



MINISTERO  
DELLA  
CULTURA



La Biennale di Venezia

17. Mostra  
Internazionale  
di Architettura  
Padiglione Italia

**resilient  
communities**  
**comunità  
resilienti**



**ITALIAN PAVILION**  
**BIENNALE ARCHITETTURA 2021**

**22.05 – 21.11.2021**  
Tese delle Vergini, Arsenale  
30122, Venezia, Italia

**PADIGLIONE ITALIA**

TESE DELLE VERGINI

ARSENALE

VENEZIA

17°

BIENNALE ARCHITETTURA 2021  
22.05 - 21.11.2021

**ITALIAN PAVILION**  
**BIENNALE ARCHITETTURA 2021**

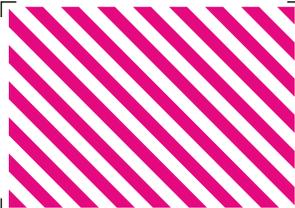
WHAT

**22.05 – 21.11.2021**

WHEN

Tese delle Vergini, Arsenale  
30122, Venezia, Italia

WHERE



**D Editore**



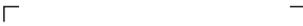
The 17<sup>th</sup> International Architecture Exhibition will go down in history. Once again, La Biennale di Venezia, led by president Roberto Cicutto, as took place last summer with the 78<sup>th</sup> Venice International Film Festival, is astonishing the world by staging an extraordinary event, one with no international equal in the sector, in the midst of a pandemic.

Moreover, the 17<sup>th</sup> International Architecture Exhibition has registered exceptional participation, with 64 national pavilions answering the call of curator Hashim Sarkis. These include the Italian Pavilion, housed since 2006 in the large spaces of the Tese delle Vergini in the Arsenale, and curated this year by Alessandro Melis.

“Resilient Communities” deals with pressingly current issues. From responses to climate change to the challenges of the pandemic, architecture is called upon to interpret the radical rethinking of human coexistence. In unprecedented fashion, the 2021 Italian Pavilion illustrates the extent to which today's architecture, having left the sphere of aesthetic exploration, is committed to responding, in an increasingly qualified and interconnected way, to the demands of our daily life, conditioned by multiple social and environmental criticalities. Harmonious, sustainable development is intimately linked to resolving the environmental crisis, which strikes the most fragile communities above all. In this sense, it is important to promote and understand the capabilities of communities' transformation and adaptation, in order to define, through interdisciplinary research, what are the architectural scenarios of a sustainable future.

The wide-ranging exploration work led by Alessandro Melis embraces the steps taken by Italian research in many fields, and offers a rich programme of tangible proposals for improving the condition of urban areas, peripheries, and inner areas of the country.

The experiences presented at the 2021 Italian Pavilion are thus complete operative and creative workshops, demonstrating a collective ability to identify responses to challenges unimaginable until recently. These proposals must be relied upon in imagining the Italy of tomorrow.

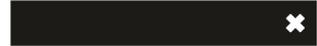


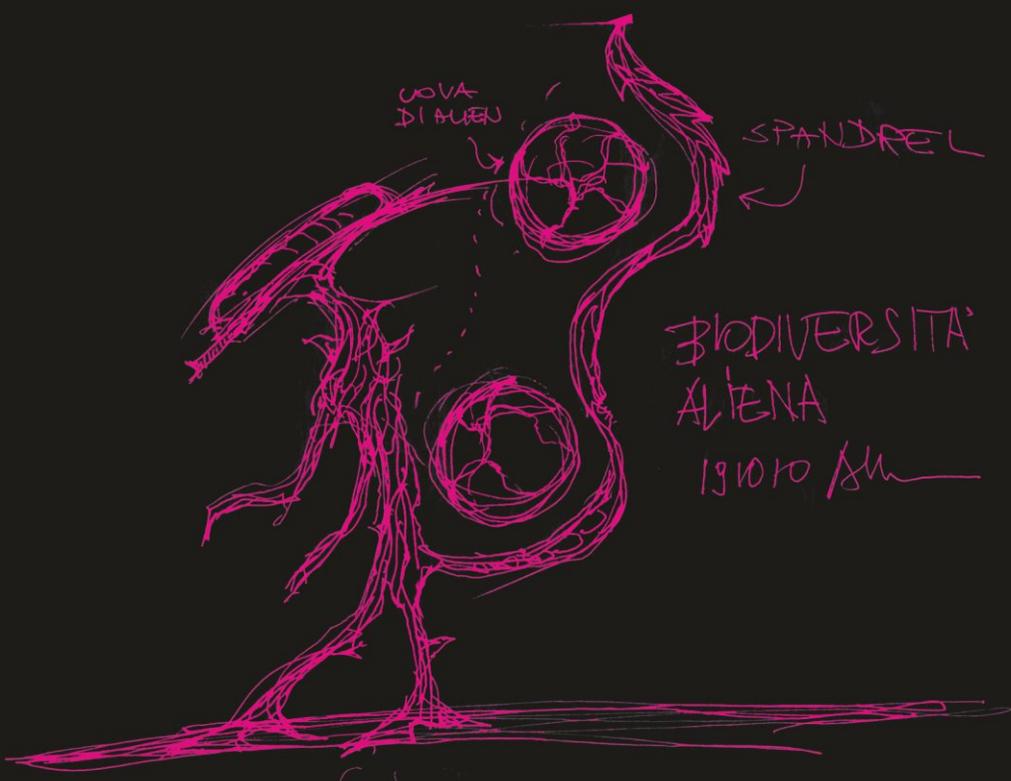
Architecture must make a significant contribution to improving the quality of life of all citizens, particularly at a time when we are being forced to face challenges of unprecedented proportions and urgency like those arising from climate change and the global pandemic. This is why the Ministry of Culture, through its Directorate-General for Contemporary Creativity, has promoted a research laboratory at the 2021 Italy Pavilion, for a multidisciplinary and shared reflection on these issues.

Curated by Hashim Sarkis, the 17th International Architecture Exhibition - La Biennale di Venezia investigates how, in the context of widening political divides and growing economic inequalities, we might imagine spaces in which we can generously live together.

Titled “Resilient Communities”, the Pavilion, curated by Alessandro Melis, sets out a reflection on Italian communities and their ability to transform and adapt, as has become necessary to respond locally to global challenges. Within twenty years our peripheries will have to transform increasingly into resilient communities, capable of positively combating modern-day social and environmental pressure. The Italian city is a model of excellence to be drawn upon for rethinking urban peripheries, which are now priority areas of complexity and risk for the country. And for them, strategies of use for dealing with the unprecedented problems architecture will have a grapple with must be found, in a necessarily transversal, multidisciplinary perspective.

These are the challenges that the 2021 Italian pavilion launches for the entire community: capitalizing on a heritage of knowledge, starting from the principles and the form of the compact and ecological Italian city; spreading the results of applied research even outside of disciplinary and academic settings; and a commitment to the concrete involvement of all levels of governance, from national, regional, and local institutions to civil society and active citizenship.





UOVA  
DI ALIENI

SPANDREL

BIODIVERSITA'  
ALIENA

191010 / SM

The 2021 Italian Pavilion is rooted in the belief that the climate crisis is the biggest challenge facing humanity. The architecture community has a responsibility to make its own contribution.

The effects of climate change, such as emigration and negative impacts on health within the next thirty years, will be the focus of the Resilient Communities exhibition.

In Italy, climate change is severely challenging the resilience of the agricultural system and the production of high-quality food, which greatly contributed in the past to the worldwide success of the Italian urban model.

The architecture and urban planning of the suburbs of the last eighty years are, also in Italy, a significant cause of CO2 emissions, impacting, among others, the increase in the frequency and power of extreme weather phenomena. This consideration also explains how pivotal the architect's role is.

The concept for the Italian Pavilion aims to explore what resilient communities are and how they operate, starting from those already present in Italy, as well as what strategies and resources can be put in place to positively face the biggest changes of our time.

