values but at the same time managing urban changes in the light of livability needs with a view to reducing consumption. In this sense, operating in urban areas certainly implies complex actions that require a new and advanced digital approach capable of providing detailed information on even very large areas to support decisions.

Currently, most of the operations on existing assets generate a significant impact especially from an environmental point of view. Therefore, it is necessary to act in advance through interdisciplinary approaches that guarantee an optimal evaluation and management of the problem right from the origins. The following contribution proposes the use of the Building Information Modeling methodology as a design tool for redesigning the relationship between man and the environment in which he lives, in line with the indications on sustainable development promoted by the European Union within the Agenda 2030.

**ID 048** *Urban transitions. The city in the former Ophelia Asylum in Potenza*

**Luca ZECCHIN**

*University of Udine, Italy*

The emerging themes related to the ecological, social and urban transition are closely intertwined with the project of regeneration of the built environment to re-inhabit the earth. How to improve the existing while preserving the identity character of the places? How to innovate the tools of urban design in relation to the heritage to be adapted to new needs? How to reconsider the interactions environment, society, economy, to compose regenerative forms and processes between ecosystems and communities?

This theme is explored in a specific research and project case: the former Ophelia Asylum in Potenza, designed by Marcello Piacentini and Giuseppe Quaroni in 1905. The urban regeneration and acupuncture of this part of the city is part of an idea of rethinking urban voids as containers of culture and productivity linked to creative industries and physical and conceptual re-elaboration of areas of the historic center and adjacent areas characterized by the presence of historical and artistic sites. The historic gallery "Covo degli Arditi" is a waiting space that, unlike the other pavilions of the former Asylum that have been reabsorbed by the city, struggles to find a shared destiny. The gallery, which was used to connect the pavilions of the Asylum, represents a powerful urban relational device, an in transition part of a wider system of possible public spaces that connect existing urban centralities with potential future ones.

**ID 049** *Advancing Sustainable Building Envelope Systems through LCA: A Comparative Analysis of Natural Stone and Concrete Envelopes towards Circular Economy Principles*

**Anahita MIRANI**

**Roberta ZARCONE**

*École Nationale Supérieure  
d'Architecture Paris- Malaquais  
France*

Faced with the depletion of non-renewable resources in the construction, the latest strategy "Climate ambition 2020" proposes to reduce the use of concrete by using natural and biomaterials.

Stone offers advantages such as durability, low maintenance requirements and lower levels of greenhouse gas emissions during production. Nevertheless, concrete remains the first material used for construction, offering advantages such as low cost and high availability.

To revalue the use of stone as a construction material for structural building envelopes, this paper proposes a comparative LCA analysis to evaluate the sustainability of France's two common structural envelopes: ashlar and concrete wall. The cases studies present the same geometric characteristics, considering the different production processes of these two technologies. This allows us to highlight the impact of the choice of the material and different production procedures in the evaluation of the life cycle analysis of a technological system. Through this comparison, this paper seeks to provide insights into their sustainability and opportunities for improving the potential for circular economy principles.

The conclusions of this paper can contribute to a shift in perception towards natural stone as a viable and sustainable option for building envelopes. The reinterpretation of use of stone today can help reduce the reliance on energy-intensive materials such as concrete and promote more sustainable construction practices.

## **ID 050**   *Adaptable design*

**Angela PALUMBO**

*University of Campania, Italy*

Climate change is one of the most important challenges of the modern era. The consequences of greenhouse gas emissions and air pollution are increasingly evident, from extreme heat waves to devastating floods. In this context, climate change adaptive design is emerging as one of the most promising solutions to mitigate the effects of climate change. Climate change adaptive design is a methodology that aims to develop built environments that can withstand extreme climatic conditions and long-term variations. Adaptable design requires a holistic approach to design, including understanding climate context, risk assessment, designing climate-resistant buildings and infrastructure, and spatial planning. The goal of climate change adaptive design is to create built environments that can withstand and adapt to long-term climate change. This means developing solutions that are flexible, modular and able to adapt to different climatic conditions. Developing architectural solutions that are flexible, modular and able to adapt to climate change means creating architectural projects that are able to respond dynamically to the constantly changing environmental needs. This requires a design that is flexible and able to adapt to climate changes, the needs of residents and the different conditions of use. In other words, a building that is able to change according to the needs of the surrounding environment, its users and the climate. The use of sustainable materials, the adoption of bioclimatic construction and design techniques, such as natural ventilation, solar lighting and thermal control, can help create buildings that are able to adapt to climate change.





