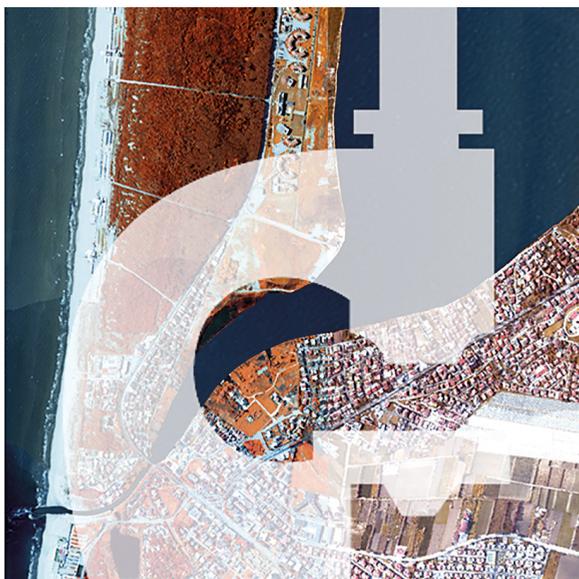


ARCHITECTURE HERITAGE and DESIGN

Carmine Gambardella

XIX INTERNATIONAL FORUM

Le Vie dei
Mercanti



World Heritage and Design for Health

ARCHITECTURE | CULTURE | HEALTH | LANDSCAPE | DESIGN |
ENVIRONMENT | AGRICULTURE | ECONOMY | TERRITORIAL GOVERNANCE |
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Carmine Gambardella
WORLD HERITAGE and DESIGN FOR HEALTH
Le Vie dei Mercanti
XIX International Forum

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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

300 abstracts and 550 authors from 40 countries:

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

WORLD HERITAGE and DESIGN for HEALTH

The innocent eye sees nothing (Ernst Gombrich)

In this particular time characterized by a pandemic due to the expansion of the Covid-19 virus throughout a globalized world, the destinies of everybody have suddenly changed behavior, lifestyles, interpersonal relationships, production methods as well as the governing of the territory; the priority of investing in the healthcare sector has become increasingly urgent and indifferent with reference to a political management of the communities that prevents and does not suffer, as unprepared, the emergencies that increasingly afflict the community. Furthermore, in these months of “quarantine”, the Planet has shown a Resilience that makes us hope for the future. A response to the Culture of Emergency, which finds its generative ground not only in the healthcare sector but also in the governance of the territory, relates to the hydrogeological aspects, pollution of soils, air, water, illegal construction, the exploitation of energy resources faced with the use of the integral of scientific and managerial skills based on meritocracy. The XIX International Forum of Study ‘World Heritage and Design for Health’ addresses the issues related to the global pandemic in a multidisciplinary and systemic logic, as indicated by the UNESCO and the United Nations 2030 Agenda for the definition of projects and concrete actions that include the Welfare and Health of the Community. Therefore, the Forum aims to create a transversal critical dialogue, open to cultural contamination and ‘without limits’, in a logic of integration between skills that extends, and is not limited to, the following disciplines: Architecture, Culture, Environment, Agriculture, Health, Landscape, Design, Territorial Governance, Archeology, Economy, History, Sociology, Security, e-Learning. The Scientific Community of the Forum is composed of about seven thousand Professors and Researchers from one hundred Universities and Research Centers in the world, from institutional representatives, from the business sector and from the representatives of the 830 UNESCO Chairs (UNITWIN Program) thanks to the WebGIS created and managed by the UNESCO Chair at the Benecon University Consortium. The location of the Forum is of excellence. Campania Region with six World Heritage Properties, two Unesco Man and Biospheres, three assets registered on the Intangible Heritage List is one of the richest Regions in the world for cultural and landscape heritage, particularly ‘contaminated’ by Mediterranean cultures. No coincidence that the Forum takes place in Naples and Capri, with site visits and presentations of scientific research and operational projects by the Benecon University

Consortium, consisting of five Italian Universities, head office of my UNESCO Chair on Landscape, Cultural Heritage and Territorial Governance. The papers, selected by the Forum's Scientific Committee, will be published in the Proceedings of international relevance (candidate to be indexed IISI Web of Science). Furthermore, the most innovative research and projects will be published in the 'Quaderni' of the A Class international magazine 'Abitare la Terra / Dwelling on Earth'.

Prof. Carmine Gambardella
General Chair XIX Forum 'World Heritage and Design for Health'
President and CEO of the Benecon University Consortium
UNESCO Chair on Landscape, Cultural Heritage
and Territorial Governance

WORLD HERITAGE and DESIGN for HEALTH

The innocent eye sees nothing (Ernst Gombrich)

In questo particolare tempo connotato da una pandemia dovuta dall'espansione del virus Covid-19 in un mondo globalizzato, i destini delle Persone improvvisamente sono stati modificati nei comportamenti, negli stili di vita, nei rapporti interpersonali, nei modi di produzione, nel governo del territorio; le priorità degli investimenti nel comparto Salute, diventa sempre più urgente e indifferibile con riferimento a una gestione politica delle Comunità che prevenga e non subisca, in quanto impreparata, le emergenze che sempre più affliggono la Collettività. Inoltre, in questi mesi di "quarantena", il Pianeta ha dimostrato una capacità di Resilienza che ci fa bene sperare per il futuro. Una risposta alla Cultura dell'Emergenza che trova il suo terreno generativo non solo nel campo della Salute ma nel governo del territorio per quanto riguarda gli aspetti idrogeologici, l'inquinamento dei suoli, dell'aria, dell'acqua, l'abusivismo edilizio, lo sfruttamento delle risorse energetiche affrontato con l'utilizzo dell'integrale delle competenze scientifiche e gestionali fondate sulla meritocrazia.

Il XIX Forum Internazionale di Studi World Heritage and Design for Health affronta le problematiche legate alla pandemia globale in una logica pluridisciplinare e di sistema, così come indicato dall'UNESCO e dall'Agenda 2030 delle Nazioni Unite per la definizione di progetti e azioni concrete che includano il Benessere e la Salute della Collettività. Il Forum si propone quindi di creare un dialogo critico trasversale, aperto alle contaminazioni culturali e 'senza limiti', in una logica di integrazione fra le competenze che si estende, e non si limita, alle seguenti discipline: Architecture, Culture, Environment, Agriculture, Health, Landscape, Design, Territorial Governance, Archeology, Economy, History, Sociology, Security, e-Learning.

La Comunità Scientifica del Forum è costituita da circa settanta Docenti e Ricercatori di cento Università e Centri di Ricerca nel mondo, da rappresentanti istituzionali, del settore dell'impresa e dai referenti delle 830 Cattedre UNESCO (UNITWIN Programme) grazie al WebGIS realizzato e gestito dalla Cattedra UNESCO incardinata al Consorzio Universitario Benecon. La location del Forum è d'eccezione. La Campania con sei siti iscritti nella lista del Patrimonio Mondiale, due Man and Biospheres UNESCO, tre beni iscritti nella Lista del Patrimonio immateriale è una delle regioni più ricche al mondo per beni culturali e paesaggistici, particolarmente 'contaminata' delle culture del Mediterraneo. Non a caso il Forum si svolge a Napoli e Capri, con sopralluoghi e presentazioni di ricerche scientifiche

e progetti operativi a cura della Consorzio Universitario Benecon, costituito da cinque Atenei italiani, sede della Cattedra Unesco su Paesaggio, Beni Culturali e Governo del Territorio. I paper, selezionati dal Comitato Scientifico del Forum, saranno pubblicati negli Atti di rilevanza internazionale (candidati all'indicizzazione Isi Web of Science). Inoltre, le ricerche e i progetti più innovativi saranno pubblicati nei 'Quaderni' della Rivista internazionale di Classe A 'Abitare la Terra/Dwelling on Earth'.

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General Chair XIX Forum 'World Heritage and Design for Health'
President and CEO of the Benecon University Consortium
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and Territorial Governance

ID 001 *Education for a culture of peace*

Rosa DE MARTINO

*UniSorrento
Piano di Sorrento
(Naples) Italy*

In the globalized society in which we live, it has assumed great importance to educate to the construction and maintenance of an international rhythm between different cultures and new connected histories; educating for peace does not only mean respecting other civilizations but also and above all knowing them and making them ours, in order to achieve a globalization of intentions. To make possible the peace hoped for after the fall of the Berlin Wall, it is necessary above all to educate the new generations to this new culture, which must first be instilled in students of all ages and levels: even before a pupil, every student is a person in path of formation and maturation and must be considered, as such, in its totality. In order to better educate, it is necessary to undertake educational paths that take into account not only intellectual abilities but also the best learning path, personalized as far as possible, and socio-relational insertion, without excluding students with educational needs from these paths special or with learning disabilities or foreigners. The constantly evolving society requires continuous adaptation and particular attention to respect for others; in this globalized world, teaching and inclusiveness right from kindergarten play a fundamental role in education for the culture of peace: listening, sharing and empathy are all essential factors for the creation of social relationships functional relationals.

ID 002 *Built environment and wellbeing: analysis of multi-criteria evaluation methods*

Elvira NICOLINI For some decades now we have been talking about IEQ (Indoor Environmental Quality) with attention to the healthiness of the built and its possible influence on environment. This interest has poured into the quality of building products and technologies, focusing the question on their performance and the environmental effects they generate. With the objectives set by the 2030 Agenda, the idea that sustainability is an environmental prerogative is overcome and a holistic vision aimed at human health is affirmed (objective 3). The period marked by the Covid19 emergency contributed to strengthening the need for human well-being, during which the “quarantine” made us observe our living spaces, reflecting on quality that we ourselves perceive. Is necessary a transition from a “Green” approach to the architecture towards a “Human Centered” approach that sees a design centered on users, who are involved in a “participatory design”. The contribution focuses on the factors that can affect the well-being of users in their living space, comparing the most common multi-criteria assessment systems aimed at environmental certifications for buildings (LEED, BREEAM) with the WELL certification protocol, designed tool designed to verify the level of healthiness and well-being of users. Specifically, the objective is to verify, within these methodologies, the presence and possible weight of the indicators that define a quality living spaces according to the user’s perception.

*University of Palermo,
Italy*

ID 003 *The capacity estimation of historical temples and shrines in Kiyomizu World Cultural Heritage area for supporting evacuation life of visitors in disaster*

Takeyuki OKUBO Protection of visitors' health and lives from disaster should be indispensable for protection and business continuity of World Cultural Heritage sites, because safety is most important hospitality for all of visitors. Kyoto city government in Japan has been developing the emergency plan for visitors with establishing a tourist sights' council for difficulties of backing home. Especially, most of visitors don't familiar with emergency plan of each tourist sites, so as that the evacuation sites should be established in famous sightseeing places. In case of historic city Kyoto, the number of famous historic temples and shrines which are designated as temporally evacuation sites is increasing.

Yurika TANIGUCHI Although, the required functions in these sites as evacuation sites are not officially clarified, so estimation of functions as evacuation sites for visitors is needed for practical risk management plan.

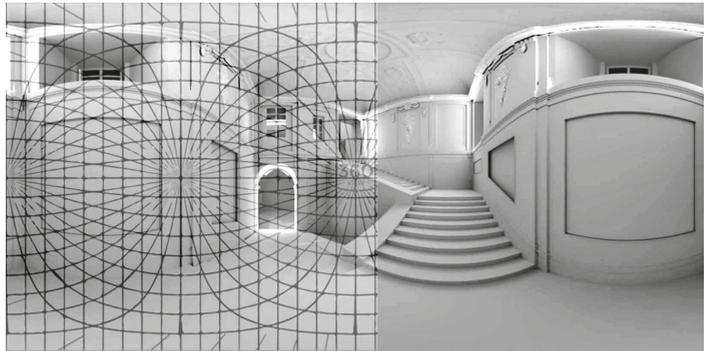
Dowon KIM The aims of this paper are research on recent condition of designated temples and shrines as temporally evacuation sites for visitors in Kiyomizu World Cultural Heritage site from the viewpoints of physical and sociological aspects, to revile the challenges of existing plan and to propose some improvement plans for better future.

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University /
Institute of Disaster
Mitigation for Urban
Cultural Heritage
(R-DMUCH)
Kyoto, Japan*

The outcomes of hearing research to owners of cultural heritage sites on physical aspect are shown as below. The challenges of cultural heritage sites as visitors' evacuation sites are lack of earthquake-proof performance, and stock of drinking water, foods, blankets and number of toilets.

ID 004 *Main architectonic structures in the Grecanic Area.
A tourist-cultural route*

- Caterina GATTUSO** The term “Grecanica Area” indicates a circumscribed land of the extreme south of Calabria, where until the last century the inhabitants still spoke a language of clear ancient Greek origin. The area includes about ten municipalities and is located on the southern front of the Aspromonte mountain. It hosts old villages having roots in the period of the Greater Greece. These villages have undergone a profound transformation starting from the second half of the 20th century, determined by the new and easier relations with the coastal cities and by the strong growth of the economic system which has also led to a general social reorganization. They have been depopulated and the traditional language has been supplanted by Italian, to the point that it now survives only in the cultural heritage of a few elderly people. Nevertheless, the Grecanica Area keeps a strong historical-cultural identity and looks very attractive also in terms of environmental, settlement and landscape aspects. Overall, there is a wealth of resources that could generate a strong tourist interest, relying in particular on a set of relevant architectonic structures and on a widespread reception capacity.
- Calabria University,
Rende (Cosenza), Italy*
- Domenico GATTUSO** The paper proposes an original contribution to the promotion of a tourist-cultural path, focusing firstly on the local architectonic structures and even on some not expensive measures to improve the accessibility to the Grecanica Area by two mobility alternatives
- Mediterranea
University of Reggio
Calabria, Italy*



ID 005 *Virtual environments for an inclusive heritage*

Anna Lisa PECORA

*University of Naples
Federico II, Italy*

The Virtual Reality systems are showing their potential for an inclusive access to the historical architectural heritage and, recently, they are playing a strategic role to keep the public attention alive on the cultural and historical places. The VR, therefore, allows anyone to overcome the barriers related to physical presence and, at the same time, has a positive impact on social equality and inclusion. Actually, the obstacles to the knowledge fruition are more than commonly people believe, and concern non only physical aspects, but also sensorial, cognitive, social impairments and so on. Because of the Covid emergency, the heritage accessibility is now a widely debated issues, influencing the huge growth of virtual tours. But frequently, these applications don't take into account the specific needs of frailer users. Referring to the autism, for example, the perceptual overstimulation given by the surrounding space, can be a barrier in the "real" world as well as in the "virtual" one. The visual overload, in fact, provides painful sensations, thus complicating the relationship with the architectural environment. If correctly designed and customized, the figurative configuration of VR can represent an useful medium conveying the right visual codes and the essential information for communicating the heritage's cultural contents. My study analyzes the visual patterns of the represented space, to show the way a VR environment can turn into an inclusive and communicative "autism friendly" space.

ID 006 *The transition process towards promoting energy efficiency in view of urban regeneration: the “case” of energy plants powered by geothermal source.*

Marco CALABRO'

Laura PERGOLIZZI

*University of Campania
'Luigi Vanvitelli', Naples, Italy*

This paper starts with the consideration that the recent process of energy transition that is affecting Italy, with particular reference to promotion of renewable energy sources, does not appear to be characterized by a homogeneous and coherent regulation. An emblematic case is the geothermal source, whose regulation is still fragmented and far from the logic of regulatory and administrative simplification: in particular, the difficult balance between the protection of sensitive interests and the need for administrative simplification makes it possible to find extremely partial solutions in terms of defining the administrative tools that, in the construction field, are applicable to the present case.

Based on these premises, the work addresses the question of the energy regeneration in the light of the most modern reading of urban regeneration, in terms of consolidating of link, which until now seems to have remained in the background, between processes of regeneration (social, economic, environmental) of a territory and energy policies.

In this context, local authorities could play a central role: on the one hand, as holders of the main planning powers in the field of urban regeneration, and, on the other hand, by enhancing the direction mapped by the Covenant of Mayors, promoted by the European Commission, which provides for the accession of municipalities to a series of commitments including the adoption of a Sustainable Energy Action Plan (SEAP).

ID 007 *Institute of the Holy Heart in Palermo: proposal of architectural and technological rehabilitation for post-pandemic social housing*

Tiziana CAMPISI

Manfredi SAELI

University of Palermo, Italy

Close to the historical city centre, the prince Pignatelli built his villa-palace in the 18th century. Later it became the headquarter of the Order of the Holy Heart that instituted a school attended by the highest society. The 11430 m2 historical building (three floors), along with its monumental garden (about 9600 m2), was abandoned by the nuns in 2008, the novel ownership is aimed at restoring and re-functionalising the complex, a kaleidoscope of urban-architectural and technological stratifications, located in a crucial point of Palermo still waiting for a new season of requalification, being also close to the Zisa castle included in the UNESCO Arab-Norman itinerary.

The paper discusses the main historical-architectural and constructive features of the building to outline the evolution from an urban villa to a convent, and the most recent events: modifications, additions, demolitions, etc.. Large space will be dedicated to the proposal of architectural and technological recovery to convert the abandoned structure into a social housing complex (using the social mixité as a design parameter). An intended “social” use is strongly desired as many other historical buildings in the city have already been transformed into hotels, a clear differentiation is needed for the local market and functions.

The most recent pandemic events need an indisputable reflection of the novel function, architectural distribution, technological improvement, relation with green and the city.



ID 008 *Serra da Estrela: Sanatoria on the Portuguese Magic Mountain?*

Alexandra AI QUINTAS

*Universidade de Lisboa,
Portugal*

Mário SALEIRO FILHO

*Universidade Federal Rural do
Rio de Janeiro, Brasil*

Thomas Mann's *The Magic Mountain* (*Der Zauberberg*, written between 1912 and 1924) focused on the tuberculosis epidemics, with an action set on the Swiss Alps. Therefore, coinciding to Mann's morphological context, the "Serra da Estrela" (literally "Star Mountain" in Portuguese) was the elected precursor protagonist place for healing the disease on Portuguese territory. The most prominent *causa mortis* in the 19th century was due to infectious diseases, spread evenly among every age as well as social classes. Theorization about the illness was set by German scientists Schönlein and Koch, French Villemin and Pasteur, along with English Bodington, until the mid of the 19th century, having concluded that tuberculosis was an environmental disease and it should be treated on a healthy open air environment. From 1850 on, German researchers such as Brehmer and Detweiller agreed on mountain climate adjusting to the therapy. By the end of the 19th century, a Scientific Expedition coordinated by Sociedade de Geografia de Lisboa took place, followed by another ordered by the national Ministry of Public Works to provide for a study on the potential of climate therapy for the illness. Both have positively signalled the region for the building of infrastructures dedicated to the therapy. The latter resulted on the architecture of health spaces, - denominated sanatoria, - in accordance to both international and national medical criteria on the Portuguese "Magic Mountain".

ID 009 *The case albergo built in northern Italy in the 1950s-1960s:
An example of resilient housing*

Laura GRECO Temporary housing solutions for common use highlight the renewed interest of users, designers and public authorities to the present day, as shown by the many examples of cohousing. This type of resilient housing proves to be suitable both for meeting the users' accommodation demand, and the socio-economic and health vulnerability of traditional residential models in case of crisis situations, such as the effects of the Covid-19.

Francesco SPADA The proposed paper aims to investigate some case studies of case albergo, constructed in Milan, Turin and Genoa in the 1950-60s. They were built to face the changing housing market demand, therefore these experiences could be considered as best-practices also for contemporary design. The Case albergo were defined as "the most technically and socially evolved buildings" by Luigi Moretti in the Italian Post World War II period, characterized by a significant housing demand. The casa albergo building type was a flexible resilient housing solution, suitable for new lifestyles: the goal of holdings, designers and construction companies was towards evolved practices for building production and management, based on the accurate prediction of costs and time for construction.

University of Calabria, Italy

The proposed case studies refer to Milanese buildings designed by Luigi Moretti (1949-51), the Fara Tower of Luigi Mattioni (1959-60), some constructions of Società Generale Immobiliare such as Cantore Tower (1964-66) in Genoa and casa albergo d'Azeglio (1967-69) in Turin.



ID 010 *The Roman road “per colles” between Puteoli and Neapolis.
The drawing of some testimonies*

Maria MARTONE
*Sapienza University
of Rome, Italy*

The road connected Puteoli to Neapolis passing through the hill of Vomero, taking the name “per colles” road. Before reaching the hill, the road went to the port of Naples through the crypta neapolitana, a road branch directly connecting Puteoli to the coast of Naples. During 100 A.D., the name of the “per colles” road was Antiniana and it measured about 10 miles. Some traces of the ancient basolato of the Roman road have been found inside the Mostra d’Oltremare, in Fuorigrotta, and along Via Terracina, near a thermal building whose ruins are preserved in an archaeological area. Along via Vigna in Pozzuoli, there is a small portion of stone flooring, nowadays confused with the road surface and probably belonging to a branch of the “per colles” road going towards Capua. Moreover, along the road’s ancient path, there are some artifacts and ruins of a colombario in opus reticulatum in a state of neglect, while on the hill of the Vomero there are ruins of a wall structure with arches belonging to either an aqueduct or a viaduct. Through the tools of the representation and the digital relief, the contribution documents critically some examples in order to testify the presence on the territory of goods that constitute the identity of a community and a place. Thus, they should also be properly preserved and protected as sustainable goods.

ID 011 *The evolution of the sacred hill*

Paolo PISCITELLI Naples is one of the world's great cultural attractions, with a very high number of the most representative historical, artistic and cultural testimonies on the international scene. An immense open-air museum to be leafed through like a book, page by page, step by step, in a hypothetical walk through its 27 centuries of history in the alleys, streets and squares of the historic centre, which is like a treasure chest of beauty, inscribed on the UNESCO World Heritage List in 1995. Seventeen square kilometres of surface area in which the past can be perceived with the five senses due to the high concentration of points of interest: it is one of the largest historic centres in Europe. A walk through history, accompanied by the tale of the head of the mythical Parthenope and her immortal Neapolis. Its Acropolis, a centre of sacredness and immutable beauty, hidden beneath today's Caponapoli hill, continues to tell us its infinite story after centuries.

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ID 012 *The role of the recovery of architectural heritage in the transdisciplinary perspective of the psychology of sustainability and sustainable development.*

Giovanni SANTI

Emanuele LEPORELLI

University of Pisa, Italy

Rim AFA

*Ecole Nationale d'Architecture
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Architecture, with its buildings and spaces, is one of the main actors influencing the quality and well-being of human life. It is therefore interesting to investigate the relationship between architecture, memory, sustainability of the transformations of the existing building heritage and human well-being. In this context, the paper shows the possible scenarios that open with the new research area of the psychology of sustainability and sustainable development which, within the science of sustainability, expands the concept of sustainability to improve the quality of human' life. The aim of the research presented here is to identify new reference models for sustainable architecture where the reuse of urban spaces and the building heritage also includes considerations relating to human well-being through the identification, protection and enhancement of intangible assets such as memory and a sense of community. The case study of the city of Marrakech, in Morocco, with the examination of some recent interventions on the existing architectural heritage, shows the relationships that are created between the material recovery and the social fabric. The results of the research, in this first phase, identify intervention guidelines to determine the quality and sustainability of the transformations, necessary for the recovery and adaptation of the building heritage, also in relation to the effects on historical and collective memory and on community welfare.

ID 013 *Virtual fruition models of the geometric and chromatic space of Villa Farnesina*

Giuseppe ANTUONO

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Maria Rosaria CUNDARI

Università degli Studi di Padova

Gian Carlo CUNDARI

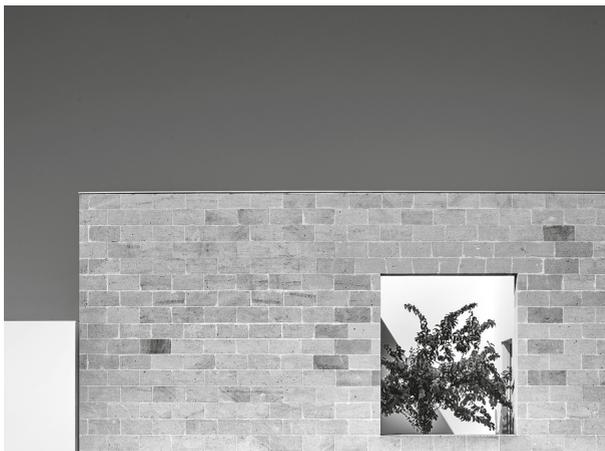
*Sapienza Università di Roma,
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Consultant:

Cesare CUNDARI

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When Villa Farnesina alla Lungara is named, one immediately imagines the frescoes by Raphael which for centuries have represented its greatest reason for fame. It is to see these frescoes that the visitor arrives at the Villa, discovering that the present decorative apparatus is much richer and is due to some of the main artists of the Italian Renaissance, such as Sebastiano del Piombo, Giovanni Antonio Bazzi and Baldassarre Peruzzi, who was a designer of the Villa. To communicate the unity of the work, in which it contains and contents (the building and the frescoes) are of equal importance, and to re-read the history of the artistic transformations that took place on the building, digital technologies for the dissemination and learning of culture, supported by an accurate survey and virtual modeling activity, offer the possibility to rethink the communication and fruition strategies of the architectural object. The contribution presents the results of an exemplary experimentation for the two Lodges, which implements various descriptive and communicative methods to contribute to the acquisition and dissemination of unpublished information.



ID 014 *A new way of dwelling*

Martina D'ALESSANDRO

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Sustainability has always been intrinsic to architecture even though it has become highly topical in the recent years, starting with the spread of the environmental alert which has only amplified and got worse. Sustainability should be read as a congruence between proposed solutions and ecological dimension, in a general view of harmony between nature and architecture. These last months, where we have shared vulnerability and isolation, have made us reconsider the value of creating a link between collective life and nature. Pandemic, economic recession, isolation, social disruption and climate change urgently impose a rethinking of architecture, in its broadest sense of building spaces to live in, as a discipline that can face these problems with a long-term vision.

The thesis that this essay wants to explore is that the crisis triggered by pandemic is an opportunity to restore the notion of sustainability in a more deep and useful way for the community, overcoming its strictly technical value to rediscover the humanistic dimension of sustainable living. The literary contribution will develop these themes through the presentation of residential architecture's project considered as case study.