The term "community" defines at the same time a physical place and a cohesive social context. The term "resilience" implies the capacity for transformation and adaptation necessary to respond locally to global challenges. This hypothesis of resilience, when applied to a geographical place with climate variations ranging from desert to alpine, joining the east and west of Europe, and lapped by three different seas, can make Italy a unique and transferable model of sustainable development.

**ALESSANDRO**

A. A. A. A.

**CURATOR OF THE 2021  
ITALIAN PAVILION**



fig. 01 - Alessandro Melis, Resilience and transdisciplinarity. Initial sketch of the curatorial installation "Spandrel", inspired by the research of paleontologist Stephen J. Gould (1979)



# exhibition sections

**Architectural Exaptation** is the title of the entrance section presented by Alessandro Melis, Benedetta Medas, Paola Corrias and Alice Maccanti. This section introduces the topic of Architectural Exaptation which is the leitmotif of the entire exhibition. As anticipated in the introductory paragraphs, the section intends to underline how diversity, variability, redundancy and inhomogeneity are the attributes of resilience, with reference to the “Niche Construction” principle. Creativity is understood, in this context, as a manifestation of associative thinking, the way of survival that man is able to activate in cases of environmental crises. Consistently, in the entrance section, biodiversity and art are presented as essential components of resilience.

The section on the **Dolomites Care**, presented by Gianluca D’Inca Levis, will illustrate the issues related to the storm Vaia, as well as the events that affected the Vajont and other communities in the Dolomite region.

The section will act as an observatory of the extreme conditions of the climate and environment and will explore how architecture can contribute to the mitigation of the aforementioned impacts. Project proposals related to these events will also be presented providing architectural solutions based on the principles of resilience.

The section **Decolonising the built environment** is coordinated by the collective RebelArchitette and Alessandro Melis and explains how a rich and varied team is fundamental in architecture, considering inclusiveness, diversity and the activity of female architects, still little recognised, as the key to face the crisis that humanity is experiencing at this moment. We are called upon to interact with an increasingly fragile system, where the problems linked to climate change and the social crisis, exacerbated by the recent pandemic emergency, have highlighted our gaps and responsibilities. Architects can contribute to the resolution of these issues by implementing a new collaborative logic, which can only materialise if it is the same profession that proposes itself as the first virtual and physical place for this change. Listening to diversity can free the architectural system from still deeply toxic dynamics that disadvantage not only the professional and academic environment, but also the proposed planning: it is up to us to change them to make ourselves credible agents of transformations of accessible, equitable and inclusive spaces.

The section **DESIGN (ING) “From the spoon to the city”**, coordinated by Paolo di Nardo and Francesca Tosi, focuses on media cities, design and the masters of resilience and restauration. The average Italian city is considered as a model of balance, and, therefore, of resilience, through the lessons of the masters of Italian architecture and a holistic approach that defines “the Italian way” to architecture that goes be-



yond the paradigms of the staircase, embracing design, architecture itself and urban planning in a continuous and compelling relationship of contrast between the existing and the new culminating in the topic of regeneration. Indeed, the Italian city represents a concentration of applied knowledge on resilience that can be tapped to remodel the urban suburbs and to reflect on contemporaneity and the challenges it poses to the future of architecture. The historical perspective is read and interpreted through the experiences of masters of organic architecture, radicalism and bio-architecture, such as Giovanni Michelucci, Vittorio Giorgini, Gianni Pettena and Massimo Pica Ciamarra. Furthermore, on the occasion of the 500th anniversary of the death of Leonardo Da Vinci, this section offers the opportunity to reflect on the concept of the invention of Leonardo's machine and, indirectly, on the ecological urban model he proposed in the second half of the 15th century.

The section **Architecture as Caregiver** presented by Antonino di Raimo and Maria Perbellini investigates the role of architecture in relation to health and wellbeing in the era of the Sustainable Development Goals established by the 2030 Agenda. Through an exhibition that involves architects such as Valentina Soana, Crilo, and Oren Lieberman, among others, the accent is here placed on the relationship between the body and the environment tout court. In fact, the exhibition structure of the Italian pavilion by sections, according to the perspective of climate-responsive design, revolves around three variables: the climate (read through the classifications), the condition of human comfort, and the design strategies finding a point of harmony between the first two variables without affecting negatively the availability of resources (for example, energy). Di Raimo's work, therefore, focuses on the second of the variables of the equation, deepening the topic both from a medical and philosophical point of view.

The section **Global South**, presented by Paola Ruotolo, showcases significant works of Italian architects who contribute to the resilience of sub-Saharan communities, which have the greatest exposure to climate change and the resulting social pressure. This section will display the

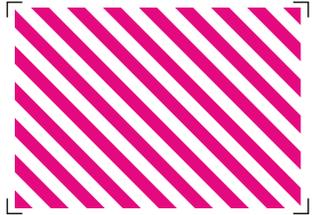
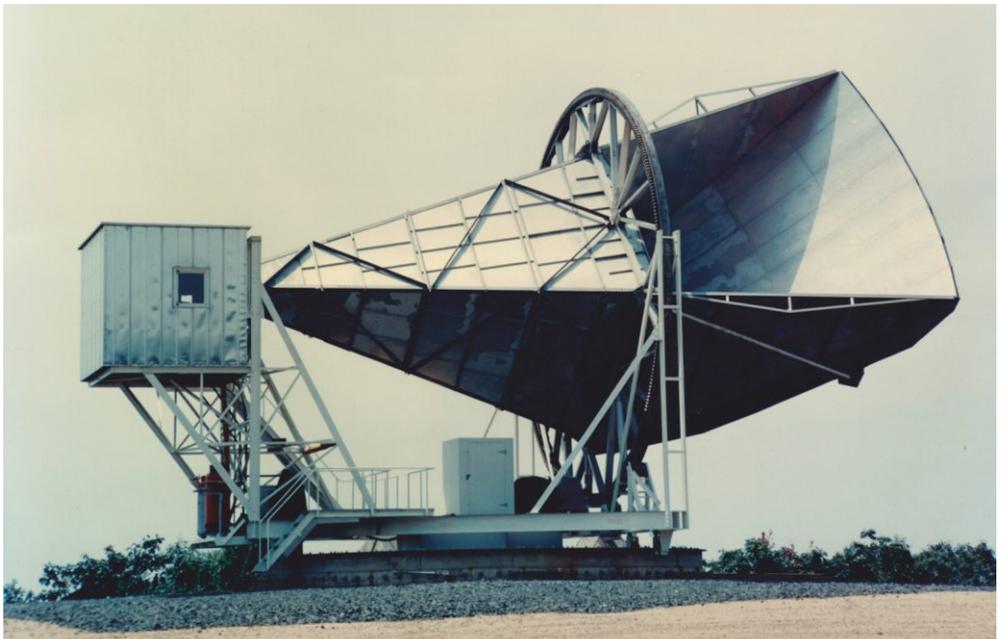


fig. 02 - Bell Labs' Antenna.  
"Reused with permission of Nokia Corporaon and AT&T Archives."



## EXHIBITION SECTIONS

works of Arturo Vittori, TAM Associati + ARUP, CODESIGNLAB by Paolo Cascone and Maddalena Laddaga, Giovanni Betti and Katharina Fleck, the project by Andrea Tabocchini and Francesca Vittorini, the photographic project by Filippo Romano, and, finally, the multimedia work by Eva Palacios. As in other cases, the latter is a cross-over work: in its contents it belongs to the Global South, but, in its methodology, it is also attributable to the Creative Arts section. A part of this section's funds was invested in the Warka Tower by Arturo Vittori for the production of water in Cameroon, which will concretely contribute to the resilience of a community in its territory. This work will be presented and documented through multimedia supports during the exhibition period by reducing the carbon footprint for that part of the set-up (warkawater.org).