**ID 051** *Representation to communicate and raise awareness*

**Massimo MALAGUGINI**

*University of Genoa, Italy*

The term representation brings together different fields, including theatre and drawing. When a theatrical text is staged, a performance takes place, the synonym for which is the term 'representation', and the same term can also refer to a graphic work. Theatrical representation and graphic representation also have in common the ability to convey a message. A play tells a story and, in a similar way, a painting, a drawing, a graphic work can also have great narrative power.

From these assumptions, a project was developed that succeeded in uniting these two forms of representation - drawing and theatre - with the intention of spreading awareness of a problem that is endangering our planet: the pollution of the seas. This is a problem that in recent years is beginning to be dealt with more frequently but is still underestimated and unknown to most people. For this reason, a theatrical production was devised that would combine the narrative potential of the two artistic expressions (theatrical performance and graphic representation) and involve the audience in a fantastic journey in which the actors would also give life to a series of characters drawn on the black scenes of the stage, according to an innovative scenic idea.

Theatre and drawing were thus integrated with the aim of drawing the audience's attention to a long-standing problem, leading them to an awareness of the seriousness of the issue.

**ID 052**    *Conceptual Paradigms - From Vernacular to Digital*

**A. BASTO DIOGO**

*Lisbon School of Architecture  
Portugal*

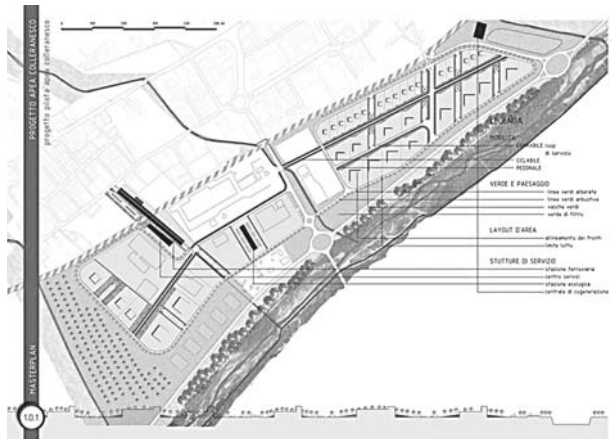
The article intends to analyse the changes produced in the act of architectural conception by the different tools and processes of representation. Architectural artifact's ideation presents methods and idiosyncrasies specific of the architectural knowledge, representation process are the gears to crystallizes them.

These different design practices influence the architectural artefact. The dialectical process between ideation and representation entails morphological, spatial and tectonic consequences. Understanding these phenomena can only be made based on architectural methodologies, that substantiate and inform the exercise of architectural ideation.

"Architecture crystallizes its time" because of that is a preferred vehicle of memory, constituting an object of study, which attracts historians and anthropologists, they produce a analyze and perspective over the architecture using their own methodologies. they do not take into account the axioms and methodologies of the architectural designing process.

These distinct disciplinary training results of the methodological framework and he professional focus, do not contemplate the conceptual and constructive architect's goals. An analysis made with other assumptions, distorts the perception of the operational and conceptual architect's principles.

The conceptual design and constructive principles that are the Project's purpose, are different from the analysis focus of the historians and anthropologists.



**ID 053** *Eco-equipped Production Areas the Italian way of Eco Industrial Parks*

**Salvatore LOSCO**

**Claudia de BIASE**

*University of Campania, Italy*

The eco-sustainability of productive settlements is a relatively new topic: only since the 1990s have experiences aimed at reducing the environmental impact of productive activities become widespread. Communities of production and service enterprises that try to improve their sustainability by implementing environmental, economic and social performance can be identified as Eco-Industrial Parks - EIP in application of what was theorized by Lowe, Moran and Holmes, in the publication *Fieldbook for the development of Eco-Industrial Parks* (1996). To achieve eco-sustainability, it is fundamental to plan/design/manage the new and/or renewed production area either through a new project or by upgrading the existing areas, but the morphological configuration/reconfiguration of the area is combined with the rethinking/reorganization of the functions resulting from the new production chains and modes (Lowe, 2003). Achieving EIP status requires both a coordinated planning/management process at the building and urban scale and the coordinated organization/management of each participating enterprise. This paper, starting from the American proposal, will explore the Eco-equipped Production Areas - EPA, which represent the Italian formula of the EIP. The paper will analyze both some significant Italian realizations and the regulations in force in Italy with the aim of identifying some general Eco-Planning criteria that characterize these types of settlement, distinguishing them from the context conditions, aimed at drawing up guidelines to support urban planning choices and the implementation of the planned interventions



