Project challenges: sustainable development and urban resilience

edited by
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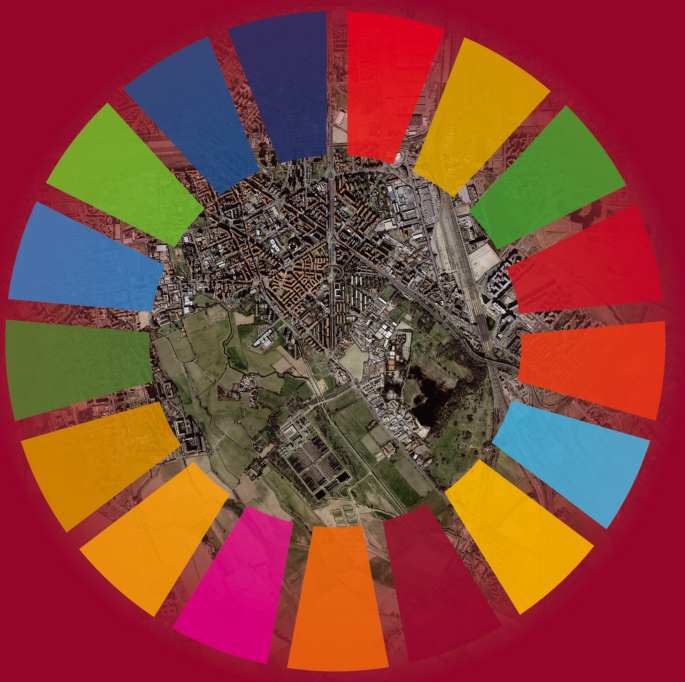

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Project challenges: sustainable development and urban resilience fosters a multidisciplinary discussion on the role of the architectural project for implementing the Sustainable Development Goals of the 2030 UN Agenda. The collected contributions of researchers and important stakeholders reflect on the necessity to operate in the perspective of finding sustainable development alternatives and resilient responses to changes, offering a wide range of keys for reading and interpreting phenomena and challenges that connote the contemporaneity at different scales, from global policies to local interventions. Complex challenges in which environmental, cultural, social, and economic aspects seamlessly intertwine.

The environmental technological project becomes an element of synthesis of the needs and resources of the territories and the local communities. Since the environmental, landscape, and cultural resources are largely non-renewable, they have to be used with awareness and responsibility, going beyond the concept of protection in itself and moving in the direction of the safeguard and transformation, in close continuity with the context of reference and in line with the limits imposed by the fragility of the assets themselves.

The result is a systemic approach to the issues of sustainable development and urban resilience, realised through the implementation of innovative processes for the enhancement, integration, regeneration, and inclusion of the environmental, cultural, social, and economic heritage.

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FOREWORD

The contributions collected in this book constitute a broad and articulated reflection on the issues of sustainability and resilience related to the project of enhancement of the environmental and cultural heritage. Within the framework of seminars organised in occasion of the second edition of the Sustainable Development Festival[1]*, the volume involves a group of students of the PhD course in "Cultural Heritage Conservation and Valorisation" of* Politecnico di Milano[2]*, which, under the guidance of professors and expert researchers, have conducted a specific study on the theme of resilience and sustainability with reference to their research activity.*

A rather heterogeneous picture of contents emerges, but undoubtedly coherent with the values that substantiate approaches and points of view. A coherence due both to the conviction that cultural heritage represents a resource for development, that can be considered in terms of design, and to the awareness that, since it is a non-renewable resource, this potential can only be expressed in continuity with the environmental context and within the limits imposed by the fragility of goods. This double awareness constitutes the central point in the relationship between cultural value and sustainability, in accordance with the interpretations expressed by the authors in the chapters of the book, recalling systemic approaches to the territorial and complex relationships and multi-scale methods of analysis and design.

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1 The Festival is an initiative of the Italian Alliance for the Sustainable Development aimed at raising awareness, involving citizens, young generations, businesses, associations and institutions on the issues of economic, social and environmental sustainability, spreading the culture of sustainability and fostering a cultural and political change that allows Italy to implement the United Nations 2030 Agenda and to achieve the 17 Sustainable Development Goals.

2 "Cultural Heritage Conservation and Valorisation" is a PhD course of the Department of Architecture, Built environment and Construction engineering, held by the professors Stefano Della Torre and Daniele Fanzini. The course deals with the relationship between protection, conservation and valorisation of a territory and will provide the fundamentals for the effective and efficient management of a cultural asset. The main aim of the course is to provide to students the primary critical skills useful to promote and to design initiatives that enhance a cultural heritage as development factor for a region.