ID 015 *The church of san primitivo in Gabii: From the origin to the ruins*

Anudeep MADURI

Architect, Rome, Italy

Shyam Sundar CHAMARTI

Architect

Rossana MANCINI

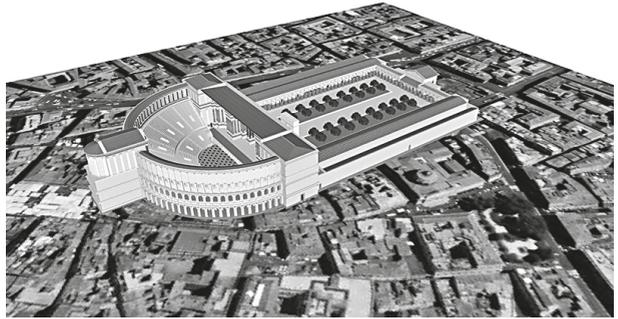
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The church of S. Primitivo dates back to the 4th century A.D. Its remains arise within the archaeological area of Gabii, an ancient Roman city along the ancient via Prenestina, whose pavement is partially excavated, a few meters away from the church.

Currently, part of the perimeter walls, bell tower and the frescoed crypt are preserved. A pre-existing apsidal wall, from the Roman era, was incorporated into the structure, but collapsed in 1903.

The first certain information regarding the building dates back to 1030, but from the analysis of its complex stratigraphy, it was possible to go back a long way, to the dawn of the Middle Ages. The analysis of the walls and comparisons with types of churches with similar planimetric characteristics provided useful information for interpreting the presence of particular bi-apsidal conformation, which turned out to be the result of two distinct construction phases. The church was in use until the 13th century; due to the progressive abandonment of the area, it had become the only inhabited place in that area.

The different construction phases can also be identified in the bell tower, which also shows a masonry at the top, specifying period of phase subsequent to the abandonment of the church, when it was used as a lookout tower along the via Prenestina.



ID 016 *Methods and Strategies for Recognition, Enhancement and Fruition of Theatrical Architecture in Rome's historic center*

Giorgia CECCONI

Giulia LOPES FERREIRA

Roma Tre University, Italy

The proposed study, framed within the research project “DynASK_Dynamic Atlas: a System of Knowledge”, aims to develop innovative strategies for preservation and digital promotion of Rome’s theatrical architecture. The first step is to retrace the articulated history of Rome’s theatrical architecture, through the study of its distribution within the urban fabric of the city. In particular, an attempt will be made to identify the dynamics that these buildings entertain with the city, with the aim of building a cognitive framework from which both the typological and the distributive evolution of theatrical architecture could emerge, as well as the their influence in the definition of the urban fabric of the historic center of Rome. This paper will be focusing on the central role played on this matter by the area corresponding to the ancient Campus Martius. Since ancient times, in fact, it has been identified as the part of the city mostly intended for the building of the monumental architectures in which Roman held their spectacles. The second step is to develop new and innovative digital strategies for the enhancement of this part of the city, through the definition of “urban museum itineraries”, whose attractors are meant to be set up both with on-site information points (managed through the use of QR codes) as wells as through online consultation (WebGis platform).

ID 017 *Searching for the Human scale: transformations and “cultural heritage metabolisms” in the Monastery of Santa Clara de la Columna in Belalcázar (Cordova, Spain).*

**Pablo Manuel
MILLÁN-MILLÁN**

Simona BELMONDO

Javier MUÑOZ GODINO

*Universidad de Sevilla,
Spain*

There are several architectures that have remained intact throughout history and nowadays we can admire them as cultural heritage buildings. These “crystallized” constructions have not been capable of keeping their original use and conforming to social changes, although at the present time they are representative of historical and architectural values. On the contrary, there are architectures that have kept their original use and that have been forced to change themselves in order to adapt to contemporary biorhythms.

We introduce the case of the Monastery of Santa Clara de la Columna in Belalcázar (Cordova), founded in 1476 and with an uninterrupted presence of Poor Clares. It is exemplary of how, maintaining intact the Gothic-Mudéjar architecture, a cultural heritage building can constantly adapt, over time, to embrace new archetypes.

At the current time of pandemic, this architecture, improved as a result of historical events, has a lot to show, through a number of fundamental and healthy dichotomies: individual and communal spaces; work and study spaces; meditation and entertainment spaces, etc. The present research aims to underline how this architecture has been capable of combining its cultural heritage value with healthy needs and the human scale.

ID 018 *The effect of intangible cultural heritage on our wellbeing through a focus on eating and drinking rituals and spaces*

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Intangible cultural aspects, such as tangible and material heritage, have a great potential to contribute to people's wellbeing and happiness. They contribute strongly to the sense of belonging and identity. Among these, food culture can be regarded as one of the most important contributors that also have direct reflections on space and architecture. It plays an important role among socialisation processes. Although tastes and rituals may vary greatly, for many cultures eating together is a precious moment of sharing in which people are much more open to each other, and may be favoured or hindered by spatial configuration and equipment. Then space needs to be considered not only as a very important complement of this structure, as it needs to create atmosphere that strengthens the effect of senses, but also as an element to be preserved too. In this perspective it is important to understand how different eating and drinking rituals can find their correspondences in space. In a moment of physical distancing, the value of intangible aspects becomes even more evident and preserving these values become a real challenge. This paper aims to underline the role of intangible cultural heritage on our wellbeing and discuss how these cultural values can be supported and enriched by space even during the time of the COVID Pandemic through the concrete example of eating and drinking rituals that change from culture to culture.

ID 019 *Multiscalar analysis of a fragile territory. Innovative methods and related issues*

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This research aims to develop a methodology of geometric analysis of the territory that allows quantitative multi-scale evaluations that can be carried out using a specially designed digital tool. The difficulty in working with this type of procedure is the sectorialisation of technical skills between those who work on architectural scale design and those who work on a territorial scale. The methodology undertaken has a workflow capable of exporting data from a GIS tool and importing them into a three-dimensional modeler to carry out multiple types of analysis at different scales. For reaching this aim, an ad hoc procedure has been developed to standardize the workflow. This procedure aims to have maximum freedom in processing model geometries; therefore, it was based on Nurbs mathematical models. The case study in which this research methodology was applied is a city on the Abruzzo coast. Starting from the cartographic data of the Abruzzo Region, the three-dimensional model of the territory and the built-up area was developed, thus forming a basis for further analysis. This working methodology guarantees efficient results with a low human iteration to generate the final model. Some of the procedure's limitations have been explained in detail, mainly due to the structure of the components used.

ID 020 *Cultural heritage and its enjoyment in pandemic times: comparison of cultural approaches in India and Italy*

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The restraints following the Covid-19 pandemic have not only profoundly changed our daily habits but have also affected the world of culture, as gatherings of people and visits to places have been banned. This situation has also highlighted the strengths and weaknesses of cultural systems and tools supporting the public “use” of heritage. Indeed, the response of the various cultural actors disclosed their real priorities, revealing sometimes inadequacies or, on the contrary, creative capacities. Not being able to guarantee physical access, they didn't always feel the urgency to maintain communication with audiences, bringing to light many weak spots within the sector. The health emergency, confirming the economic role of culture, has also stressed its social key role. So, in many cases, the bond between people and cultural heritage has led to a crucial shift from the physical visit to other forms of enjoyment. This paper aims to explore what happened in two very different geographical and cultural contexts, India and Italy, in order to identify the actions undertaken to offer opportunities for remote access to cultural heritage. The comparison between India and Italy shows how heritage represents a fundamental factor of community resilience, and how different approaches offer opportunities for contamination, containment and improvement. Further, broader reflections can be considered on the present and future meaning of the Cultural Heritage role in the real life of citizens.

ID 021 *Extensive geophysical surveys to integrate excavations data for the enhancement of the archaeological heritage: experiences in Norba*

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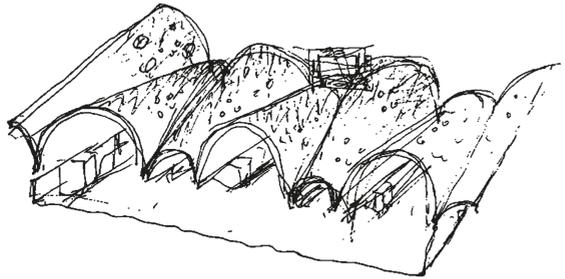
Salvatore PIRRO

ISPC CNR, Rome, Italy

The ancient town of Norba rises on a high plateau overlooking the Pontine plain. The town has been founded in the archaic age; its most important period was between 450 B.C. and 81 B.C. when it was destroyed. The town is famous for its spectacular polygonal fortifications. The archaeological excavations and the surveys made in the town, within the walls, allowed to recognize the urban planning, characterized by parallel or orthogonal streets, to identify temples, public buildings, domus, tabernae. Only a small part of the city has been brought to light.

Due to its state of conservation and potential, Norba was chosen for the experimentation of integrated non destructive methods of investigation to interpret ancient urban forms diachronically and to develop applicative potentialities for the planning of protection and enhancement.

In addition to repeated finalized drone flights, which have now become commonplace, and the processing of Lidar images, extensive geophysical prospections are conducted. They have been designed to integrate excavation data, with the aim to propose, through highly interdisciplinary work, more refined methodological analysis paths than the simple identification of buried structures.



ID 022 *Form and role of the market in the contemporary city*

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Geneviève HANSSEN

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Marco RUSSO

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In the renowned book from '66 Aldo Rossi illustrates a city composed by "urban artifacts", one of these permanent functions is the market. Both in East and West the market has passed the monofunctional retail space to become a meeting place sedimented in the figures of the urban canopy or the Arab Suk. The success of these two schemes is their active role in the life of the city, an aspect that does not exist in another commercial typologies like the American shopping mall. This text contains some references related to the archetype of the covered plaza, the 'western' version of the market. The technology or the materials have never been a limit for these kinds of buildings, but they are the starting point to experiment new spaces. The brick vaults by Eladio Dieste in South-America, the technological Festival Plaza by Metabolists in Osaka or the minimalist Portuguese Pavilion by Álvaro Siza y Vieira in Lisbon represent a small part of the covered squares designed during the 20th century. The second part of the text contains a case-study of a new market in Rome, exactly for a covered structure in Piazza San Giovanni di Dio; the project, developed for an international architectural competition, represents the opportunity to design a basics space of the city.

ID 023 *Doorroom: living in the city of rooms*

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The cities that we know and live in every day hide in their mass and apparent solid structure, centuries of changes and transformations, often resulting from extraordinary events.

Industrial revolutions, wars, migratory phenomena, geographies of unexpected political conditions, the containment of world epidemics, are just some of the examples that have marked the most important transformations.

From the last century, from the compositional autonomy deriving from the use of reinforced concrete as the chosen material for the construction of buildings, up to the present day, where the Sars-Cov19 pandemic required the adaptability of primary functions in a very short time, a silent revolution it has progressively altered the image of the house, modifying urban typologies and canons into something different, unclear and defined.

The paper therefore proposes to summarize a design research path that for some time has been analyzing the room as a primary element-structure of living and which for about a year (from the height of the March 2020 pandemic) has extended to the interest of architectural and interior design workshops, coordinated by me, at the Department of Architecture and Industrial Design of the University of Campania Vanvitelli.

ID 024 *Health and well-being: the role of Cultural Heritage*

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Valeria MINUCCIANI

Nilufer SAGLAR ONAY

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The concept of “health” has long been enriched with complex nuances and in its contemporary meaning it includes aspects related to the health not only of the body. Thus the broader concept of well-being, as a holistic state that includes physical, psychological, mental and spiritual well-being, has emerged.

In the current time of pandemic, the emergency has led governments and citizens to focus on physical health only, to the detriment of all other aspects of well-being. It is already being demonstrated that this imbalance has generated and still generates psychological and emotional decompensation across all age groups and, of course, mostly for the weak and disadvantaged classes. The closure of sites of cultural interest, or in any case their reduced accessibility, is part of this scenario. As is well known, participation in cultural life and the fruition of heritage are activities with particular positive effect on general well-being. In this sense during 2020 there have been many efforts to adjust heritage sites to new limitations and also many initiatives have been launched and carried out by cultural institutions to allow a form of remote fruition.

The paper examines this context with particular reference to different forms of accessibility to Cultural Heritage: not only the physical or sensory one (which are commonly mentioned) but also the social and cultural one as well as those more recently made evident by the pandemic situation: computer and digital accessibility.



ID 025 *Urban spaces' health: green and dry technologies for conservation of historic paving stones*

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Manuela COMPAGNONE

Francesco SOMMESE

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The urbanization processes that have developed in recent years have caused profound impacts on urban spaces' surfaces, due to careless maintenance actions and impacts of climate change. The alterations of the ancient construction solutions have limited the permeability of the historic paving stones, causing the urban heat island. The waterproof, asphalted and cemented surfaces absorb heat with a consequent decrease in evapo-breathable phenomena and modification of the natural water cycle. In fact, the infiltration capacity of surface waters decreases, the volumes and the aggressiveness of the run-off water increase. In addition, it increases the transformation of pollutants causing the phenomenon of urban smog. The use of ancient construction solutions provided dry installation systems in a logic of respect for the environment that anticipated the times. The historical reading and the awareness of the efficiency of the solution are the premise in the choice of maintenance and restoration of urban surfaces to ensure the increase of permeability. Dry solutions and green technologies, combined with the choice of suitable materials, minimizes the impact on the drainage network, in line with the concept of low impact development, returning meteoric water to the atmosphere through evaporation and improving the microclimate. The rationalization of proposed interventions can be measured by parametric assessment of environmental health.

ID 026 *The role of Design for Health and of the Human-Centered Design approach for an ethical and conscious development of innovative Quality of Life Technologies*

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Claudia BECCHIMANZI
Mattia PISTOLESI

*University of Campania
'Luigi Vanvitelli', Italy*

In recent years, wearable and robotic technologies are making significant advances in a variety of fields, including medicine and social and health care. The development of research in robotics marks the end of its segregation to mere industrial fields: society is increasingly open to the everyday use of safe and reliable technologies for cooperation and human assistance (Veruggio et al., 2016). On this basis, the key role of designers in the development of human-centered assistive technologies is evident: technologies should be designed according to fundamental human rights and to the needs and expectations of people, supporting their independence and improving their quality of life. The scientific and methodological approaches of Human-Centred Design and Ergonomics for Design can provide a fundamental contribution in the development of technologies that embody universal ethical and socio-cultural values. This paper explores the areas of intervention and the role of design for assistive technologies, with a focus on the national state of the art. This paper also investigates the contribution of design both from a practical point of view (i.e. operational strategies and methodological approaches), and from a research perspective: it underlines the role of the designers as responsible for the dissemination of technologies aimed to support and not to replace the human work.

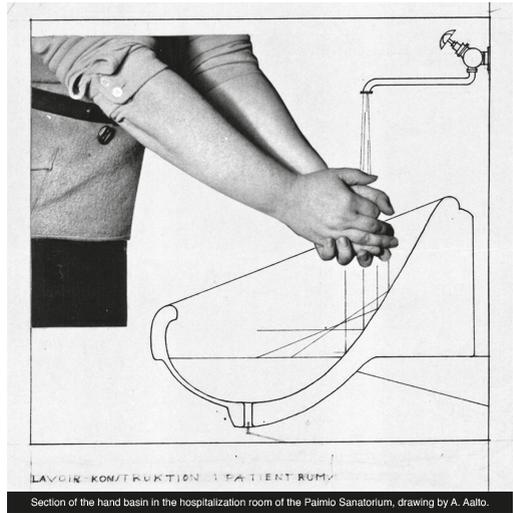


ID 027 *What future for disused villages after the pandemic?
Some examples of distributed hospitality in southern
Italy*

Brunella CANONACO

University of Calabria, Italy

The essay, in a moment characterized by the pandemic, highlights southern Italian villages, silent due to abandonment, reinterpreting them as a possible way of new residentiality and a renewed hospitality and cultural offer. In order to both preserve and enhance the values of the historical units, the text proposes knowledge of the significant characters and their unexpressed potential, intended as a flywheel to activate integrated revitalization actions. The focus is on some virtuous initiatives that aim to redesign the villages in their complexity: social, economic, cultural and the recovery of values, like all forms of distributed hospitality (Paese Albergo, Villaggio Albergo, Albergo Diffuso, ecc.); a phenomenon which has existed for some time but which could now be deployed to repopulate the villages and offer the community a more agile and attractive form of life far from the cities. This process allows for the maintenance of identity characteristics even with the relaunching of the settlements with attention to the typological and architectural characteristics of the building fabric. Finally, the essay focuses on some horizontal structures present in various southern villages with a reflection on existing signs revitalized in their characters and functions, so as to represent economic assets capable of initiating persistent redevelopment actions and bringing back a network of services and functions to marginal areas to design new centralities.



ID 028 *Architecture as a care to Health: the case of Paimio Sanatorium*

Cristiana BARTOLOMEI

Cecilia MAZZOLI

Caterina MORGANTI

University of Bologna, Italy

The emergency situation that we are now facing as a result of pandemic Covid-19 is turning our life upside down and changing the way of relating to the space that surrounds us. Many questions have been posed about the best use of spaces and the correct management of the flows, but not enough attention has been paid to the comfort of these environments. The humanization of places and strategies designed to make these spaces more responsive to the psychological and emotional needs of the people who come into contact with them are, in fact, absolutely fundamental in healthcare architectural design. The spatial configuration of a hospital environment influences the relationships between user and environment, and consequently has repercussions on perceived comfort. It is clear that understanding an adequate development of the hospital space can favor the psycho-physical well-being of the people who live and work there, especially in historical periods characterized by pandemics. A virtuous example of architecture created in response to a pandemic situation is the Paimio Sanatorium, designed by the spouses Aalto, which was built following the program promoted by the Finnish government in response to the spread of tuberculosis in Europe in the early 1900s. The article intends to develop a reflection starting from the example of this organic architecture “tailor-made” for tuberculosis patients and on the possible design perspectives needed to address the pandemic we are experiencing.



ID 029 *Culture of the digital project as the culture of others: the digitization of the Pompeo Hall at Palazzo Spada in Rome*

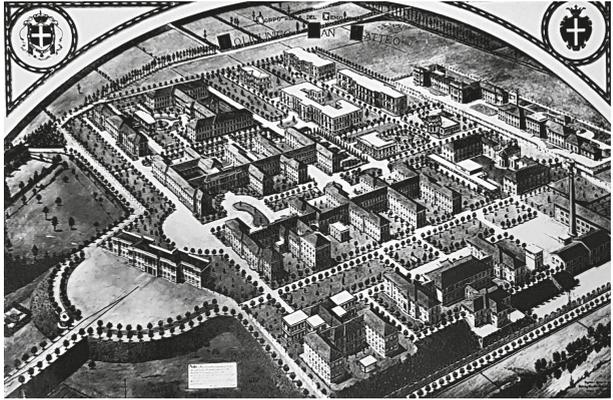
Laura FARRONI

Università di Roma Tre, Italy

Giulia TAREI

Rome Sapienza University, Italy

The digital cultural heritage referred to architecture and cultural heritage can be a reproduction of existing works with expanded content, but also a virtual place where differences between people are removed. The reproducibility, in fact, allows a new interpretation compared to the original and also different declinations of usability for the public. Boris Groys said “According to Walter Benjamin, the original is simply another name for the presence of the present – for something that happens here and now. Thus, analyzing our different modes of reproducing the original means analyzing our different modes of experiencing presence, contemporaneity, of being co-present with the flow of time, with the original event of time and in time, and the techniques that we use to produce this co-presence”(Groys 2016, p.11). To this concept, the authors add that the digital design process is the place of the other’s culture, of cultural, identity and physical diversity. In fact, the digital project can be declined in different ways and obtain access to the cultural heritage of a wide audience, an audience that can feel part of a cultural process but also something else because this audience can live it according to its needs. The essay shows a digital project on Palazzo Spada that takes into account the culture of the original project and aimed at creating a good accessible to all, eliminating physical and socio-cultural barriers.



ID 030 *Pavilion's Hospital typology: a surpassed solution or an opportunity for tomorrow?*

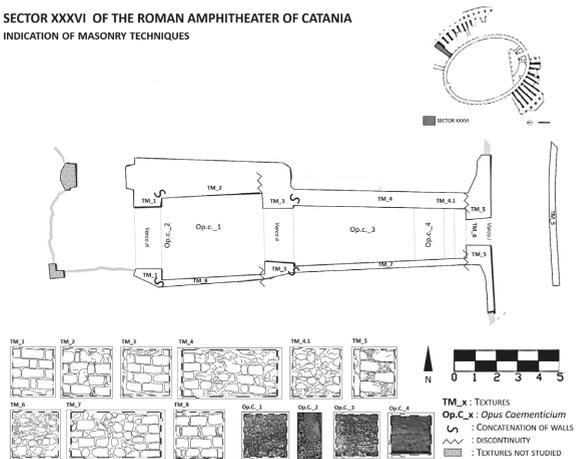
Marco MORANDOTTI

Massimiliano SAVORA

University of Pavia, Italy

In Italy, during the Thirties of the last century the type of monobloc was established as a hospital building. This typology, in the intentions, had to replace that of the pavilion's hospitals, conceived as enormous complexes of isolated buildings. But nevertheless, the citadels for care continued to be imagined, conceived, built, modifying the face of entire urban areas, or often leading the way for the urbanization of areas that had hitherto been isolated, also marking the start of vast programs of public utility, often completed after the Second World War. The cases of the Niguarda area with the new Ospedale Maggiore in Milan, or of the hill between Arenella and the Camaldoli in Naples with the new modern hospital "XIII Marzo" later dedicated to Antonio Cardarelli, as well as the Policlinico San Matteo of Pavia are significant. The contribution aims to analyze and compare the history of some emblematic cases of hospitals, to understand what lessons we can learn, and which can be consistent with the needs and paradigms of our contemporaneity. We have already experienced some needs, due to the pandemic emergency, in the last year, in the form of social distancing, domestic segregation and the forced suspension of a large area of social and economic, private and collective activities. In this perspective, some thoughts about the actual role and validity, of the hospital building system with pavilions will be proposed.

SECTOR XXXVI OF THE ROMAN AMPHITHEATER OF CATANIA
INDICATION OF MASONRY TECHNIQUES



ID 031 *The importance of an interdisciplinary approach for the study and conservation of the architectural heritage and its cultural construction*

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Today we are constantly talking about interdisciplinarity between archaeological methods, architecture and restoration especially when we approach to the historical architectures. The buildings of any period, investigated for research or restoration, in most cases, do not appear as they were at the moment of their construction, indeed they present themselves as a stratified and heterogeneous system of several elements, which hide the culture's choices made following the logics of its time. Therefore, during the restoration, it is essential to apply accurate methods and to achieve the best lecture of these transformations, through a methodology that analyzes every trace, material and constructive character. The purpose of this article is to explain, through examples, the application of an interdisciplinary matrix of study, that combines both archeological and restoration approaches. The aim is to reduce the deletion of traces due to superficial knowledge. This methodology, applicable for any building-type, combines: the stratigraphic analysis, the study of materials and building techniques, the study of the state of conservation and restoration and, finally, the analysis of the construction site sequence. The integrated practice of these different approaches may guarantee a functional buildings investigation both for the archaeologist who studies the culture behind the building, and for the planner, who must carry out the restoration in a real interdisciplinary action.

ID 032 *Structural design criteria for safety by monitoring of the architectural heritage damage*

Claudia CENNAMO

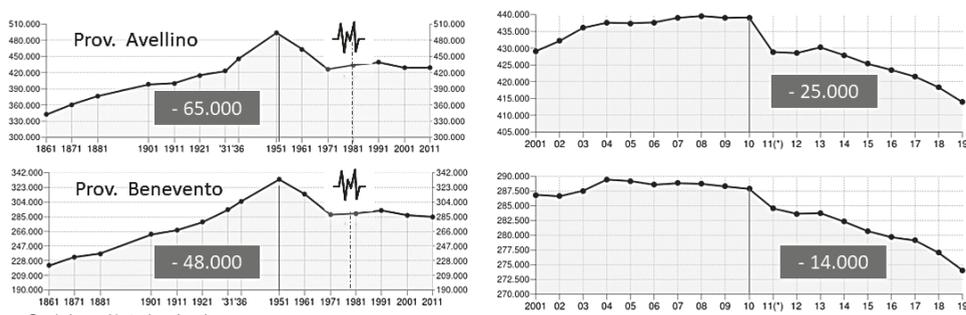
*Università della Campania
'Luigi Vanvitelli', Italy*

Bernardino CHIAIA

Politecnico di Torino, Italy

The events that mainly undermine structural safety are both earthquakes, land subsidence, natural disasters (landslides, floods, hurricanes), both degradation, neglect and lack of maintenance, or even improper maintenance. So, earthquakes aren't the only responsible for buildings collapsing: some structural failures, occurred in the city of Naples, are connected to the characteristics of its subsoil permeated by underground cavities that can turn into huge "holes" swallowing the foundations of buildings. In 2015, in the center of Naples, a historic building used as the Faculty of Veterinary Medicine of the Federico II University collapsed. Few premonitory signs (creaks during the night) preceded the disaster. Same fate for an important building, located on the Riviera di Chiaia. At the light of most recent events too, as the collapse of the floor of the Ospedale del Mare (Naples, 8 January 2021), which seems to be attributable to the explosion of a gas pipe, the work aims to explore the collapse mechanisms in static terms due to the planimetric layout of the underground of Naples and not only, and the methods of collapse. Is it the fault of the works for the new underground station? Blame for the aquifers? Or a concomitance of causes always generated by the "original sin" of a city built on empty and full spaces? And in these recent episodes, is neglect to blame? Is it a lack of maintenance?