The section **University: Resilience Agencies**, coordinated by Maurizio Carta and Paolo Di Nardo, explores the role of universities in resilience education. In an Italy, which is to all intents and purposes a nation of resilient communities fighting the challenge of global change, universities are epicentres of local community networks based on resilience, activators of an ecological Armor based on knowledge, policy agencies of innovation and sustainability. Universities and resilient communities can establish a collaboration, indeed a real alliance in which culture, education, research, creativity and innovation become powerful tools for reactivating the qualities and identities of communities, mitigating effects of climate change, stimulate social innovation and cultural creativity.

In the section **Storia di un Minuto**, Alessandro Gaiani, Emilia Giorgi, Guido Incerti, in partnership with Action Aid, explore resilience and seismic risk in Italy through a photographic exhibition, retracing the stages of a catastrophic event to help us recognise the signals arriving from our territory.

In the section **Italian Best Practice** Gian Luigi Melis, Margherita Baldocchi and Benedetta Medas will showcase a selection of works by Italian architects engaged in the themes of resilient design, intended as a relationship with the existing urban fabric and enhancement of the genius loci, but also as a response to a continuous change of the territory, with a focus on the introduction of new adaptive and sustainable models as a contribution to a future architectural heritage.

**Laboratorio Peccioli** is the section presented by Ilaria Fruzzetti, Nico Panizzi and Laura Luperi organised as a research laboratory and a performative space for spatial practices. The transformation of this experience also as an effective research centre, after the Biennale, will embrace the case of Peccioli as an opportunity to reflect on minor historical centres as models of development and ideal environments for experimentation through contemporary grafts within history.

Ingrid Paoletti is the coordinator of the section Tacit Ecology, which deals with technology and biodiversity.

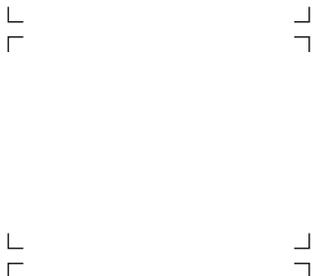


It is extended to the entire through the installation of several prototypes by various authors. These include *Plas city* by Niccolò Casas, *Urbansphere* by Ecologic Studio, *Mutual Aid* by Studio Mobile, *Learning from Trees* by the University of Auckland, and *Mat.Res*, a project coordinated by Paoletti herself. Inside the exhibition area is the second of the curatorial installations, *Genoma*, a real architectural machine that houses living organisms and is connected to external sources that continuously exchange relationships with the structure.

**Resilience, landscape and art** is the section coordinated by Annacaterina Piras (LWCircus) and Emanuele Monbeller (Arte Sella) which shows virtuous communities such as those of Arte Sella and Asinara as case studies, in which art becomes tools for enhancing the landscape and the resilience of places.

Dario Pedrabissi is the coordinator of the section **Giardino delle Vergini** dedicated to outdoor comfort and which includes the works of Giuseppe Fallacara and Pierandrea Angius for ZHA architects. The following section highlights different design approaches aimed at public space demonstrating a hostile environment in the contemporary city and characterised by targeted design choices and conscious use of materials.

The cross-over **Creative and Industrial Arts** section, presented by Benedetta Medas, Monica Battistoni, Dana Hamdan, J. Antonio Lara-Hernandez, unfolds along and throughout the entire Pavilion. It develops as an itinerant path within the Italian Pavilion, whose distinctive features act as a common thread for the other themes on display. The section intends to reinforce the curatorial concept as an interaction between architecture and elements from the industrial and creative arts, such as the graphic novel and gaming, whilst corroborating the polyphonicity of the pavilion's communication. This inclusion, in addition to emancipating pop culture, reinforces the polyphonicity of the pavilion's communication. Among the authors invited to this section there are authoritative names such as Riccardo Burchielli and Giacomo Costa, representatives of this union between architecture and industrial & creative arts. Another example of interdisciplinary contamination is the curatorial installation *Spandrel*, created in collaboration with the Botanical University Garden of Padua and the Botanical Garden of Pisa, a prototype halfway between an architecture and a living organism.



# design concept

The main aim of the concept is a low-impact exhibition for the Italian Pavilion. The strategy to achieve the goal includes the subtraction and integration of the exhibition components curated by Milovan Farronato (Biennale Arte 2019). The permanent relocation of all the existing components and the recycling and reuse of materials from demolitions are also envisaged. The Italian Pavilion therefore represents a unique opportunity not only to show works consistent with the objectives of the proposal, but also to study the life cycle of a building designed using the principles of resilience.

Accordingly, multimedia devices will be used to describe the selected projects and to minimize the conventional display modes of the design communication.

Another aspect regards the exhibition catalogue, conceived and produced following the same low-impact strategy. In fact, it can be considered ecological and sustainable thanks to the use of zero-CO<sub>2</sub> recycled paper. To compensate for the carbon dioxide emissions produced on this occasion, a sufficient number of trees will be planted. In addition, thanks to the Japanese binding technique, there will be no use of glue.



fig. 03 - Zero impact Italian Pavilion. Axonometry with indication of the maintenance of 80% of the plasterboard structures of the Italian Pavilion 2019 and the recovery/ recycling of the remaining 20%