The interest addressed to the continuity of the existing context, and not only to the single object, defines a model for the conservation itself. It is conceived no longer as an impediment to any transformation, but as a premise for a balanced and correct expression of the potential of the goods, recognising that the real preservation can be performed only through the co-evolution of the cultural goods with the contexts.

The tools of this approach to the protection and conservation, more sophisticated and complex than the traditional ones, have an impact on the territorial government, through systemic projects that involve the behavioural attitudes of the same citizens towards preservation as well as use and enhancement. In these terms, use and enhancement get a central role in the design action, also with respect to the need to find the necessary resources for the interventions.

The complex definition of proper tools for a sustainable conservation/enhancement of the cultural and environmental heritage represents an exciting challenge, but it still requires a lot of work also at the theoretical level. My gratitude goes to the authors of the volume, and above all to Daniele Fanzini for the coordination, for having lavished so much effort in seeking contents, values and objectives of the activities of conservation and enhancement, focusing on possible convergences with a modern ecology conceived as «a science and an ethic of diversity»*[3], which is not based only on the conservation but on the values of sharing and co-belonging that can be projected in the interest of the society.*

Stefano Della Torre
Head of Department of Architecture, Built environment and Construction engineering
Politecnico di Milano

[3] Bocchi, G. & Ceruti, M. (2004), *Educazione e globalizzazione*, Cortina, Milano, p. 171 (translated by the author).

INTRODUCTION

Project challenges: sustainable development and urban resilience offers an opportunity for a multidisciplinary discussion on the role of the architectural project for implementing the Sustainable Development Goals of the 2030 UN Agenda.

The collected texts, including the contributions of important stakeholders, reflect on the necessity to operate in the perspective of finding sustainable development alternatives and resilient responses to changes, offering a wide range of keys for reading and interpreting phenomena and challenges that connote the contemporaneity at different scales, from global policies to local interventions. These are complex challenges in which environmental, cultural, social, and economic aspects seamlessly intertwine.

In this logic, the environmental technological project becomes an element of synthesis of the needs and resources of the territories and the local communities. Since the environmental, landscape, and cultural resources are largely non-renewable, they have to be used with awareness and responsibility, going beyond the concept of protection in itself and moving in the direction of the safeguard and transformation in close continuity with the context of reference and in line with the limits imposed by the fragility of the assets themselves. The result is a systemic approach to the issues of sustainable development and resilience, that is realised through the initiation and implementation of innovative processes for the enhancement, integration, regeneration, and inclusion of the environmental, cultural, social, and economic heritage.

In order to support this thesis, the text proposes four focuses.

The first part, "Architecture, city and territory", deals with the issue of sustainable development and resilience on the scale of urban policies and with respect to the production chains. In particular, the texts deepen the issues of circular economy and green economy applied to metropolitan contexts and minor urban centres, with the creation of eco-efficient neighbourhoods, up to products for the building industry.

The second focus is on "Peri-urban and rural territories". These transitional contexts between the city and the rural areas have in themselves great potentials in terms of resources and eco-sustainable services. At the same time, these are

particularly sensitive areas because subjected to heavy anthropic pressures, whose valorisation and transformation requires the implementation of large-area strategies, in a district logic.

The third section of the book, "Cultural landscapes", is focused on the strategic role of culture for sustainable development. In particular, by directing the transformation of the territory in an ecomuseum key, also by giving centrality to the landscape project, it is possible to increase the identity of the places and strengthen the sense of belonging and re-appropriation of the communities.

The fourth part, "Research experiences", proposes an apparatus of applicative insights and case studies on the following topics: governance and participation required by local development projects; urban regeneration through widespread interventions on built heritage and the redevelopment of public spaces; adaptive reuse; the enhancement of environmental and cultural heritage, also for tourism; technologies to increase the accessibility and resilience of cultural heritage.

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PROSPECTS OF INNOVATION IN THE PROJECT BETWEEN SUSTAINABLE DEVELOPMENT AND RESILIENCE

Elena Mussinelli[*]

The issue of facing climate change is highly topical, with a debate that involves not only the field of the research, local administrations, professionals and experts, but also all levels of the community, through campaigns of awareness raising and protest movements on a global scale.