The repopulation of the interior areas of Campania region. A hidden solution to the high densely populated volcanic red zone of the Campania region



Demographic evolution of Avellino and Benevento provinces (ISTAT 2019)

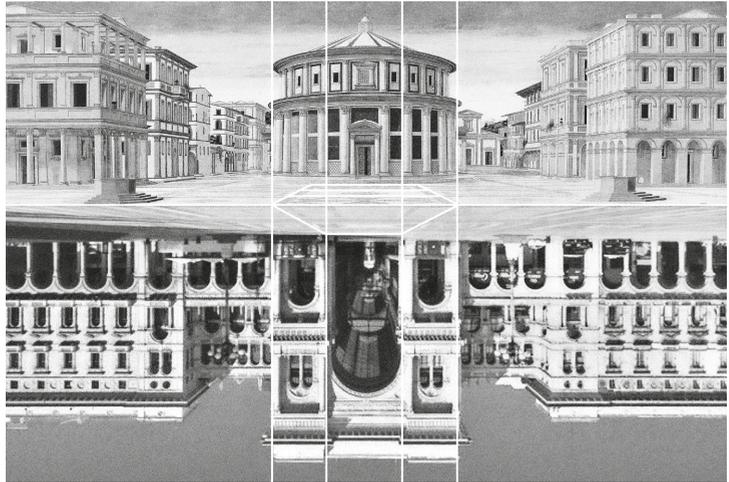
ID 033 *The repopulation of the interior areas of Campania region. A hidden solution to the high densely populated volcanic red zone of the Campania region*

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 IRISS Naples, Italy

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 ENEA, Naples, Italy

Antonio COVIELLO
 CNR IRISS Naples, Italy

The inland areas of southern Italy are undergoing progressive depopulation starting in the 21st century due to the emigration of both young and old people to improve their life expectancy. This trend has the effect of a low birth rate and an increase in the aging of the resident population, which will result in the short-term disappearance of many small municipalities in the internal areas of the southern Apennines and a decrease in residents in larger cities. Moreover, these effects cause an enormous loss of local economic resources, but above all the disappearance of identity realities linked to characteristic territories (cultural heritage, environmental landscape, agricultural patrimony). Among other things, the enacted socio-economic strategies in recent years have not been sufficient to prevent the vast phenomenon of depopulation already in place before the tragic earthquake that struck Irpinia and much of Southern Italy forty years ago (November 23, 1980 with about 3,000 dead). Such depopulation had deep roots with the phenomena of urban planning that began at the beginning of the last century and led Mussolini to discourage the abandonment of the countryside and to promulgate in 1939 a special law (Law against internal migration and urban planning) which established the prohibition of relocation in cities with more than 25,000 inhabitants or of “considerable industrial importance”, even if with a smaller population.



ID 034 *Post Covid19 city. New ideal scenario*

Concetta TAVOLETTA

*Università della Campania
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The contemporary world has always been confronted with fears related to the new monsters of the present, forgetting the 'ancient' fears. The pre-pandemic condition had led us to question the relationship between the concrete in an absolute sense and green intended in relation to environmental problems. We discussed unfinished architecture and how the living cell could adapt to the processes of time and, without even realizing it, we found ourselves in a new dimension for human in the globalization and the Anthropocene era. Adriano Olivetti in his book "The city of man" that describing the now outclassed living conditions of the early twentieth century, wrote that in the past "infectious diseases reaped young lives" considering that the possibility that this situation could repeat itself was now out of date; we never could have imagined that we would find ourselves fighting against a virus that would change our lives and that we would have experienced an alienating and claustrophobic condition, just like in a James Graham Ballard story. Through the analysis of pandemic living conditions, the objective of this study is to imagine a post-Covid space that will must consider the housing problems that have emerged by proposing new ideal scenarios.

ID 035 *The impact of ex-industrial areas in Tirana city. Past and the Future*

Etleva BUSHATI

*Polytechnic University of
Tirana, Albania*

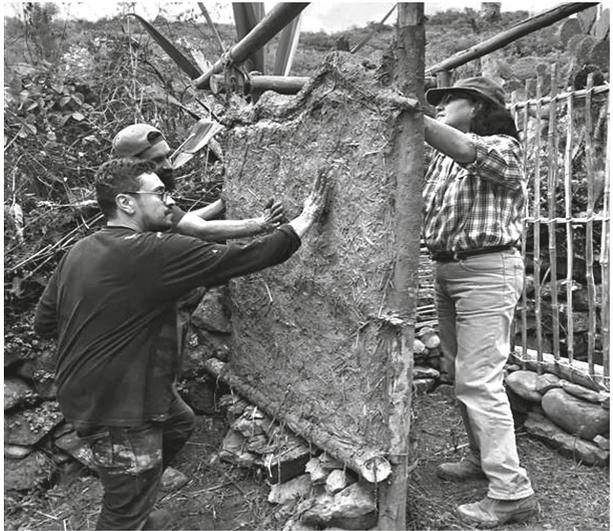
The nowadays inherited industrial landscapes in the city of Tirana shows us the importance that they had in the built urban environment. These territories became landscapes that manifested their “material” and “immaterial” identity through their important role in urban fabric and sociocultural life shaping the area to which they belonged. The industrial facilities were planned and built as an “urban phenomenon” which was supposed to have visual significance. Massive volumes, transport routes, the industrial landscape; all these factors created not only the physiognomy of the area in the urban context, but also, they created spot areas on the city map with pollution and contamination. These production complexes were built over the years expanding and adapting to industrial technology and market needs in response to the ideology of the regime. After the Second World War, the city of Tirana inherited a vast undeveloped suburb which for more than 40 years took an industrial character, in certain areas of it. Under the motto of the socialist industrialization of the country, industrial settlements were built, which formed industrial neighborhoods in the city of Tirana. New urban communities emerged in these neighborhoods.

Through this study we try to face the past and the future of the production complexes in Tirana city looking at a specific aspect; their role in the healthy lives of inhabitants and the city.

ID 036 *Optimizations as a design tool and objective in architectural design. Benefits, risks and influence on the design process*

Giuseppe CANESTRINO
University of Calabria, Italy

The times of uncertainty and crisis we are facing have questioned various aspects and objectives of architectural design and pushed, under the pressure of today's society, for a more ethical use of the consumed resources in architecture. This has led, thanks to recent progress in Information Technologies, to the possibility to improve the overall sustainability of a building (in regard of well-being and health of occupants, environmental sustainability, economic sustainability and energy control strategies) with a scientific approach through the inclusion of optimization tools in architectural design. Thanks to various innovations, from evolutionary algorithms to neural networks, starting from conditions imposed by the designer it is possible to identify the design proposals that best meet the efficiency parameters defined by the designer himself. However, this approach influences the architectural design process that risk to be overwhelmed under the pressure of an increasingly demanding society: optimizations from useful tools could become the ultimate goal of architectural design. Today we are facing the risk that an optimized and flawless design is automatically considered a design of quality ignoring all non-measurable aspects in architecture by focusing only on what we can scientifically measure. This paper presents and reflects on a systemic vision of the optimization tools used and usable in architectural design, highlighting their benefits, risks and influences.



ID 037 *Earth as a building material, the challenge of a traditional material in the 21st century. Case study: Farewell room for the Serrenti cemetery in Sardinia*

Giada PAOLUCCI

Giovanni SANTI

University of Pisa, Italy

Earth as a building material undoubtedly has a strong fascination that merges the figure of the designer with that of the builder opening up various ecological, market and design perspectives. Many buildings have been constructed using this material since ancient times, some important in terms of size and cultural value; however, it is not frequently utilized nowadays, so it is natural to ask why such a promising material is not widely used. This paper presents the synthesis of research which aims to answer this question, starting from the study of historical examples leading up to the use of this material in the 21st century. Usually building materials can satisfy certain hygrothermal and mechanical characteristics, but when it comes to earth it is impossible to find univocal parameters. This reveals an even more worrying gap at an experimental level and above all in establishing general practices that make it impossible to compare the results. In turn it is reflected in the production of legislation where difficulties occur in abandoning the well-established empirical practices and therefore making worthy updates. Through this case study, the project of a small earth building in Italy, it was possible to verify the building construction problems from the point of view of regulatory response as well. The results of the research show how little is missing for a complete regulatory validation of this building material, thus being able to expand its use by designers.

ID 038 *Cultural Inland Design. Products and services for territorial and people enhancement*

**Maria Carola MOROZZO
DELLA ROCCA**

Chiara OLIVASTRI

Giulia ZAPPIA

University of Genoa, Italy

Ecosystem provides unique support to life quality and economic development (Scolozzi et al., 2012). Mountain zootechnics, thanks to alpine pasture, conducts important functions of conservation of biodiversity, fruition and preservation of areas differently addressed to become wild forest, in addition to guarantee the production of high-quality goods. Preservation and enhancement of inland, by sustaining the rare community custodians, are key elements that must be supported. A goal that can be pursued developing innovative actions able to generate a great value relative to commodities, culture, and tourism. From 2019, the design research group of our University is part of three research projects within European programs (Interreg Alcotra, Maritime IT-FR 2014-2020) oriented to the promotion of (economic) communicative strategies directed at enhancing typical products, places of production, and itineraries linked to mountain high-quality markets. Values that COVID-19 contributed to arise and that are nowadays prior for people wellness. In this context, relative to Ligurian inland, the paper aims at highlighting methods, strategies, and products elaborated thanks to our design-driven approach. The objectives are to enhance production chains and reinterpret the “slow tourism of proximity” principles during and post-pandemic, and finally to spread a new culture able to recognize and appreciate the biodiversity produced by the synergy between community, territory, and livestock.



ID 039 *The Sanatorium of Bucaille in Aincourt (1929-1933): the analysis of the site, between modern architecture and landscape, from the political project to the current need for conservation*

Chiara BENEDETTI

Politecnico di Torino, Italy

The experience of the vast program for the realization of a network of antitubercular sanatoriums in France between the two world conflicts, shows how the medical history of a disease is always accompanied by the social history of patients, the institutional history of political wills, and in particular, the history of the buildings called to give concreteness to all these instances. Through the presentation of the case of the Sanatorium of Bucaille in the department of Val d'Oise in France, exemplary expression of technological and formal experimentation of modern architecture and registered site in Inventaire supplémentaire des Monuments Historiques since 1999, the paper attempts to investigate the dual nature of scientific instrument and architectural object of the sanatorium. Starting from the analysis of the material outcomes that embody the convergence of different design contributions, the study aims to capture a radically renewed medical project, aimed at setting up for the patient the most favourable living conditions for healing - through the site's landscaping component, the ergonomic design of spaces, solutions to social isolation - to supplement medical therapy. Such a multidisciplinary approach to illness has helped to define that multiplicity of values, which not only connotes the identity of the site, but which is now indispensable to read its potential role in the contemporary world.



ID 040 *20th Century Heritage in Forte Marghera (Venice). The Challenge of Use and Re-Use of Natural / Cultural Spaces in post-Covid Era*

Sara DI RESTA

Giorgio DANESI

IUAV University Venice, Italy

Forte Marghera is a fortified site at the edge of mainland and lagoon, about 5 km from Venice. Built in the early 19th century as a part of a wider defensive system, it was commissioned by the Austrians and concluded by the French army. The 20th century had a significant impact on the site with the inclusion within the surrounding walls of more than 50 relevant buildings for storage, housing and services.

After the complete abandonment of the military area in the '80s, the fortress and its wide listed park are now the object of interventions that are transforming this monumental/natural area into an important center of cultural exchange for the Veneto Region. In the highly anthropized environment of the Venetian mainland, the fort has shown high resilience to external changes over time, and the outdoor life possibilities allowed by the park make the site a vital place even during the pandemic. The paper presents the first outcomes of the research part of the agreement between Università Iuav di Venezia and Forte Marghera Foundation. The qualities of the landscape, the relation with nature, the wide and flexible spaces that characterize the buildings to be preserved, are just some of the issues concerning how the community can live cultural/natural spaces during and after the Covid-19 emergency and how the research can address both use and reuse strategies in the re-appropriation of modern heritage according to the new needs of post-pandemic era.

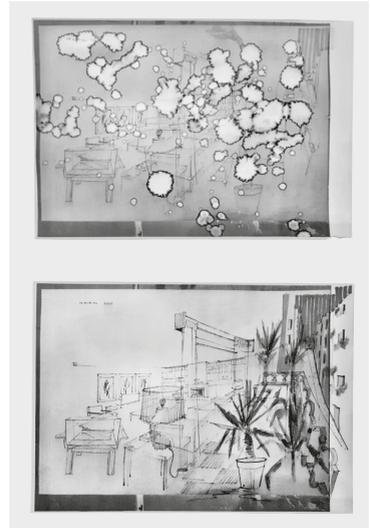
ID 041 *The role of culture in the new context derived from the health crisis of COVID-19*

Arturo AZPEITIA

University of Basque Country, Spain

In a global context of restrictions and social isolation motivated by the health crisis of COVID-19, we are at a crucial moment in which culture is more necessary than ever. The recently meeting G20 culture ministers who have emphasized “the potential for the contribution of culture across the spectrum of public policy, to forge more sustainable societies and economies” have recognized it. At a planning juncture for the use of European funds for economic recovery, culture must acquire a leading role as an engine of strategic sustainable development capable of contributing more to gross domestic product than other economic sectors. A leading role that was taken from culture in the New Urban Agenda 2020, where it is not directly included in any of the 17 Sustainable Development Goals (SDGs).

This contribution is intended to reflect on all of this, focusing on some initiatives that help to combat structural problems and promote the development of cultural industries, essential for the conservation and enhancement of Cultural Heritage.



ID 042 *The Drawing and the “Cocoon-House” or The Drawing and the “Cocoon-Home”: The blue and the other colors of the sky, and the greens under it.*

Pedro António JANEIRO
*Faculty of Architecture of Lisbon,
 Portugal*

Perhaps the human being invented “the house” when he realized that his naked body was not enough to protect him from the horrors of the world. Perhaps today “this house invented for this naked body”, already expelled from the idyllic unreal dreamed Paradise, this house, this other-body-invented, is today, as never before, more than a shelter or a defense, more than a second skin or an other-self, more than a “corporal interval” as Aristotle called it... Life as it never was. “The house”, today, is so much more, it is more than a shelter, a defense, a protection, a trench, a receptacle, a cover, the Filarete cloud (or, ceiling?), creek, cove, port. “The house”, today, has it becomes, is an amputation of the World. Therefore, in this sense – as an amputated segment of the World - “the house” is a “cocoon”, although this amputation is provisionally a reality, “the reality”. Amputated worlds, or amputations of the world, we know them many throughout the history of architecture: monasteries, convents, panoptic jails, cells, etc., voluntary or involuntary deprivations in the name of faith or necessity or law. But to amputate the World is to establish another one: blue or any other colors that the sky admits, Franciscan, Benedictine, Dominican, Cistercian cloisters, or others; green Carthusian yards; but theirs bodies free, even though imprisoned or cloistered or encased. Now and here, in this new way of being or staying “at home, in a cocoon”, that’s were architect’s Drawing can act.

ID 043 *Structural design criteria for safety by monitoring of the architectural heritage damage: new proposal*

Concetta CUSANO

*University of Campania
'Luigi Vanvitelli', Italy*

Alberto SAPORA

Politecnico di Torino, Italy

In nature, there are several types of events that undermine structural safety, but the fundamental role in determining the resistance of the object on which they strike is assumed by the intrinsic characteristics of the object itself. A historic building has different possibilities of resisting an unexpected event than a more recently constructed building. In this work we do not want to say if the possibilities of the first type of buildings are greater or lesser than those of the other, but we want to highlight the fact that there are various possibilities, in the sense that each category of buildings behaves differently towards a different event and that no generalization or transversal homologation is possible. So, also the methodologies to define the structural robustness of such building typologies or the ability to adapt to unexpected events, must be evaluated following different paths: in fact, if for steel or reinforced concrete buildings it is possible to proceed with the concepts of the classical elastic theory, for masonry buildings such theory is set aside being fundamental, as primary hypothesis, the non-deformability of the material and its not resistance to traction.

For this category of buildings, therefore, is applicable the Heyman hypothesis according to the above assumptions, that become: no tensile strength, infinite compressive strength and no sliding between blocks.

herefore, if for steel or reinforced concrete buildings the science has been expressed by far, for historical masonry buildings remains to be tested the way of "rocking", which according to the Authors interprets the characteristics of the material in a quite centered way.

ID 044 *Redesigning living spaces following covid-19. A multidisciplinary study*

Federica ARCANGELI

Asia BARNOCCHI

Architects, Rome, Italy

Angelica MOCCI

Clinical Psychologist, Rome, Italy

Consultant

Giulia SCARANGELLA

Clinical Psychologist, Rome, Italy

The impact of the COVID-19 pandemic has changed the way we used to live. The increase of the smart working and the inability to attend public spaces have constrained people to spend the most part of their time at home. This has turned the spotlight on the residential housing, leading to its rethinking in order to pursue healthy, multifunctional and comfortable living spaces, capable of ensuring psychological and physical well-being.

This paper proposes a multidisciplinary study, architectural and psychological, carried out through the review of recent scientific researches, news, articles and the integration of a new study through the administration of semi-structured questionnaires in order to update residential dwellings to current needs.

Health is the topic that has suffered the most during the quarantine, and the one that need to be improved through new design strategies. Our findings show certain limits of modern homes, such as standard spaces, open floors and monofunctional rooms, and offer points of reflection toward flexible living spaces addressed to personal well-being.

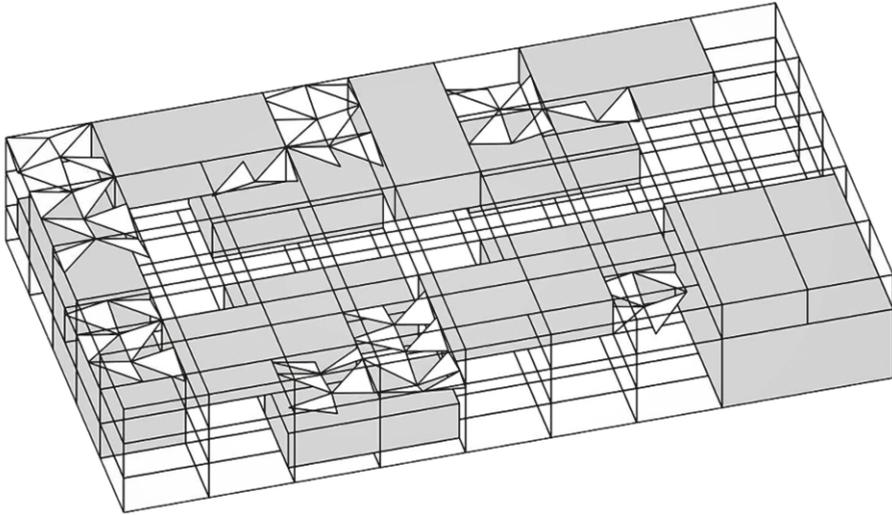
ID 045 *The “Monitoring City Walls System” as integrated approach of advanced technologies for the heritage asset management*

Daniela LADIANA

University of Chieti and Pescara, Italy

The “Monitoring City Walls” research project by the University of Pisa and University of Chieti-Pescara approaches planned conservation as a process that pursues an in-depth understanding of historic city walls and their surroundings to define a system of effective risk prevention. This multidisciplinary research adopts monitoring strategies and technologies at the large scale and in relationship to natural and urban conditions. The underlying logic frames the conservation of these historic fortifications within the more general mitigation of risks generated by context.

The research aims to develop an innovative approach to monitoring ancient defensive structures in historical towns. The integrated use of advanced technologies allows for the control and, most importantly, advance identification of possible risks. These new technologies, in particular satellite interferometry, make it possible to improve and increase the operational capacity of monitoring processes by facilitating the acquisition and investigation of data relative to the system defined by ancient city walls and their surroundings. These technologies also represent a cost-effective tool for managing the important transition from the observation and study of individual monuments to the monitoring of large monumental complexes or even entire historical centers.

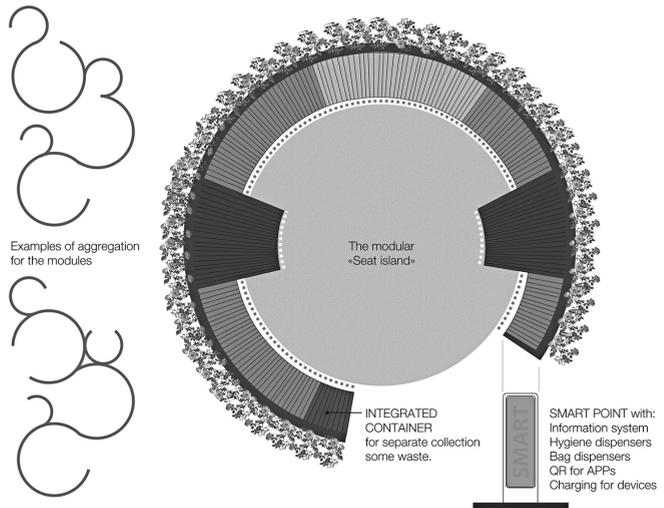


ID 046 *The Grid as a design tool for Adaptive Architecture*

Annarita ZARRILLO

*University of Campania
'Luigi Vanvitelli', Italy*

Starting from the pioneering research of Yona Friedman and Konrad Wachsmann centered, for the first, on the concept of Mobile Architecture and, for the second, on the construction processes linked to standardized prefabrication, the article shows the relevance of these themes and the usefulness in emergency contexts. In particular, a design experiment is presented which, taking its cue from the utopian project "La Ville Spatiale", is based on a three-dimensional grid that conceptually would allow architecture to expand indefinitely. The proposed project concerns a school complex located in the town of Gignano, in the urban area of Aquila, and was developed as part of the thesis in Architectural Design of the student Jole Marino, with the tutor Prof. Efsio Pitzalis and the co-tutor Dr. Annarita Zarrillo at the Department of Architecture and Industrial Design of the University of Campania "Luigi Vanvitelli". The entire construction process was designed using prefabricated X-Lam modules that make it quick and ensure high standards of acoustic and thermal insulation. The great adaptability of the structural typology of the grid made it possible to design a building in harmony with the mountainous context in which it is inserted, conceiving the internal space as continuity and extension of the external space.



ID 047 *Approaches and solutions for inclusive parks in the “new normal”. The case study of the Vernavola Park in Pavia, Italy*

Valentina GIACOMETTI

Alessandro GRECO

Francesco MECOJ

Università di Pavia, Italy

The COVID-19 pandemic hit the cities while they were trying to accomplish the UN Agenda 2030 Goals for the Sustainable Development, with complex transforming processes, approaches and strategies. The restrictions dictated by the consequent limitations to the mobility and social activities, fundamental to contain the spread of the virus, already changed the way of living the public spaces and it will inevitably have an impact also in the “new normal” we are going to live in the future. New approaches, strategies and solutions have to be researched in the design of the parks and green public spaces, with the awareness of their importance, considering their positive impact on the communities, also due to the opportunities for playing, exercising, meeting and socializing in close contact with nature. To limit the risk of contagion, design solutions encouraging a clear, safe and flexible use have to be proposed. These solutions should be able to guarantee the respect of the physical distancing – when needed – and to satisfy the needs of all people, including elderly, children and disable people. The paper shows the project proposed for the valorization of the Vernavola Park in Pavia, Italy, where new flexible solutions are designed to guarantee an inclusive and safe experience, also during the pandemic. The text explain the exportable methodology based on an objective tool of analysis and design strategies used to achieve the goal.

ID 048 *Lisbon today: Heritage and Design for the Health of a city*

Miguel BAPTISTA-BASTOS

University of Lisbon, Portugal

In recent years, Lisbon has seen a huge surge in architectural construction and remodeling, changing its urban and social geography. Phenomena such as tourism, gentrification and the use of other physical models used in other capitals whose main characteristics have nothing to do with their inherited substance have substantially altered their idiosyncrasies. Models adopted from other cities, whose political hegemony is more influential, originated a well-established cosmopolitan process, however this origin is based on a deceptive local heritage. At this moment, Lisbon, despite maintaining an apparently original and solid patrimonial image, has essentially become a city just like so many others.

The people of Lisbon suffer the pressure of wild real estate speculation as never seen before, forcing them to leave the historic center, transforming these places into playful voids, solely intended for entertainment and high-priced luxury rooms. What were once areas with specific characteristics of Lisbon's popular neighborhoods, have now become a huge scenario of false local heritage, where everything resembles stereotypes, as in a reinvented tradition.

This work seeks to identify the phenomena that contaminated Lisbon, relating them through its own heritage. This work seeks to identify the various phenomena that contaminated Lisbon, relating them through its heritage and a possible design for the health of this formidable city.

ID 049 *The Life Cycle Assessment to evaluate the use of biomaterials for the historic building energy reconversion*

Mariarosaria ANGRISANO

Francesco FABBROCINO

Pegaso University, Italy

Climate change is interpreted as the greatest threat of this century. Many European countries have agreed to draw up development plans for the future with the objective of achieving zero net carbon by 2050, through the use of innovative technologies in every sector. The built environment sector is one of the main sources of greenhouse gas emissions and resources depletion. The European Commission, in "the New Green Deal", highlights that the regeneration/requalification of existing buildings plays a fundamental role to maximize the objective of decarbonization and resource conservations for 2050.

Cultural heritage adaptive reuse projects can substantially help to achieve these goals, if the reuse projects are developed in line with zero net carbon objectives. Cultural heritage adaptive reuse needs to be regenerative and sustainable, and capable to conserve and transmit cultural values for future generations. Energy interventions and those on cultural heritage structures should be characterized by sustainable/circular strategies, able to reduce the generation of carbon emissions.

The aim of this paper is to assess the environmental impacts, through the Life Cycle Assessment evaluation method, of a sustainable project proposed for the energetic reconversion of Villa Vannucchi, an historic building located in San Giorgio a Cremano (Naples).

BIM model of the villa was elaborated, with the aim to analyze the building thermal dispersions. This analysis was supported by a survey of the building's internal temperatures using a thermo-scanner.