**ID 054** *The rewilding approach in urban design. The case study of Budolfi Plads in the historic centre of Aalborg (DK)*

**Alessandra BADAMI**

*University of Palermo, Italy*

Dwelling on Earth responsibly means guaranteeing global environmental well-being, within which the habitable environment for human beings must find a new homeostasis. Addressing environmental degradation and halting the current loss of biodiversity is a central policy objective globally. This was reaffirmed by the proclamation of the United Nations Decade for Ecosystem Restoration 2021-2030, the EU Biodiversity Strategy 2030 and the Post-2020 Global Biodiversity Framework determined by COP 15.

In this context, new approaches to biodiversity conservation and ecosystem restoration are emerging, such as the rewilding, an approach that aims to strengthen the adaptive capacity of ecosystems by restoring natural processes and minimizing human management.

Urban designers are looking with growing interest in rewilding to offer quality urban environments without compromising the functions of the urban ecosystem, in the awareness that sustainable cities are becoming increasingly important for reversing global climate change. The article describes the transformation project of Budolfi Plads, the central square of the historic centre of Aalborg (DK), as an example of urban design adopting the rewilding approach. The project, winner of the Aalborg Municipality Architecture Award in 2020 and candidate for the European Green Cities Award in 2021, represents an innovative turning point for the urban design in a historic urban context.

**ID 055** *Territorial governance and climate adaptation.  
Towards an environmental perspective of urban  
regeneration*

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

*Sapienza University of Rome, Italy*

The literature, the scientific and disciplinary debate and the growing awareness on the part of national and international bodies of the impact of climate change on the territory (European Green Deal, 2019, Horizon Europe 2021-2027) have highlighted, in recent years, the need for climate-proof policies, strategies, tools and actions as a goal to be achieved through the updating and innovation of spatial government tools, according to an integrated and inter-scalar approach for the construction of urban regeneration strategies in coherence with the objectives of the European Strategy on adaptation to climate change (EU, 2021) and the addresses of the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development (UN, 2015) and the Climate Conference (COP26, 2021). This scenario is reflected in the most recent EU programming and policies and is, moreover, a transversal objective of the PNRR (Mission 5 Inclusion and Cohesion (Urban Regeneration and Social Housing), as well as of the PNR 2021/2027 (AT 2 Humanistic Culture, Creativity, Social Transformation, Inclusive Society in close correlation with AT 5 Climate and AT 6 Environment).

In this context, the contribution presents some of the results of the research activities carried out by the authors that highlight, starting from the analysis of national and international planning experiences and best practices, the urgency of defining new perspectives and new theoretical-methodological and operational references for an innovative planning system, as a tool for a sustainable and resilient regeneration of contemporary cities and territories.





**ID 056** *Urban vineyards as example of city regeneration*

**Francesca MUZZILLO**

**Fosca TORTORELLI**

*University of Campania, Italy*

The urban vineyards are an example of city regeneration both in terms of tourism and of the quality of life for citizens, a model which in some Italian and European cities is an integral part of the urban fabric and has always seen in nature the strength to survive. We could dare to define it as a sort of model of urban life that is increasingly sought after and updated, not only in a common vision of well-being, but also as a distinctive feature and tourist driving force. As in the past, the territories of urban agriculture show this desire for a new rurality. The union of a series of small agricultural areas becomes the strategic key for real environmental effects on general quality. In particular, urban vineyards become places of regeneration to be inserted into a complex system with osmotic criteria. Among the many examples, and the new urban vineyards that are spreading throughout Italy, perhaps very few people know that the territory of the Municipality of Naples is in second place in Europe, after Vienna, in terms of the number of hectares devoted to vineyards: Agnano, the Camaldoli, Posillipo, the Vomero, are the areas of the cities that host most of them. The agricultural culture therefore becomes a change of life, towards a different social conception, and a widespread well-being.