**ENVIRONMENTAL CRISIS**

**TECHNOLOGY INNOVATION**



Toscana  
Puglia  
New York

RESILIENT COMMUNITY  
RESEARCH CENTRE  
PECCIOLI

Sardegna  
Trentino  
Florida

**ECOLOGY**

FOOD  
ENERGY  
WATER  
WASTE  
NEXUS

DESERTIFICATION  
SEA LEVEL RISE  
EXTREME CLIMATE



organic  
materials

Subsaharian  
Region  
Lombardia  
Canada

Veneto  
Dolomiti

SEISMICITY  
AIR QUALITY

Abruzzo  
New Zealand

computation

**BUILT ENVIRONMENT**

Italian compact cities

Lazio  
Calabria  
Portsmouth

Oceans  
Egypt  
Sicilia  
Korea

**SOCIAL PRESSURE**

JUSTICE  
EQUITY  
INCLUSION  
DIVERSITY

comics  
music  
cinema  
theatre

deep time

BIODIVERSITY  
EXAPTATION  
VARIABILITY  
REDUNDANCY

**CREATIVITY**

COMMUNICATION  
ARTS  
IMPACTS

**HEALTH**

## Decalogue of the contents of the Italy 2021 Pavilion

- 01 **CLIMATE CRISIS:** The 2021 Italian Pavilion is based on the belief that the climate crisis is the greatest challenge facing humanity. The architecture community has a responsibility to make its own contribution to overcoming the crisis.
- 02 **EXPERIMENTATION AND RESEARCH:** Maintaining the status quo is not an option. Experimentation, research and challenging the paradigms of contemporary society are crucial in architectural practice.
- 03 **TRANSDISCIPLINARITY:** The curatorial project indicates in the architect a figure of synthesis capable of transforming transdisciplinary knowledge into visions. Overcoming the crisis requires the use of associative thinking (Pringle, 2014) and transdisciplinarity ("polygraphism"), a declaration of non-responsibility considering that more than 40% of emissions are due to construction, including transport and production of materials. "Everything is architecture" (Hollein, 1968) because architecture is synthesis.
- 04 **RESILIENCE:** The curatorial project favours resilience over sustainability. Awareness of the limits of resources is taken for granted. The Italian pavilion, therefore, intends to promote a radical rethinking of the urban fabric, and its relationship with the troposphere, to transform communities into virtuous open systems that react to climate and social changes already underway and in continuous transformation (resilience).
- 05 **COMMUNITY:** The word "community" replaces those of "cities" and "buildings" because it represents the minimum unit of intervention in which the social and spatial dimensions converge. It also represents the meeting place for the application of participatory policies.
- 06 **HEALTH:** The Covid-19 pandemic confirmed the relationship between the environmental crisis and health impairment. Professional practice and architect education must be re-founded on the awareness of the inseparable link between ecology and health. In the next years, the virus spill-over due to contacts with reservoir animals will be only one of the negative impacts of the climate crisis on our health, and probably not the worst. The reduction of fresh water, the release of viruses from the polar ice caps, the tropicalisation of the climate, and the increase in pollution will be just some of the direct health consequences due to environmental changes. However, the aforementioned impacts can, in fact, all be mitigated through design, if the architect can interpret his role in a strategic and systemic way, as a summary figure capable of transforming transdisciplinary knowledge into visions. A radical spatial reconfiguration of the built environment of the communities is an opportunity for the positive development/transformation of the current energy-intensive urban metabolism into a circular metabolism through revolutionary projects that also include the recycling and regeneration of resources. There are limitless opportunities for future change if the seventeen United Nations Sustainable Development Goals are kept in mind.
- 07 **EQUITY, INCLUSIVITY AND GENDER BALANCE:** Social pressure, emigration on a social scale and conflicts are only some of the most immediate consequences of climate change which can be mitigated by the design of the built environment. Gender equity is, for example, an ethical goal as well as a tool for mitigating the impacts of global crises.
- 08 **RADICALISM, LIVING WITH NON-HUMAN SPECIES, ARTIFICIAL AND ROBOTIC INTELLIGENCE:** The architecture of the future will no longer define an object, unique and recognisable, autonomous, but will be an integral part of a hybrid landscape generated by variations of the urban continuum, which will also include the presence of non-human species, artificial intelligence and robotics and which will imply reconfiguration processes aimed at adapting to extreme environmental conditions. From "chief builder" to "builder of ideas", the future architect will assume a strategic role in the construction of the city visions. Equity, understood as an opportunity to let what have so far been the most marginalised parts of society (women, youngsters, inhabitants of the Global South) express themselves, is an opportunity to harness the energies least compromised by the inertia of conventional society. In this sense, the pavilion's radicalism must be interpreted as an instrument of emancipation.
- 09 **ECOLOGY AND ARCHITECTURAL EXAPTATION:** The Italian pavilion, through ecology, aims to challenge the conventional paradigms that regulate the relationship between man and habitat. The principles of physics (especially fluid dynamics), biology, botany and medicine must contribute to overcoming the autonomy of architecture, based on obsolete dichotomies such as rationality-organicity, artifice-nature and empty-full. Diversity, variability, redundancy, inhomogeneity and functional co-optation as a manifestation of exaptation are essential conditions for imagining an intrinsically ecological and resilient architecture.
- 10 **HISTORY:** The knowledge embedded in the Italian historic city is already a compendium of ecology applied to urban planning: the idea of a compact city, mixed use, the public space as an extension of indoor space, the green space also intended as a productive space integrated in the urban fabric. The pavilion intends to explore the aforementioned cultural heritage, which was largely abandoned after the Second World War but has been rediscovered in more recent years through critical positions on modern cities promoted by sociologists and urban planners like Jane Jacobs, Kevin Lynch and Christopher Alexander.

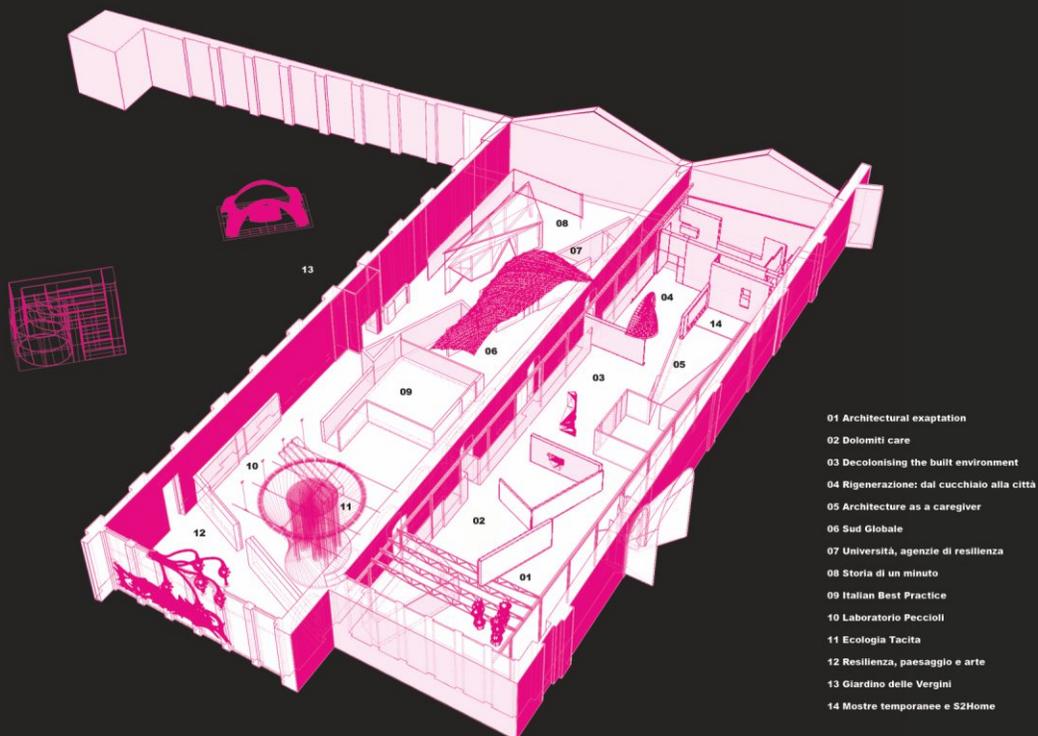


Fig. 04 - Resilience and transdisciplinarity. Italian Pavilion as a laboratory. Axonometry with the indication of the position of the functional installation or prototypes

# MINISTRY OF CULTURE

## Minister of Culture

Dario Franceschini

## Under Secretary of State

Lucia Borgonzoni

## Head of the Cabinet

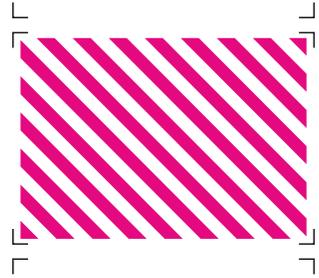
Lorenzo Casini

## General Secretary

Salvatore Nastasi

## Head of Press Office and Communications

Mattia Morandi



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Onofrio Cutaia

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**Director Unit 2 - Contemporary Art**  
Sandra Suatoni

**Director Unit 3 - Contemporary Architecture**  
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**Communication and Press Office**  
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Francesca Galasso

*Thanks to*  
Esmeralda Valente  
for the General coordination in the years 2019-2020



# italian pavillion

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## Production

La Biennale di Venezia

## Commissioner

Onofrio Cutaia

## Curator

Alessandro Melis

## Deputy Curator

Benedetta Medas

## Exhibition Sections

### Concept Architectural Exaptation

Alessandro Melis, Telmo Pievani

### Architectural exaptation

Alessandro Melis, Benedetta Medas, Paola Corrias, Alice Maccanti

### Dolomiti Care

Gianluca D'Inca Levis

### Decolonising the built environment

RebelArchitette, Alessandro Melis

### DESING(ING): from the spoon to the city

Paolo Di Nardo, Francesca Tosi

### Architecture as caregiver

Antonino Di Raimo, Maria Perbellini

### Global South

Paola Ruotolo

### University: Resilience Agencies

Maurizio Carta, Paolo Di Nardo



**Storia di un minuto**

Alessandro Gaiani, Emilia Giorgi, Guido Incerti



**Italian Best Practice**

Gian Luigi Melis, Margherita Baldocchi, Benedetta Medas

**Laboratorio Peccioli**

Ilaria Fruzzetti, Nico Panizzi, Laura Luperi



**Tacit Ecology**

Ingrid Paoletti



**Resilience, landscape and art**

Annacaterina Piras, Emanuele Montibeller

*With:* Giacomo Bianchi, Laura Tomaselli

**Giardino delle Vergini**

Dario Pedrabissi



**Industrial and Creative Arts – cross-over section**

Benedetta Medas, Monica Battistoni, Dana Hamdan, J. Antonio Lara-Hernandez

**DataFrame**

Guido Robazza, Filippo Lovato, Gustavo Romanillos

*With:* Aina Barcelo, Dana Hamdan, Copernicus images: IUSS Pavia – CIRTA Research Centre, Andrea Taramelli, Emiliana Valentini, Margherita Righini, Laura Piedadlobo, Emma Schiavon, Clara Armaroli