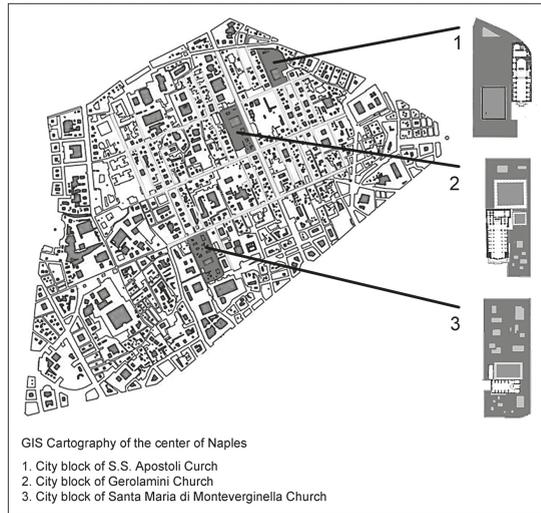
ID 050 *The “Unfinished” church of Brendola. Digital strategies for the management of cultural heritage*

Emanuela SORBO

Gianluca SPIRONELLI

IUAV University Venice, Italy

The paper aims to analyze the case study of the “Unfinished” church of Brendola, designed by the engineer-architect Fausto Franco in the early thirties of the twentieth century. Economic problems led to the interruption of the church’s construction, occurred during the middle age of twentieth century’s fifties, left the church in an unfinished situation that today we recognize as a ruin. The church’s study seeks to delineate a new methodology of analysis for abandoned cultural heritage based on data digitization and creation of a knowledge system that concerns the building’s state of conservation. The push towards to digitization, emerged during the pandemic, plays a fundamental role in the range of application possibilities, from the survey to the mechanisms for conservation and management of the cultural heritage. From this perspective, according to shared procedures, effectively organizing the collected data in an open repository linked to an interoperable Hbim model becomes a helpful digital tool to develop valorization strategies based on the interoperability and the possibility to share the knowledge efficiently between the actors involved in the conservation process and to the community.



ID 051 *Smart Cartography for knowledge of the Cultural Heritage of the Historic Center of Naples*

Clelia CIRILLO

Loredana MARCOLONGO

Barbara BERTOLI

Research Institute on Terrestrial Ecosystems (IRET – CNR) Naples, Italy

The cultural heritage of the city of Naples is largely preserved in the urban palimpsest of its historic center which, as a large archive, preserves the memories and traces of millennia, as evidenced by the recent archaeological findings brought to light during the new metro line excavations. The dialogue between the places of the historical and the modern landscape results into the interpretation of the complex stratification of the urban fabric. It is possible to understand the history of the urban landscape transformations through the study of the rich iconographic and cartographic heritage preserved. But the complex interpretation of the historical stratification of the urban landscape, achievement of a creative process that has repeatedly been renewed over the centuries, currently needs new and more up-to-date tools capable of representing the geographical space in its entirety. In this perspective, the Geographic Information System (GIS) lends itself well to the dynamic and digital description of geographical space. The Smart Cartography, returned by GIS systems, can replace in an innovative way the traditional paper cartographies, manipulating the geometry of the data, by relating them to each other, georeferencing them and creating easy-to-access information flows from multiple users. The GIS, therefore, well suited as a tool for the projects implementation, aimed at the knowledge and enhancement of cultural heritage.

ID 052 *Climate design: a resource for the post-pandemic world*

Patrizia BURLANDO

Sara GRILLO

University of Genoa, Italy

We must collect the lessons that this global pandemic, in which we find ourselves, has infamously brought us. The whole world has stopped and has to reflect and deal with the damage of globalization, as never before. "A primitive tribe reaches a campground one evening and finds the ground strewn with wood. There are two options to use the environmental potential of that timber: either use it to build a windbreak or a canopy against the rain - structural solution - or use it to then make a fire - energy solution." (Banham, 1993). The structural solution involves a single large investment, while the energy solution involves a continuous loss of resources. Only an ideal tribe would make an estimate of the available wood, an analysis of the climatic conditions of that night and consequently use the wood resources in a rational way. This parable of Banham dictates the crossroads in which the globalized world finds itself; looking to the past, since ancient times man has spontaneously 'designed' his shelters to find the best comfort (the masonry mass, the movement of air masses and the analysis of the site characteristics.) The design must focus on the energy independence of the building, with the use of passive systems and the complete analysis of its life cycle. The hope is that the teaching will lead us to implement new strategies on territorial governance (mobility, quality public spaces) but also to determine the transition to a new *modus operandi* in architecture and landscape.



ID 053 *A sacred structure in pre-Roman Samnium*

Piero BARLOZZINI

University of Molise, Italy

This paper is the result of ongoing research at the University of Molise, which aims to identify and connect via the thread of consciousness the most noteworthy examples of historical and artistic architecture in the Molise region. The objective is to document this structural patrimony and make it known to the wider public and in so doing render known the history of the regional territory, which is too often ignored. Thus, the desire is to facilitate the creation of a conservation programme, as such patrimony is a primary resource for the Molise region, which is also valid as a stimulus for tourist itineraries. This paper discusses the pre-Roman temple situated at San Giovanni in Galdo, a structure that narrates its time. A programme of wide-ranging exploration in the archives and in the field was developed and when the cultural history and geometries emerged that generated the sacred enclosure, the structure was catalogued and entered into the data base set up at the beginning of this cultural journey in the territory of Molise.

The investigation meant that the known documentation could be updated and added to, in particular with drawings and photographs that provided an understanding of the connections between the structure and the surrounding territory, and more generally an understanding of its historical and artistic value.

ID 054 *Documenting the intangible aspects of built heritage: the compared results of international field experiences in Mexico and Bahrain*

Davide MEZZINO

Uninettuno, Rome, Italy

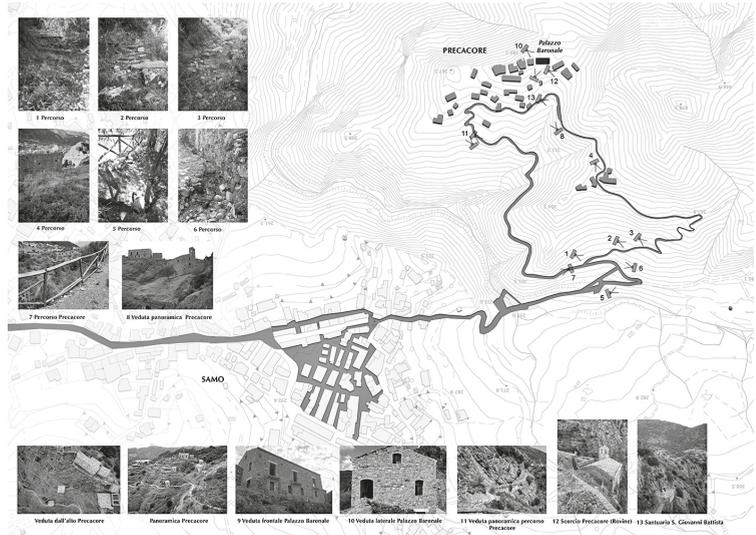
Tatiana KIROVA

Pegaso University, Italy

The paper presents the opportunities of documenting intangible aspects associated with built heritage. Since the first century B.C. Vitruvius, in his *De Architectura*, stated that a current problem for built heritage conservation consists in the growing erosion of maintenance and repair capabilities. Analyzing the connection between the recovery of the intangible dimensions of built heritage and its maintenance, this contribution stresses the reasons to preserve intangible knowledge and skills associated with built heritage. Displaying practical international case studies, it is underlined the key role played by traditional knowledge and skills in terms of innovation and community resilience making intangible conservation relevant for local economies.

These considerations are supported by the direct experience of the main author in three international documentation and conservation projects: the Casa Cristo in Guadalajara, Mexico, the Shaikh Isa bin Ali house and the Siyadi majlis in Muharraq, Bahrain.

In these three sites - different for location, period of constructions, building materials, architectural typology, as well as cultural and social-economic context – it is shown the relevance of documenting intangible variables to ensure the preservation of cultural diversity and local identity. Through the proposed case studies, it is explained how the documentation of intangible cultural heritage can support its safeguard, allowing the transfer of knowledge, skills, and meanings.



ID 055 *Landscape and cultural heritage as wellbeing builders. New vision and resemantization processes for Precacore*

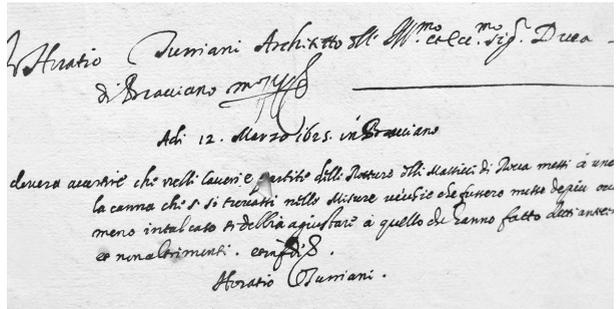
Natalina CARRÀ

*Mediterranean University of
Reggio Calabria, Italy*

The paper focuses on these topics and specifically on the implications and on relationships between the preservation of cultural heritage and the improvement of individual's lives and the environment, describing a case study on an ongoing experimentation, in a municipality of the metropolitan city of Reggio Calabria.

In recent years, literature on studies on urban features and living conditions of cities related to health and well-being, has shown growing attention to the implications that the cultural dimension has or can have in such processes. The attention concerns the cultural expression understood as a set of environmental and social features, that is, a set of characteristics associated with a specific place, urban or territorial, of human and social development. Today, the relationship between culture and health, obtains an important role. Indeed, a considerable interest growth in sector studies, which unequivocally demonstrate how the intelligent use of free time is associated to an extension of life expectancy and a reduction of some pathologies.

The project presented pursues both aims of safeguarding and enhancing the heritage values of the landscape, and supporting the construction of new visions and interpretations by local populations and more generally by all users of this place.



ID 056 *The design activity of Orazio Torriani in the Lazio possessions of the Orsini family*

Roberta Maria DAL MAS

Sapienza University of Rome, Italy

In the first half of the seventeenth century Orazio Torriani (1578-1657) worked for Paolo Giordano II Orsini (1591-1656), Duke of Bracciano. In the vast fiefdom, he realized civil and ecclesiastical architectures, respectively the palaces of Oriolo and Campagnano, the monastery of the Visitation and the Collegiate of S. Stefano in Bracciano; hydraulic works such as the mills of Anguillara, Bracciano, Campagnano, Formello, Oriolo and Trevignano, military works such as the interventions in the castle of Bracciano, the fortress of Palo and road works, the bridges in Cerveteri, Campagnano and Anguillara; the projects for the estates in Valle Troia, Crete, Pantane and Viano, as well as minor buildings in various locations (taverns, ovens, stables, barns, ironworks, powder kegs). This essay explores for the first time the design activity of Orazio Torriani in the Lazio region, starting from the study that examined the Town Hall of Bracciano (1630-41) [Dal Mas 2020] and dealing with the following objectives: 1) the chronological cataloging and critical analysis of the works attributable to Torriani, based on historical and archival research and the classification of his professional figure in the area of Roman influence at the beginning of the seventeenth century; 2) the identification of the relationship between his architectural choices and the landscape in Torriani's production, in the territory of Bracciano; 3) the definition of the relationship between the architect and the Orsini client in the cultural contest.

ID 057 *The identity value and urban architecture. The issue of abandonments and the birth of new relocated towns after natural disasters and pestilences*

Enza TOLLA

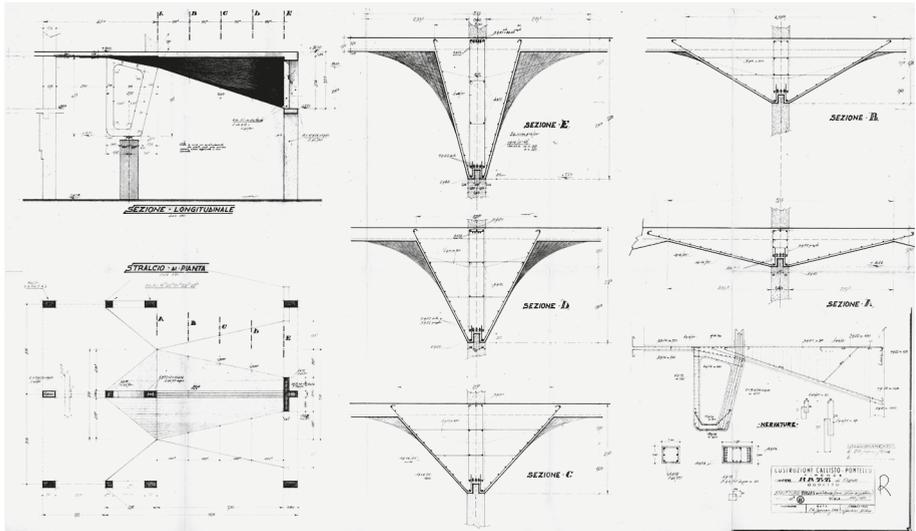
Giuseppe DAMONE

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The issue of the abandonment of small towns after disasters or pestilences characterized the settlement's geography of many realities during centuries. Millions are the small villages and towns with important politic-religious functions which were gradually abandoned after invasions, wars and pestilences or as consequence of earthquake and landslides or still because of the foundation of new cities where tax exemption was allowed to the new inhabitants.

Narrowing the research to the most recent abandons in the South Italy between the XVIII and XX century, the end of many towns was caused by earthquakes and landslides defining the abandon of the historical town and the birth of new relocated centers which inherited only the name by the previous settlements.

The analysis of historical town which gradually becomes orphan of its inhabitants for an instantaneous and notreversible episode and the comparison with the planning and the architecture of the town built in a new place represents the milestone of important considerations about times and modes of rebuilding which often does not reflect the objectives fixed. If the new towns are really far from the architecture of old settlements, also the communities are not resilient and even the new relocated town loses its inhabitants risking to be gradually abandoned.



ID 058 *The structures of the Provincial Directorate Post Office in Florence (G. Michelucci 1963-'67)*

Frida BAZZOCCHI

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University of Florence, Italy

To accommodate the new functions of the Provincial Directorate Post and Telegraph Office, Michelucci designed the Post Office building in Florence at the end of the 1950s. The building was born almost simultaneously with the new academic experience within the Faculty of Engineering in Bologna. This experience is fundamental to understand the building. Indeed, he shared a technical environment with new cultural perspectives, however capable of understanding his ethical commitment to architecture and the centrality of construction in the project. In Bologna he also developed his passion for reinforced concrete and structures in general. The Post Office building is characterised by the typical elements of Michelucci's work both in relation to the social character of architecture and in the composition of space. In this, the structure, almost completely in reinforced concrete, takes on a fundamental role with a strong search for craftsmanship and detail. As always in Michelucci's work, this is manifested as "authentic" and strongly sculptural. The paper analyses the structure in its static complexity and in the constructive detail to highlight the relationship with the architectural language. This will show the situations in which form and structure find a perfect consistency and those the "lexicon of the structure" shows some issue. This will be done by retracing the history of the building with the support of the extensive archival documentation collected by the research group.

ID 059 *Traditional games at Italian's school*

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The aim of the research project was to verify, through a theoretical argumentative approach, the function of teaching methods centered on traditional games play as an original alternative access to knowledge. It highlighted the importance of an integrated use of traditional games and modern games in the nursery and primary school. (Hopper, Teta, 2009)

Traditional games and modern games are configured as one of the possible work paths to organize activities and experiences designed to promote skills. based on the significance of different experience to facilitate the organization of a system of relations that has put in communication the cognitive style of each individual pupil. (Montessori, 2001)

The conclusion that there is no definitive best teaching method that would give positive and consistent results in different learning contexts, with any student or teacher, but you should consider alternative methodological in the design of training interventions that take into account the potential of the body and movement in access to knowledge. (Sibilio, 2014)

ID 060 *Historic hospitals: an assessment grid and value scale for identifying reuse patterns for health and mixed functions*

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Italy is unique for a prominent, though mostly unregistered, historic hospital assets, that are not independently listed but only within historic sites/city centres on the UNESCO World Heritage. Since the Middle Age, hospitals have been shaping our towns by providing – through time – scientific discoveries and biomedical advances, also undergoing significant transformations while keeping a close link with the community. Such hospitals could be small towns within towns, with monumental features bringing a strong social value that gradually went lost through ages, due to different budget/maintenance policies, changing regulations/performance requirements/medical protocols. This brought up to putting many historic hospitals into new use or disuse till nowadays, so losing their heritage value. The current emergency gives the opportunity to rethink the role they can play as new service recipients for the community. This topic is linked to reuse of heritage buildings, with special attention to revitalized new health or mixed functions. This paper explores the potential heritage value through which such hospitals can enhance health functions facing this emergency. The goal is a review of a sample of revitalized hospitals in Italy and in Europe to define an evaluation grid with solutions for new health functions and balance between financial sustainability and preservation requirements, with in mind a key pattern to highlight identity and value historic hospitals can still express.

ID 061 *Urban regeneration and new welfare. For a reconfiguration of the Network of public services for health*

Laura RICCI

Francesco CRUPI

Irene POLI

Sapienza University Rome, Italy

The metropolization processes of the contemporary city show a complex scenario: the contradictions induced by globalization effects, physical degradation, socioeconomic marginality, environmental fragility, new population instances, overlap the genetic anomalies of Italian cities, highlighting a new urban question. That question underlies generalised conditions of marginality, social inequality and poverty and in the current health emergency require a new urban welfare to guarantee fundamental rights to local communities, including the right to health, becoming the goal of an integrated and inter-scalar strategy. The regeneration strategy assumes the public city both as a physical matrix of reference, network of tangible and intangible networks, to guarantee a capillary territorial distribution, and as a framework of the coherence for structural choices. In this context, the paper presents some reflections starting from research activities carried out by the authors, who face, in term not merely emergency, the urgency of a reconfiguration of the public city components structure within the Network of public services for health. In contrast with the current organizational model and in coherence with the interactive and inclusive connotation of the new concept for urban welfare construction, that reconfiguration considers physical-territorial dimension as a structural framework.

ID 062 *Built environment for hygienic and energy performances: comparative analysis between studies at the turn of the 20th century and current literature*

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The actual pandemic of COVID-19 requires a paradigm shift: from Emergency Actions to Risk Prevention. Recent studies have shown that the built environment (BE) could represent a strategic challenge in reducing the future risk. In the past, epidemics had an important influence on BE changes. The hygiene studies on the “Milieux favorables à la santé”, published at the turn of the 20th century, are particularly interesting: doctors, engineers and architects worked together, focusing on light, ventilation, solar gains for new BE solutions. During 20th century, the studies on BE systems turned the attention to the energetic issue for resources control. Today, the pandemic shock requires researching on BE topics that could respond to both hygienic and energetic issues.

Considering hygiene studies published in France, by Trélat and Knapen, and in Italy, by the journal “Ingegneria Sanitaria”, we present a comparative analysis with current literature on the relationship between the BE and the spread of infectious disease. Focusing on air and sun effects, this paper aims to identify the BE parameters influencing the hygienic and energy performances, from the urban to material scale. The results of this work highlight that the past investigations can contribute to the current debate on new sustainable BE, considering innovation as a phenomenon on the historical continuum.

ID 063 *Enhancing the consolidated public space for social well-being. Interventions on the historic centre of Trecastagni, Sicily*

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Enhancement means taking actions aimed at giving value. It is a cultural operation that can promote conservation interventions, reserved for the maintenance of the place. In smaller urban contexts, the value is represented by the whole and the enhancement has objectives focused on public heritage.

Today, enhancement connects the past with the future and provides an occasion to highlight the tangible and intangible resources safeguarded by such heritage. Public space is the social space; it exists in any urban, suburban or rural reality. Public space is able to influence the psycho-physical well-being of man, but also social well-being, made of meetings, distraction, socialization. The study aims to highlight how the enhancement of an existing public space can positively affect the well-being of man. The spasmodic search for places outside the house, where to spend peaceful hours, makes the public space the perfect element for social well-being. The case study is Trecastagni, a small town near Catania, Sicily, Italy, at the foot of Mount Etna. The city has an interesting old town consisting of small palaces built almost all after the earthquake of 1693 and beautiful churches even older. This research is aimed at retrieving the urban space in the existing place, to bring out the memory and identity that time has made us forget, but also to create an attractive and inclusive place.

ID 064 *Octagonal architectures between religious and power symbols*

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Cesare VERDOSCIA

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In the past, the most classic geometries, for defines the layout of the architectural space was the circle, rectangular and square. However, there are octagonal layout architectures, which due to the very strong intrinsic meanings that this form possesses was used for particular architectural structures that had a strong symbolic value, of secular and religious power, often opposed to each other precisely through the particular shape of their octagonal layout.

The octagonal geometric shape is full of esoteric meanings. Used to define the architectural space of numerous baptisteries, towers, castles and funeral monuments that are inextricably linked to number 8.

For various peoples, the octagon has been a sacred geometric figure throughout history, so much so that it has been used for various architectures with an octagonal layout. Frederick II of Swabia, Leonardo da Vinci and many others drew inspiration from this particular shape, used extensively in Islamic architecture. The goal of this paper is to understand the meaning hidden behind this geometric figure when it is used for the definition of the architectural space, to catalog in chronological order the numerous architectures with this particular layout and to understand their placement in the historical, political and religious period, focusing on the Dome of the Rock, in Jerusalem, which best represents the meaning of octagonal architecture for the three major monotheistic religions.



ID 065 *Agro-food Museums. A Knowledge Resource for Environmental and Social Wellness*

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Fosca TORTORELLI

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Agro-food museums are becoming a new opportunity for communities in order to acquaint experience for the care of the entire environment in which they live. Territories, food, sustainability, wellness of people and new economic opportunities find in them an overall heritage balance.

In these experiences the design of exhibition routes is comprehended with the intention of interacting with visitors, at the same time on the one hand through innovative sensorial multimedia experiences and, on the other hand, through the real physical contact with antique agriculture machineries. The learning experiences are so not only intended to be as a cultural historical understanding, but also for the constitute food best practicing recommendations on which foods people choose to eat and how to prepare them for their wellness.

In that way the memory in the food supply chain becomes an incentive against wastage, rethinking how we cultivate, produce and consume. We have to be sensitized on this focus because 1/3 of produced food is not eaten.

A series of synergic case studies are presented, which involve people in an awareness process of the of connections among our health, our culture and our planet equilibrium.

ID 066 *Twentieth century architecture. The heritage of the marine colonies on the Romagna coast between conservation and restoration*

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With the 1935 national medical congress in Rimini, the reorganization of climate assistance interventions in the field of prophylaxis for childhood diseases began, with the drafting of a first regulation of summer camps, classified according to diseases, periods of treatment and living room, seaside, mountain, river and lake, plain and spa resorts. The Adriatic coast of Romagna, flat and sandy, seemed the ideal place to allow the development of the ambitious project strongly desired by the fascist regime. The area, since the beginning of the century, was marked by the presence of infrastructures for tourism and for therapeutic and rest stays.

With the support of accurate surveys, both at the scale of individual architectures and that of stylistic, material and construction details, this contribution aims to focus attention on the specificity of the architecture analyzed that characterize the heritage of the marine colonies on the Romagna coast. The aim is to expand its events but above all to prefigure new scenarios, as desirable as possible, of restoration and enhancement.

ID 067 *The Ecoheritage Project: How Ecomusems can reinforce the relationship between culture and nature*

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Lisa Nadia Roberta PIGOZZI

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The aim of this paper is showing how Ecomuseums can play a key role in the sustainability transition, that is actually a very debated topic in various fields. We would like to reach such aims presenting Ecoheritage project: i.e. an Erasmus project recently financed.

As it is known, Ecomuseum stimulates a virtuous relationship between community and territory, where people are involved in safeguarding their heritage. The Ecomuseum term fulfilled the need for alternative use of traditional museums' space, focusing on the social dimension and the ecology.

Ecoheritage aims to empower rural communities to enhance their heritage, giving them an instrument (i.e. ecomuseum) for economic and social development. Furthermore, Ecoheritage will promote ecomuseums as a collaborative management model, establishing a set of criteria for its recognition. The project will boost the creation of ecomuseums as an endogenous resource for the competitiveness of agricultural landscapes, providing skills to adult learners through training materials of participatory heritage management. The Ecoheritage consortium, formed by international experts, will create a strong communication network for good practices exchange for new ecomuseums implementation; this will guarantee transferability of the results in Italy and Europe and activate heritage protection in fragile areas.

ID 068 *Heritage between identity, memory and evolution*

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Digital techniques are leading to a drastic reduction in the “distances” between different places and cultures; the contemporary architectural trend is pushing towards a “globalisation” of architecture and building techniques that seems to be eradicating the historical link it has always had with the culture of places. In this situation there is a risk of losing the identity of places, which, in order to respond to the new demands dictated by progress and digitising, undergo a radical transformation, denying their relationship with their history and context. Only that part of the heritage which the international community - throughout history - has recognised as such, will survive this process whose aim seems to be to unify architectural trends in the name of ever more imminent progress. The monuments that have made great cities famous will continue to be appreciated as such, but all the small works that have always characterised each culture will be forgotten and erased to make way for an international cultural unification. It is not only the modest architectural artefacts - though rich in historical, cultural and social significance - that are at risk, but the context itself: the place that has always prompted man to modify it in order to appropriate it. This reflection leads us to analyse the emblematic case of a city that has undergone inevitable nineteenth- and twentieth-century transformations and that today, in the name of a much-dreamed-of “recovery” risks seeing many traces of its past erased.

ID 069 *Living in comfortable, identity and evolving spaces*

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Ferdinando VERARDI

Pegaso University, Italy

Current sensitivity is geared towards psychophysical well-being and the pandemic crisis we are experiencing is amplifying the search for answers to health, on one hand, and to connection on the other. We are increasingly projected to the virtual dimension, often forgetting concrete reality. In fact, a planning or a design risk, also favored by technological advances, is that it responds more to the rules of the market and to the emerging virtual needs of the community rather than to the resolution of real and priority problems, modifying the evolution of the city, which shapes up to be a system. The management of the territory can no longer be exercised, in actual fact, on individual areas, but rather implies an overall, holistic vision in consideration of the "principle of absolute uniqueness" of the landscape in all its components, including cultural heritage. In this sense, the design response has to resemble a process which, by emulating the regenerative and resilient mechanisms of nature, tends to integrate and optimize both the cultural heritage and the specific resources of local contexts, in order not to lose the interaction between man, built and environment, with the additional risk that urban spaces are not perceived as their own and, therefore, not used. Bioclimatic design strategies and passive solar systems can play a decisive role, also because they maximize energy efficiency and concretize the search for health solutions.