**ID 057** *Results of Study of Atmosphere Air Pollutions Caused by Automobile Transport in Urban Conditions on the Example of Togliatti City of Russia*

**Andrey V. VASILYEV**

*Samara State Technical University  
Russian Federation*

Automobile transport is one of the main sources of atmosphere air pollutions in conditions of urban territories. The constant increasing of impact of different pollutants from automobile transport to the air quality is presently a serious problem causing serious negative effects for the public health and for environmental state. New results of study of atmosphere air pollutions in urban conditions are presented on the example of the territory of city district Togliatti. For measurements of atmosphere air pollutions caused by automobile transport the points of transport network with maximal intensity of transport movement were selected. Results of measurements of atmosphere air pollution of urban territory on the basis of average daily concentrations and maximum single concentrations of typical pollutants of automobile transport (carbon monoxide, nitrogen monoxide and dioxide, hydrocarbons, sulfur dioxide etc.) were analyzed. In all points of measurements exceeding values of carbon monoxide were determined. Methods and approaches of reduction of negative impact of atmosphere air pollutions caused by automobile transport were suggested, including administrative-organizing, technical, urban development etc.



**ID 059** *ScanToBIM and Digital Twin of architectural heritage: case study on Badia of San Lorenzo, Casamassima in Italy*

**Rosaria PARENTE**

*Benecon University Consortium  
Italy*

**Riccardo TAVOLARE**

*Politecnico di Bari, Italy*

The current digital survey tools and the implementation of new virtualization methodologies of architectural spaces allow to the discipline of drawing towards new operational paradigms, allowing new semantic approaches and leading to an ever greater federated integration of the model with all the other disciplines involved in the AEC sector. Starting from the analysis of the state of the art of the integrated digital survey techniques available today, in this research a Scan-to-BIM workflow has been tested applied to a historic building, the Badia di San Lorenzo located in Casamassima (BA) in Italy. After analyzing the critical issues that the parametric approach brings with it in virtualization operations, we proceeded with an aerial photogrammetric survey and a terrestrial LIDAR survey, subsequently aligned through the use of targets. This survey was used as a reference for the subsequent BIM semantic modeling phase, identifying a basic LOD for each element, suitable for the representative purposes. Through the use of application plugins, the geometric accuracy of the model account was verified through an analysis of the variance of the 3D surfaces with respect to the surveyed points. Throughout the modeling phase, particular attention was paid to the semantic coherence of the elements, avoiding as much as possible the use of generic components which, by their nature, do not allow for a correct stratigraphic description. This approach is also motivated by the desire to allow maximum recognition of these elements during the eventual conversion to the IFC interchange format, as desired by international Best Practices.





**ID 060**    *Unresolved perfection*

**Michele DOVERE**

*Benecon University Consortium  
Italy*

What is the center in 2023?

I am not afraid, like Hans Sedlmayr of losing the center propelled by the “strong current directed toward the unconscious, the primitive, the primordial, toward darkness and fog, toward what lies beneath us.

Le Corbusier spoke of the total image of the world perceived and understood as a sacred place and source of inspiration; with his work *Mundaneum* (1929), i.e., World Museum, he represents man undergoing the laws of the city, living in the state and continent through temporary and permanent manifestations of continents, states and cities.

The project “Unresolved Perfection, La Perfezione Irrisolta” aims to represent, through the design of a museum installation, the multitude of facets of society by generating a unidirectional path where the visitor is obliged to walk through all the spaces. The irregular shape of the floor plan represents the chaos of today’s society that is enclosed within a perfect form with the intention of representing irrationality within perfection in such a way as to perform the miracle of the unspeakable space, a true world that is revealed to those in whose right. The next step is the leap in scale, an urban evolution of the installation, a hallucinogenic and formal civilization capable of transforming the earth into its unconscious satellite.

