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Dear Colleagues,

I am honored to invite and send you this call for papers on behalf of Congress Organization Board of “7th International Conference on New Trends in Architecture and Interior Design (7th ICNTAD’21)”, to be held as based on Online Presentations dates between October 2-3, 2021

The Conference will focus on a broad range of topics related to new trends in architecture and design. The Conference organizers invite papers and presentation proposals relevant to conference themes. Considering the theme of the conference, papers with any of the following or related subjects would be appropriate for presentation:

- Criticism of sustainability/unsustainability
- The architecture of philosophy/architecture without philosophy
- Professional settlement of interior architecture
- Human contact to space with furniture
- Intangible skin of space: lighting design
- Tangible skin of space: material
- Ideology in architecture or architecture of ideology
- Spaces without space: 3D design
- The artistic value of space
- Architecture without architect
- Cultural codes / architecture
- Post-COVID Architecture & Interior Design
- Post-COVID Design Education Models
- Spatial Reflections of Pandemics/Epidemics in History

The 7th International Conference on New Trends in Architecture and Interior Design Conference (7th ICNTAD’21), aims to bring together experts from several institutions such as universities, administrative organizations, architects, engineers and designers, at the framework of conference topics of building, architecture, interior design, product, material, etc. High-level academicians, professionals and design students from around the world will explore the intersection of design, architecture and best practices with leaders from the design professionals. The participation of early-career scholars and postgraduate researchers is also positively encouraged.

We kindly wait for your attendance to our congress to be held on October 2-3, 2021, with a hope to realize a satisfactory congress with its scientific ones and leaving a trace on your memories.

Regards

Prof. Dr. Burçin Cem ARABACIOĞLU

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7TH INTERNATIONAL CONFERENCE ON NEW TRENDS IN ARCHITECTURE AND INTERIOR DESIGN	
A NEW DESIGN CHALLENGE – OFFICE IN THE 21TH CENTURY	
Negar Aghayouf, Guita Farivarsadri.....	14
DESIGN-BUILD RESEARCH FOR REDUCING THE CARBON FOOTPRINT OF HOME RENOVATIONS	
Tibor Zoltán DÁNYI	25
PREFABRICATION AND NEW GENERATION HOUSING DESIGN CRITERIA IN INTERIOR ARCHITECTURE.....	
Didem YANARATEŞ BAŞ, Didem KARAGÖZLER.....	34
SUSTAINABILITY AND RESILIENCE OF TRADITIONAL TIMBER STRUCTURES IN EARTHQUAKE PRONE REGIONS OF CONTINENTAL CROATIA.....	
Marina ŠIMUNIĆ BURŠIĆ.....	44
CHILDREN AND PLAY IN THE CITIES OF THE 21ST CENTURY: LISBON CITY.....	
Berfu Güley GÖREN SOARES, Francisco SERDOURA.....	55
SUSTAINABILITY AND ENVIRONMENTAL TRANSITION:	
PRINCIPLES AND DESIGN GUIDELINES	
Rosa Maria VITRANO	66
HEALTH AND BUILT-ENVIRONMENTS IN POST-COVID TIMES: A PROPOSED MODEL FOR STUDYING WORK ENVIRONMENTS	
Ebru BAYKAL ULUOZ, Dr. GOKSENIN INALHAN	77
TOWARDS AN INTEGRATED APPROACH IN ARCHITECTURAL DESIGN STUDIO EDUCATION: DISTANCE EDUCATION DURING COVID-19 PANDEMIC	
Yekta ÖZGÜVEN, A. Kumsal ŞEN BAYRAM	85
TOXICOSIS: REBRANDING JANE JACOBS.....	
Hüsnü YEGENOGLU, Justin AGYIN	96
“TROGLODYTIA”: LEARNING FROM UNDERGROUND COSMOS FOR RESILIENT MORPHOLOGIES	
Ayşe Zuhal SARI, Fitnat CİMŞİT KOŞ	103
AURA MODELLING AS A TANGIBLE APPROACH IN FIRST YEAR DESIGN EDUCATION	
Fitnat CİMŞİT KOŞ, Berke KARADENİZ, Merve EFLATUN, Seben AŞKIN, Ece ÇINAR	110