ID 070 *The case of the Oratory of San Rocco in Soragna (Parma): from abandonment to health facility. An integrated restoration process*

Federica OTTONI

Cristian BARBIERI

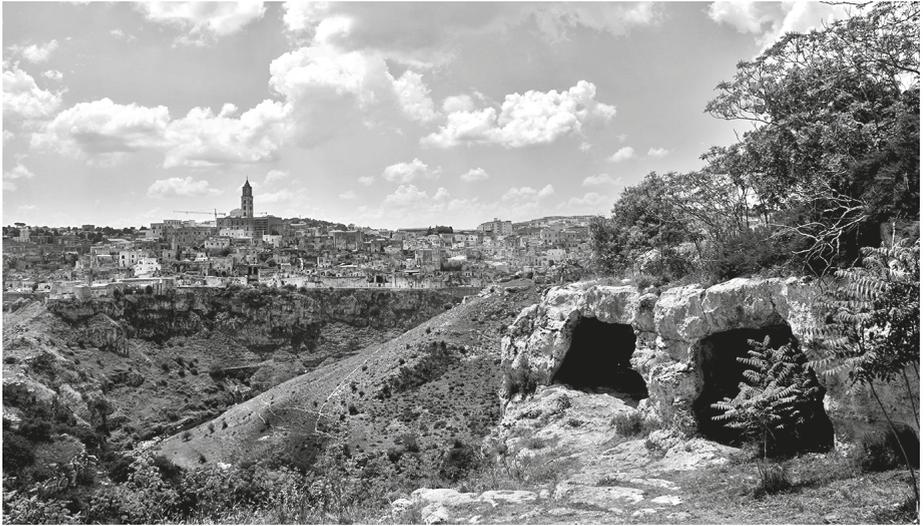
University of Parma, Italy

It's well known that the identification of the most appropriate use for historical heritage, is a fundamental instrument of conservation, which in maintenance, even before in "restoration intervention", find the first guarantee of success.

In this paper, the participated restoration process which involved the abandoned convent of San Rocco in Soragna (Parma), is presented, with the aim of showing the application of "integrated conservation process" principles to an interesting episode of cultural heritage.

Starting from historical and structural analysis of this really compromised and damaged structure, the project of reuse is presented, which, starting from a deep interaction between social and functional aspects, gathering local and social needs, has led to the creation of a territorial health structure, a small-size health facility, thus becoming a response to the municipality's needs, making the most of the historical vocation of the building.

Moreover, the adopted approach counterposes with the current tendency of multiplying interventions by proposing a diversification of uses instead: higher flexibility of spaces, and functions operating at different times of day will lead to a more effective and extended functioning of the complex, resulting in an overall better use (and, thus) preservation of the building in the long-term.



ID 071 *Reading a territory through the recovery of ancient routes: the case of Matera*

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Anna VERONESE

IUAV University Venice, Italy

In recent years, the notion of cultural heritage has come to encompass a growing number of domains including architecture, cities and landscape. It has also introduced the concept of “intangible heritage”, meaning the habits, the ways and means of a given culture.

That is why the study of a particular territory has become all the more important. It is a context in which the existence and activities of humans have been stratifying over time, producing a sense of belonging and community.

Many architectural projects involving a territory aim to the preservation of a geographical area and its heritage by recovering its historical paths and landscape.

Such is for instance the case of the Camino del Cid, the cultural itinerary that crosses Spain from the North-West to the South-East following the footsteps of the “Cid Campeador”. Or the Via de la Plata, the ancient Roman road connecting Mérida and Astorga, an itinerary of 263 km that crosses the provinces of Salamanca, Zamora and León and includes several architectural and landscape designs.

In the wake of these considerations, this project presents a 37 km long path using the ancient and almost forgotten “tratturi”, which criss-cross the territory around the city of Matera, especially the Parco della Murgia materana.

ID 072 *The Cultural Heritage of Roman Baths from an Architectural Perspective*

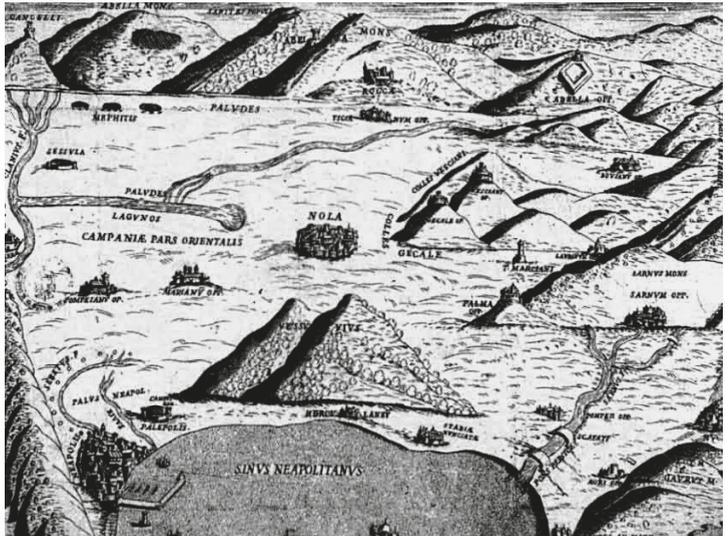
Dominik LENGYEL

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As one of the most devastating psychological effects of the pandemic, the loneliness of the individual progresses dramatically. In 2018 the U.K. appointed „the world’s first minister for loneliness“ (The Times). Post-pandemic health facilities have the potential to counteract this development. The millennia-old European culture of public baths could be a major factor in this development and directly promote the Welfare and Health of the Community.

During the last two conferences we presented a method of visualising hypotheses as a humanist approach to represent architecture as intellectual legacy, its bridge building capacity towards landscape heritage and its protection by promotion. This presentation illustrates the transversal critical dialogue of archaeology and architecture and in particular the architectonic mediation of culture and heritage, leading to in integration of the skills of building knowledge from history and projecting it towards architectural design without limits as guidelines for investing in the healthcare sector in an exemplary case study: Two thermal baths of the UNESCO heritage site Pompeji, the Republican and Stabian Baths, dating from different times and unveiling different approaches to the equilibrium of private and public life in the health sector. The project has been developed in the Excellence Cluster TOPOI, funded by the German Research Foundation DFG, in cooperation with the Institute of Classical Archaeology of the Freie University FU Berlin.



ID 073 *De morbo epidemiali nolano: an epidemic of the past and a warning for the future*

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In the year 1600, a serious epidemic involved the *ager nolanus* and various areas of Campania, decimating the population. Two years after, Giovan Battista Cavallari, sent by Viceroy Fernando Domingo Ruiz de Castro to help the sick, published *De morbo epidemiali nolano*, a treatise that sheds light on the nature of the epidemic and the causal link between the calamity and the complex arrangement work of Regi Lagni. The text, of which an Italian translation has recently been published, completes the picture of the information relating to the situation of the territory involved in the drainage, which, for three consecutive years, from 1599 to 1601, was repeatedly submerged due to the "rottura de le ripe" with consequent worsening of the already precarious hydrogeological situation of the area and with numerous defections of master builders and laborers, ascertained by documentary investigation. If Ambrogio Leone already mentioned the malarial fevers that repeatedly devastated Nola due to the stagnation of swampy waters, Cavallari's essay allows us to note the increased awareness of the danger represented by the hydrogeological situation. At the same time, it constitutes an important testimony regarding the health situation of the *ager* before the viceregal drainage and the fundamental link that has always existed between medicine and respect for the territory.

ID 074 *Redesign the present*

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While we wonder about possible future scenarios, the global pandemic condition has already changed our way of working, our way of giving meaning to the house and of living in space, undermining the relationship between man and space which, according to Heidegger, "it is nothing other than living thought in its essence".

In the perception of reality our conscience plays a fundamental role, what allows us to choose the best way depends on the personal level of culture and intellect.

We want to go back to normality but perhaps this is the problem; we need to ask ourselves what is wrong with our daily lives based on an entropic and energy-intensive development model and to modify individual and collective choices.

Considering the objectives of the 2030 Agenda, according to a holistic approach, all the dimensions of sustainable development must be taken into account, from environmental to social ones, to redesign the present (because the future is too distant) in a perspective of "transformative resilience".

ID 075 *Centuria Medical and Wellness Park*

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Centuriation is the soil tracing system used in the Roman world for the division of the lands assigned to settlers of proven Roman or Latin citizenship, sent to guard conquered territories and establish new settlements. From the design point of view, the division of the territory was based on the layout of parallel and perpendicular streets called decumani and cardines. The decumani were usually arranged either along the main axis of the territory or were parallel to a large communication route. Decumani and cardines were called limites, while the terms decumanus maximus and cardo maximus identified the main axes, wider roads, that crossed at a point which was the ideal centre of the centuriation. The centuratio from an ancient agricultural division of the soil, of Roman origin, becomes a system of "great territorial ordering design", an assumption that inspired the project of the "Centuria Medical and Wellness Park" which was created as a design experiment of a cardo-decuman system of a city of services. A Park for the care and well-being of man, with the pilot project being in the Agro-Aversano, in the province of Caserta, but designed as a repeatable project even under different environmental conditions, adaptable to the shape and characteristics of the places. The idea is inspired by Superstudio's Continuous Monument and exploits the characteristics of the infrastructure for crossing a place, such as an Architectural Viaduct, in the form of a monumental square structure that resemantizes the old route of the Roman centuriation.



ID 076 *Ecological networks in the territorial planning of Campania Region: towards green infrastructures*

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Claudia de BIASE

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Eco-Planning considers nature not only as an object of consumption and/or exclusive aesthetic enjoyment but recovers and focuses on its role as a provider of vital resources and as a mitigator of the imbalances induced by uncontrolled human development. The inclusion of the Ecological Network-EN paradigm in the territorial spatial planning allows to plan the territory in an integrated way, not neglecting, on the contrary, to start from the interference areas between anthropic and natural flows, in this way EN represents the place of protection/requalification/regeneration/implementation of the natural space in the anthropized contexts, contrasting the soil consumption and the environmental fragmentation.

The paper is focused on the analysis of the role played by EN in the planning projections of territorial spatial plans in force in Campania Region. In particular the Regional and Provincial EN of the Regional and Provincial Plans (PTR-PTCP) and the guidelines of future Naples metropolitan plan recently adopted will be studied and compared. The principal aim is to highlight the strategic guidelines and the prescriptions to the municipal general plans to implement municipal EN and Green Infrastructure-GI at local scale.

In a sustainable city scenario EN and the consequent GI should be considered of strategic importance for growth/development/transformation.

ID 077 *Multimedia experiences for inclusive
communication of archaeological heritage*

Michela BENENTE

Cristina BOIDO

Valeria MINUCCIANI

Polytechnic of Turin, Italy

The closure of museums, sites, and collections due to Covid-19 has highlighted the importance of heritage to cultural education but also to the well-being of individuals. The impact of the pandemic on cultural heritage in general and on archaeological heritage in particular, offers the opportunity to make some reflections on the effectiveness of communication systems. The accessibility to the cultural contents of the archaeological heritage is particularly complex and the visit represents a fundamental element of fruition. The fruition online has certainly caused greater suffering to archaeological sites and museums than to other types of heritage.

It must be said, however, that archaeological sites and museums have long been a privileged field for experimentation with multimedia products and digital reconstructions. These, however, were only proposed and integrated into the tour or used in cases of particular interest and exceptionality for mass dissemination purposes. The pandemic has made it indispensable to rethink the ways in which the cultural content of which heritage is the bearer is constructed, shared and enjoyed. Digital technologies have proved indispensable to create new virtual spaces in which cultural sharing, even if not enjoyed live, continues to be alive and stimulating. The paper aims to analyse what has been done by archaeological sites and museum institutions, comparing the different experiences and analysing the changes between pre- and post-lockdown.

ID 078 *The environment resource and public intervention: ecological networks and local development. Case study Calabria Region*

Ferdinando VERARDI

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In the compatible development of the territory of the Calabria Region, an objective of common and specific interest is identified in the protection and sustainable development of protected areas, a meeting ground for qualified activities and initiatives, including economic ones, which contribute decisively to the implementation of the Calabrian ecological network. According to the principles of the natural ecological network, a programming tool aimed at guiding the new territorial governance policy towards the management of development processes, integrated with the environmental specificities of the various areas, this work aims to study the dynamics expressed above which will inevitably lead to significant changes in all aspects, economic and social, as well as the morphological and environmental ones. The ecological network, intended as a territorial infrastructure, connects the different areas, with a bigger presence of naturalness and with a high degree of integration between local communities and natural processes, mending natural quality in our region.

ID 079 *In the post-pandemic phase: do we need urban planning?*

Ferdinando VERARDI

Silvia PALDINO

Vincenzo Alfonso COSIMO

Pegaso University, Italy

Public institutions and Scientific authorities are working on a world scale on the several hypothesis and prediction for the end of the pandemic. According to Richard Florida, each crisis is followed by a reorganization of the territory and cities since peoples' lifestyle and their ability to adapt has changed. We need to create a new sense of belonging with shared values and this requires quite a long time as well as building high quality public spaces. Digitalization will have a pivotal role: from applications monitoring the risk of contagion to the new ways cities are organized. In such scenario, the question is: do we need urban planning in the post-pandemic phase?

Urban planning has always been about managing how cities and territories work both on the medium and long term. As of today, urban planning will turn out to be essential only if it's able to offer an instant answer. The new urban planning should identify those solutions able to predict and manage any future scenarios determined by such a health emergency. In the post-emergency phase, it will be so important to be able to quickly create a map of the whole national territory showing the presence or absence of the "relevant local dimension" for each city. Therefore, thinking about the strategic organization of cities and of the national territory with its several systems - bearing in mind a conscious integration and the concept of smart city - it is a real need and not just a choice.



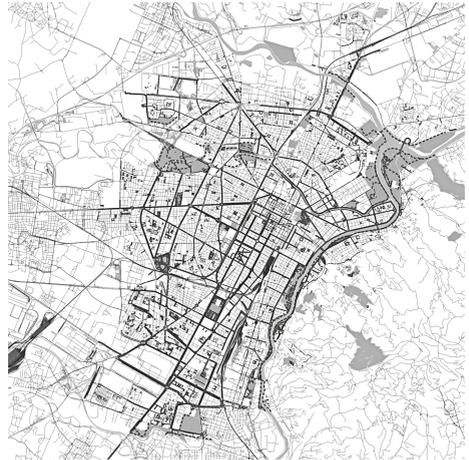
ID 080 *The Neapolitan Riggicola as design for health*

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'Luigi Vanvitelli', Italy*

The English writer Jessie White Mario, Italian patriot and Pasquale Villari's correspondent for the description of social conditions in Europe, in her investigation into Misery in Naples, comparing the social condition of the southern city with that of London, recalls how the former capital suffered very degraded conditions. In this regard she also noted how a well-known English guide, made in several editions for the Italian cities, remembered, in that of Rome, that the sick from epidemics generally came from Naples. As if to remove that cliché contained in the volume published by her compatriot John Murray, she reported: «Once Naples was held one of the healthiest stays in Europe.

Today foreigners avoid it as an infected place, and in the most famous Guide to Rome - that of Murray - we read that the climate of Rome is slandered, that most of the so-called Roman fevers are imported by travelers from Naples». It is singular to note that it will be up to another guide, that of the city of Naples of Carlo Tito Dalbono to respond to English insinuations. The healthiness of the places of the Neapolitan residence will be told through the illustration of the production of riggicole, and, supported by the technical description of the art of masonry, for which there are no other workers, in other places able to stand up to this confront.



ID 081 *Mapping green spaces and slow mobility connections in the city of Turin. Analysis and design strategies in the field of proximity tourism*

Alessandro SCANDIFFIO

Politecnico di Milano, Italy

In the period of Covid-19, the current research aims at exploring new methods to assess the spatial quality of slow mobility connections (pedestrian and cycle paths) in our cities, in relation to daily movements, such as home - work and home - school, or home - parks for leisure. Particularly, the actual pandemic situation forces us to consider the open spaces (i.e. parks, gardens, agricultural fringe areas), as final destinations for proximity tourism and recreational activities outdoors. A better quality of slow connections can be a key factor in the field of mobility, but it can also influence environmental, social and safety aspects positively. The research considers the city of Turin as a case study for testing a quantitative method in the field of urban analysis and mapping. The research exploits the big amount of open-access geospatial data and the potential of GIS tools for spatial analysis, in order to analyze the availability of green spaces in each district of the city and, at the same time, find out the most pleasant connections between residential neighborhoods and parks, but also between schools/universities and parks. By analyzing the existing urban fabric, the research points out new design strategies in the field of proximity tourism, that can be helpful to support decision-makers in urban planning. A series of thematic maps, at urban and neighborhood level, shows the applicability of the methodology and the main outcomes of the research.

ID 082 *The regeneration of peripheral spaces. The case of Borgo La Martella in Matera*

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By 2030, almost 60% of the world population will live in urban areas and this fact, which in itself contains many other facets, reveals that urbanization underway is one of the transformative trends of our century. The regeneration of the suburbs is an urban challenge, but above all a social and environmental one. The theme of the suburbs and their living becomes central again because they often represent the "city within the city" and travel at a different speed from the consolidated urban centers, often representing places where numerous resources are wasted or not adequately exploited. Regenerating these spaces means re-establishing a social and environmental balance, giving value to those "urban voids" waiting to be at the service of the community and which unfortunately are associated with degradation and discrimination.

An integrated and no longer sectoral vision of the qualities of spaces burst forcefully into the current scientific debate. Regenerating these places can be, as they have been in some cases in the past, an opportunity to offer the city new spaces for relationships, involving the citizen more and more and proposing a policy of positive reuse and transformation rather than land consumption and uncontrolled urbanization. The working group will bring to attention the case study on the "Borgo la Martella" of Matera with the aim of grasping the positive values of peasant civilization and inserting them into a reformist process of development.

ID 083 *Cyclic wetting–drying ageing test: some experimental results from Salé city (Morocco)*

Anas OTMANI

Ibn Tofail University Kénitra, Morocco

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Hassan II, Morocco*

EI Mahjoub CHAKIR

Ibn Tofail University Kénitra, Morocco

Salé city, a territory rich in its building and cultural heritage, reflects the national identity and the history of the dynasties that ruled the Moroccan kingdom. However, severe deterioration and soiling of different materials due to air pollution are evident, in particular, at the surrounding wall of Salé city, and seriously endangers such cultural heritage. With reference to calcarenite stone frequently employed in constructions in the ramparts of Salé city, a series of experiments on grey and yellow stones with different porosity were undertaken in an attempt to better understand the wetting and drying weathering process. Samples were subjected to wet-dry cycles using different solutions. Our attempt was focused on the ageing test that helps to understand the relationship between imbibition, degradation and reduced mechanical performance of the stone samples. The obtained results showed an aggressive forms of salt crystallization which affected the weathered samples, and porosity as the physical property played a key role in the water imbibition capacity of the studied stones.

ID 084 *Reform of healthcare organizational models in Italy: study and evaluation of development processes. The strategic role of training*

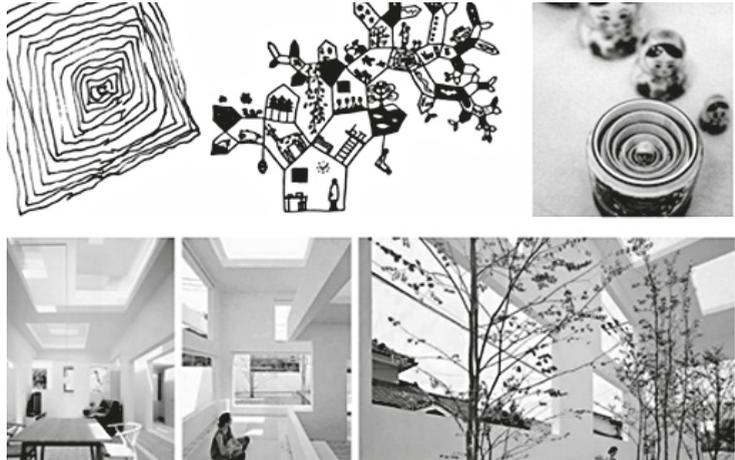
Nicolò PERSIANI

University of Florence, Italy

Angelita BITONTI

Pegaso University, Italy

A trend underway in most regional health systems is the centralization of planning, control and administrative support functions. This trend is reinforced by national regulatory provisions (spending review) aimed at developing economies of scale and experience capable of raising the efficiency levels of the expenditure itself. The methods of centralization, however, differ greatly in the various regional systems, partly responding to specific context and partly developing real opposing models (eg. holding model, Vast Area, Single Companies, etc.). The object of the proposed work is the analysis of the main models present in the various regional health systems in order to develop a cost-benefit analysis model of the various solutions adopted, as well as the training inherent to the professionals who operate within the national health system.

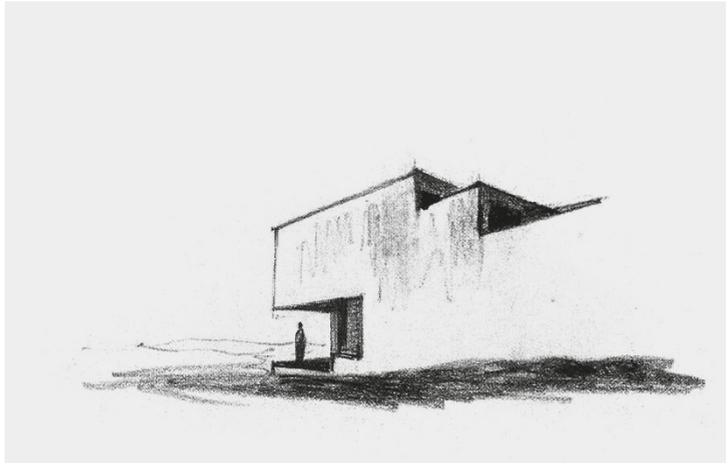


ID 085 *The Home as World Heritage Between Nature and Culture, Privacy and Relationality. The House is a Small City, and the City a Large House: The House N by Sou Fujimoto*

Ana VASCONCELOS

University of Lisboa, Italy

From a broader perspective, it may be that the emergence of human consciousness, which implies the recognition of one's own identity and thus separation from the rest (including Nature), is what proposed, in turn, the first need for mediation. Or as Morin puts it, the sentiment of "expulsion from Nature", which emerged from the birth of consciousness, is what proposed the first need for mediation and return: the need for a "rejoining". In this sense, culture, art and architecture would be an immense attempt at mediation; an attempt to replace the unity with Nature through works that attempt to give meaning not only to what it means to be Man, but also to the universe lies beyond immediate perception; constructions that attempt to give meaning to our mission in that immensity in which we have felt lost ever since we have had consciousness. Between visibilities and invisibilities, nature and culture, privacy and relationality, in the architecture of the house and contemporary city, that in-between place is generated (interstitial, borderline and imprecise), where both men with their faces, those surfaces that gaze upon each other, and images, shapes and spatialities interrelate and are perceived, in a common space of exchange, communicability and entanglement in a permanent becoming between the real, the image and the imaginary.



ID 086 *A Shelter from the Storm: Finding refuge in Noronha da Costa's architectural drawings*

José Ferreira CRESPO

University of Lisboa, Portugal

This essay seeks to dwell within the world(s) built by Luís Noronha da Costa (1942-2020).

When faced with his work, be it Painting, Sculpture, Cinema or Architecture, one senses the emergence of place. Such happens atmospherically, misting the viewer's embodied gaze and placing him within the world built by the Artist. In a way, it seems as if the viewer witnesses not only the presence of the work, but it's unveiling, it's becoming... The unconcealment of the work is brought forth by-through the viewer as it was once brought forth by-through its maker. Projecting a shelter for our embodied selves. A place which we may call home?

One does find shelter in Art.

We seek out to delve on How and Why this shelter comes to be. In this instance, our attention moves towards the Artist's architectural drawings.

At last, what is that makes us hum Dylan's verses when we see these drawings?

"Come in, she said / I'll give you a shelter from the storm (...)"



ID 087 *The circle line “AbbracciaTO”: an infrastructure in Turin for active proximity tourism as a driver of territorial transformation for a healthy city*

Andrea ROLANDO

Alessandro SCANDIFFIO

Politecnico di Milano, Italy

In the period of Covid-19, the current research aims at investigating new urban strategies, related to slow mobility routes, in order to explore the many places of interest that are located in our cities, enhancing them as opportunities to explore new possibilities for active, proximity and knowledge tourism. The actual pandemic situation forces us to redesign our “playground”, in terms of distances and daily movements in the city: home-work, home-school and for recreational activities related to leisure, reconsidering the many already existing opportunities of places that are located nearby our homes. The research investigates the case study of the circle line “AbbracciaTO”, in the municipality of Turin, as a design-oriented urban strategy, able to connect places of interest, exploiting the potential of linear connections along the four rivers passing through the city (rivers: Po, Dora Riparia, Sangone and Stura) and the green spaces already present in the city (parks, gardens, tree-lined avenues etc.). From the methodological point of view, the itinerary, 60 km long, has been drawn through mapping techniques, by combining the top-down approach (geospatial data managed with GIS tool) and bottom-up approach (street-level survey with GPS). The whole itinerary allows exploring the city with different eyes, keeping together heterogeneous elements such as well-known cultural heritage (including UNESCO sites), museums, contemporary architectures, industrial archaeology sites with parks, monumental trees, urban orchards.

ID 088 *Landscape photography: a tool for valorisation and incentive to the recolonization of mountainous fragile territories?*

Valentina CINIERI

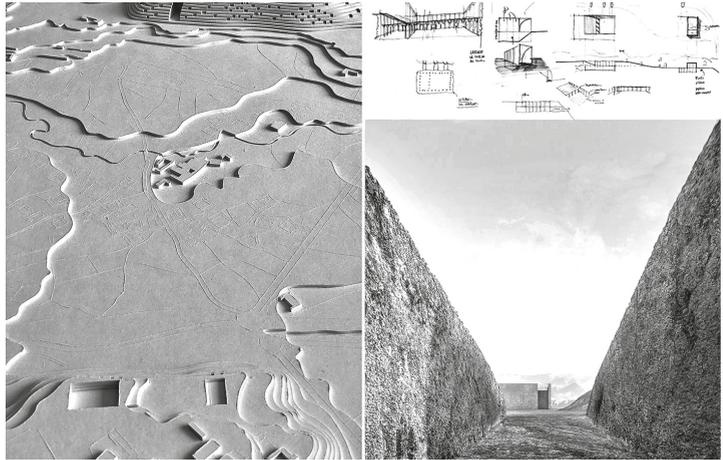
Politecnico di Milano, Italy

Research and innovation, both in the field of the production of photographic representations of the landscape and in the field of archiving, management, and use of landscape photographs, are starting to be considered in all respects factors of local development. Indeed, they produce new cultural skills, and as they contribute to enhancing the landscape as a common good. In recent years, the spread of free digital photography has given rise to local valorisation phenomena, and publications on the subject evidence this topic's growing importance. The recent Wikimedia Italia conference involved some Italian Ministry of Cultural Heritage and Tourism and the International Council Of Museum specialists on cultural heritage valorisation by online digital photography. This phenomenon originated with online platforms, such as Panoramio, which allowed georeferencing images, but it was with applications like Facebook and Instagram that a very rapid and mass spread occurred. This has very positive implications, as the quick publicity and territorial promotion encourages tourism, especially in depopulated mountainous areas. However, a "mass" valorisation is created, not supported by culture, often encouraging only single panoramas, without real reactivation of the inland areas. The paper will critically analyse the positive and negative aspects of the landscape photography diffusion, considering cases, both voluntary and involuntary, valorisation of mountainous territories.