**Mapping Resilient Communities**

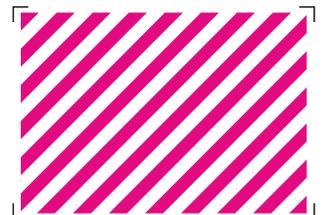
Luisa Bravo

*with:* Roberta Franceschinelli, Fondazione Unipolis, Simone D'Antonio, ANCI – National point URBACT Italy

*in collaboration with* City Space Architecture and UN-Habitat, the program on human settlements of the United Nations

**Installation Design**

Heliopolis 21



**Project Management**

Gian Luigi Melis, Alessandro Melis,

*with:* Paolo Di Nardo, Simone Chietti, Liam Donovan-Stumbles, Barbara Melis, Ilaria Fruzzetti, Dana Hamdan, Laura Luperi, Filippo Mariani, Nico Panizzi



**Management sponsor and relations with companies**

Simone Chietti

**Project Collaboration**

Margherita Baldocchi, Monica Battistoni, Pietro De Pasca, Alice Maccanti, Benedetta Medas, Lorenzo Parrini, Roberto Poziello, Martina Mancini, Lorenzo Pucci



## Curatorial installations

### **Cyberwall**

Alessandro Melis/Heliopolis21

Partnership: Iris Ceramica Group

### **Genoma**

Alessandro Melis/ Heliopolis21

PNAT, Liam Donovan-Stumbles, Dzhumhur Gyokchepanar

*With* Alberto Favretto

*Partnership:* Arte Sella

*Technical advisor:* Gyokay Ahmed

### **Spandrel**

Alessandro Melis/ Heliopolis 21,

Liam Donovan-Stumbles, PNAT

*With* Dzhumhur Gyokchepanar, Monica Battistoni. Patryk Ciemierkiewicz,

*Partnership:* Orto Botanico, University of Padua - World Heritage List

### **Scientific advisor:**

Ian Hands-Portman Communication Coordination

Paolo Arrigoni

### **Social Media**

Benedetta Medas, J. Antonio Lara-Hernandez, Nicoletta Podda

### **Website, Design and Video Production**

Dirty Work

Web design-Grafica-Comunicazione

### **Catalogue**

D Editore

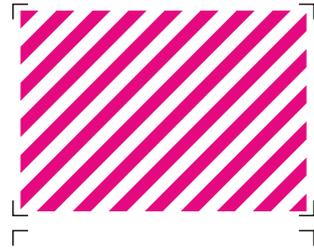
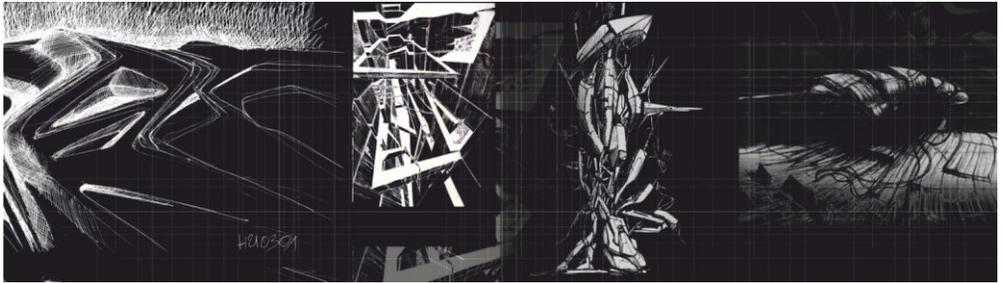


fig. 05 - Riccardo Burchielli, Tainted Identity (working title), in collaboration with the Research Center of Resilience of Peccioli.

#### CONCEPT

A violent gash on a probable future in which contamination affects the bodies even before the spaces. A tale of the disaster, both organic and inorganic, of a world that did not make it. Where human, because of his disastrous management of the environment, is transmuted and is born, with a desperate cry, already corrupt.





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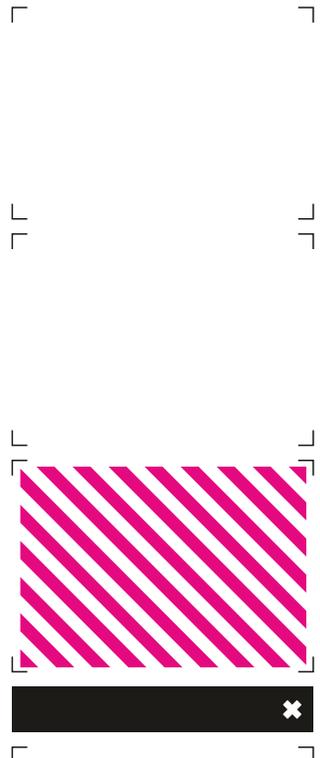
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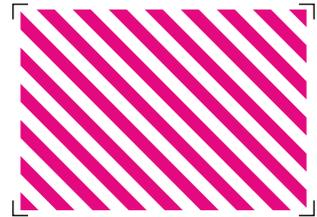
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fig. 06 - Cyberwall. The Cyberwall is the curatorial installation in which the Industrial and Creative Arts get visibility, in a measure of experimentation and research produced by Heliopolis 21 on high-performance ceramic surfaces ACTIVE SURFACES by Iris Ceramica Group.



# Set-up

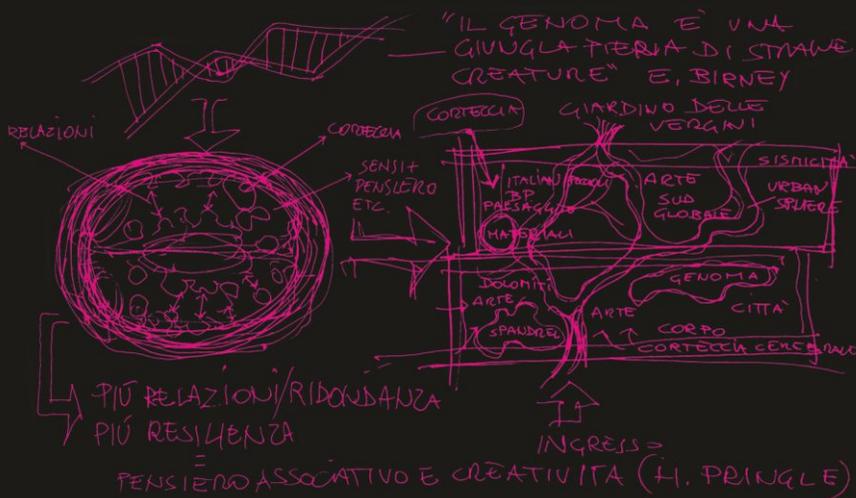


The pavilion is divided into two theme areas which complement each other. The first reflects on the state of the art, and on urban resilience in Italy and in the world; the second explores future perspectives, research and visions.