MOTION-BASED DYNAMIC FORM GENERATION TO CONTRIBUTE TO THE
KINETIC DESIGN DIVERSITY
Hatice Hilal TOPUZ 121

SUSTAINABILITY AND ENVIRONMENTAL TRANSITION: PRINCIPLES AND DESIGN GUIDELINES

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Abstract

In these times of constant precariousness and insecurity, debates on the need for environmental sustainability are on the increase. There is a need to regenerate urban areas both by transforming the existing heritage while respecting historical memory, and by proposing "renewed" neighbourhoods with smartness, according to the use of renewable energy sources, eco-building, intelligent mobility, with a view to ecological transition. Immediate responses are needed to resource depletion on the one hand and the need to protect the quality of natural and environmental capital on the other. To achieve these goals, cities are called upon to play the role of drivers of sustainable development. By enhancing ecological quality, sustainability and resilience, cities will make a decisive contribution to the well-being of their citizens and the growth of local development. The design reference is the "green city", which focuses on the quality of the urban environment, the circularity of resources, mitigation of the causes of climate change and green growth and redevelopment, with a multi-sector methodological approach integrated with planning and based on the BPCI method "Bioclimatic Park City Immersive" (this means immerse the city into a bioclimatic park). This green approach already appears in the international policy documents Global Green New Deal by UNEP in 2008 and Towards Green Growth by OECD in 2010. [1] The key factors and methodologies of intervention are based on the interaction between Green Economy, Green City and Adaptive and Resilient Design, whose proposals can support the overcoming of urban/environmental degradation in terms of physical recovery, environmental rehabilitation and energy improvement, integrated with the enhancement of the existing heritage.

Key Words: *regeneration, transition, sustainability, resilience, co-design*

1. Introduction

Sustainability is now a priority on a global level, and the climate neutrality objectives set by Brussels inevitably require a new green and sustainable design for cities and a complete overhaul of human behaviour in relation to nature. From this point of view, today "we are witnessing the transition from the sustainable city to the regenerated city with smart approaches supporting local development". [2] The regeneration project interacting with the evolving actions and tools of strategic planning and social inclusion, must also contribute to the strengthening of resilience, in close connection with the identity signs that distinguish a community and the sense of belonging to places. Citizen participation as "the involvement of community members in formal organisations (...)" thus becomes an essential tool for the success of the project.[3]

In Italy, the revival of the country's sustainable development is the only and unavoidable road to take, seizing all the opportunities for a balanced transition. Our future and the future of our cities depend on adapting to the great changes taking place and on the ability to react and reconvert. Providing responses corresponding to new prospects for rebirth and ecological transition is an unavoidable objective.

In the last fifteen years, the approach to possible environmental regeneration has mainly focused on the criteria and tools of sustainability and resilience. Sustainability is part of the broader issue of the relationship between technological culture and environmental culture, and in particular of the central question of optimising resources, both natural and artificial, and the problems arising from the fracture between the built environment and the physical-climatic context.

In recent years, we have learned how necessary urban and environmental regeneration is for meeting housing needs and the sustainable development of the built environment, and we have also understood, also at European level, how essential it is to implement conditions of safety, inclusiveness, subsidiarity and social equity. We have also realised, at European level too, how essential it is to implement safety,

inclusiveness, subsidiarity and social equity. Thinking today about new forms of sustainable regeneration means first and foremost focusing on strategies that put the health of the inhabitants at the forefront, and if this was previously an achievable goal, today it is the primary aim to cope with current and future pandemic effects.

Sustainable regeneration will have to primarily control human behaviour, as it is the actions of citizens on the environment that must be educated and regenerated. Only after this education of individuals will it be possible to actually achieve urban regeneration that can also be defined as environmental and social.

As noted by Jannack (2015) [4], the real challenge for the future is to allow massive communication between citizens and experienced professionals, especially for projects of public interest. The experience and ingenuity of communities, i.e. that collective intelligence, which is itself a project asset, must be enhanced. [5] In this direction, it is also important to optimise the use of digital platforms [6] in order to disseminate and involve on the strategies of reconversion, valorisation and fruition all the stakeholders of the community.

2. Sustainability and unsustainability of the environmental issue

Now more than ever it is necessary to ask ourselves what process and design innovations we need to focus on in order to re-generate the existing building stock and mitigate its environmental impacts, in the light of new changes and new complexities in living.

Urban problems: from building decay to urban squatting, to the unacceptable conditions of entire degraded settlements, are all part of a complex environmental issue that has persisted for several decades, and which must certainly be tackled step by step and in sections, always with a global vision of environmental rebalancing. But we need a substantial turnaround to be launched quickly to tackle the emergency and create scenarios for the future.