Among the numerous events that are taking place in different contexts, the initiative held on the 16th of July 2019 at *Politecnico di Milano* is particularly significant, with the presentation and signature of the "Declaration of Milan for the climate adaptation of the Green Cities": a declaration structured in ten objectives to pursue climate change adaptation, already signed by 28 Italian cities[1].

The growing evidence of the effects of climate change is in fact rapidly increasing awareness of the complexity of the challenges we are called to face, challenges that had already appeared in the 1970s with the oil crisis and the consequent development of an "environmental consciousness" as well as of the arising of the paradigm of sustainability.

We are aware, on the one hand, of the need of reducing and mitigating the environmental impacts caused by human activities, by the intensity of urbanisation processes as well as by the consumption of land and resources, and on the other hand of finding solutions for the risk management, in response to climate change in terms of resilience and adaptation. In both cases, it is an issue of im-

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[1] The initiative, promoted and organized by the *Politecnico di Milano* with the Green City Network, the Sustainable Development Foundation and the Municipality of Milan, registered over 300 presences and the participation of experts and representatives of 26 Italian cities active on the fight front to climate change. The ten points of attention are: defining and updating plans and measures for the climate adaptation of cities; integrating policies and measures of adaptation with those of climate change mitigation; updating the risk assessment and the emergency measures, both medium and long term; valuing the positive effects of adaptation measures and accounting for the costs of the absence of such measures; developing adaptive abilities; focusing more on nature-based solutions; reducing the vulnerability and the risks of very intense precipitation; facing heatwaves and islands; promoting investments in adaptation measures; strengthen governance.

plementing medium and long-term strategic processes, which allow the overall improvement of the fruitive and ecosystem quality of the urban and metropolitan settlements, where the greatest criticalities are concentrated, even due to a renewed social demand.

These processes are complex and articulated, difficult to be analysed, programmed, managed, monitored and evaluated. Despite this issue, these are essential actions that cannot be postponed, considering that to the rapid times and the irreversibility of the effects of degradation and consumption of environmental resources correspond the long times of the natural cycles of regeneration, as well as the high costs for restoration, if and when it is possible.

In this perspective, the ten points of the Declaration signed in Milan should be considered both a challenge and a restart. They derive from the work of those who, in different institutional contexts, have researched, acted, made experiences, exchanging knowledge, skills, results, and even doubts and perplexities. They also represent a programmatic commitment for the future, which still calls for collaboration to maximise the effectiveness of actions and investments, in a dialogue within and between the communities. A collaboration that necessarily involves disciplinary contributions and sectorial and specialist competences that must be recomposed within common objectives, also for the necessary planning, regulatory and socio-economic outcomes. In this sense, the experience of the Working Group "Architecture policy for the Green Economy in the cities"[2], begun in 2016 and then evolved into the national Working Group "Experts of the Green City Network" which continues to actively work thanks to the coordination of the Sustainable Development Foundation, was particularly significant and fundamental for the definition of the contents of the Declaration (Antonini & Tucci 2017).

To the growing awareness of cities and metropolitan areas that daily experience the effects of climate change and environmental degradation, correspond multiple research advances, with a greater availability of methods, tools and technical solutions to provide truly structural and effective answers, well beyond the ephemeral practice of the green washing. With attention to the close relationships that exist between the objectives of sustainable development in terms of environmental and social resilience and the dimension of the economic and managerial sustainability, in the direction of a green economy that operates through place-based and resource-based projects.

However, several critical issues remain, primarily due to the scarcity of the natural resources and to the difficulties in implementing site-specific, systematic, synergic and continuous responses over time. The implementation of sys-

[2] The Working Group, established at the Sustainable Development Foundation, has contributed to the States-General of the Green Economy 2017 - National Council of the Green Economy, whose activities have been summarised in the document "Towards the implementation of the Manifesto of Green Economy for architecture and urban planning. Objectives, Guidelines, Priority Strategies".

tematic and effective actions monitoring for the evaluation of processes with effects on the ecological-environmental, economic and socio-cultural system involves, for example, - beyond the investments for the systematic diffusion of surveying instruments - the systemisation of objectively measurable indicators as well as of parameters that cannot be immediately quantified because they are linked to perceptive aspects or long-term changes.