ID 089 *The post-war industrial reconstruction in Naples:
the contribution of Elena Mendia*

Chiara INGROSSO
*University of Campania
'Luigi Vanvitelli', Italy*

In the Second Post-War Neapolitan period, when huge programs and funds for industrial reconstruction invested the city, several Neapolitan professional studios were commissioned to design numerous works, including the Studio Architetti Mendia Carile-Maione, composed by Elena Mendia and Delia Maione. From its foundation (1954) and throughout the 1960s, the engineer Luigi Tocchetti and the Società per il Risanamento di Napoli, of which he was the general manager from 1949 to 1965 and then the president, represented the main client of the studio. The engineer was linked to the IRI (Istituto per la Ricostruzione Industriale) since the years in which he had participated with Giuseppe Cenzato at the Fondazione Politecnica and at the Triennale delle Terre d'Oltremare. Thanks to this special client, who Mendia e Maione met for the first time in the 1950, when they were employed as designer in the Technical Office of the Mostra D'Oltremare, chaired by Tocchetti, the two architects worked until the second half of 1960s, in several important industrial projects. The paper focuses, in particular, on some professional assignments entrusted to Elena Mendia, among these, the most important was the IRI Centre for training and professional training - the Camim of Naples, built between 1957 and 1963 in the Poggioreale district. Starting from this case studies, the goal is to retrace a crucial phase of local history, in which architecture played a central role in the economic revival and not only for the city.



ID 090 *Bamiyan Unesco Heritage Site. Memory of places. The new Museum of local traditions*

Riccardo RENZI

University of Florence, Italy

This proposal focus on Contemporary architecture as answer for post-war urban and rural places and is inserted in Contemporary Architectural and Urban design relationship with tradition and identity of Places research carried out by the author. This objective is pursued working on architecture of museum typology, its variation over time, and with both theoretical and operative aspects. Some of the Places that have been investigated by the research have as a common condition of post-war sites and some of them have been recognized and protected by UNESCO in the Near East including Aleppo, Baghdad, Bamyian, Kandahar and Mosul. This proposal presents the project for the new Museum of Local Traditions at the Bamyian site in Afghanistan on the Oxiana's roadway (Robert Byron, 1924). This research began in 2014 from the Unesco competition of the area (which aim was to protect and to preserve identity of place and its cultural heritage after big budda's demolition of 2002) and continued until 2020 as University research. Research work have been carried out trying to establish a deep bond with this far away and high emotional Place recognized as cultural heritage context. That part of the research has been focus on critical redraw of places and its main built architectures, in order to learn and understand natural and anthropic rules and traditions, to discover hidden metrical rules and space declinations, to unearth stratigraphy proportions and traces of landscape identity.

Last step of research has been focus on the proposal for a new Museum of Local Traditions as results of both place bond and typological aspect of museum typology and as operative verify of the theoretical research process.



ID 091 *Corridor landscapes along Po river: Cremona's case*

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Politecnico di Milano, Italy

The research work, object of this paper, is included in the “Fragile Territories” project of the Department of Architecture and Urban Studies of the Politecnico di Milano. Due the pandemic, we are assisting at a big change of our life and the future of our cities and surrounding landscape. In this meaning, devoted to degradation to the detriment of an expanding urbanization, the landscape of Cremona was and still can be sustained to remain one of the main riches of the region. Thus, in order to rekindle its environmental sensitivity, the strategies trigger its upgradation as a peri-urban system that will serve not just as a disconnected land that the user is only in touch with its production but also with the land itself. In other words, the intention is to force delightfully the user to consume the landscape as both a productive and an aesthetical one; creating and branching up then new ecological components linking rural to urban, natural to build and humans to non-humans.

So as to reach that matter, we leaded a mapping analysis considering both the territorial and the municipal physical scopes of Cremona, then we managed the findings into a set of strategical directives allowing us, at the end, to sense how punctual interventions can exert pressure on the territory and bring it gradually to its high environmental sensitiveness. This is the aim of this research about the local landscape between Cremona city and Po river, a green corridor similar to many other situations in Italy and abroad, deserving to be studied as a main topic.



ID 092 *Landscape Perception*

Antonio BOSCO

*University of Campania
'Luigi Vanvitelli', Italy*

The debate about landscape is often ambiguous, surrounded by an aura of vagueness that complicates any attempt to give it a universally accepted definition. The term landscape is continually compared to the elusive character of the word itself, where both the significant and the signifier are vague. In this abstract it is possible to consider landscape as a system, or better, as a system of systems and its complexity derives from such an assumption; the scholar's ability to examine its true essence is measured exactly on the aptitude to understand the complex nature of the landscape system. The way we perceive places depends on both our feelings and the variability of external conditions, both the land conditions and the transformations that have shaped the land itself over time. Moreover, we can state that the landscape perception coincides with both material and immaterial mental representation of the territory features, more or less consciously elaborated by the individual, applying the interpretative models proper to the group he or she belongs to. Every place is made up of not only things but also people, that is why the affective and emotional component becomes a sort of 'emotional shell' that gives meaning and delimits the chosen territories we feel to belong to.

ID 093 *Healthy living in heritage buildings and resilience by design*

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*National Heritage Foundation
Belgrade, Serbia*

Hartmut PASTERNAK

*Brandenburgische Technische
Universität, Germany*

Buildings, that are valued for their cultural contribution to our world, have an obvious disadvantage in the aging of construction materials especially masonry and wood. That, for instance, may cause dust, moisture, and mold leading to health problems. There are many other aspects of buildings whose design reveal disadvantages regarding health in time which may be the main cause of their abandonment. The common assumptions as lack of understanding of their socio-economic value or the suspecting that their concept cannot be associated with contemporary living may be of secondary or no importance for further use. Starting from the hypothesis that the further use of some buildings may carry a health risk and therefore their basic maintenance may exceed the overall benefit, in this paper we focused on the newer case studies of the correlation between interventions on a heritage building and healthy living, and in particular actions on strengthening the resilience of built heritage by design.



ID 094 *KNOWLEDGE AND CONSERVATION:
The recovery of an underground path*

Giorgio DOMENICI

Marche Polytechnic University, Italy

The topic we want to deal with concerns the underground path located in the “bowels” of the historic center of Camerano (Ancona). The construction of the caves probably dates back to the first excavations in the mid-fourteenth century, but their expansion and modification continued until the recent partial segmentation interventions, often improperly carried out over the years by private individuals from the accesses of their respective cellars and by some consolidation interventions, philologically not very attentive to the peculiarities of the places, carried out in the years “60 /” 70 following some collapses that occurred under the route of the current Via Maratti. The use of this underground labyrinth has undergone various purposes over time: from sandstone quarries for future building constructions (many of the buildings in the historic center are made up of blocks of sandstone) to places of worship (the most representative environments have a planimetric conformation typical of churches of the ‘500 and’ 600), to places of refuge for the people (from Muslim raids to the Second World War), to simple cellars for the optimal conservation of local wine. These underground structures were not built on the spot, but are the result of a millenary activity of excavation, expansions, collapses, adaptations to the evolution of the different needs of the population and which today after the restoration and enhancement works is finally possible admire in their full extent and beauty.

ID 095 *The impact of COVID-19 on Food socio-cultural meanings*

Colomba LA RAGIONE

Adriana ESPOSITO

Pegaso University, Italy

Psycho-physical health and the relationship between the man and the environment are strongly influenced by food, regardless of culture and country of origin. The importance of food goes far beyond simple nourishment and assumes existential values. This is particularly evident in Chinese society and culture as expressed by the well-known chengyu min yi shi wei tian “the people worship food as if it were heaven”. Food with its divine qualities influences every aspect of human life, and above all, has an important social value. The industrialization and globalization processes that we have experienced in the last few decades have had strong impact on human life and health as well as on food. The Covid-19 pandemic phenomenon contributed to generate further changes. In this climate during which we are witnessing a severe restriction on individual rights and freedom, food has taken on new connotations, holding an even more central role in everyday life. Nowadays meals have taken on a different meaning, becoming a moment of social interaction and sharing. At the same time, they have served as a safety valve. Facing the deep anguish and stress generated by the spreading of the virus, people have been overwhelmed by an emotional vortex and have fled to food as a catalyst for emotions. This paper investigates the ways through which the pandemic has impacted on the production and consumption of food, and has changed its social and cultural meanings.



ID 096 *Geometric reliability evaluation in Scan to BIM process, the case study of Santa Croce monastery*

Cesare VERDOSCIA

Antonella MUSICCO

Riccardo TAVOLARE

Polytechnic University of Bari, Italy

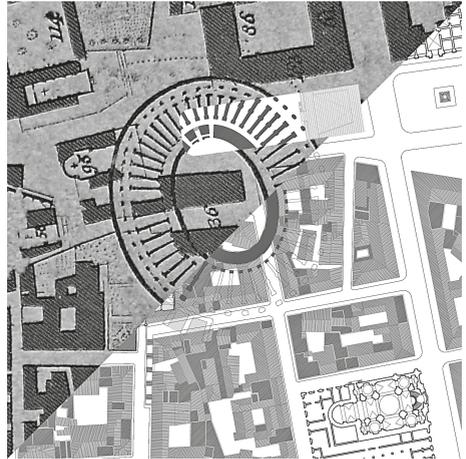
Consultant

Michele BULDO

Polytechnic University of Bari, Italy

Cultural Heritage and its variety of Built Heritage is increasing a scientific cognitive approach, related to the difficulties of its protection and management. In the last few years, the evolution of acquisition techniques allowed to acquire reality-based models increasing accurate and rich of information. 3D digital documentation generates accurate spatial data which can be processed and developed for use in a range of different applications. Laser scanner is considered the best technique for gathering the greatest amount of information with high precision and in relatively short times, providing an excellent basis to build a tridimensional model that allows full knowledge of the architectural object. Furthermore, the implementation of different type information within BIM (Building Information Modelling) platforms has experienced great development processes during last years, generating excellent studies based on Historic Building Information Modelling. The HBIM developing growth is certainly explained due to advantages concerning the documentation step as well as monitoring operations for Cultural Heritage assets. In this sense, information concerning historical architectures can be extracted directly from the 3d model. However, the HBIM is still an ongoing research field due to the complexity and singularity of geometric data and their interpretation within BIM platforms. In this work, a 3D survey of monastery of Santa Croce in Modugno (Bari) was carried out.

The paper presents the data acquisition process and the 3D modelling phase.



ID 097 *Catania upside-down*

Laura LA ROSA

Luigi PELLEGRINO

Matteo PENNISI

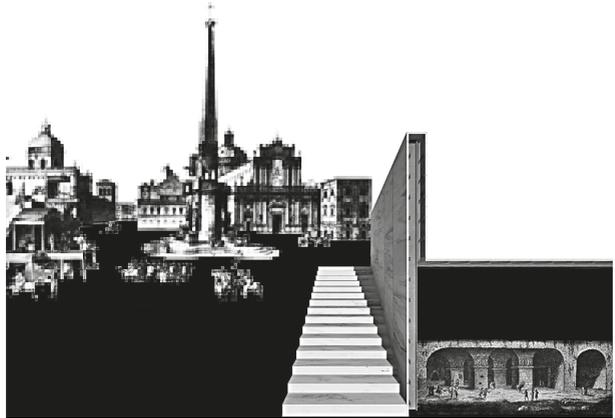
University of Catania, Italy

The several archaeologies, visible in the center of Catania, seem like irrelevant objects, fenced in scattered holes across the town without any common idea. Nevertheless, these treasures are even more valuable for belonging to an extraordinary topographical context which change not only for the physical overlapping of the eras, like it usually happens, but also for the overturning of the spatiotemporal order of the town caused by the action of Etna (it is common to find in Catania the ancient level upper than the current one).

The research group of architects which we belong to, is conducting a project about Catania, focusing on his archaeological nature. In 1832 the architect Sebastiano Ittar published the “Pianta Topografica della Città di Catania”. Ittar, in addition to drawing the first orthogonal plan in the history of Catania, draws all the archaeologies known at that time, affirming their active role in the construction of the town.

Our purpose is redrawing the city laying the foundation on Ittar’s extraordinary document. “Il Disegno della Città di Catania” aim is to carry the ideas at the base of the Ittar’s plan to the architectural scale, disclosing the capacity of the ancient invisible town to force the shape of the current visible town.

The core essence of the research group consists of considering the ancient as “active part” in the construction of the town and its little fragments as gems mounted in the urban pattern, to be reconnected to the life of the town.



ID 098 *Catania: "Progetti minimi"*

Marialaura CALOGERO

Luigi PELLEGRINO

Graziano TESTA

University of Catania, Italy

Nowadays the aim of every restoration work seems the impartiality, not taking a critical stance toward the archaeological ruin, his proximity and his relationship with the town. In doing so, the archaeological dig becomes an unresolved matter, halfway between the desire of restoring it and the inability of making this desire come true. Thus, what they got are just urban voids unrelated to the urban space.

The research group of architects which I belong to, is taking a different path. We are conducting a work about Catania starting from the idea that the best way to respect the ruins is taking a specific stance toward it. An undercurrent town lies under the level of the current one, the inhabitants use to call it "Catania vecchia". It punctually emerges to the "upper town" by that urban voids we referred to before.

The group has conducted a series of projects, called "progetti minimi", consisting of cabinets on a city-wide scale in which the ruin is kept. The use of a noble material and the design of a definite geometry let the archaeologies appear as gems and not as a temporary object in the urban pattern. On the other hand, every project doesn't go beyond the edge of the archaeological site: it doesn't touch the ancient stones physically, it rather intends to underline the difference between the ancient and the current levels, to make emerge evocatively the distance between the two eras. The whole aim is designing spaces dominated by the evocative presence of the ruins.

ID 099 *Heritage Resilience as a New Perspective of Sustainable Conservation*

Bahar ELAĞÖZ TİMUR

Burak ASİLİSKENDER

Abdullah Gul University, Turkey

This study intends to deal with the architectural resilience strategies in rural heritage as a conservation method. Rural Settlements faces changes of living and everyday practices caused by the pressure new urban life, technology, economy, natural disasters and transition on landscape and natural sources. Rural heritage areas struggle with two problem; abandonment or change on habitus. While these problems can be adoptable for contemporary rural settlements, it can be a serious threat for the rural heritage areas. Changes in habitus can cause transition on everyday life practices and consequently rural morphology and architecture. Due to new needs of users some inappropriate interventions to the vernacular dwellings and settlements occur and risk these cultural heritages. Koramaz Valley of Kayseri in Turkey, which is accepted UNESCO tentative list in 2020, is a rural heritage area with its unique vernacular villages and architectures, landscapes and intangible values. Transition on its rural production, population of valley, usage and user profile and urbanization threat lead to harmful interventions to cultural heritage and natural life. This study aims to investigate rural resilience possibilities as a sustainable conservation approach of rural heritages by the Koramaz Valley case. The research focuses on especially architectural heritage features and their resilience needs of Koramaz Valley villages by using the intervention analyses of the site, related with interpretations of their habitus and daily life.



ID 100 *The Fresco of Saint Leonard in the Episcopio of Ventaroli in Carinola*

Piero BARLOZZINI

University of Molise, Italy

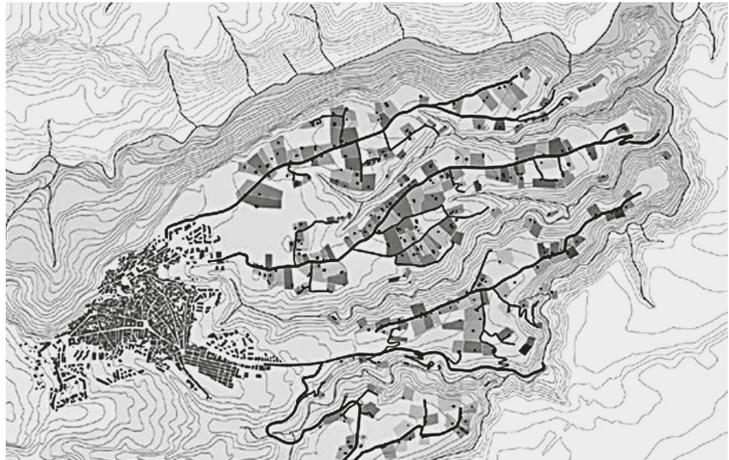
Laura CARNEVALI

Fabio LANFRANCHI

Sapienza University of Rome, Italy

This paper relates to a much wider research programme aimed at documenting and studying through survey, analytical methodologies of drawing and archive research, of the conspicuous part of the national architectural heritage which, although lesser known, is characterised by undeniable historical and artistic value. This case study looks at the church of Episcopio di Ventaroli near Carinola, a small village in the territory of Caserta situated close to the line of the via Appia, the “Regina viarum” of the ancient Romans. The building, dating to the 11th century, but probably originating in the 5th century, having undergone enlargements, devastation, reconstructions, long years of abandonment and several phases of restoration, still houses an important cycle of frescoes. The image of San Leonardo, hermit and bishop, stands out among these for the luminosity of its colours and its emotive immediacy, and is the object of our interest.

Among the aims of this paper is to make this church, and all that is preserved inside it, part of a scientific debate through a “still image” intended as the base from which to begin a wider research programme that will come to include the complete pictorial cycle. Research has already begun with a campaign of data collection using digital active sensor instruments – laser scanner -, and passive high-resolution instruments – digital camera and spectrophotometers.



ID 101 *The Countryside: a big House*

Gianfranco GIANFRIDDO

Luigi PELLEGRINO

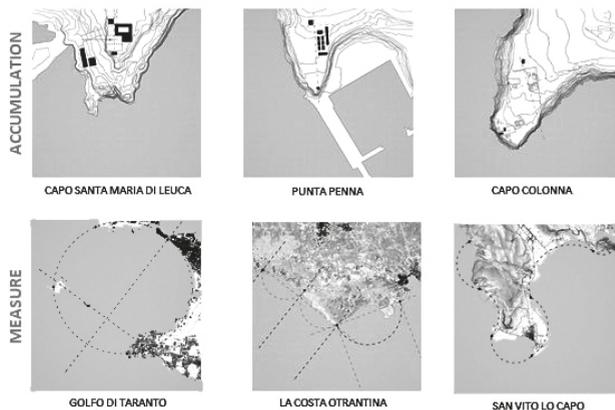
Matteo PENNISI

University of Catania, Italy

“conciosiache la Città non sia altro che una certa casa grande, e per lo contrario la casa una città picciola” that’s the end of the 12th chapter of the Palladio’s 2nd book, *Del sito da eleggersi per le fabbriche di Villa*.

The Countryside and the City, although historically opposite contexts, diverge just in their outer form. The constructive reason at the base of both is the same, what changes is the measure and the use of space: the Countryside is nothing more than the City of the agriculture. The cultivating’s requests force the rural landscape’s organization by the work that every single farmhand carry on in his own plot.

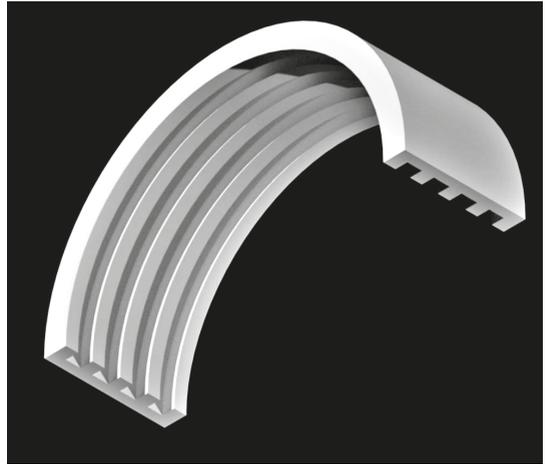
The Hyblaeen plateau is the clearest synthesis of this construction, for this reason the subject of the ongoing research is outlined. Here the man’s work (the farmhands’ needs to supplement with own agricultural products the low-wage earned in the latifundium) and the area’s character (the duality between the cugno’s and cava’s landscape due to the rivers beginning from the Mount Lauro digging the calcareous tableland) shaped the territory. The little rural house is the basic cell of this wide construction, an Eden built by poor means clearly defined by some essential elements: a room inside, a plan to sit in front, a tank close to, a farmyard, a pergola, a few trees whose shadow gift a little space. Understanding the house’s reasons is understanding the landscape’s ones: a construction in which the detail and the large scale are built at the same time.



ID 102 *COASTAL ARCHITECTURE. Characteristics of specificity and expression of local identities*

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The artifacts that settle the Italian coast, on the edge of the consolidated city, in correspondence with the conspicuous sites of the coastal geography, stage the vocation of a landscape strongly distinguished by the combination of land forms and forms of architecture capable of interpreting it, determining places characterized from a strong cultural identity. The question of the determination of places is a theme that has its roots in the ancient world of Greek and Roman culture where precisely the geography of the territories was described by the evidence of the presence of some architectures to mark the conspicuous places; The Peutingerian tabula is an evident example of a geography constructed by “evident points”. Landscape, in this sense, is a form of language, therefore a way of expressing itself - through architecture - of a community that inhabits a certain environment and can be defined as the equivalent of what man is memory. The Italian coastal landscape is a clear result of the “happy alliance” between forms of the land and forms of architecture that establish the condition of the coastal limit. A concatenation of places characterized by clear specificities that have been recognized over time and therefore have been stratified in a palimpsest of signs in which the inhabitants have left their own testimony in the various eras. The proposed essay intends to recognize the structuring value of architectural evidence in determining the places of the coastal landscape in a series that focuses, in large part, on some evidence of the territory of southern Italy.



ID 103 *The fourth arch of the Augustus Bridge at Narni (Italy): a case study of Roman arch with ribs*

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The roman bridge said of Augustus (27 BC) is a monumental viaduct on the Nera river, north of the town of Narni. The bridge is made up of four arches, of which only the first survives to the south. The remains of the fourth arch, the northernmost, show a very particular ribbed appearance, noted by many authors, among all: Balance, Choisy and Galliazzo. Some authors indicate the fourth arch to be similar in some respects to other arched structures (bridges or basilicas roofs), for example to the roofing vault of the temple of Diana in Nimes or to the Roman bridge in Nimreh, ancient Namara, in Syria. The authors of the present study, through a bibliographic research, having verified the diffusion of this shape in other Roman contexts, believe that at to date there do not seem to be other similar examples. The fourth arch appears to be unique in relation to the arrangement of the voussoirs, which are set to be more connected than a simple overlap of elements. However, the different radial depth of the voussoirs could have caused less effectiveness, especially in relation to possible movements related to the thrust of the arch on the springer and in concurrence with the second pier subsidence with possible detachment and the consequent collapse of the central voussoirs. Finally, a set of 3D FEM models was presented to analyze the structural feature of the fourth arch of the Augustus Bridge, the executive assembly modalities, especially in the keystone area, compared to the same arch without emptiness among the ribs.



ID 104 *Protection and development of Real Sites: two experiences compared*

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A few months ago, the news of the drafting of a protocol of understanding between the Real Sito di Carditello Foundation and the San Leucio Textile Network (promoter of the San Leucio Silk brand) for the development of mulberry trees and sericulture activities through the planting of mulberry and the breeding of silkworms in the grounds of the Foundation and in the surroundings of Carditello. This event trivially identifiable as an action to enhance the Bourbon site, lays the foundations for the creation of a new link between the two royal sites, both created, as part of the complex program of reorganization of the territory of the Bourbon kingdom, by the pencil of the architect of court Francesco Collecini.

The two sites have in common a fate of light and shadow and complex operations of rebirth.

The rebirth of the site of San Leucio was triggered by the interest shown by the academic world in the social, technological, architectural-urbanistic experiment operated by the Bourbons.

Differently, the rebirth of the Real Sito in Carditello takes place with active involvement of the community, according to a participatory methodology from the bottom up.

The active involvement of the community materializes the new concept of protection introduced by the Council of Europe Framework Convention on the Value of Cultural Heritage for Society, issued on 27 October 2005, ratified by Italy only on 23 September 2020, after a long and troubled path.



ID 105 *Stepping up the fight against the contamination impacts in moisture-damaged damp built heritage*

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The Sick Building Syndrome, as described by the World Health Organization in 1982, is a complex condition that affects built heritage. The presence of contaminants, the lack of maintenance, and the uncontrolled interventions by users are all factors that increase the exposure of inhabitants to chronic degenerative diseases. Nevertheless, the awareness of the significance of the degenerative phenomenon has not yet fully emerged. At the same time, the effects on structural elements' mechanical behaviour and the energy expenditure for maintaining internal temperatures are still underestimated factors.

Therefore, it is necessary to direct endemic studies toward built heritage to characterize a screening useful to identify the triggering agents of the degenerative syndrome. In fact, by examining an effective set of characteristic buildings, the analysis should identify both the exposure biomarkers (i.e., environmental contaminants) and the damage/effects signs. The classification of these markers and the assessment of how they interfere with each other give a reliable measure of health risk.

This methodology addresses the proposed paper that focuses on weathering evidence relating to capillary rising damp effects, emphasizing the author's research on hydrated salts contamination. Also included is some discussion of on-going experimental studies that give evidence of possible exposure effects on parchment degradation in moisture-affected library deposits.