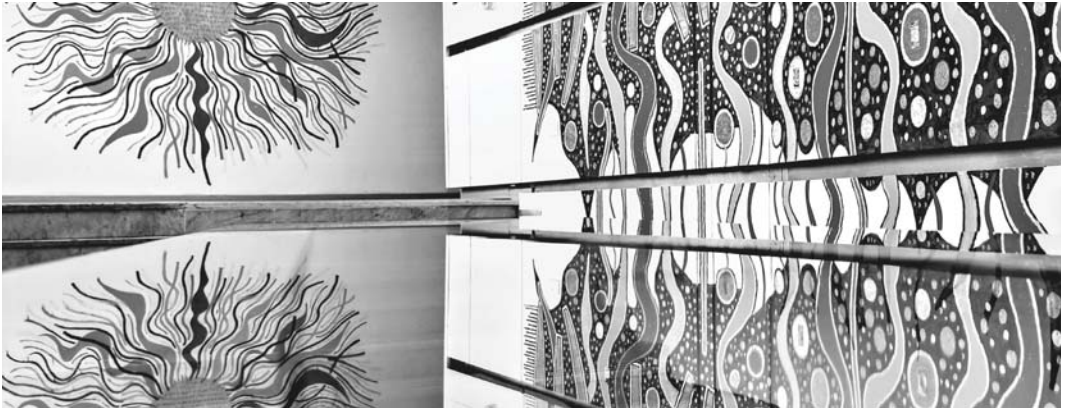
The design approach does not want to focus on paths, the important thing is that the user of the space finds himself since the moment this happens the birth of a man is finally realized, and “how beautiful a man when he is a man,” said Menander.

**ID 061**    *Nature for understand the resilience architecture*

**Paolo PISCITELLI**

*Benecon University Consortium  
Italy*

From Mother Nature the lesson of adapting to change, a practice essential to the survival of the species. A vision of the upside down of unused or unusual spaces, examples of imaginary architecture from Italo Calvino and his imaginative cities to the visionary Le Corbusier who anticipated the time of bio-welfare. How Froebel's concept towards educational modes is essential in the spaces of education experienced from an early age and how important it is to raise awareness from an early age to the issue of climate change. The Covid-19 pandemic has taught us to think outside our walls, valuing the small domestic context to the large urban scale that surrounds us. Nature succeeds in adapting to adversity, so man succeeds in living as he would in a dense, expansive mangrove forest, able to change his way of life by crossing different limits, thresholds and conditions just as homo sapiens is destined to survive according to the Darwinian theory of evolution.



**ID 064** *Valorising public and private spaces with murals*

**Alessandro CIAMBRONE**

*Benecon University Consortium  
Italy*

'Art does not reproduce what is visible, but makes visible what is not always visible'.

I believe that Paul Klee's statement can be extended to all disciplines of complex representation, from complex drawing to innovative digital representation techniques, which include and are not limited to the fields of architecture, design, landscapes, territorial government, urban and territorial planning.

In this framework, in the relationship between landscape, architecture and art, in the paper I present some murals that have had the ability to enhance public and private spaces in the Campania region and abroad: proposal for the donation to the Republic of Colombia of a 300 square meters mural dedicated to the Nobel Prize in Literature Gabriel Garcia Marquez at the UNESCO World Heritage Property of Cartagena; murals of 400 square meters for the Nobel Peace Prize winner Denis Mukwege in the Municipality of Sant'Antimo (NA) commissioned by the Honorary Consul of the Congo in Naples; murals of 200 square meters for the city of Tiriolo (Catanzaro) at the entrance to the ancient village; open-air gallery on the Luise pier in Naples for Carpisa and Yamamay brands as part of the project 'promotion and enhancement of Campania's artistic heritage; murals in the artistic and cultural center In Arte Vesuvio, on the seafront of Naples; murals in the MegaWatt headquarters in Casoria (Naples), Leonardo da Vinci conference room; and murals at the external entrance of KFC (Kentucky Fried Chicken) in Sant'Antimo (Naples)