These issues were faced by the research unit of the *Politecnico di Milano* within the Research PRIN 2015 titled "Adaptive design and technological innovations for the resilient regeneration of urban districts under climate change"[3], aimed at verifying the effectiveness of nature-based solutions and of the related green and blue infrastructures, as well as their applicability in terms of scalability, systematic use, adequacy and compatibility with respect to different contexts. Elements such as the local climatic and ventilation conditions, the orientation and the structure of the building strongly influence the impacts generated by the introduction of green solutions.

On the basis of these considerations, a priority issue for the forthcoming future, core element of the climatic-environmental challenge of cities, certainly regards the buildings, both in terms of recovery and for the achievement of standards of higher performance in the new constructions. In this sense, the actions of strategic refurbishment of brownfields or the reconversion of infrastructures and mobility, from grey to green and blue, can be oriented.

However, a fundamental aspect, often not adequately considered, concerns the quality of the public space, in particular of the open spaces, which constitute a peculiar component of European cities and perhaps even more of the Italian cities. Historically, the public space has been and must continue to be - even if with updated forms and modalities - the great social condenser of urban life, of the needs of communities and of their identities (Mussinelli, 2018). In the centres and above all in the urban peripheries this legacy, as fragile as it is precious, must be collected and renewed in terms of a "necessary" project culturally, technologically and environmentally appropriate[4]. In these places, the pro-

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[3] National scientific responsible: Mario Losasso. Local research unit of *Politecnico di Milano*: coordinator Elena Mussinelli; research group: Andrea Tartaglia, Raffaella Riva, Daniele Fanzini, Roberto Bolici, Matteo Gambaro, Davide Cerati, Giovanni Castaldo.

[4] *«Among the keys to the theory and practice of environmental design are the notions of "alternative technology" and "appropriate technology", expressed by figures such as Eduardo Vittoria, Pierluigi Spadolini, Marco Zanuso, Tomás Maldonado and Giuseppe Ciribini. Their research and experimentation has revealed a specific direction in design culture aimed at guaranteeing habitat quality with an approach focusing not only on physical and formal considerations, but also on the project's intangible effects: open, therefore, to an idea of socioeconomic sustainability that is a prelude to today's environmental governance. This cultural policy has since been significantly implemented and articulated with contributions from other experts in technology: Salvatore Dierna and Fabrizio Orlandi in Rome, Gabriella Caterina and Virginia Gangemi in Naples, Rossana Raiteri in Genoa, Maria Chiara Torricelli in Florence, Fabrizio Schiaffonati, Maria Bottero and Gianni Scudo in Milan, and many more. The issue is now widely addressed in the context of national research in the discipline of architectural technolo-*

ject should deal with the issues of sustainability, ecological and fruitive quality, urban security: all challenges accentuated by the effects of climate change, whose consequences also involve the theme of human rights, as underlined by the United Nations Human Rights Council in the recent draft resolution "Human rights and climate change" of the 9th of July 2019.

To move in this direction, it is necessary to promote the development of up-to-date skills, much more attentive and sensitive to the quality of local systems than to the media spectacularity of high-tech buildings (Schiaffonati, 2017). Going beyond declarations of intent that are not then reflected into punctual and feasible actions: as in 2011 Vittorio Gregotti emphasised in an article published in the *Corriere della Sera*: «*In the case of architectural production the word 'eco' has often become a mercantile obligation, with the ecology reduced to fashion, rather than new and possible social equities»* (Gregotti, 2011, translated by the author).

Furthermore, these skills should be applied to design actions that interact with the different components, both material and immaterial, that structure an urban system. The project as a tool for the management of the growing complexity should therefore create and manage *«interactions with the fields of urban economy, of mobility, of the procedural dimension as well as of the time programming, with references to the identity of the places, to the rational management of resources, the safety, the accessibility, the well-being»* (Losasso, 2017, p. 7, translated by the author).

In this context a privileged field of action is constituted by the suburbs and the peri-urban areas, particularly fragile due to the anthropic pressures to which they are subjected, but at the same time full of opportunities. In these contexts, the environmental project very clearly shows its multiscale character that, starting from a territorial vision, through the development of material and immaterial actions, demonstrates the capacity of prefiguration of simulations and of projects measurable in their operative effectiveness[5].

Systematic processes of valorisation strongly oriented to support the multifunctionality of the territory require not only analysis and prefiguration skills, but also and above all managerial skills for operating in accordance with network governance models, systematising local, physical-spatial and human re-

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gy, as revealed by the fact that more than 30% of the PhD theses prepared in technological disciplines focus specifically on environmental issues and on technological innovation for sustainability» (Mussinelli, 2015, p. 12).