In both cases, as proposed by the curator of the 2020 Biennale, Hashim Sarkis, the experiential and immersive aspect will be preferred.



fig. 07 - Resilience and creativity. Initial sketch of the project as "Jungle inhabited by strange creatures" (Cit. E. Birney, 2012)



- 01 **PLATFORM:** The Italian pavilion is a platform, not just an exhibition. The volume, the organisation of the curatorial team, the display modalities, the use of materials and the ethics of the platform must be consistent with the content. The design objectives have been addressed in the following ways.
- 02 **COLLECTIVE WORK:** The Italian Pavilion is designed to be the first resilient community according to the Resilience Charter ratified in Peccioli in November 2019. In compliance with the ethical principles of inclusiveness and justice, and to guarantee a fair process of works selection, the pavilion is conceived as an immersive and collective design and relies on a curatorial team whose members are in charge of the different sections in which the theme of resilience is articulated. The traditional exhibition displays, with the exception of the "Italian Best Practice" section, are replaced by the idea of research centres, laboratories and public spaces. It is expected that these will actually be activated in the localities that are displayed in the exhibition.
- 03 **REDUCTION OF EMISSIONS:** The pavilion is an agent consistent with the objectives of the contents. It is designed to reduce emissions through the reuse of art exhibition materials. At the end of the exhibition, all the materials will be reused to minimise transport to landfills.
- 04 **INTERNATIONALITY:** Being based on systematic processes, as well as ethical, ecological and resilience approaches, the design aims at both national and global-international benefits. The curatorial project encourages the involvement of young people, especially women, from all over the world and collaboration with institutes and organisations that have internationally engaged in promoting issues related to resilience.
- 05 **ARCHITECTURAL EXAPTATION:** The exhibition project is inspired by Ewan Birney's definition of the genome as a "jungle full of strange creatures". The design is, therefore, derived from the principles of evolution biology, consistent with the transdisciplinary contents of the curatorial proposal. Rather than representing a coherent, self-referential, homogeneous design aesthetic, often the result of a conventional aesthetic vision, the project encourages inclusiveness, variability, diversity and redundancy as an opportunity for reflection even beyond curatorial expectations, according to the principle of Stephen Gould's "exaptation". The genomic condition and transdisciplinary approach favour associative thinking as a mode of creativity that is necessary to overcome global crises.
- 06 **IMMERSIVITY:** Thematic installations are integrated in the recycled plasterboard palimpsest. Each installation is a prototype-laboratory, potentially applicable to architecture beyond its symbolic and metaphorical meaning. Each installation is, therefore, an opportunity for immersion within a scaled experimental architectural fragment.
- 07 **IMPACT:** The aim of the curatorial project is its impact, meant as a research benefit for the community beyond architecture academia and practice. The activities preceding and following the exhibition contribute to this scope. These include the foundation of the Research Centre on Resilient Communities and the publication of the Charter on Resilient Communities.
- 08 **CREATIVE AND INDUSTRIAL ARTS:** The project uses several art, aesthetic and expressive qualities as meta-textual communication tools to increase its impact. The curatorial project proposes to integrate the conventional architecture exhibition with elements coming from the creative and industrial arts, traditionally neglected in the Italian cultural panorama. The pavilion also welcomes the challenge on global communication currently underway and acts as an amplifier of the world of research, cohesive in sharing the criticality of climate change, in opposition to disinformation that often uses mass tools to influence political decisions and general consensus. In this sense, the pavilion encourages the dissemination and use of mass communication tools to maximise the influence of scientific research.
- 09 **EDUCATION:** Because of the crisis, and, therefore, of the obsolescence of knowledge of the last eighty years, education is more important than teaching intended as simple knowledge transfer. The educational intents of the Italian Pavilion encourage the visionary potential of the students, who, thanks to their lower compromise with conventional and counterproductive knowledge, can operate as effective researchers and agents of a positive transformation of the future society.
- 10 **CREATIVE SERENDIPITY** The aesthetic inhomogeneity and fragmentation, as a result of the diversity, variability and redundancy of the creative systems conceived through architectural exaptation, are used as tools to promote creative serendipity. The Crawford Hill Antenna is a paradigmatic case study and a pivotal precedent for the Italian Pavilion.

# biography

## Alessandro Melis



Alessandro Melis is a Full Professor of Architecture Innovation at the University of Portsmouth (UK) and Director of the Cluster for Sustainable Cities.

Previously, Alessandro was Head of Technology and Director of Postgraduate Engagement at the School of Architecture and Planning of the University of Auckland, Co-director of the Brain City Lab programme at the University of Applied Arts Vienna, a Guest Professor at Anhalt University Dessau and an Honorary Fellow at the Edinburgh School of Architecture. The relevance of Alessandro Melis's contribution to research on the resilience and regeneration of the urban fabric is corroborated by over one hundred and thirty scientific publications, by at least as many citations in popular publications such as Wired, the New York Times, The Independent, L'Espresso and Corriere della Sera, and from invitations to give lectures at institutions such as MoMA in New York, the Foster Foundation, UNESCO, the Italian Embassy in Paris, the Italian Institute of Culture in London, TED and universities such as the China Academy of Art and Cambridge.

A monograph on his work entitled "Alessandro Melis Utopic Real World" has recently been published.

Alessandro founded, with Gianluigi Melis, the practice Heliopolis 21 studio, which today involves the partners Nico Panizzi, Ilaria Fruzzetti, Filippo Mariani and Laura Luperi. The SR1938, the Stella Maris institute in Pisa, Fonte Mazzola in Peccioli and the Trentino trade fair extension are among the best known projects of Heliopolis 21.

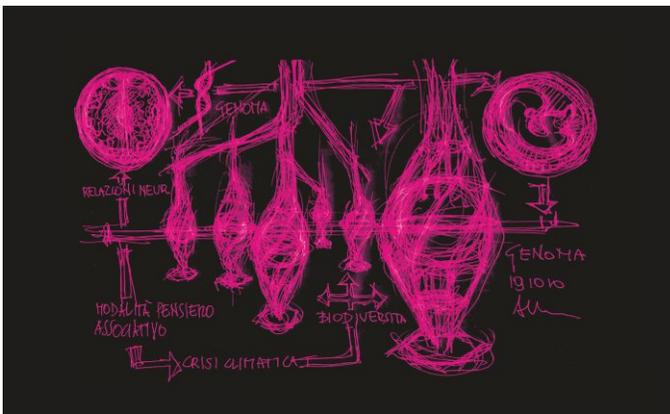
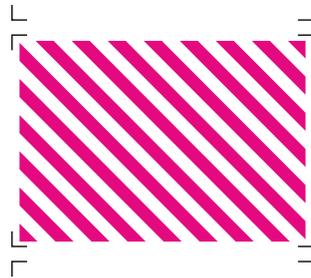
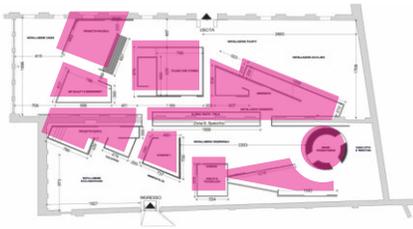
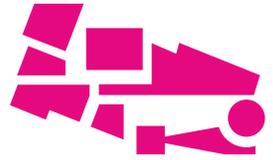


fig. 08 - Resilience and transdisciplinarity.  
Sketch of the installation "Genome" as a link between biological sciences and creative arts.





## genesis of Logo



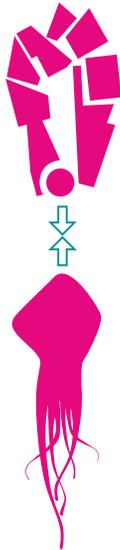
*Plan diagram of the Italian Pavilion as representation of the Italian compact city. Resilience and communication.*

Artificio  
Natura  
Sistema Antropico  
Sistema Naturale

elaborazione

**natura**

**artificio**



**natura**

**artificio**

*Resilience and communication. Representation of ecology as an alliance between artifice and nature*



# Belvedere

S.p.A.  
innovazione • progetti • sviluppo



La società Belvedere è il perno centrale del 'Sistema Peccioli', un'esperienza di governance territoriale e visione industriale entrata da tempo nei radar delle istituzioni internazionali.