Among the measures envisaged and to be implemented: the use of green technologies for energy saving and the use of techniques for greening buildings will make it possible to convert obsolete and polluting building systems or urban areas. This will allow us to integrate the existing with the new with simple natural-action measures: the use of renewable energies, the use of eco-friendly materials and techniques for building insulation and improving thermal comfort will create the ideal conditions for comfortable, attractive and sustainable living.

"It is time to become aware and aware of what is happening, and it is from moments of crisis that the ability to improve is measured. The art of knowing how to build has already been demonstrated, history is full of monuments and marvellous architecture, but now is the time to evolve, the new century requires a greater effort, there is an urgent need to plan cities and buildings that breathe without consuming, that are able to live with the environment. We need to look at the world with new eyes, we need far-sighted planners who will make us forget the short-sightedness MIOPIA of the last century". [7]

Since it is unthinkable to make credible forecasts today, in the age of pandemics, without falling into dangerous simplifications, we need to move towards a logic of possible scenarios. The methods and measures taken by the government in recent months will be decisive.

3. Sustainability and Health in All Policies

Considering that the link between the morphological and functional characteristics of urban contexts is given by the relationship between the quality of the environment and the use of healthy lifestyles, the impact on public health deserves even greater attention.

The "Health in All Policies" strategy indicated by the World Health Organization (WHO) highlights in particular that the health of inhabitants derives not only from the presence and management of health environments/services, but also from the quality of living and working environments. [8] The current health emergency has made policies and actions of a necessarily interdisciplinary nature urgent, both in terms of technical training (architects, engineers, town planners) and medical/health training (hygienists, epidemiologists, public health experts, molecular biologists, pharmacologists, etc.). [9] We are therefore once again experiencing how health is not individualistic but a collective condition strongly influenced by

the environmental context. Today, providing answers corresponding to the new prospects of rebirth and ecological transition with salutogenic design strategies becomes an objective that can no longer be postponed, and technological design is among the disciplines called upon to provide increasingly targeted and concrete answers. Urban nature-actions can offer cities new metabolisms, oriented towards wellbeing and health (Agenda 2030) as important analytical parameters for measuring the results and impacts of design actions.

4. Resilience, participation and sustainable design

The concept of resilience does not have an unambiguous representation in literature, as it is used in different disciplines: ecology, social sciences, economics, architecture and engineering with different meanings, values and developments. The root of the term can be traced back to the Latin "resilio" which textually means "to jump back". [10]

The concept of resilience was originally established in the field of ecology by Holling, who asserts that for ecological systems resilience is "a measure of the persistence of systems and their ability to absorb change and disturbance and maintain the same relationships among populations or state variables. Stability represents the ability of a system to return to a state of equilibrium after a temporary disturbance; the faster it returns to equilibrium and the less it fluctuates, the more stable it is". [11]

The environmental context, understood as physical - material, but also social and cultural reality, after an unexpected and/or extreme transformation must be analysed in all its forms in order to organise the new equilibria of resilient regeneration.

Recent literature suggests that in environmental regeneration, an approach involving residents and starting from local issues is necessary. [12] [13] Pronk states that proper outreach requires intensive cooperation between stakeholders, adapting communication with residents to the circumstances. [14]

A participatory process aimed at involving users also on energy regeneration issues needs a good relationship with residents so that they know both the importance of these systems in relation to environmental sustainability and how to use them (ventilation/heating). [15] Reflecting on comfort and well-being helps to create the new environment, helps to understand what you want or what you would like to change, each creating their own comfort. [16] Current participatory processes in relation to resilience [17], [18] tend to focus on being heard. Joint exploration and discovery with residents can help develop dialogues about what we would like to change and how that change can be integrated with the environmental issues of everyday life. As Aureli and Mastrigli argue: "If politics is about shaping the space for coexistence between people, architectural design is inevitably - whether we like it or not - a conscious political act. Architecture is as such a representation: it gives shape to an idea of inhabitable space, and is therefore the representation of a political idea of the city. (...) In order to achieve this, architecture must free itself from its reduction to a "profession" or a media container for its own sake, and return to being representation, that is to say, the embodiment of a political project that is alternative to the imagery of the market metropolis. This means understanding architectural thought not only as a place of cultural development but above all as a concrete instrument of political action. This is the task that motivates us to take up the arms of theory". [19]