5 *«In this respect, it is important to point out that the scientific area of the Technological Environmental Design has been interested in project anticipation since its genesis just with regard to the capability in prefiguring architectonical and urban interventions, in providing and interpreting the evolving scenarios of the social demand and, last but not least, in outlining lasting and effective programs for young and professional education and training [...] The element that supports the interest in project anticipation is, in fact, related to the "added value" of the words "environmental" and "technological", focusing on the future perspectives of design and architectonical praxis»* (Mussinelli & Tartaglia, 2016, pp. 65-66).

sources, within district-type contexts that present characters of adequate homogeneity. Furthermore, well beyond the results obtained through ecological regeneration of already consolidated urban areas, precisely the rural and peri-urban territories represent the most significant environmental resource, the one that still plays an essential and indispensable role today in guaranteeing the vast area ecosystem balances. However, territories that today appear fragile both with respect to the unstoppable processes of land consumption that continue to generate fractures and discontinuities in environmental systems, and with respect to the land uses that limit and sometimes compromise the capacity to supply ecosystem services (ES). This is in contradiction with the European policies that on the contrary identify the natural capital and the ES as the most appropriate way to face the environmental and socio-economic criticalities related to climate change (Malcevschi & Bisogni, 2016)[6]. Policies that also push towards new management models for rural areas by promoting an agro-ecological approach and facilitating forestation processes.

Anyhow, strategies, actions and projects aimed at territorial resilience cannot be limited to focus only on natural capital, but they should also pay attention to the human capital operating towards the different phases of planning, design, implementation and monitoring of the transformations of the built environment. Human capital that also includes local communities, whose involvement must now be considered as a cogent element of every action of transformation the built environment: ecosystem quality and urban health are in fact an expression of a primary social need that clearly emerges when residents and city-users are asked to express themselves during consultations and participatory planning. In these contexts, the new social question is clearly expressed in terms of mobility, usability, interaction and inclusion but, too often, the answers are formalised in short-term tactical solutions, generic in the implementation methods and fragmented for the lack of a unitary vision. Alternatively, they are re-conducted to policies promoted by the public administration that are not matched however by research findings and scientific studies (Schiaffonati et al., 2015).

Whereas, the close correlation between the different scales of the triad architecture-city-territory should be declined into strategic visions, with strongly anticipatory contents and closely related to local specificities able to produce policies and implementation tools to build a systemic framework. A sort of environmental plan of the vast area, in which incentives are given to the different bottom-up actions already occurring with reference to the circular economy, to the development of green products and systems for buildings and infrastructural systems, to the design of architectures and sustainable urban public systems in environmental and socio-economic terms.

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[6] See also: “White paper - Adapting to climate change: towards a European framework for action”, COM (2009) 147; “Green Infrastructure (GI) - Enhancing Europe’s Natural Capital”, COM (2013) 249.

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4.8 DESIGN THE RURAL LANDSCAPE. LANDSARE LANDSCAPE ARCHITECTURES IN EUROPEAN RURAL AREAS

Roberto Bolici[*]

The valorisation project, oriented to the theme of cultural heritage, fits into a constantly evolving scenario, catching unprepared both the operators of the sector and the whole Italian culture accustomed to defending the heritage with public protection measures focused on the institution of constraint. The model is rapidly changing under the impulse of community experiences and the effect of national orientations, which are responding to the new role of management of the cultural heritage of the State and of public and private institutions. The LandsARE transnational project "Landscape architectures in European rural areas: a new approach to the design of local development", which involved seven rural areas between Italy, Germany and Scotland through the cooperation of the LAG[1], bears witness to this[2].

A new way of conceiving the enhancement of the landscape

The positive expansion of "perception of the landscape and its interest" increasingly emerges, in fact the concept of enhancement and protection no longer concerns only landscapes of particular beauty, protected by protective measures focused on laws belonging to the past, but the whole landscape of everyday life (Council of Europe, 2000). In particular, there is now a tendency to consider as a value also the change which, in view of the freezing of forms inherited from the history, in most cases in the past, was pointed out as a questionable and hardly acceptable solution. The progressive change of approach allows attention to be paid to policies, actions, actors, and resources necessary to preserve,

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[1] Local Action Groups. The LAG is a partnership bringing together public, private and civil society organisations from a rural area with the aim of applying *LEADER* (*Liaisons Entre Actions de Développement de l'Economie Rurale*) rural development methods.

