Resilience Through Community Landscape Project

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Summary

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CHAPTER I

The Concept of Resilience
in Local and Global Policies

Principles of Urban Resilience for a City Undergoing Constant Change

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A city is hard to kill, in part because of its strategic location and its persisting stock of physical capital, and even more because of memories, motives and skills of its inhabitants.
Kevin Lynch, 1990

For at least twenty years, the urban crisis affecting the oldest industrialized countries has resorted to the principles of sustainable development in the belief that it was possible to re-establish equilibrium in clearly unbalanced settlement systems that were at the centre of increasingly marked and controversial transformations. Faced with instabilities that continually re-emerged, the attempt to unite the three fundamental unavoidable attributes of sustainable development, that is, those related to the environmental, economic, and social dimensions of urban change, appeared increasingly problematic, enough to suggest the adoption of a different perspective. Interjecting the notion of change itself, the *resilient city* no longer proposes restoring balance to the world. If anything, it has to learn from the uncertainty and daily changes that dictate the urban agenda and which create constant opportunities to practice new forms of applied and self-organizing knowledge (Healy & Zolli, 2014). The choice of planners, local administrators, and economic operators to initiate research and interventions to test the resilience of settlement structures and infrastructures usually determines the scope of promoting their restoration and strengthening, but it also betrays the intent to deeply affect territorial governance and the urban-planning discipline. Due to this resolute cognitive turn, improving anthropic systems' capacity for adaptation can constitute a complementary—but no less relevant—way to respond to transformative agents more effectively than the usual tendency to optimize allocations for planned changes. This, in turn, is due to this new front in investigating whether resilience is no longer considered as a simple reaction to a risk situation, but rather represents a specific ability of contemporary society to respond to the change. Society owes its flexibility to an ability to adapt in the face of uncertain and even unexpected conditions, and thus profits from the positive opportunities that the future may hold (De Bonis & Nguyen Xuan, 2013; Cutter et al., 2008).

The Remote Origins of a Very Current Concept

The most frequent use of the term *resilience* to have occurred in recent years may have spread the conviction that it is a neologism introduced only recently in the specialized

debate. However, one need only carefully study its numerous meanings and possible implications to realize that the reference to a particular capacity of determined urban structures to resist external, even traumatic, demands has for some time been present in reconstructions made by scholars of urbanization processes (Mumford, 1967). In fact, both new and the oldest analysis agree that the city, like other living organisms, responds to external pressures according to the adaptability of its structure, which anyway is directly proportional to the capacity of each settlement system to feed a balanced rapport with nature.

Urban resilience can therefore echo the capacity of a city to conserve its identity despite the sometimes dramatic changes to which it is subject. Such is the case of Lisbon after the earthquake of 1755, London after the great fire of 1666, or Tokyo after the earthquake of 1923. Under the gnoseologic profile, it is evident that this is a significantly complex concept. It is connected to the permanence of a memory of the past and the anticipation of the future that seems destined to merge into a representation that is at once social, material, and symbolic. But when we talk about resilience, we should be aware that the transformation of contemporary cities into organisms more adapted to change makes them able to overcome the most difficult challenges and unforeseen obstacles. These problems cannot be overlooked; they question our willingness to face a radical discussion on the current settlement paradigm, if not on the dominant market system.

On the other hand, a thousand-year-old story reminds us that urban development is the result of processes that are neither linear nor reversible. The "lost" cities of antiquity come to mind. Their decline was so serious that it led to depopulation or even definitive oblivion sometimes regarding the same location.

And most of these cases (Ebla, Pompeii, Apamea, etc.) are still the object of intense research activity by historians and archaeologists.

But one also thinks of more recent and no less profound crises that have affected some old industries such as Detroit, again suggesting "ghost towns", which today we call shrinking cities. In contrast to what happened for the lost cities, the collapse of the urban structure this time does not deal with the entire urban system, but only one important part, with the result that it leads to the frequent, difficult socio-demographics and recentralization (Coppola, 2012).

Starting with a synthetic rereading of the traumatic events that have spelled out the thousand-year history of the city, one comes to the conclusion that even the most recent urban crisis can draw useful teachings from the tragic destiny of Babylonia and its high tower. Beyond being on guard regarding the dangers of challenging nature, the dream of constructing a building higher than the heavens—and the confusion of languages that prevented its realization—it reminds us of the need to find agreement among the different specialized bodies of knowledge we usually use to regulate the human-environment relationship. Following this metaphor, we can advance the hypothesis that to increase the resilience of cities it is necessary to adopt a sort of universal language that can help to resume *construction of the tower*. In the current situation this should translate into an attempt to counteract the

decline of agglomeration processes that cannot manage the inherent functional complexity of modern urban systems.

Urban Resilience between Old and New Challenges

The capacity of human agglomerations to absorb the negative effects produced by natural catastrophes and other unexpected or unforeseeable events has long been associated with the knowledge manifested by urban communities and local administrations in their most important settlement choices. According to this traditional view of risk, careful territorial maintenance and correct urban planning would be enough not only to secure the main functions of the city, but also to guarantee conservation over time of identifying values and perspectives for ordered development available to resident populations.