È stata l'intuizione politica a trasformare la presenza di una grande discarica non gestita in un esempio di recupero, gestione, programmazione e innovazione di una nuova 'industria verde'.

Nata nel 1997 per volontà del Comune di Peccioli, la società Belvedere ha rinnovato, ampliato e diversificato l'impianto di smaltimento dei rifiuti, ha istituito un sistema di gestione trasparente, partecipato e ad azionariato diffuso, si è votata all'innovazione e si è data una precisa mission statutaria: lo sviluppo del proprio territorio.

Uno sviluppo che ha nel mirino i 17 obiettivi di sostenibilità ONU 2030 e che si traduce nella fornitura di energia elettrica e termica al territorio da fonti rinnovabili, nella realizzazione di infrastrutture civiche, opere pubbliche e servizi sociali diffusi, nella tutela e nel recupero del patrimonio paesaggistico, nella trasformazione del territorio pecciolese in un grande museo di arte a cielo aperto, in polo culturale d'eccezione e in laboratorio di innovazione.

La Belvedere riversa la sua potenza economica sul 'grande bene comune', ossia l'Alta Valdera: centinaia di milioni di euro negli ultimi due decenni. Favorendo benessere diffuso, senso di appartenenza, partecipazione alla cosa pubblica e migliorando la vita di abitanti e turisti.

La Belvedere, oggetto di innumerevoli studi e pubblicazioni, è al centro di un processo metabolico che ha trasformato lo scarto in una risorsa su cui investire, dando vita a un modello virtuoso di sviluppo locale, ma replicabile, dagli altissimi indicatori di circolarità e resilienza.



**Belvedere S.p.A.**  
[www.belvedere.peccioli.net](http://www.belvedere.peccioli.net)



# DELTALIGHT®



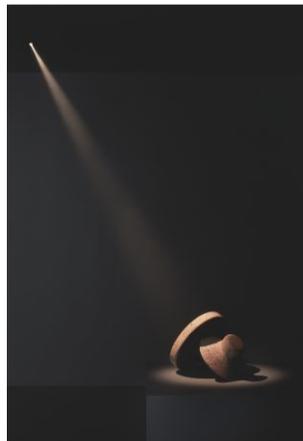
Il padiglione Italia è una realizzazione nata con un approccio di resilienza, lo stesso principio che ogni giorno guida lo sviluppo di Delta Light. Sappiamo bene che il nostro è un business strettamente correlato con valori quali la sostenibilità, la salute dell'individuo e la salvaguardia dell'ambiente ed è per questo che trattiamo questi temi come valore aziendali e priorità. Una sostenibilità riconosciuta e premiata con il Lighting For Good Awards sia nel 2019 che nel 2020 e la Silver Medal del prestigioso valutatore indipendente Ecovadis.

L'illuminazione del padiglione Italia nasce da una storia raccontata da Alessandro Melis e concepita dallo studio ARX con Heliopolis 21 per essere declinata in luce da Delta Light: un intreccio di relazioni, risorse, opportunità e prospettive illuminato da noi, con le nostre soluzioni di illuminazione create per migliorare la vita delle persone, con passione e dedizione inseguendo il sogno del nostro fondatore Paul Ameloot.

La nostra interpretazione di comunità, la nostra idea di resilienza attraverso la filosofia più intima dell'azienda, quel pure lighting pleasure spirit, che ha reso una piccola azienda belga nata nel 1989 una realtà internazionale.

Delta Light partecipa al progetto delle Comunità resilienti per una nuova tassonomia dell'architettura, intrinsecamente ecologica, transdisciplinare, adattativa. Un manifesto di diversità, variabilità e ridondanza con cui il padiglione Italia sfida la omogeneità dell'estetica tradizionale, un manifesto illuminato da Delta Light.

Come nella nostra Lighting Bible 14, il nostro manifesto della luce, Delta Light intraprende nel padiglione Italia un viaggio tra immaginazione e creazione.





# IRIS CERAMICA GROUP



Iris Ceramica Group è leader mondiale nella produzione di superfici ceramiche ad alte prestazioni e dalla bellezza autentica da 60 anni.

Il Gruppo ha sede a Fiorano Modenese con siti produttivi in Italia, Germania e Stati Uniti ed è presente in oltre 100 paesi nel mondo con un'ampia scelta di soluzioni progettuali: dal settore contract al wellness, dall'hospitality al residenziale, dalle grandi opere di architettura pubblica fino al design furniture, per rispondere a tutte le esigenze del costruire e dell'abitare contemporaneo.

Iris Ceramica Group annovera tra i suoi brand i più importanti player nel panorama internazionale del settore design e architettura come Ariosteia, Fiandre Architectural Surfaces, FMG Fabbrica Marmi e Graniti, Iris Ceramica, Porcelaingres, SapienStone, StonePeak e il più recente SeventyOnePercent, dedicato alla progettazione di esperienze inedite nel settore wellness & bathroom di elevato profilo.

Il Gruppo si fa portavoce di una cultura, che pone al centro la ceramica come uno dei materiali più nobili esistenti in natura, che accompagna l'uomo sin dalla scoperta del fuoco attraverso le sue evoluzioni nelle ere geologiche che si sono susseguite.

Iris Ceramica Group rappresenta una visione lungimirante che ha radici nel carattere pionieristico dell'azienda che ha saputo creare con coraggio materiali e applicazioni inediti, aprendo alla ceramica nuovi mercati d'utilizzo. Questa identità, che racchiude design, arte ed ingegno, la si può ritrovare nei flagship store Iris Ceramica Group presenti nelle principali città internazionali come Londra, Berlino, New York e Milano, quest'ultimo inaugurato a settembre 2020.

Innovazione, qualità e sostenibilità sono valori che trovano espressione reale nell'abilità di saper precorrere i tempi a favore di un'evoluzione materica che delinea il futuro dei materiali e loro applicazioni, rimanendo pur sempre ben saldi agli elementi della natura: fuoco, acqua e terra.





# Peccioli per

L'ARTE, LA CULTURA, LA SOLIDARIETÀ

FONDAZIONE  
COMUNE DI PECCIOLI  
BELVEDERE SPA



La Fondazione Peccioli per l'Arte è un progetto che fa della promozione culturale e della tutela del paesaggio strumenti strategici per la valorizzazione del territorio di Peccioli, lontano dai grandi centri e flussi turistici.

Fondata nel 2004 per volontà del Comune di Peccioli e di Belvedere S.p.A., la Fondazione è divenuta perno centrale di un sistema di promozione artistica, culturale, musicale, espositiva e di spettacolo di livello internazionale.

Dalla gestione del Polo Museale di Peccioli alla creazione di iniziative pubbliche di grande richiamo, dalla convegnistica alla formazione dei giovani, dai laboratori diffusi all'ideazione di prodotti multimediali, la Fondazione Peccioli per l'Arte è il motore di un fervore culturale a tuttotondo a beneficio dell'intero territorio dell'Alta Valdera.

Rassegne quali 11Lune, 11Lune d'Inverno, Pensavo Peccioli, Potrebbe andare Peccioli, Voci richiamano ormai abitualmente intellettuali, giornalisti, scrittori, politici, economisti, musicisti e artisti dall'Italia e dal mondo.

Spettacoli e concerti, pièce teatrali e appuntamenti con grandi personalità sui temi di attualità e costume, fino alla creazione di un sorprendente circuito museale d'arte e architettura a cielo aperto, sono tutte attività che hanno reso il territorio dell'Alta Valdera protagonista di una lotta contro la marginalizzazione delle aree agricole periferiche e interprete di una condotta davvero singolare per il recupero e il rilancio delle dinamiche demografiche, sociali, culturali ed economiche locali.