[2] This text takes up and broadens the reflections developed in the text "Il progetto, strumento di valorizzazione del patrimonio rurale" (Bolici, 2014).

maintain or retrain existing landscapes, therefore not only more constraints, but real forms of active management that involve, motivate, and empower the many people who in various ways participate and intervene in the construction of the landscape. Basically, the protection and exploitation regimes are calling into question the artificial separation which very often divides them even into operational practice by referring to different subjects and practices but applied to the same territories. Specifically, with the assumption of transformation value, design must necessarily address landscape-related issues in an integrated way, territory, environment, and society and become an instrument for interpreting the values of the existing and the transformation of the landscape. Talking about enhancement project necessarily leads to defining in an innovative way the landscape, in fact despite a strong change is taking place, a predominantly monumental conception that tends to extrapolate from the landscape context the cultural heritage to which public protection measures apply remains fixed in the collective imagination. In this sense, the landscape can no longer be considered the result of the sum of the various cultural goods existing in the territory, but a cultural heritage, in the broad sense, that involves in a relational way the whole territory and that needs intervention strategies articulated and integrated, able to support and value the differences recognizable in the local contexts. In this direction it is possible to consider the landscape as a heritage of identity resources whose understanding requires a deep knowledge of the processes of selective accumulation that have acted over time and above all a knowledge strong interdependencies between environmental frameworks; settlement dynamics, local society practices, and cultural and symbolic values of the era. The landscape defined under this new light is a heritage made up of differences and irreducible diversity, before that of unitary figures. Local landscapes, through the specificities of their relational patterns between culture and society, acquire character and quality of meaning that make them recognizable by difference with other landscapes. In the context described above, the rural landscape is perfectly suited, which is a complex system with production aspects being put in place, cultural and environmental issues and thus constitute the cornerstone between human activity and the environmental system.

The project as a tool for the enhancement of rural heritage

The rural heritage is the ideal tool to be used in the project to implement exploitation processes whose main objective is to maintain the efficiency of ecosystems and the preservation of a representative image of the landscape. Generally, this representativeness is based on the correct return of historical values where it is possible, or on the sustainability of transformations, when necessary, and finally on the creation of new landscapes, where the original values have been completely lost. The project, operationally, is required to maintain the charac-

teristics of the constructive values, constitutive of morphologies, taking account also of the architectural typologies and to provide development lines compatible with the different levels of values recognised and such as not to diminish the landscape value of the territory, therefore with particular attention to the protection of agricultural areas. Finally, it is required to redevelop those parts that have been compromised or degraded in order to recover existing values or to create new, coherent and integrated landscape values.

In this logic reflections have been developed which, overcoming the dualism between conservation and transformation, have found in the transversality of disciplinary contributions, in the interscalarity of planning actions, in the trans-sectoral nature of the programmers' interventions and in the cooperation of the different subjects (Mussinelli, 2014), the possible new methodological approaches, no longer focused solely on material and visual aspects, but which also place the emphasis on perceptible identity values and on the centrality of the man-made landscape (Tempesta & Thiene, 2006). The architectural heritage of the rural landscape is a testament to the relationship between human activity and the environment that characterised the territory in the agricultural economy of the past and therefore constitutes a value of historical identity cultural to be safeguarded.

The architectural heritage of the rural landscape as a territorial identity

In the context described above, in addition to the issue of the protection of cultural goods, it becomes necessary to establish a coherent management of the relationship between the preservation of heritage inherited from the past to make it available to future generations and its exploitation in terms of investment, human, environmental and economic resources (Mussinelli, 2014).

With particular reference to this subject, the European Community, within its sectoral policies[3], proposed the use of cultural heritage as a vehicle to promote and strengthen the identity of the territories and to generate new economic development. The opportunity to consider cultural goods as a resource liable to be managed makes it possible to produce value directly or indirectly in relation to the possibility of their use and conservation. Effective and efficient management of assets, trade-off between protection, conservation, and fruition, within a framework of balanced social profitability of assets is at the basis of the process of "valorisation" of territorial capital (Schiaffonati, 2012).