It is necessary to experiment with sustainable regeneration interventions that can act on social life, social inclusion and resilience at all scales, redeveloping buildings and at the same time, where possible, operating an environmental reconversion that puts the inhabitant and his health at the centre of its interests, also with bottom-up procedures by means of self-organised and participatory paths and through the figure of the social entrepreneur [20] "While studies on resilience to disasters (natural catastrophes) have been undertaken for quite some time [21], aspects of social inclusion concern theories and practices for new developments in resilience research. Communities around the world are increasingly discussing ways to improve their resilience" (...) in this direction, research can be considered as part of the total "design effort" that aims to develop technologies and actions that will enable each structure and/or community to regain its function in the shortest possible time. In the long term, this research effort will allow the development of software tools for decision support to improve the resilience of territories and communities. [22]

5. Sustainable design tools: PNRR, nature-actions and ecological transition

The Council of Ministers of 7 December 2020 gave the go-ahead for the examination of the National Recovery and Resilience Plan (PNRR), which will have to implement, in our country, the Next Generation EU programme, launched by the European Union to supplement the Multiannual Financial Framework (MFF) 2021-2027 in light of the economic and social consequences of the COVID-19 pandemic.

The Italian PNRR is built around four strategic lines:

Country modernisation; Ecological transition; Social and territorial inclusion; Gender equality.

Ecological transition must be the basis of the new economic and social model of development on a global scale. To initiate it, it will be necessary to:

-dramatically reduce climate-altering gas emissions in line with the objectives of the European Green Deal;

-improve the energy efficiency of supply chains, civil settlements and public buildings, and the air quality in urban centres and inland and marine waters.

Investing in the 'beauty' of the country, also in order to consolidate the capacity to attract tourists and the potential of its enormous historical, cultural and natural heritage, starting with effective management of urban green areas, including in terms of a greater spread of such areas in urban and peri-urban areas, and substantial reforestation.

Ecological reconversion can and must also represent a field of new competitiveness for a large part of our production system, including through investments in sustainable agriculture, starting in the South, making it possible to achieve greater harmony with nature, even in the context of a society with a strong industrial vocation. To this end, a green revolution also plays a strategic role for the building system, i.e. for the built heritage, which, with greening and landscaping systems, could be able to absorb a large proportion of harmful gas emissions, as already partly highlighted by the European Green Deal.

The process of greening/nature-actions of buildings already boasts a large amount of design interventions in Europe. Indeed, many contemporary architects are also experimenting with the use of roof gardens, green walls and other green systems for the conversion of existing buildings.

In the six missions of the PNRR, which represent structural "thematic" areas of intervention, that on the green revolution and ecological transition is focused on four lines of action:

- Green enterprise and circular economy
- Energy transition and sustainable local mobility
- Energy efficiency and building renovation
- Protection and enhancement of land and water resources

The first component, "Green enterprise and circular economy", has as its priority objectives the promotion of environmental sustainability in the agricultural sector, "but can be extended to the urban and peri-urban system of many cities whose conformation lends itself to urban park-actions (parkification) where there are urban voids bordering on rural lots or extensible urban parks".

The second component "Energy transition and sustainable local mobility" intervenes on energy production and distribution, favouring the use of renewable sources and providing the necessary infrastructure for their integration into the national electricity system and the infrastructure to power electric vehicles and exploit liquid hydrogen.

The third component, 'Energy efficiency and upgrading of buildings', envisages the reduction of energy consumption in buildings, which generate more than one third of total consumption in Italy, as well as their anti-seismic upgrading. In fact, most of the 14.5 million buildings in the country were built before the current energy efficiency regulations were in force; moreover, Italy is particularly exposed to risks related to seismic risk, which require widespread prevention measures.

The European Union has responded to the pandemic crisis with a planning and financial instrument named Next Generation EU (NGEU), defining the path started in 2020 and aiming more strongly at an ecological transition plan.

The fundamentals of the ecological transition, already outlined by the European Green Deal at the end of 2019, aimed to achieve climate neutrality by 2050 and to reduce climate-distorting emissions by 55% by 2030 compared to the scenarios of the 1990s. The studies carried out by the IPCC - Intergovernmental Panel on Climate Change show how necessary it is to implement measures to combat and prevent climate change in accordance with the 17 goals of the 2030 Agenda, launched in 2015 by the United Nations. We must therefore focus on increasing environmental sustainability and urban resilience by addressing the vulnerabilities of the environmental system itself.