ID 106 *Nurturing cities: pathways towards a circular urban agriculture*

Michele D'OSTUNI

Leonardo ZAFFI

University of Florence, Italy

The recent Covid-19 pandemic has shown how world crises manifest themselves in a more disruptive way in urban communities. Urban areas were, in fact, hit harder by the virus, and the images of empty shelves and endless queues in front of the supermarkets are the emblems of a western society that started to fear for its own food security. Today, soils are under a lot of pressure to feed an increasingly urban population (80% of food will be consumed in cities by 2050), and if a future pandemic would hit grain or wheat or soy seeds instead of humans, there is a good chance that our food-system would be disrupted. In this scenario cities are the epicenter of the new challenges for the future, having the means, the technologies, and the assets to spark the transition towards a circular economy of food that replicates natural systems of regeneration, eliminating wastes, using them as inputs for the next production cycles. Hence, farming the cities emerged as a possible solution to feed an increasingly urbanized world, reducing the impact of our food system on agricultural soils, while providing citizens with local, freshly-produced food. This paper aims to illustrate how circular urban agriculture can be achieved by finding new farming spaces in cities, removing the constraints of the soil, and thus integrating off-soil production systems within buildings and urban districts, developing new synergies between the built environment and agriculture practices.

ID 107 *The rise and obsolescence of Brazilian Leper Colonies*

Laura ALECRIM

University of Lisbon, Portugal

This paper discusses the Leper Colonies as part of the prophylactic policy of compulsory exclusion for all leper patients in Brazil from 1921 to 1962. The goal is to understand the scientific and political discourse that generated them, how they were spatially organized to provide both isolation and sociability and how they quickly became obsolete. Leprosy, now known as Hansen's disease, was identified as contagious in 1883, replacing the previous idea that it was a hereditary disease. This triggered an international discussion on the isolation of the patients as the primary means for the disease's prophylaxis. The leper colonies were small towns apart from society that met all patients' needs since a positive diagnosis meant a sentence of lifelong seclusion. In the late 1940s, while Brazil was still building colonies, a new treatment was developed. Once initiated this treatment the patients would not be contagious anymore and hence there was no need to isolate them. By 1958 the international discussion already considered the isolation a huge mistake in the disease's prophylaxis. This mistake led to Brazil one of the biggest networks of leper colonies in the world, with more than thirty colonies. In 1962 the isolation was finally abolished as a prophylactic measure in the country. For a long time, the colonies, the patients, and their history were forgotten and only recently a few initiatives looked to these places as sites of memory.

ID 108 *Rural small towns in Sicily. Valledolmo 2030: the healing city*

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In recent decades, the phenomenon of depopulation of small towns has assumed global dimensions across diverse geographical area. The causes are complex and include the current economic crisis, the geographic accessibility, the inadequacy of efficient infrastructures. The current Covid-19 pandemic crisis has revealed the crucial role of the health issue, not just in terms of structures but also identifying new ways to help people get better, spend more time outdoors, eat healthier and boost local economies. Rural communities can represent poles of resilient development based on local heritage, natural resources, social inclusion and wellbeing as essential elements to reverse their abandonment. In this framework the research-action project of the LabCity Architecture Research Group in collaboration with local institutions aims to investigate the topic of healing city in Valledolmo, a Sicilian rural small town rising along the Trasversale sicula which has long been making its high-quality agri-food industry its flagship. In this territory an appropriate intervention might be essential to rethink the crisis as a crucial tipping point. The paper presents the research-action project awarded for its excellence at the 2020 Busan International Architectural Design Workshop 'Life of Post-COVID-19' (1st August-25th September 2020). The varied scenarios explore the Valledolmo potentialities in order to enhance its urban and human heritage, river valley, spaces and abandoned urban fabric.

ID 109 *HER Mother earth = Health, Ecology, Responsibility
(between legal regulations and reality)*

Marta MIKOŁAJCZYK

**Milena MIALKOWSKA
KOZARYNA**

Marta POREMBSKA

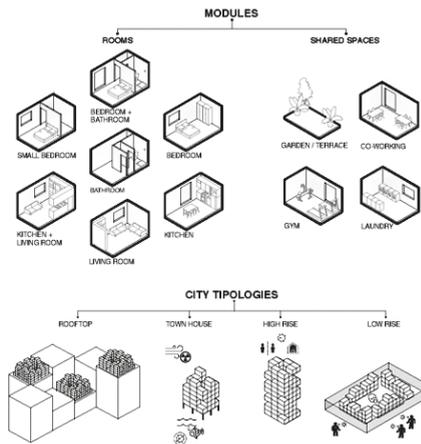
*Maria Grzegorzewska University
Warsaw, Poland*

The National Health Test of Poles (2020) reports that only 13% of respondents take good care of themselves. Despite the pro-health education in schools or legal regulations introduced in Poland, e.g. a ban on sale sweets in school shops or an additional tax on sugar, results of various researches suggests that Poles still do not care enough about their health.

In the field of ecology, Poland also had numerous legal regulations, e.g. a recycling fee for disposable bags, but that's not enough. Only 40% of citizens admit that they try to limit using them, of which only 16.7% due to the tax introduced by the government.

The future belongs to youths and it should be their duty to take care of Mother Earth. Unfortunately, Polish youths seem to be reluctant to get involved not only in pro-ecological activities, but also in local politics and in civil initiatives. Only 48% of young Poles attach importance to joint European efforts to protect the climate, which indicates that "being a citizen" (cf. Convention on the Rights of the Child) - for them means mainly the right to decide about themselves, and not to participate in any kind of civic engagement and social/ political activity.

The article is based on legacy data analysis, and its aim is to show that legal regulations must be combined with information campaigns, education, and above all – require time to act, if they are to contribute to changing people's behaviour in accordance with the sustainable development policy.



ID 110 *HEAL – Housing for Emergency and Affordable Living*

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Andrea TOMALINI

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Consultant

Massimiliano LO TURCO

Politecnico di Torino, Italy

HEAL is a research work in which the aggregation of dwelling modules, designed to meet the new housing needs during emergencies, is designed and managed, using advanced digital tools. Historically, cities have changed in response to threats or attacks. The concept of the house has changed, the experience of the recent lockdowns has increased the already present trend towards a hybrid and multifunctional configuration, modifying the spaces of our homes in flexible environments. The forced stay inside our homes has led us to rediscover the outdoor spaces as a relationship with nature, although extremely domestic. HEAL proposes a more responsive solution to the living space. The abacus of the modules allows to generate multiple configurations both in terms of settlement types, such as high rise typology, spread ground settlements and even as addition to existing built heritage, and in terms of configuration of common and private interior spaces. The ability to compose, replace and vary building components in a digital environment allows detailed simulations of how the whole building can respond and react to external “attacks”. Plus, new shared spaces configurations can be tested, with the potential to decrease the transmission of infections. Finally, the ability to semi-automatically transform the initial diagrams into BIM elements allows a precise control of the building components already in the early stages and, therefore, a considerable containment of the final costs.



ID 111 *From a hydroelectric power centre to an arts centre: the regeneration of the Fies hydroelectric power station in the Sarca valley*

Maria Paola GATTI

Deanna SERRA

Giorgio CACCIAGUERRA

University of Trento, Italy

Many production buildings have been abandoned, few have had a new life after being closed down. Industrial buildings are abandoned for many reasons. These are sometimes related to the specific sector: for example, economic and production transformation or a decline in the quantity of materials etc., and sometimes they are specifically related to the building itself — to its technical life cycle — but also related to general factors tied to changes in policy, for example, a different use of the water supply or environmental factors.

For some disused industrial buildings, sustainable regeneration projects have been proposed and implemented by interpreting and recovering the value of the memory of the work, the architecture and the technology. We thought it would be interesting to analyse the renovation of the Fies hydroelectric power station located on the right bank of the Sarca river (Trento), which today is a space for the creation and production of contemporary arts.

ID 112 *Earthquakes and historic centers: the controversial faces of reconstruction*

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Chieti-Pescara, Italy*

The paper proposes the reading of the “seismic contagion” that affects the Peninsula and underlines the vulnerability of the urban centers that are characterized by a phenomenon of abandon and depopulation. The breaking of the balance between the settlements and environmental contexts is fueled not only by natural causes; as yet struggling to rebuild L'Aquila, the recent change to the technical rules for the reconstruction of the crater -which awaits the judgment of the Tar in March- and the disastrous earthquakes in Amatrice and Norcia, underline the urgency to adopt shared agreed protocols useful to assist the activities of the authorities responsible for the protection and restoration of the national heritage. The research, starting from the architectural and urban episodes detectable between the renovation processes promoted in the last one hundred years, aims to outline an horizon of the post-seismic reconstructions implanted in Italy. During the 20th century the reconstructing strategies, such as demolishment, re-proposal onsite, and delocalization, appears not always to be coherent within the methodological and normative concepts and are characterized by the progressive detachment from the traditional construction. The contribution would like to bring the attention to the separation between ‘structure’ and ‘architecture’ which associates the post-seismic reconstructions and the possibility of integrating the predominant actions of the last century with a conservative vision avoiding the evident dichotomy between theories and practical aspects of restoration.

ID 113 *Automated BIM information flow for internal comfort conditions in an historic building*

Marco L. TRANI

Maria RUSCHI

Andrea CANTELMO

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The comfort conditions in confined environment have a great influence on well-being, productivity and quality of life. Achieving high standards of well-being for occupants inside historic buildings can sometimes be very complex, which is why environmental and energy sustainability protocols can provide an efficient tool to design and verify these conditions. The LEED Historic Building protocol allows to pursue high internal comfort conditions, paying attention to the conservation of the building and its artefacts. This study, starting from the concept of Level Of Information Need, aims to identify the necessary data to achieve the LEED protocol credits for comfort and environmental quality. Subsequently, once the necessary parameters have been identified within structured tables, it is necessary to analyze the data flow during the design phases in order to study an automatic data flow that can facilitate the design process within the BIM approach. The automation of the information flow will be set up with the use of a VPL programming language, which allows the automatic creation and transcription of parameters, by connecting Excel tables to BIM models. This research wants to provide the designer a valid and efficient data management tool that can reduce the time used in exchanging information between different designers, or within the same design team, and decrease the human transcription errors. Therefore, the method developed has been applied in the retrofit design study of an historic farmhouse in Milan.



ID 114 *Resilient Water Landscapes for Healthy Communities. Sustainable Regeneration of Coastal and Fluvial territories in the Lazio Region*

Francesca ROSSI

Sapienza University of Rome, Italy

The ecological processes with which ecosystems provide human beings with the direct and indirect production of benefits, are the basic factors of a sustainable and lasting development path and the variation in the supply of ecosystem services, also defined as benefits beyond borders, represents a variation of the landscape and human health.

In this framework, coastal and fluvial territories are great producers of biodiversity and are essential for the protection and enhancement of resilience and sustainability, representing an essential contribution to the well-being of local communities. In order to protect, enhance and regenerate these delicate and vulnerable territories, a multi-scalar and multi-disciplinary approach is required, based on the integration of ecological, social, cultural and economic strategies and actions. In this sense, the recent experimentation of River, Lake and Coast Agreements opens up to a participatory reflection between Administration and citizens, in order to respond to the needs of territorial renaturalization, environmental enhancement, landscape improvement, social promotion and development.

In particular, this contribution aims to be an in-depth study of the River, Coast and Landscape Agreement of the Arrone River in the Municipality of Fiumicino, as part of an ongoing research, entitled "Coastland regeneration in the Middle Tyrrhenian. Landscape itineraries for resilient communities along the coast and in the minor islands of the Lazio Region".

ID 115 *Healing and empowering the younger generations with services and residences for long life learning. The built heritage adaptive reuse in the Sanità district (Naples)*

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University of Naples Federico II, Italy

Stefania DE MEDICI

University of Catania, Italy

The international scientific community recognizes training as an essential commitment in the use of the Recovery fund, to prepare the younger generations to face the new post-Covid normal. Urban contexts and built heritage are central to this challenge, not only as a physical defense from the infectious disease, but as a lever for the cure and regeneration of societies and economies.

As happened for physical capital with the destruction of World War II, the closure of schools and universities over the last year threatens to destroy human capital with the interruption of educational and professional paths. The paper deals with the issue of creating residences and services for young people in the post-pandemic time, through the adaptive reuse of built heritage.

The Sanità district in Naples, traditionally a place of health, is adopted as a pilot site in which to experiment with the cultural and economic enhancement of urban systems, functional and technological innovation of buildings. This choice is due both to the exceptional nature of the district, with several abandoned buildings, and to the launch in 2000 of an experimentation by the third sector, aimed at creating job opportunities for young people.

Starting from an in-depth literature review, the paper adopts a systemic, inter-scaling approach (from the district to the building), aimed at designing services and spaces for long life learning.

ID 116 *Rethinking dysfunctional spaces as life places*

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Merchants' street is the place that we taking to exchange the goods of knowledge. We are the travelers of an abstract and cognitive pathway, that cannot be measured and is not scalar between opposites. It is a transnational and ideal way composed of built and paradigmatic buildings held together by a mental line. This image corresponds to a collective and memory set. Wanderers and users go through things instead we builders of exchange places, deposit definitions of the being. Which means to construct the journey starting from the concept of text and the indifferent and a-preliminary operational distance, activate a fluctuation of the structure of the signification, describe an open design method to the complexity, free to accept antithetic forms and to annul the dimensional differences in the scalar relationship. Possible operators of the architectural method are described and observed as pieces of new metaphysical embryo of the doing itself, corresponding to a microchip-metropolis mapping, a typological archive of current and ideational images. for the interpretation of dysfunctional spaces. Spaces with low spatial material articulation and in absence of evident relationships with the contexts, can be reinterpreted through responsive measurement strategies, in order to ensure complexity to the places and the best life quality.



ID 117 *Design for all, a strategic chance for the Arab and Norman UNESCO itinerary in Palermo*

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University of Palermo, Italy

Sicily, with its seven sites recognized by UNESCO, is the Italian region that can boast the highest number of them: the last elected is Palermo, which since 2015 is also part of the prestigious World Heritage List. The Palermo itinerary unfolds through eight stages: Royal Palace, Palatine Chapel, Churches of San Giovanni degli Eremiti, Martorana, San Cataldo, Cathedral, Zisa Castle, Bridge of Ammiraglio to which the cathedrals of Cefalù and Monreale. However, Palermo has critical issues that make the tourist route difficult and uncomfortable, not easily accessible due to the limited physical connections that make it difficult for both citizens and tourists with disabilities to move from one monument to another one. Communication and easy accessibility become design priorities, as well as the safety of use in the intricate maze of narrows and winding alleys often with stairs or steep slopes of the historic tissue, with discontinuous stony paving creating architectural barriers. The theme could be extended to many other parts of the historic center and to the expanded use of all the city monuments: Palermo, Mediterranean capital, becomes a monument and architecture of itself, experienced most of the year on the street and in the pedestrian paths. This study aims to address the issue of accessibility for different users, with particular attention to the fragile ones and different ways of traveling (on foot, by bike, in a wheelchair, etc.), extended to the analysis of the historic city center and with particular attention to the Arab and Norman itinerary.

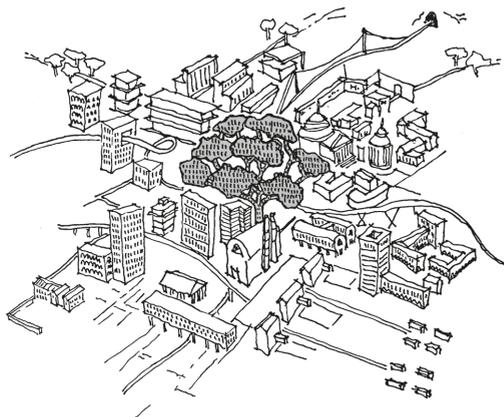
ID 118 *“Distretto Sociale Barolo” in Turin: permanence and transformation of a complex for health and social inclusion*

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The complex of buildings known as the “Distretto Sociale Barolo” is today a significant presence in the urban context of Turin, which bears witness to the actions undertaken by welfare associations during the nineteenth century: born in 1829 at the behest of the Marquise Giulio di Barolo, it assumed an important role in the city in promoting social inclusion through initiatives aimed at the care of the sick, education and employment. Within the complex, health care was provided in the structure called Ospedaletto di Santa Filomena: inaugurated in 1846 and intended to help girls from the less well-off classes, today the building is entrusted to the “Camminare Insieme” Association, run by volunteer doctors who offer free help, protecting the health and well-being of the weaker sections of the population.

Starting with a study of the documentary sources kept in the Opera Barolo archives, this paper aims to illustrate the results of research aimed at investigating the permanence and transformation of the asset in its tangible and intangible components. The consistency of the complex is still legible even though it has been adapted to the needs of contemporary society: in this direction, the involvement of third sector organisations has represented an opportunity to conserve and renew this architectural heritage while keeping alive its original charitable purpose.



ID 120 *Green Projects: architectural design tools for nature. Planning and recovery opportunities for our cities*

Antonio BIXIO

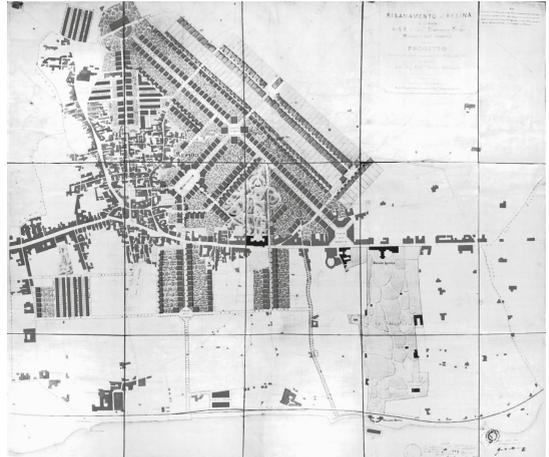
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The world's urban population is growing. It is projected that by 2050, the world will be more than two thirds urban. Population growth in cities entails the need to develop new ways of design or regeneration of urban areas that consider issues such as the impacts of climate change and emissions.

Buildings, cells of our cities, and the construction sector are a major source of global rising energy use and emissions. This underlines the importance of a strategy to reduce energy demand and decarbonizing the built environment through recovery the building heritage and the design new architectures and urban planning with attention to nature aspects. A "global transformation" to a highly energy efficient and low carbon building and construction sector is essential to realize ambition of Paris Agreement.

It is important that the actions for recovery and design of architecture and public spaces must concern relationship between city and nature. Among the various design solutions there are actions, such as the "Urban Forestry" and the "Vertical Forest", which are attentive to the role of nature and the ways to incorporate it into the architectural project, demonstrating concrete and positive effects on the city and climate and environmental issues related to it. These are design challenges, highly current and oriented in the professional future, also requires attention in didactic for the formation of the architecture student and designer figure.

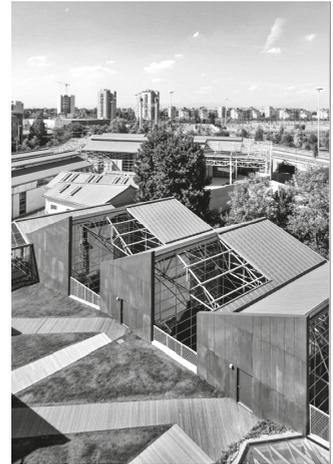


ID 121 *The project of the “Hygeianopoli Ercolanese” by the engineer Giulio Melisurgo*

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‘Luigi Vanvitelli’, Italy*

In 1887 Francesco Crispi, Minister of the Interior of the Kingdom of Italy, commissioned the engineer Giulio Melisurgo to carry out a sanitary reclamation project in the town of Resina, near the ancient Herculaneum. Because of the numerous cases of cholera, the engineer was asked to integrate a new settlement to the existing building fabric. The plan of the new districts was based on the intersection of two orthogonal axes in the town centre. These road axes recalled the intersection between cardoon and decumanus characteristic of Roman urbanism. As well as showing a continuity with the past, the orthogonal plant established a relationship with the schemes adopted in many urban expansions arising in suburbs of the European cities in the second half of the 19th century. The new “city of health” would be characterized by large green areas pertaining to residential complexes intended for different social classes. The plan of the “Hygeianopoli Ercolanese” shows the rational layout of the public buildings, preceded by large squares: the sanatorium, on the edge of the town towards the hilly area; the market, behind the Foro Italico; the hygienic station, in the eighteenth-century villa “la Favorita”; the bathing establishment, close to the railway station. As we know, the project of the “Hygeianopoli Ercolanese” remained on paper. However, it shows that public health was considered a basic requirement of the new settlements built in Naples shortly after the Unification of Italy.



ID 122 *From a disused industrial area to an innovative sustainable campus in Milan*

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Politecnico di Milano, Italy

In a scenario that reveals an ever increasing competitiveness between territory, cities, geographic areas and territorial systems, the real estate operators are engaged in important relaunch and requalification activities. They are aware that in the competition between urban areas there are awards more dynamic “systems” able to combine the safeguarding of one’s own territory with the hypotheses of redevelopment.

The redevelopment foresees at the base of the design a regeneration process of the existing buildings in response to the new market needs and in line with the sustainability and circular economy vision.

The paper, through a multiscale approach, from a macro-territorial and metropolitan level up to the level of the neighborhood, will represent a scenario of the economic dynamics and the territorial structure in which the cities in the last twenty years and will illustrate the case study of an important recovery project of disused industrial area.

The regeneration process to create a multipurpose center designed for the service industry and for leading consumer and B2B companies will be described.

The integrated campus, a former industrial complex of more than 29,000 sqm fully regenerated, is 100% Carbon Free and 3 buildings has the LEED Gold certification.

ID 123 *A resilient and sustainable urban space: the Siemens factory in Santa Maria Capua Vetere (Ce)*

Salvatore LOSCO
Claudia de BIASE
Irene D'AGOSTINO
*University of Campania
'Luigi Vanvitelli', Italy*

The paper proposes a reflection on the urban transformation of a partly disused industrial area in the territory of Santa Maria Capua Vetere, a medium-sized municipality of Caserta Conurbation. In the Caserta Province the lack of a clear delimitation of industrial areas allowed, between 1955 and 1961, the establishment of large industries such as Saint-Gobain in Caserta, Pierrel in Capua, Autelco in Marcianise, Texas in Aversa, Pozzi in Sparanise and Siemens in Santa Maria Capua Vetere, which was closed down in the nineties. A series of areas occupied by factories that have been partially or totally dismantled and that constitute problematic nodes in the contemporary territory. Siemens (later Italtel) was a factory located in a strategic place, along the Appian Way and bordering on the municipality of Capua. In the 1970s it employed 30.400 people and today it appears as a place (covering around 165.000 mq) of decay and neglect. The first part highlights some of the issues that lead to the abandonment of industrial areas through the analysis of Italian and foreign case studies. The second one analyses the de facto and de jure state of the area, the de facto through a detailed study that highlights its peculiarities and negative aspects and de jure from the comparison of the forecasts of the PTCP, the PRG and the PUC, recently adopted by the municipal council respectively. The third part proposes a meta-design hypothesis of resilient and sustainable regeneration.

ID 124 *Existing heritage enhancement, health promotion, environment salubrity. The study of a new Citadel and Healthcare Center in Fiorenzuola d'Arda*

Rossana GABAGLIO

Michele UGOLINI

Stefania VARVARO

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It proposes the theme of the existing public heritage enhancement, widespread in the cities and custodian of the identity character of the places (buildings, squares, systems of open spaces), as a reading key and tool for extensive territorial diffusion facilities for health. The pandemic highlighted the need for an active and rooted network, confirmed the public and civil value of the health system and inextricably linked the health issue to the environment healthiness in which we live. The Healthcare Centers as an organizational model of social and health care services in the area, capable of promoting a health culture, represent an opportunity to structure a coherent and necessary criterion of social, environmental, architectural and urban regeneration. This model, of Anglo-Saxon origin, requires a profound cultural change, to give substance to the idea with which the Healthcare Centers were established in Italy in the early 2000s. A reflection is proposed on the theme of the new Citadel and Health House of Fiorenzuola d'Arda (province of Piacenza). The study is committed to a joint working group between the Department of Architecture and Urban Studies of the Milan Polytechnic, USL company of Piacenza and the Municipality of Fiorenzuola d'Arda. The research is aimed to enhance the hospital area located in the north-west portion of the historic center and the old building of the former town hall to be regenerated as a Healthcare Center for the community.

ID 125 *Cultural access and effects on the health and social participation of people with disabilities. The Italian case*

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Maria Carmela GAROFALO

Sabina MARTUSCIELLO

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Not everyone has equal access to culture: significant barriers exist for consumers, amateurs and professional contributors. People with disabilities may face particular barriers owing to the inaccessibility of cultural premises, venues or contents. People in wheelchairs for instance cannot attend a concert if the only way into a hall is up a flight of stairs; blind people cannot appreciate exhibitions in museums without dedicated descriptions in audio/electronic formats or in Braille prints; deaf people cannot enjoy films in cinemas without subtitles or sign-language translations. Lack of access to cultural sites reduces the ability of people with disabilities to appreciate them at full. According to the approach first proposed by Sen (1999), capability building causes individuals to improve their level of self-determination, with a positive impact on health-serving habits and practices. Both cultural access per se and capability building – which is naturally associated to it – contribute to determine subjective well-being in a positive way. While this by-product of cultural participation is mostly unintentional, it could however be turned into a new instance of the welfare policy once properly recognised as a systematic spillover effect of cultural participation on individual and social health. Departing from ISTAT data for 2019, this work aims to produce a measure of the degree of exclusion of people with disabilities from places intended for cultural consumption (cinemas, theatres, museums, etc.) at the regional level.

ID 126 *Does culture tear down barriers? The effect of cultural consumption on mental disability in Italy. An empirical investigation*

Massimiliano CERCIELLO

Antonio GAROFALO

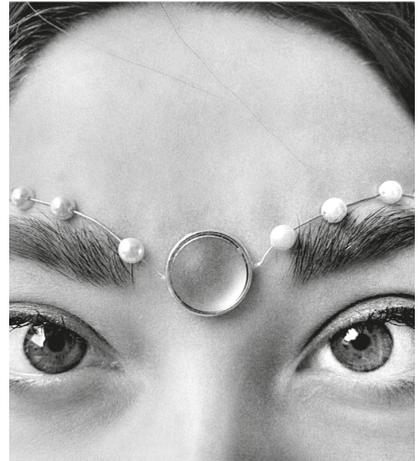
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As in most EU countries, the role of the cultural policy within the broader scope of social cohesion has traditionally remained marginal in Italy. Relying on rational addiction theory, some recent contributions argue that widening access to cultural consumption may produce persistent positive social effects. This strand of literature challenges the traditional idea that the cultural policy should mainly subsidise merit goods – whose diffusion ideally represents a social goal per se – and calls for a reconsideration of the positive spillovers that may derive from cultural consumption. One significant social category that generally lacks access to cultural goods is represented by people with disabilities, who also feature lower labour market participation rates, lower electoral turnout rates and a higher probability of facing poverty and social exclusion. Cultural consumption may thus represent a channel to foster the social participation of people with disabilities and to remove the barriers that tend to isolate them.