La Fondazione Peccioli per l'Arte, grazie alla ricchezza, alla varietà e alla serietà dei progetti realizzati, ha accompagnato un intero circondario e la sua storia a confrontarsi con le arti, le scienze e gli scenari globali, assumendo un ruolo strategico in una paziente, indispensabile e lungimirante operazione di resilienza comunitaria e territoriale.

La Belvedere, oggetto di innumerevoli studi e pubblicazioni, è al centro di un processo metabolico che ha trasformato lo scarto in una risorsa su cui investire, dando vita a un modello virtuoso di sviluppo locale, ma replicabile, dagli altissimi indicatori di circolarità e resilienza.

**Fondazione Peccioli per l'Arte**  
**[www.fondarte.peccioli.net](http://www.fondarte.peccioli.net)**





## CREATIVE DESIGN & ADVANCED TECHNOLOGY

L'impulso creativo del Visual Designer Paolo Buroni e la conoscenza tecnologica di Stark, incontrano la Biennale di Architettura 2021 con la mostra "Comunità Resilienti" all'interno del Padiglione Italia.

Di fronte agli importanti cambiamenti delle società nella nostra epoca, la ricerca di Stark si pone l'obiettivo di migliorare le esperienze individuali e collettive operando sull'integrazione tecnologica nell'architettura e nel modo di abitare.

Ne sono un esempio gli ologrammi e i sistemi Stark ImageWall che ridefiniscono ed interpretano completamente gli spazi, sia interni che esterni. Soluzioni, che trovano sempre più riscontro in quei progetti dove vi è l'esigenza di ambienti immersivi, tecnologici e flessibili, permettendo la trasformazione della percezione dello spazio.

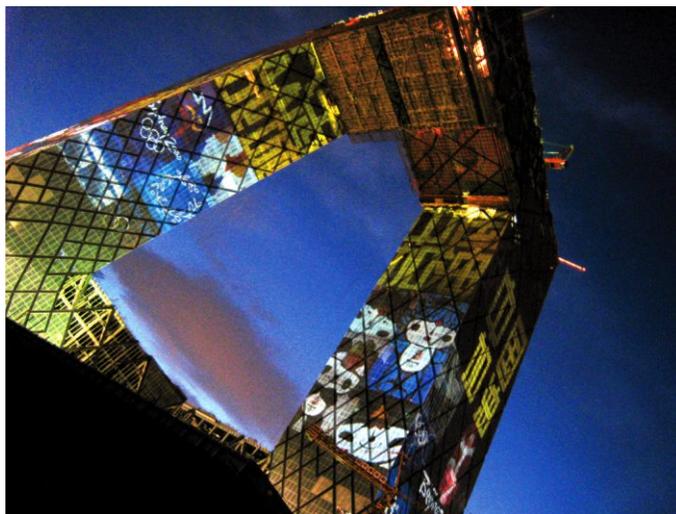
Stark, assieme al suo fondatore Paolo Buroni, collabora con i più importanti clienti di tutto il mondo e vanta un curriculum trentennale nell'ambito museale, residenziale, navale, della moda, oltre che in quello degli eventi internazionali, intrecciando incessantemente lo sviluppo tecnologico e la creatività italiana.

In occasione della Biennale, Stark condivide il proprio know how e le proprie tecnologie per realizzare installazioni multimediali con soluzioni di interazione touchless, schermi e proiezioni.

Attraverso i sistemi interattivi Stark Library, i visitatori possono approfondire in maniera attiva e spettacolare i contenuti proiettati con un semplice gesto della mano nell'aria, sfogliando virtualmente i contenuti di circa 25 università del mondo.

Questa ed altre installazioni sono fruibili durante il percorso dell'esposizione dove il gesto umano, il mondo digitale e l'ambiente si fondono in un'esperienza interattiva, immersiva ed emozionale, unica nel suo genere, come unico è l'evento della Biennale.

[stark1200.com](http://stark1200.com)  
[paoloburoni.com](http://paoloburoni.com)





**D Editore**

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**PADIGLIONE ITALIA**

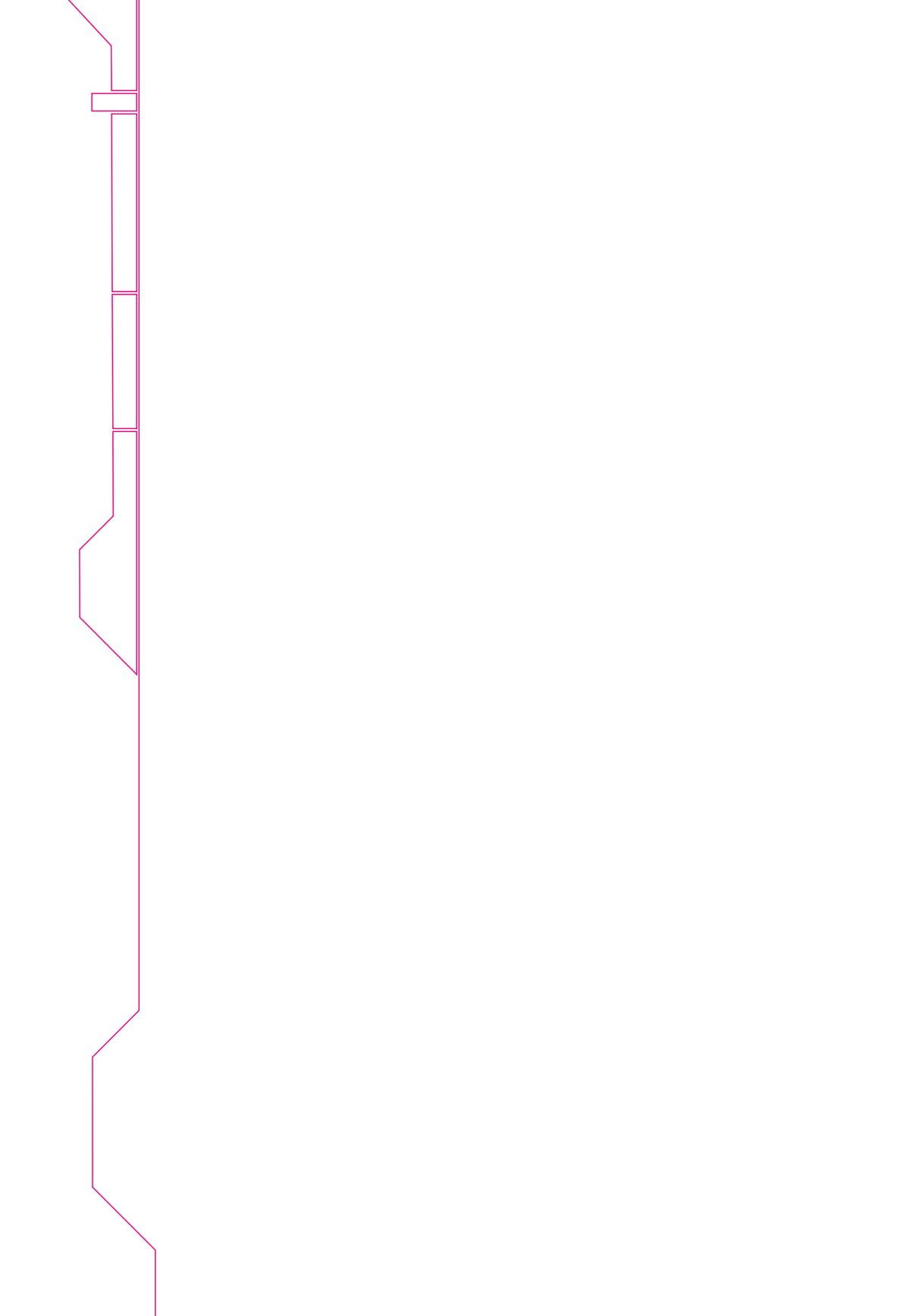
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