## **TABLE OF CONTENTS**

- 15** ID 001. World Heritage Sites in Germany and Dwelling on Earth  
Natasa ZIVALJEVIC-LUXOR, Hartmut PASTERNAK
- 16** ID 002. Territorial restoration and redevelopment. The case of the Pentimele Hill  
Caterina GATTUSO, Domenico GATTUSO
- 17** ID 003. Drawing the walls of time and space: the Fontana dei Ciechi at Bonefro  
Piero BARLOZZINI, Fabio LANFRANCHI
- 18** ID 004. The measurement of decorum as a practice of knowledge in the expanding Naples of the early twentieth century: some examples  
Maria MARTONE, Alessandra Marina GIUGLIANO
- 19** ID 005. Vanished landscapes. New scenarios for dwelling on earth with the awareness of the past for a sustainable future. The ancient Vallis Regia, now Lake Barrea  
Maria MARTONE
- 20** ID 006. Landscape and history in the tip of the leaf. Preservation and enhancement of the historical olive grove of the Grottoes of Catullus.  
Flora BERIZZI, Nicola CASTOLDI
- 21** ID 007. From waste to resource for a sustainable future  
Anna CATANIA
- 22** ID 008. The Greener Europe. Ecosystem Services and Green Infrastructure for Resilient Cities  
Patrizia BURLANDO
- 23** ID 009. Ancient construction and new technologies. An experiment for the "Borgata" of Syracuse  
Fernanda CANTONE, Francesca CASTAGNETO, Vittorio FIORE
- 24** ID 010. Environmental recovery strategies for sustainable and resilient regeneration  
Francesco CRUPI
- 25** ID 011. The existing building as a source of energy: proposal of a method for the development of operational procedures for reuse  
Roberta ZARCONI, Anahita MIRANI
- 26** ID 012. Genua Picta 1982-2023  
Giulia PELLEGRINI, Francesca SALVETTI
- 27** ID 013. Protecting the past to save the present  
Maria NATALE
- 28** ID 014. Restoration, industrial design and drawing. A renewed Humanism for a renewed design concept the journal "Arte Italiana Decorativa e Industriale"  
Saverio CARILLO
- 29** ID 015. 'Historical' ecology and new Humanism: the perspective of the ancients.  
Maria Carolina CAMPONE
- 30** ID 016. The future of the metropolis above active railway  
Carlo MORETTI
- 31** ID 017. AI and green transition: solutions for to nudge people towards correct waste management practices  
Michela SCAGLIONE
- 32** ID 018. Dwelling on Earth by learning from Nature. Urban and building systems more sustainable and resilient through the use of Nature Based Solutions and Biomimicry  
Caterina MELE
- 33** ID 019. Landscapes in visualisations of architectonic hypotheses  
Dominik LENGYEL, Catherine TOULOUSE
- 34** ID 020. Knowledge aspects of cultural heritage: digitalisation and virtual dissemination  
Martina CASTALDI, Sara ERICE

- 35** ID 021. Stefania Filo Speziale's palazzina at the Parco Grifeo in Naples. An example of private housing for the middle-class  
Chiara INGROSSO
- 36** ID 022. Survey, analysis and model. Digital reconstruction and virtual fruition of Raphael's original Stables in the Villa Farnesina  
Maria Rosaria CUNDARI, Giuseppe ANTUONO, Gian Maria BAGORDO, Gian Carlo CUNDARI
- 37** ID 023. Built environment, art and strategies for landscape care and maintenance: artist residencies in Massa Lubrense  
Francesca CIAMPA, Stefania DE MEDICI, Maria Rita PINTO
- 38** ID 024. A new Museum of the suburbs in Rome  
Fabio BALDUCCI
- 39** ID 025. The re-use of Lilong in Shanghai  
Barbara GALLI
- 40** ID 026. BIM and Blockchain a contribution for the security of building heritage system  
Giovanni MONGIELLO, Gennaro MONGELLI
- 41** ID 027. Study for Improvement of Evacuation Safety of Cul-de-sacs Roads in Historic Streets – A Study on the Installation of Emergency Evacuation Doors in Kamigyo-ward, Kyoto Japan  
Takeyuki OKUBO, Yuki NAGASAWA, Dowon KIM
- 42** ID 028. Maintaining the built environment through community engagement tools and strategies: playground as experimentation platform  
Maria Giovanna PACIFICO, Anna Rita VILLANO, Katia FABBRICATTI
- 43** ID 029. Architecture and biomechanics  
Efisio PITZALIS, Barbara BONANNO
- 44** ID 030. Landscapes, Emergencies and Architecture  
Enza SANTORO, Gigliola AUSIELLO
- 45** ID 031. Dwelling the spaces below the road. Urban design strategies in the wake of the circular economy  
Luigi SIVIERO, Raffaele SPERA
- 46** ID 032. Preserve the human  
Mariacarla PANARIELLO
- 47** ID 033. Transform of Traditional Urfa Houses Located in the Historical Area of the City  
Fatma Sebnem KULOGLU YUKSEL
- 48** ID 034. A future for Kiribati. New models for resilient housing settlements  
Tiziana FIRRONI, Stefano PUGLISI, Andrea SILIGATO
- 49** ID 035. Intervention strategies for the enhancement of the Peruvian route of the Inca royal path Qhapaq Ñan  
Tiziana FIRRONI
- 50** ID 036. Visions, strategies, and projects. The names by the new Italian Design and Craft movement  
Luca PARODI
- 51** ID 037. A new legacy. The shape of contemporary reuse  
Concetta TAVOLETTA
- 52** ID 038. A new model of detention. The Bolzano prison  
Filippo MARCONI
- 53** ID 039. The analysis of values as a strategy for the conservation of cultural heritage  
Michela BENENTE, Irene RUIZ BAZÁN
- 54** ID 040. Puzzle design. Between Vision, Speed, Design and Sustainability  
Andrea MARCUC CETTI
- 55** ID 041. Emotions and memory to change behaviours  
Michela BENENTE, Valeria MINUCCIANI