Based on the above, this work exploits recent official data on disability (i.e the share of people with mental disabilities) and cultural consumption in order to establish a causal relation between the two variables in Italy at the regional level. Using observations drawn from ISTAT over the 2000-2019 timespan, this work implements a dynamic panel regression that takes into account and models explicitly territorial spillovers.



ID 127 *Gems-design to feel good*

Maria Dolores MORELLI

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"GEMS-design to feel good" promotes research between education and production with the study and realization of precious innovative artifacts that link the promotion of Mediterranean natural, cultural, craft resources, strengthens, implements the possibility of promoting employment in companies, institutions, museums in the field of jewel-accessory. "GEMS-design to feel good", in response to ecological issues and the directives of the 2030 Agenda, wants to expand, through a careful design process, the role and meaning of jewelry, studying and creating precious objects, which present not only aesthetic qualities, but also functional for the well-being and beauty of people using phytotherapeutic natural materials and extracts (SDG 3 Health and Wellness; SDG 15 Life on Earth). "GGM-design to feel good" aims to promote "Made in Italy artifacts" characterized by the use of minerals and rocks present in the Mediterranean territory and sea and elaborated in the forms and realization through craftsmanship and techniques in order to enhance the natural resources of the territory, the culture and history of places, traditions and the construction of sonory jewelry for well-being (SDG 8 Decent work and economic growth; SDG 12 Responsible consumption and production). "GGM-design to feel good" wants to communicate the construction of an ecological and economic production chain between Universities, Research Institutes, Academies, Higher Institute of Musical Studies, Companies, Associations, Museums on the theme of jewelry starting from its etymology, ornament in precious metal worked, object finished with great care, becoming a functional, therapeutic work leader, therapeutic, symbolic (SDG 9 Business, Innovation; Infrastructure; SDG 17 Partnership for Objectives).



ID 128 *LIMESCAPES. Recovery of the marginal heritage area of north east lagoon of Venice/Eastern Veneto*

Piercarlo PALMARINI

IUAV University of Venice

The proposal assumes the results of a research developed at Università Iuav di Venezia, focused on the Veneto-lagoon geographical context - northern lagoon of Venice - clarifying the links between his rural characteristics, which have conditioned the history and image of the agricultural landscape of the Veneto-lagoon and their current condition of abandoned areas.

A territory as an example of a particular landscape - the urban plot of Italy - composed of a uniform fabric of small settlements that form, with the current neighbouring agricultural landscape, a unicum developed slowly over time, in which every single element has been metabolized within a heterogeneous program of territorial scale, in which the logic of the persistence of architectural memories, signs of various historical periods, highlights a totally anthropized system, in which each element is the result of the work of continuous construction.

The physical coexistence of various elements, which manifest themselves at different scales and document the past presence of different historical periods, supports the potential to take the area as a great value system: the archaeological park of the Roman city of Altino, its own centuriation, and the consular roads; the hydraulic management of the Serenissima, hydraulic diversions and navigation locks; the location of the WW I theatre of the Piave Front; the drainage systems still operating, the design of the cladding, innervated by canal network.



ID 129 *Forgotten architecture: the Real Casino della Lanciolla*

Danila JACAZZI

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During the reign of Carlo di Borbone and then of Ferdinando IV, a large amount of land intended for agricultural and livestock production and hunting activities became Royal Sites. Some of them played a role of greater importance and relevance; others, on the other hand, of lesser importance, nevertheless played a non-secondary function as a place of hunting entertainment so loved and appreciated by the Bourbon kings. Among the places destined to the pleasure of the royal family - also known as "Reali Delizie" - it is possible to include the Real Casino della Lanciolla.

Almost completely unknown to historiography, the Real Casino della Lanciolla, built in 1779 for the hunting diversions of Ferdinand IV of Bourbon, presents a singular articulation in the planimetric layout and in the relationship with the territory. In fact, it rose in the center of a small lake basin, surrounded by woods. The site of the Lanciolla, today, is in a state of absolute decay.

ID 130 *Socio-economic factors and the attitudes of Polish residents during the COVID-19 pandemic. A cross-sectional survey of public opinion and declared behaviours in 2020*

Anna ODROWAZ-COATES We are currently conducting a large longitudinal study on COVID-19 and the changing attitudes of people during different phases of lock downs and releases. We plan two more measurements and therefore the dataset we present pertains only to five out of the 7 phases of our study. These five measurements were conducted online in 2020, attracting over 2500 participants.

Anna PERKOWSKA-KLEJMAN The research phases were linked to milestone changes in public policy, introduced by the Polish government during the pandemic. We measured people's reactions to the pandemic, focussing on attitudes, declared behaviours and the socio-economic factors that revealed inequality linked to educational attainment, employment status and income, highlighting not only different opinions, but critical disparities in wellbeing and welfare gaps based on social class. The outcomes confirm that the social and psychological effects of the pandemic are diversified by different social groups.

*Maria Grzegorzewska University,
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ID 131 *The topic of urban care and architectural heritage: the case study of Naples from Sanità to Scampia quarter*

Pasquale MIANO

Adriana BERNIERI

University of Naples Federico II, Italy

Starting from the 2012 Imperfect Health exhibition, interesting reflections have been developed on the relation between health, architecture and environment. Urban design is now called to consider its own specificity, in order to make a contribution to the rooting of a new idea of care and cure for the city. One of the interpretative possible directions focuses on public space as common good, opening to reflections about urban mixing and hybridization. In this sense, closed and monofunctional spaces, such as hospitals, schools, stations, tend to completely lose their sense in order to promote and be part of a healthier way of living the city.

There are two main elements that can be taken into consideration in this radical transformation. The first precisely relates to the overcoming of urban consolidated typologies. The other concerns a different idea of park, through the radical overcoming of its figure perceived as a fence, gradually replaced by an idea of urban connector with plots of paths, concatenations, aggregations, for a profound renewal of pedestrian areas.

In this perspective, the paper wants to investigate how a renewed conception of cure becomes urban, in strong consideration to the time the whole world has been going through Covid-19 pandemic, climate change and other environmental issues are aspects that urban design have to deal with, in order to restore vital cities to people, starting from the architectural rethinking of facilities and urban spaces.



ID 132 *Digital for sustainable use of cultural heritage: the Baptistery of Nocera Superiore*

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Stefano CHIARENZA

*San Raffaele Roma Open
University, Italy*

Andrea DI FILIPPO

University of Salerno, Italy

The recent medical emergency linked to the spread of COVID-19 has caused many people to rethink their habits, even the most common and everyday ones. Significant changes have undoubtedly affected the use of the historical and cultural heritage, especially artistic and architectural assets. The impossibility of moving around and visiting museums and monuments in situ has in fact led to the introduction of alternative forms of enjoyment of this legacy, which are in any case able to meet cultural needs that, like physical ones, contribute to human well-being. In this perspective, digital technology is a valuable tool for the dissemination of heritage: if, in general, drawing is an evocation of the physical reality represented, the virtuality inherent in the infographic space allows a more shared appropriation of the contexts "visited" remotely, of which it is also possible to provide integrated information not immediately perceivable. Starting from this premise, the contribution intends to focus on a little-known but very interesting architectural episode: the Paleochristian Baptistery of Nocera Superiore, in the province of Salerno. The space of this monument is thus revealed through digital representation in a virtual tour that accompanies visitors in the discovery of its morphological, geometrical, artistic, and architectural aspects, thus making it possible to offer the community an example of Campania's heritage to be enhanced.

ID 134 *Transformative adaptive strategies for built environment*

Raffaela DE MARTINO

Rossella FRANCHINO

Caterina FRETTOLOSO

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Promoting resilient approaches to transforming the built environment through adaptation is a strategy that has been repeatedly reaffirmed in the international arena where it has been highlighted that “adaptation interventions are an unavoidable necessity for all countries that intend to minimise negative effects and fully exploit opportunities for climate resilient growth and sustainable development” (ENVI Committee, 2016). From the methodological and design point of view, there is a need to operate according to innovative strategies oriented not only to meet aims related to the social and environmental dimension of the project but also to ensure performance in terms of adaptation and mitigation of anthropized contexts in order to increase their resilience.

With these premises and with reference to some suitably selected case studies, we identify appropriate strategies of transformation that operate according to the logic of mitigation and adaptation and that allow the conservation and redevelopment of natural resources in the area and the connection between ecological and environmental values for an overall enhancement of the built environment. The adaptive transformation strategies, finally, are oriented on solutions that can also increase the ecological quality of the built environment. This objective can be achieved both by resorting to forms of non-productive green and to forms of Building Integrated Agriculture.

ID 135 *From the hygienist architecture's legacy to an eco-neighborhood: the case study of Saint-Vincent-de-Paul hospital complex in Paris*

Janet HETMAN

CREANAU - ENSA Nantes, France

Federica APPENDINO

*ESPI Paris, ESPI2R – Lab'URBA ,
France*

Over the last years the interest in the notion of eco- neighbourhood had grown internationally with a multitude of projects implemented worldwide. Focus on this topic, the article aims to highlight some questions connected to eco- neighbourhood projects in historic urban context by reviewing and discussing a specific case study: the Saint Vincent- de-Paul eco-neighborhood in Paris. An ancient hospital complex, characterized by an important and stratified architectural heritage asset, the project is intended to become the first carbon-neutral and resilient neighborhood of the city.

This raises the question of how to combine hospital typology and hygienist architecture with these high standard sustainability goals.

The paper intends to investigate the role played by the hospital architectural legacy, by analysing spatialities, dimensions and the typology. To this end, the article underlines compatibilities and conflicts between the characteristics of the early modern health architecture and the sustainability solutions. Our results show that it is not always easy to find a balance between the sustainability ambitions and the character of the original building fabric, even if Saint Vincent-de-Paul's sustainable adaptive reuse potential is high.

ID 136 *The Preservation of Tibetan Monasteries as a Source of Inspiration for Meditation Practice: Shechen Tennyi Dargyeling in Nepal*

Mário Bruno CRUZ

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Meditation has been lately worldwide used as a contribution to generally improve our mental and physical health. Psychologists, neuroscientists, and psychiatrists have been interested in its benefits for the purpose of healing mental and even physical diseases. Some of the monasteries of Mahāyāna Buddhism in diaspora, in the territories of Nepal, India, Sikkim, and Bhutan, represent the vision of the great Tibetan masters, as the construction of some have even been supervised by them. In monasteries such as Shechen Tennyi Dargyeling in Nepal, the vision on freedom from suffering reveals itself in all its details, in such a way that it is extremely inspiring for meditation practice. The present study aims at exploring the ways it exerts such an influence on practitioners. Furthermore, we are proposing some reflections, along with some strong concepts on the subject, based on our own experience as practitioners, and on literature review. We argue that the influence referred above becomes very important, although if not sometimes determinant to the success of meditation practice. To conclude, we are most certain that these typologies of architecture are not only an important part of our architectural, but also of our immaterial heritage.

ID 137 *Design for health in the landscapes of Southern Italy: the Widespread Park of Knowledge and Wellbeing*

Vincenzo GIOFFRÈ

University of Napoli Federico II, Italy

The paper illustrates the 'Widespread Park of Knowledge and Wellbeing' project, a system of initiatives and places scattered throughout the territory of Reggio Calabria, in a typical Mediterranean landscape, all linked to the concept of care applied to people and the landscape.

Chiara CORAZZIERE

University Mediterranea of Reggio Calabria, Italy

The Widespread Park proposes a model of contrast to the pathologies of the new poverty, typical of the contemporary city, based on the conviviality of knowledge and the cooperative management of health as a common good and which finds application in the care, as well as man, of the environment and of the landscape.

The project experiments with the community activities of social agriculture, forms of circular economy and energy production from renewable sources, hosts opportunities for knowledge of cultural heritage and artistic performance, according to an unprecedented systemic offer for the territory.

The Widespread Park offers a landscape that holds together sustainable cultural, social and economic processes, responsible attitudes and ethical and aesthetic regeneration.

The replicability of the project, in other Mediterranean territories, lies in the formula of the Widespread Park as a permeable system, which can be implemented and transferred to other marginal contexts in transition towards more decisive roles for the rebalancing of cities. For more information <https://www.acemedicinasolidale.it/parco-diffuso>.



ID 138 *Health as an institutional commitment.
Reconversion of Nordkraft from a power station
to a cultural and health centre*

Alessandra BADAMI

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The goal of public health prevention is not only to increase life expectancy, but also to improve the quality of life. It is therefore necessary to highlight the importance of the social opportunities available to the individual, that is, the ability to build relationships, cultivate interests, attend cultural events and lead a healthy lifestyle.

Urban habitats, the main environments for socializing but also for spreading contagion (as the Covid-19 pandemic highlighted), must be remodelled to ensure public health. To achieve this goal, urban habitats must also be able to offer spaces for safe relationships to promote sociability and stimulate civic activism.

The paper refers to the commitments of the “Peccioli Charter” (2020) on resilient communities, which contains some of the themes that will be developed in the exhibition of the Italian Pavilion of the 2021 Venice Architecture Biennale entitled “How will we live together”.

The theme of health and resilient communities is illustrated through the case study of the Nordkraft power plant in Aalborg (DK), an excellent example of urban circular metabolism. This project addresses the issues of public health as an institutional commitment, making sports services available for all ages and for all needs; hosts cultural centres and business incubators; contributes to the reduction of climatic impacts through the use of eco-sustainable energy sources.

ID 139 *The natural light as an important element in the interior spaces forming*

Ahmed Mahmoud SABER
Helwan University, Cairo, Egypt

The importance of this study is to research methods and aesthetical applications of natural light and shade to be implemented by the architect through designs to achieve his uniqueness.

And to impose on the receiver attentions a fragment of the architectural expressions of the interior spaces, this indicates the necessity to search this phenomenon in its various aspects from Stylistic, technical and analytical, where one of the most important signs of any unique architectural project is the effective use of daylight by reshaping the elements of light and shadow and what it does represent from dynamic creative images reflected within the interior architecture scene , and it is clear that the purpose of the research is to rdefine the meaning of image or interior scene and how it can be reshaped by the formation and aesthetic possibilities of light and shadow and its psychological impact on the users of the architectural space, through constructing a theoretical framework that showcase the Techniques and methods of implementing natural light and shadow in buildings.

ID 140 *Medieval buildings: from defence systems to social aggregation centres*

Giuseppe D'ANGELO

*University of Campania
'Luigi Vanvitelli', Italy*

Rosaria SAVASTANO

Torre del Greco, Italy

In Roman times the “castellum” was a small fortification of minor importance. From the end of the ninth century, and throughout the eleventh century, large areas of western Europe were covered with a dense network of castles.

The first castles were very simple, generally consisting of a central tower, surrounded by walls, and had a military and defensive function, for this they were built on top of the hills for an easy and better sighting point.

These castles had no comfort and only the soldiers and the lord lived in the fortress.

The medieval castle was enriched over time by important elements for its double function, both defensive and residential, becoming the symbol of the power of a powerful lord: bright-colored banners waved from the towers, while the light of the sun shone forth from the armor of the sentries upon the wall.

From the tenth century, thick palisades and walls were built around the castles. The top of the wall was articulated in protruding structures, with battlements parapets and loopholes, from which the soldiers could hurl on the enemy spears, arrows and ammunition of various types. In this paper we report three examples of castles in northwestern Campania.

ID 141 *The relation between Life Cycle Assessment and the historic buildings energy retrofit projects*

Mariarosaria ANGRISANO

Francesco FABBROCINO

*Pegaso Telematic University Naples,
Italy*

The built environment is one of the main sectors that contribute to environmental pollution and resource consumption.

The European Commission emphasizes that the reuse of existing buildings plays an important role in maximizing the 2050 decarbonization and resource conservation target.

Furthermore, the “New European Bauhaus” states that the renovation of the built heritage should be carried out using the latest technologies being adopted in the sustainable construction sector, never neglecting the beauty dimension of architectural design. The reuse of historic buildings, if understood according to these perspectives, is capable of reducing environmental impacts on the one hand and reconnecting people with their living environment on the other.

The aim of this paper is to explore how energy retrofit projects of the historic buildings can contribute to the reduction of carbon emissions.

In fact, in this paper several project alternatives for the energy retrofit of Villa Vannucchi, a historical building located in San Giorgio a Cremano (Naples), have been proposed and evaluated.

Through the Life Cycle Assessment method, a comparative analysis of different project scenarios has been carried out, with the aim of selecting the most sustainable one, i.e. the one able to reduce CO₂ emissions both in the design and in the use phase of the building itself.

ID 142 *Research, Mapping and Reduction of Infrasonic Radiation in Conditions of Urban Territories on the Example of Samara Region of Russia*

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Negative impact of infrasound radiation in conditions of urban territories is constantly increasing.

The sources of infrasound in urban territories are analyzed. The peculiarities of characteristic of sources are described. Russian experience of estimation of infrasound in conditions of impact is considered. Infrasound levels measurements on the territory of the most large towns of Samara region (Samara, Togliatti, Syzran, Zhigulyovsk) were carried out. In total more than 400 points of measurements were investigated. Infrasound levels measurements were done both in day and night time in octave and 1/3 octave frequency bands. Examples of presentation of spectral characteristic of infrasound levels are shown. In total analysis of results of measurements is allowing to determine the most significant exceeding of normative values of sound pressure levels in infrasound range in octave and 1/3-octave spectra in a number of points of measurements on the urban territory of Samara region of Russia. Russian approaches to infrasound and low frequency noise modeling of propagation and mapping are considered. infrasound maps of city districts of Samara region of Russia are developed.

Methods of protection from infrasound negative impact are discussed. In total, the most efficient infrasound reduction in urban territories may be achieved by provision of complex administrative organizing, regime, technical, urban development, building-acoustic and the other measures.

ID 143 *Experimental Research and Modeling of Automobile Transport Noise (Russian Experience)*

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Automobile transport is the main source of acoustical pollution of industrial cities. Analysis of environmental noise sources of the main towns of Samara region of Russia (Samara, Togliatti, Syzran) is showing that there is a number of considerable automobile transport park, making significant acoustic impact to abutting dwelling territory. Russian approaches to experimental research of automobile transport noise are considered. Some approaches to mathematical modeling of automobile transport noise are described. Automobile transport noise levels on the living territory of the Avtozavodsky, Central and Komsomolsky districts of Togliatti city was measured near to the city streets with intensive transport movement. In total over 500 points have been investigated. Results of measurements in many points are showing significant exceeding of permissible sanitary values.

Noise characteristic of different cars were also investigated. Results of measurements of sound pressure level for "Largus Cross" car in acceleration regime at the speed 50 km/h in the second gear at the distance 7,5 meters from a passing car are showing that maximal is sound pressure level at the frequency 125 Hz, which is corresponding to the main engine operation frequency. Thus, in order to reduce efficiently automobile transport noise, it is necessary to attenuate both automobile transport flows noise and separate automobiles noise, especially in low frequency range.

ID 144 *MUSME, Museum of the History of Medicine, Padua (Italy). A tool for the dissemination of medical-scientific culture*

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Andreina MILAN

*Alma Mater Studiorum University of
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The article addresses the controversial issue of scientific dissemination through the events of MUSME, the Museum of the History of Medicine which was inaugurated in Padua in June 2015. The museum was set up in the building complex that from the first half of the 15th century to the end of the 18th was the home of the hospital of San Francesco. Built for a specific function, the complex was located in the city centre, in the street dedicated to Santa Margherita, today via San Francesco. Its origin is closely connected to the memory of the important research work that has taken place over the years in the medical field and derive from the presence of Padua university in the city, the only one that over the centuries the Serenissima Republic of Venice wanted in its domains, encouraging its activity. The decision to locate the museum in the complex that was home to the hospital of San Francesco was particularly significant given that this ancient medical structure was most likely the first place there was clinical training, namely where pathologies were studied and taught by professors to students on the body of the sick rather than on a theoretical basis. The purpose of the article is to reach an assessment, albeit provisional, regarding the impact of the new museum on the city community and on visiting tourists at the end of this first period that the museum has been open, naturally taking into account the health emergency of last year.

ID 145 *Fortified complexes in Puglia: macroelements structural analysis and consolidation proposals for the restoration of the Ginosa Castle*

Michela LERNA

Maria Francesca SABBA

Dora FOTI

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The case study of an ancient vital structure, like the castle of Ginosa is capable of contributing a unique importance to the cultural heritage, not only because of the historical rule of the castle during the old centuries, but also as a monument that has lost many aspects through the time due to the natural risks and the unaware human interventions. The abandonment as well as the lack of maintenance have played a fundamental role in the progressive deterioration of the fortified complex. Thus, this case represents an opportunity to shed light on the meaning and causes of the restoration of forgotten architecture. The growing interest in saving the abandoned architecture results in improving the operational skills related to the safeguarding of historic buildings, typological characteristics, formal and constructive values, which give the architectural organism its unrepeatability individuality.

This article deals with the structural problems that involve the Castle of Ginosa. The activity has been conducted through an initial cognitive phase based on a detailed survey of the crack pattern and the characteristics of the materials; subsequently the structural behavior of the building has been assessed by an analysis with macro elements and the probable local collapse mechanisms. Only after this indepth analysis it was possible to carry out checks on the elements and evaluate possible consolidation interventions.

ID 146 *The architecture design at different scales:
a question of landscape*

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“From the spoon to the town” is an expression becoming famous after E. N. Rogers’ Zurich conference (1946). Since then, the world has changed, the architect’s profession and the ways of teaching architecture have also changed.

Today, futuristic techniques are taught in place of architecture and students are encouraged to design buildings that are beautiful, shiny, fashionable but no one thinks about man anymore. Everything seems to be subject only to the laws of economy and finance.

Is this contemporaneousness?

We need to combat the progression of these upheavals, seeking to start again from the sense of the architecture design.

Architecture should be able to combine innovative techniques and materials with the values of the locations, history and traditions: this could become a new challenge for those building the landscapes of the third millennium. Landscapes - and not just buildings - because the locations in which we live are a compendium of houses and spaces, and because the architect’s activity should embrace all scales, from the general to the particular.

Perhaps, again, we need to question everything.

We must try, every time, to give an additional definition of landscape, to seek to add something new to our scientific research.

ID 147 *UAV photogrammetry, a feasible methodology for the documentation of shallow water geoarchaeosites*

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Martina GIANNINI

University of Bologna, Italy

Francesco MANCINI

Several archaeological sites attest past activities along the coast of Italy. These remains are nowadays totally or partially submerged because of sea-level fluctuations as a result of climate changes. Moreover, those sites were recognized as a reliable indication of sea-level rise to the present, from a reconstruction of functional properties since the age of carving. The knowledge of present-day elevations and their ancient use requires detailed geoarchaeological and topographic surveys. Unfortunately, partially or totally submerged sites could not be surveyed with traditional surveying methodology and the reconstruction of functional properties in a such complex environment is difficult. In this paper, the feasibility of unmanned-aerial-vehicle-based photogrammetry was assessed to reconstruct the high-resolution topography and geomorphic features of a millstone coastal quarry of the Roman Age located in Polignano San Vito (Apulia, Italy). This new generation of 3D products represents a valuable base to extract geomorphic features, to derive the functional properties of such geo-archaeological site. The combined use of different attitude of the UAV camera is shown, and a brief discussion about the need of refraction modelling and correction solutions is introduced. Specifically, the addition of off-nadir imagery has been tested to evaluate its contribution to accuracy and resolution of generated products. In conclusion, few tips about the best practice required for a 3D survey of shallow water site are provided.

ID 150 *Drawing the time through HBIM: the case study of San Lorenzo ad Septimum in Aversa*

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The current analysis and the survey's activity are based on studies already in progress, in the context of which archive research, retrieval and purchased analysis of the sources, photographic campaigns and preliminary graphic elaborations have been carried out, basic to the subsequent implementation of the direct and instrumental surveys. This contribution is part of the safety measures of the sixteenth-century Cloister of the Monumental Complex of San Lorenzo at Septimum in Aversa, currently headquarters of the Department of Architecture and Industrial Design of the Luigi Vanvitelli, University of Campania. Overall, evident signs of static instability were recorded, deriving from an overturning mechanism of four columns, both on the ground floor and on the first level, located on the east front of the main cloister.

The focus of the paper is to secure the clock and the two sundials present in the complex by using HBIM's technologies. Starting from scan to bim systems the creation of a parametric model of the current state of the building is completed, by bringing the point cloud elements back to objects to which historical and construction data can be associated. Moreover starting from acquired data, the 3D model shows the reconstructive hypothesis of the original structure and the virtual reconstruction of the building based on traces found on-site and on the comparison with coeval creations allowing to properly hypothesize the design of point features.



ID 160 *Design of landscapes out of context*

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The paper describes the design of murals and installations in public spaces and factories created in the last two years by the author in the Campania Region, Italy. In particular, the murales carried out are: The women's and kids' anti-violence center, Municipal Police in Alessandro Poerio street n. 21 and the Multifunctional Center in the Soccavo district for the Naples City Administration; NapoliIDEA in the University Parthenope of Naples; the COELMO industrial and marine generators in Acerra (Naples); the IDAL Group factory for metal carpentry and naval industrial furnitures in Salerno; the Global Logistic System office in Ferrante Imperato st. in Naples; the Luise Pier in Naples with installations for the Carpisa and Yamamay brands. The murales represent cultural assets and landscapes of Campania and international cities, icons of the UNESCO World Heritage, linked to the cultural and entrepreneurial activities of the clients, 'out of context'. The goal is to enhance public and private spaces, and to strengthen, in the case of private murals, a link between the workplace and the art spaces. There is the desire to be inspired by factories built as works of art, in which workers can find an environment that also stimulates their productivity and social life. Best practices and references are Peter Behrens' AEG turbine factory, the industrial city of Ivrea in the 20th Century, UNESCO World Heritage, and the Olivetti factory in Pozzuoli by Luigi Cosenza.

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