6. Case studies and nature/action strategy applied to the degraded Brancaccio district

The environmental regeneration projects taken as sample case studies [23], are some of the most interesting responses to the European and in particular French dimension of concrete application of the policies envisaged on the use of regenerative and salutogenic urban design strategies.

1. City of Pré-Saint-Gervais -2019 - Project manager: OGIC

For the redevelopment of this part of the city of Pré-Saint-Gervais (France), a strongly vegetated public space is planned: the urban forest, which is often mentioned in the wishes of associations and collectives involved in the future of the site. But more than an urban forest, the Busso forest is conceived as an edible and nutritious forest. It develops in the form of a border and a linear afforestation between rue Danton and rue Gabriel Péri. It is also a place of fruit and vegetable production. Harvest periods can be the subject of festive events organised by city and neighbourhood associations.

The town is therefore immersed in the forest, which is over 150 metres long and 25 metres wide, and whose paths are treated as forest trails equipped with furniture for relaxation and meeting. (Figure 1)



Fig.1. City of Pré-Saint-Gervais -2019



Fig.2 Eco-centre Notre-Dame-de-Gravenchon - 2015

2.Eco-centre Notre-Dame-de-Gravenchon - 2015- Project management: SHEMA, La Compagnie du Paysage, Richez_Associés, InfraService (BET VRD), Architecture and Development (HQE) - Area: 19 hectares. The town of Notre-Dame-de-Gravenchon is located in the heart of the Seine valley and has many advantages in terms of living environment and landscape. The green metamorphosis of the town centre is organised around several points: improvement of the image of the town centre; urban densification and restructuring; reorganisation of the commercial centre around a thoroughfare; reorganisation and increase in parking spaces; enhancement of existing buildings. Faced with the heterogeneity and discontinuity of current public spaces, the project affirms public spaces that are legible on the scale of the city centre. The 'Cours' is the space for pedestrian mobility. Reinforced by an exceptionally gentle topography, this large and comfortable public space offers a pleasant urban walk to all citizens, including people with reduced mobility. The Cours brings together three large public spaces that contrast and complement each other in their functions: the urban square; the garden; and the Telhuet Nature Park. (Figure 2)



Fig.3 District of the Madeleine -2007/08



Fig.4 The Nature/action strategy applied to the degraded Brancaccio district – 2020/21

3. District of the Madeleine -2007/08 - residential-Project manager: Chartres Habitat-Project manager: JF.Gay, La Compagnie du Paysage, Soderef (BET) Area: 23 hectares

13 years after its completion, this regeneration project embodies all the concepts of sustainability linked to respect for the environment and public health.

For the redevelopment project of the Madeleine suburb and the central park, solutions were adopted which could combine the requirements linked to the concept (aesthetics, environment) with the functional requirements defined by the inhabitants and the municipality. This urban recomposition project is exemplary in terms of balance, functioning and diversity of uses. Specific studies have been carried out (orography, climatology, hydrology, building analysis, etc.) in order to identify a landscape approach that respects the ecology of the site within a high environmental quality approach.

Here, too, the city is immersed in the park, which aims to reconcile and renew the dialogue between: suburbs, commercial activities and activities dedicated to leisure and the health of the inhabitants.

The overall composition is organised around the 'large lawn' and the 'intimate gardens' arranged in a comb-like pattern at the centre of a new development of 400 housing units. Their identity is aimed at awakening the senses, such as the garden of materials, the garden of scents or the garden of movements, taste buds and whispers. The treatment of rainwater in the park is treated independently. The system allows rainwater from roofs and walkways to be reused to supply a linear body of water and to irrigate the park's plantations. The study showed that the neighbourhood has everything it needs to succeed in its gradual transformation towards the concept of an 'inhabited park'.

Large but poorly qualified, the avenues were the first degraded urban parts of the neighbourhood. The redevelopment of these axes plays a decisive role in the metamorphosis of the neighbourhood into an "inhabited park", a landscaped coastline is created with the construction of a large mixed pavement favourable to mobility and urban conviviality. The project integrates a herringbone car park regularly interrupted by wide valleys planted with woodland gardens. (Figure 3)

In the three projects analysed, it stands out as a structuring force of sustainable regeneration, a hinge of continuity between the pre-existing environment, its identity memory and the innovated environment that respects each single characteristic and at the same time transforms and improves it.