There is a gap between the opportunities offered by European policies and their effective applicability, as local authorities by their nature are more oriented towards spatial planning and management, in this sense the presence of

[3] The Maastricht Treaty (1993) allowed the European Union, historically oriented towards the economy and trade, to promote cultural actions for the preservation, dissemination and development of culture in Europe.

territorial bodies is fundamental (Riva, 2008) since they have the competences at the local level, the tools and network needed to promote the launch of new economic initiatives and promote the enhancement of the human and material resources of the territory, stimulating collaboration between local authorities, private entrepreneurship, collectivity, and universities. European rural policies have moved in this direction, expressing the need to experiment with new approaches to territorial development, linked to the direct involvement of communities. These directives were responded to in the *LEADER* Community initiative programme implemented by the Structural Funds for economic and social cohesion. The programming allowed the formation of Local Action Groups, actuators of new approaches to rural development based entirely on the bottom up methodology (Paternò, 2010). At the local level, many projects have been activated that have taken the opportunity to protect and enhance the heritage as a response to the approval resulting from the processes of globalization, finding space for its development in policies and instruments of territorial orientation.

Experimentation in inter-territorial and transnational projects for European rural areas

The inter territorial and transnational cooperation project LandsARE "Landscape architectures in European rural areas: a new approach to the design of local development"[4] finds in a partnership of Local Action Groups[5] the ideal protagonists for its implementation, identifying in the territorial capital the leverage on which to base the economic development of the territory and architectural enhancement, landscape, environment, and tourist benefits of the rural heritage. The proposal was born from the need expressed by the parties involved to trigger processes of territorial development, in a sustainable way, to contribute to the enhancement of the landscape. The main objective was therefore the creation of a network to develop and disseminate a method of interpretation of the landscape and of the rural environmental cultural heritage as a lever for growth of the reference territory. In particular, the project explored issues such as the identification and promotion of innovative ways of exploiting the rural heritage, both from an economic point of view, as a lever of attractiveness of tourist flows, both social, as an element of connection with the territorial identity. The principle underlying the activities of the network is the recognition of the rural landscape as a fundamental component not only of the culture of a place, but also of the territorial identity itself.

Having as common denominator the uniqueness of the landscape, the presence of important cultural and environmental heritage and the need to raise

[4] Transnational cooperation *LEADER* 2007-2013.

[5] "LAG Oglio Po terre d'acqua", from 2018 "LAG Oglio Po".

public awareness of a new approach to the sustainable use of the landscape, each participating LAG has developed the theme of enhancing the rural landscape in relation to its own intrinsic characteristics. The question that arose, upstream of the development of the project, was how to identify and value, according to an integrated local development approach, the elements characterising the rural landscape. The development of coordinated territorial development strategies, such as territorial openness according to a systemic logic, the capacity to integrate local micro-economies into virtuous circuits, to involve the rural communities in the paths of valorisation and to offer forms of acceptance and enjoyment based on the valorisation of their rural, cultural and natural heritage, are the answer.

The preliminary phase, common to all projects, has been the cognitive analysis aimed at identifying the strengths, weaknesses, threats and opportunities of the territorial contexts involved. On the one hand, the picture showed the presence of a valuable cultural and landscape heritage, which was not properly exploited and in some cases degraded, and on the other the need to strengthen the strategies of valorisation of these goods as a prerequisite for the economic development of the territory and for the promotion of the area also in tourist key.

Specifically, the project developed in the territory of the LAG Oglio Po has been designed in line with the main strategies of territorial development, as well as with the projects to enhance the cultural and landscape heritage, in a logic of continuity of intervention with some initiatives launched on the territory. Among the projects that have determined an effective model of management, valorisation and promotion of landscape elements emerges "Greenway of Oglio - The river Oglio cycling route from Tonale to Po" which saw the structuring of a slow fruition route along the river Oglio. The same theme was also addressed in the "Single route system", which provided for the identification and upgrading of the routes connecting the towns and the territory. In addition, land-use development activities related to river infrastructure have been developed with the project "*Le Vie d'Acqua del Nord Italia*". The development of these projects has been made possible thanks to the strengthening of the management processes and enhancement of the local cultural and landscape elements in place, to the integrated tourist offer and to the start of joint reflections on the possible modalities of promotion and fruition of the territorial assets.

Phases, actions, activities and tools of the LandsARE project

The LandsARE process, aimed at improving knowledge of the landscape heritage of the Oglio Po area and its degradation, is divided into the phases of knowledge of the landscape heritage of the Oglio Po area and its state of degradation, the promotion of the project activity and finally the dissemination of the

results.