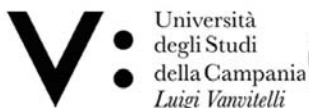
- 56** ID 042. Urban spaces of cultural contamination. Creative places of sociality, integration, inclusion  
Teresa CILONA
- 57** ID 043. Goal 1. No to poverty: a social community center for access to basic human needs for health, education, sanitation  
Sabina MARTUSCIELLO, Carlo COPPOLA, Silvia BUONOMANO, Francesco DI FIORE
- 58** ID 044. Dwelling the Mediterranean Heritage. Regenerative Networks for Inclusive and Resilient Communities and Territories  
Irene POLI, Francesca ROSSI
- 59** ID 045. Between image and logos: the paradigm of a visual language in the Valcamonica rock drawings  
Stefano CHIARENZA
- 60** ID 046. The project of public space. Towards adaptive infrastructures for more flexible and ecological city  
Rosalba BELIBANI, Michele LAZZAZZERA, Pina CIOTOLI
- 61** ID 047. Innovative methodologies to support sustainable urban regeneration  
Barbara MESSINA, Carla GIORDANO
- 62** ID 048. Urban transitions. The city in the former Ophelia Asylum in Potenza  
Luca ZECCHIN
- 63** ID 049. Advancing Sustainable Building Envelope Systems through LCA: A Comparative Analysis of Natural Stone and Concrete Envelopes towards Circular Economy Principles  
Anahita MIRANI, Roberta ZARCONI
- 64** ID 050. Adaptable design  
Angela PALUMBO
- 65** ID 051. Representation to communicate and raise awareness  
Massimo MALAGUGINI
- 66** ID 052. Conceptual Paradigms - From Vernacular to Digital  
A. BASTO DIOGO
- 67** ID 053. Eco-equipped Production Areas the Italian way of Eco Industrial Parks  
Salvatore LOSCO, Claudia de BIASE
- 68** ID 054. The rewilding approach in urban design. The case study of Budolfi Plads in the historic centre of Aalborg (DK)  
Alessandra BADAMI
- 69** ID 055. Territorial governance and climate adaptation. Towards an environmental perspective of urban regeneration  
Laura RICCI, Carmela MARIANO
- 70** ID 056. Urban vineyards as example of city regeneration  
Francesca MUZZILLO, Fosca TORTORELLI
- 71** ID 057. Results of Study of Atmosphere Air Pollutions Caused by Automobile Transport in Urban Conditions on the Example of Togliatti City of Russia  
Andrey V. VASILYEV
- 72** ID 059. ScanToBIM and Digital Twin of architectural heritage: case study on Badia of San Lorenzo, Casamassima in Italy  
Rosaria PARENTE, Riccardo TAVOLARE
- 73** ID 060. Unresolved perfection  
Michele DOVERE
- 74** ID 061. Nature for understand the resilience architecture  
Paolo PISCITELLI
- 75** ID 064. Valorising public and private spaces with murals  
Alessandro CIAMBRONE





GANGEMI EDITORE<sup>®</sup>  
INTERNATIONAL

FINITO DI STAMPARE NEL MESE DI MAGGIO 2023  
[www.gangemieditore.it](http://www.gangemieditore.it)



## SUPPORTED BY



With the support of  
**Regional Bureau  
for Science and Culture  
in Europe**



**Unione Industriali  
Napoli**



**UNIVERSITÀ DEGLI STUDI DELLA CAMPANIA  
LUIGI VANVITELLI**  
**SCUOLA POLITECNICA E DELLE SCIENZE DI BASE**  
**DIPARTIMENTO DI ARCHITETTURA  
E DISEGNO INDUSTRIALE**



Città di **Capri**