A three-goal strategy has been developed for all three of these projects: improving wellbeing by enhancing nature in the city; revitalising public space in order to increase its commercial and tourist appeal; and extending the reclamation policy by pedestrianizing public space. The projects concretise the protection of biodiversity, the regulation of private and public electric transport systems, the articulation of bicycle and pedestrian routes, the management of solid urban waste, renewable energy, accessibility and design for all, eco-design for the management of indoor and outdoor living spaces (green deal, home farming, urban agriculture), all expedients that activate forms of circular economy in the direction of the necessary ecological transition. These are examples representing sustainable design, increasingly oriented towards health and safety, in the decisive overcoming of dissipative anthropocentric models with a high exploitation of resources and in favour of a different way of living in harmony with nature.

and hanging gardens and green ways will be created all around the Maredolce Castle (an imposing fortified structure of Arab origin). All the buildings and palaces in the project area (about 10 hectares) are being surveyed and renovated as a matter of priority. For each type of building, the redevelopment interventions aimed at transforming the neighbourhood into a park inhabited by "intelligent" buildings, i.e. equipped with solar energy systems (use of micro wind turbines positioned in the park and photovoltaic panels both in the canopies and parking areas of the green areas and on the roofs of the redeveloped buildings) are indicated with the elaboration of guidelines. These installations will make the whole neighbourhood carbon neutral. (Figures 4,5)

Design strategies at the neighbourhood scale: the framework below summarises the BPCI 'Bioclimatic Park City Immersive' method, whose research developed in 2020-21 (still ongoing) within the broader Energy, Environment and Sustainable Development programme, represents a significant example of how it is possible to intervene on the existing heritage in an integrated way, from the settlement scale to the building scale. Design strategies at the building scale: a list of design strategies for existing buildings that will be upgraded with the aim of reducing consumption by 50% through the overall renovation of the building is given, "the minimum performances that the components of the building system must possess at the end of the renovation intervention are established: as regards opaque and transparent walls (walls, window frames, glazed parts, etc.) the transmittance limit value (U) is defined by the regulations in force. For the plant engineering part, energy efficiency must be sought not only in production efficiency (which must be the maximum possible for the chosen type of heat generator), but also in the efficiency of heat regulation and distribution." These are indications of minimum thresholds to reduce wastage, such as bringing buildings from energy-consuming classes to higher performing ones like B and A, in the operational phase of the implementation plans and then in the executive design phase these thresholds can reach more important and significant objectives, such as energy self-sufficiency.

The whole area will be transformed into a pedestrian island, a large green lung which will be added to the already present historical gardens, but which will also have a new bioclimatic concept of context.

The green spaces and the grafting of vertical green surfaces in most of the buildings allow to remove the polluting emissions present in the area and contribute to the adaptation to heat island phenomena and to heat wave phenomena ensuring natural cooling by evapotranspiration. Their interaction with natural ventilation is strategic, as it is adequately studied by diversifying the intake at different points in the urban area; the renewed morphological structure created by the inclusion of the new species improves resilience.

Equally strategic is the relationship with solar radiation using evergreen and deciduous species that can create a context capable of shielding from sunlight in the summer or the thermal action of radiation in the winter. The central axis of the experimentation is the passive technological apparatus determined by the "bioclimatic square". Through the construction of energy hubs (photovoltaic structures with a circular planin) in the park's Maredolce, the buildings that are overlook and the related living environments to modulate the effects of temperature variations between outside and inside thanks to the thermal inertia to the advantage of the adjacent environments both from the thermal point of view and energy consumption. In winter these rooms accumulate heat thanks to the activation of internal air masses, while in summer they allow natural ventilation, passive cooling of the rooms at night and air changes by opening the glass windows. A similar thermal/energy behaviour is achieved with the use of solar loggias for each apartment facing onto the park; the same apartment openings will be equipped with shading elements to provide shade in summer and to take advantage of solar exposure in winter. In the renewed urban layout, the creation of vertical gardens differentiated in relation to the type of building and adaptability, for most of the buildings overlooking the park, is decisive

Results – In order to define the entire modelling and simulation process carried out thanks to the methodological approach adopted and the strategic lines followed by the experimentation, it is possible to evaluate the conditions existing before the design intervention and the conditions after the same to determine the impact in terms of environmental bioclimatic performance. The verified parameters record the desired effects and prove the adequacy of the technical-design solutions adopted with respect to the set objectives of bioclimatic regeneration, aimed at enhancing the area and improving the environmental and

ecosystem quality. These minimum thresholds indications reduce wastage, such as bringing buildings from energy-consuming classes to higher performing ones like B and A, in the operational phase of the implementation plans and then in the executive design phase these thresholds can reach more important and significant objectives, such as energy self-sufficiency. The whole area will be transformed into a pedestrian island, a large green lung which will also have a new bioclimatic concept of context.