The first phase of knowledge of the landscape heritage of the Oglio Po area and its state of degradation consists of seven actions. The first of these provided for the structuring of a database and the identification of architectural assets through the consultation of institutional sources that recognize such artefacts as representative architectural historical heritage of the local cultural identity. The assets identified have been catalogued by reference to unique typological categories in order to systematise and make comparable the data collected with other existing databases. The information system led to the establishment of an overall census of the architectural and cultural heritage of the LAG Oglio Po territory. The second step was to read the rural heritage in its relations with the landscape resources system, environmental and naturalistic starting from the identification and collection of planning documents prepared at provincial and regional level. The elements analysed covered different aspects related to the characteristics of the territory, also read across each other in order to bring out mutual relations. The third action provided for the structuring and compilation of the forms, which took place from the data collected during the census and recorded in the database. Subsequently, the selection of rural heritage assets was carried out based on criteria that allowed highlighting their particular features in typological, architectural, and environmental terms. Compared to the categories identified, the goods related to specific types have been chosen, followed by a further selection of goods, identifying those that best characterise the environmental and landscape context. The search, through the identification of a series of parameters related to the intrinsic characteristics of the good and the relationship with the context in which it is inserted, has identified the architecture emblematic for the development of possible actions for the recovery and enhancement of the rural heritage of the territory. The fifth activity included the census of the state of degradation of the heritage, determined by an analysis that led to a judgement, expressed in accordance with the principles of preventive and planned conservation, on the overall state of the asset. Indicators were then defined for assessing degradation in order to assess its severity and spread. The last action of this first phase has led to the definition of the list of priorities of intervention on the assets in function of possible actions of building recovery and conservation of the characteristics of the buildings. The combined and weighted assessment of the data, with regard to the severity of the damage and its extent, has made it possible to give a preliminary assessment of the priorities for intervention and to determine their degree of urgency. Priority classes have been defined by cross-referencing data on the conservation status of goods with their degree of use.

The second phase of the research, articulated in two main activities, provided for the promotion of the activities of conservation and enhancement of the architectural and landscape heritage-rural environment and its value as an element of tourist attraction. To this end, a project workshop and a preparatory

training session were organised. In the framework of the preliminary workshop, information on the reference territory and rural heritage was transferred with the aim of providing the working groups with project suggestions. The work of the workshop "LandLAB", organised as part of the final conference of the LandsARE project by the "LAG Oglio Po terre d'acqua", has led to the definition of characteristic territorial areas and their vocations and identities for the development of projects of valorisation. The second activity included the organisation of the "Award for the Idea for the recovery and enhancement of the rural heritage of the territory LAG Oglio Po" aimed at collecting ideas and creative proposals for the area in a fruitive and touristic key. The project proposals have been configured both through the formulation of projects for the recovery and the re-functionalisation of one or more manufactures, both through the definition of strategies and actions aimed at promoting and supporting a more widespread and qualified use of the territory. The ideas proposed within the framework of the Award were the subject of an exhibition and collected in a catalogue delivered during the presentation of the results of the project.

The third phase, of dissemination of the results, provided the creation of both traditional tools (realization of an exhibition, the relevant catalogue and a public moment of presentation of the results of the research) and innovative technological devices for the use of rural heritage (digital application and CoHeSion[6] platform).

For the latter tools, system architectures have been structured.

In conclusion, two considerations can be drawn from the experience developed with the LandsARE project.

The first, it is possible to enhance the rural landscape and architectural heritage through its redevelopment. The project stems from the assumption shared by the partners that the landscape is one of the few key resources for sustainability and improving the quality of life in rural areas. In particular, the partners shared the idea that the redevelopment of the landscape makes it possible to address in a new perspective the design issues of great urgency such as those emerging from critical places of abandonment, the absence or lack of standards and degradation.

The second is that rural landscape and architectural heritage can be enhanced by innovation. In fact, with the aim of strengthening the planning and management capacities of rural areas, promoting the implementation of joint actions and the enhancement of the environmental, cultural, and agri-food heritage, the project aimed to identify and promote innovative ways of exploiting the rural landscape and architectural heritage, enabling economic exploitation, fostering tourism and social attractiveness and strengthening territorial identity.

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[6] CoHeSion (Cloud computing for Cultural Heritage and Tourism in a smarter Region) is an application platform as a useful tool for the discovery and exploitation of the rural heritage of the Oglio Po.

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