The green spaces and the grafting of vertical green surfaces in most of the buildings will allow to remove the polluting emissions present in the area and will contribute to the adaptation to heat island phenomena and to heat wave phenomena ensuring natural cooling by evapotranspiration. Their interaction with natural ventilation is strategic, as it is adequately studied by diversifying the intake at different points in the urban area; the renewed morphological structure created by the inclusion of the new species improves resilience.

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The verified parameters record the desired effects and prove the adequacy of the technical-design solutions adopted with respect to the set objectives of bioclimatic regeneration, aimed at enhancing the area and improving the environmental and ecosystem quality of the quarter of Brancaccio in the area of Maredolce park.

10. Sustainable development - Conclusions

The design of a sustainable regeneration intervention stems from an analytical, cognitive, perceptive process of cultural peculiarities, whose social awareness has an essential role in the management of the transformation of the built environment. Within the actions that build the regeneration project the sustainable approach has to identify ways to manage transformation, not as a result of an imbalance but as a manifestation of a "dynamic project" that modifies the built environment respecting all its characteristics of adaptation and innovation. In the perspective of sustainable design, mitigation, adaptation and resilience measures should not be seen as a simple "technical response" to environmental criticalities on different scales, but must be the result of an integrated and shared process between serious and "appropriate" planning and an inclusive design based on effective technologies aimed on the one hand to protect and on the other to grow a healthy urban environment.

Another idea concerns the concept of sustainable development. In the context of a profoundly unsustainable contemporary reality, ecological literacy offers a more comprehensive critique of the abused concepts of 'sustainability' and 'sustainable development'. Sustainability has been associated with development since the 1987 report of the UN Brundtland Commission. Our Common Future, means 'ecological care' and 'development' but in some cases the term is described as conflicting. Critics claim that the concept guarantees the "conservation of development, not the conservation of nature". [24] This contradiction has been there from the beginning. With sustainable development there are no limits to

growth. Greens and environmentalists who still use this concept today show a certain ecological illiteracy. There is in fact a contradiction between the finiteness of the Earth, with natural self-regulating systems operating within limits on the one hand, and the expansive nature of industrial capitalist society on the other. The language of sustainable development sometimes helps to mask this fundamental contradiction, so that industrial expansion on a global scale can continue undisturbed. [25] The concept of sustainable development related to environmental regeneration intervention must instead overcome this contradiction, activating rehabilitation processes in perfect balance with environmental dynamics, corresponding to new perspectives of rebirth and ecological transition with salutogenic design strategies. Urban nature-action can offer cities new metabolisms, oriented towards wellbeing and health (Agenda 2030) as important analytical parameters for measuring the results and effects of design actions. Using the BPCI "Bioclimatic Park City Immersive" method means creating a system of ecological literacy for cities, the results of which are already visible in the overcoming of the concept of sustainability understood as unlimited sustainable development (which too often has favoured the indiscriminate development of models that exclusively favour industry).

The results of the research have shown that the only way forward is through "nature-action" strategy, which is essentially based on ecological and bioclimatic principles. Cities in bioclimatic parks will offer the planet new horizons for recovery by integrating the needs of the inhabitants with the needs of nature and seeking new ways of communion. Urban nature-action interventions are not intended to imitate nature but rather to coexist with it, creating spaces of real and harmonious coexistence. Not artificial landscapes but inhabited parks. By subjecting architecture with nature, we will find a habitat where our health and that of the environment will come first and can guarantee us a better future.

These research postulates are developed progressively after careful analysis of projects whose founding principles are precisely the use of green and natural systems that can guarantee us a better life on this planet. What we intend to propose is a new vision of living in which man realises that he is part of a complex and fragile ecosystem that must be helped to recover its natural dynamics. For the degraded district of Brancaccio in Palermo, in the Mareddolce park, the results of the research consist in the design of guidelines based on the BPCI method through a strategic nature-action intervention. Here too the primary design direction is to reconvert the neighbourhood and by addition of neighbourhoods reconvert the whole city into an inhabited park.

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