In recent years, this "engineering" approach to resilience, which emphasized questions connected to the stability of the settlement model, was increasingly accompanied by an "ecological" variation. This is based instead on the plurality of equilibrium states and considers a "dual possibility" for a system: absorb perturbations within a given limit, maintaining the characteristics and structure; or change, when the level of pressure exceeds said limit, into a different system, which is not necessarily better (Galderisi, 2013).

More than a competition between competing ideas, these two interpretational models bring to mind a complementary rapport to be exercised in notably complex evaluation problems, which a scheme of reasoning that is too angular would not manage to explore. In reality, the contemporary city tends to propose very detailed organizational formulae that establish the collaboration and/or interaction of a vast range of institutions and actors. Within, the economies of agglomeration clearly overcome the effects of congestion, but only when they are associated with high density—which in many cases limits the negative externalities produced by urbanization—and only if the environmental costs are the object of constant monitoring and active policies aimed at correct resource management and improvement of the quality of life. As a consequence of the combined effects of globalization and de-industrialization, localization factors are therefore quickly changing. The change is enough to undermine traditional economic analysis and decision-making processes based on conventional cost-benefit balance that can derive from both public and private investment. In this perspective, in fact, environmental benefits tend to add to economic and social benefits produced by a policy of intervention. This is the case, for example, with environmental comfort and pollution reduction. They contribute not only to improving the health of citizens, but also to the penetration of green corridors within urban areas, which can favour the realization of a more satisfactory ecosystem balance on the level of the entire settlement. Once again the decisive requirement in overcoming the main threats underlying the most recent urban change consists precisely in the resilience of settlement structures and their ability to "learn" from the urban transformations that, for some time, have been underway in developed countries. New adaptive systems can therefore help to abandon our most consolidated convictions about the existence of determining relationships between the economy and the environ-

ment, and help to convince us to live with complexity. Where the historical city managed to survive for centuries due to its capacity to gradually enrich its morpho-typological and functional structure, the decline characterizing more recent settlements can be associated precisely with our desire to excessively simplify the contemporary city's structure and form. This creates an unsustainable short circuit between the intricate design of socio-cultural and economic relationships that now characterize metropolitan life, and the trivialization of the urban system that has grown hypertrophically in recent decades.

The City of the Future and Governing Complexity

More than twenty years after the Earth Summit in Rio de Janeiro (1992), the centrality of environmental politics has notably increased nearly everywhere in the world. The result is an accentuated interest in how cities will face the challenge of climate change and the increase of anthropic pressure, and in the effectiveness of some provisions that have already been adopted by local administrations in recent years. If we examine the main objectives of these urban policies at this point, it is clear that there is an increasingly sharp rivalry underway about the acquisition or enhancement of resources and common or collective goods that often represent the starting point for developing strategic planning and governance tools.

In defining the benchmarks most often used by large urban areas to direct this competition, we can highlight some orientations and lines of intervention characterized by the prevalence of the most marked concurrent approaches.

• First, there is awareness than a fundamental element for global concurrence is increasingly openly composed of soft power. These are cultural and creative sectors that, together with education and professional training, contribute to developing the mix of skills that revolve around creativity and entrepreneurial spirit, critical thinking, the capability to take on risks, and the collaborative attitude that each conurbation needs to be competitive in the society of knowledge (Morgan, 2012).

• Second, there is a conviction that cultural capital and the organized management of free time can play a key role in acquiring a clearly recognizable image of a city in terms of quality of life. The image is therefore capable of playing a fundamental attractive role regarding tourist flows, new consumer behaviour, and the same localization factors involved regarding innovative businesses (Rullani, 2004).

• Third, there is adhesion to the principles of sustainable development not only as a choice of good governance, but also considering the possibility that cities manage to acquire an important competitive advantage. This is precisely by virtue of their capacity to offer a clean, green, and safe environment (Talia, 2014) for the four populations that, according to Guido Martinotti, "live" in a large urban area (inhabitants, commuters, city users, entrepreneurs).

• Finally, local institutions are willing to improve the requests of responsibility and transparency in their interaction with citizens, in the same conviction that business has. For public administrations, *relational ability* is now synonymous with *competitiveness*, and success resides in the ability to create networks and the desire to stabilize relationships among factors that relate to value production (Bockstette & Stamp, 2013).

Despite the centrality assumed by the economy of knowledge in regulating new forms of urban competition, it is undeniable that the success of these urban policies also depends on the availability of an appropriate, technologically advanced offer of material infrastructures. In addition to the presence of creative capital and the development of immaterial infrastructures, material infrastructures guarantee adequate, accessible levels of services for citizens and businesses. Regarding the availability of resources necessary to guarantee the success of the most competitive urban changes, the need for notable investments deriving from them is often manifest in combination with the presence of decreasing returns typical of developed economies, with a double effect.

a. On the one hand, the process of urban innovation can be fed only by notable financial resources. The distribution of said resources cannot depend exclusively on the involvement of institutional investors, but assumes the determined participation of private capital.

b. On the other hand, if they do not want to depend on choices made by private investors that would risk "folding" public policies to have an immediate return on the capital invested, cities need to be creative and flexible in their financial strategies, basing the processes of public/private collaboration on medium- and long-term visions. The task of urban planning should be to promote positive-sum games, i.e., capable of satisfying all the needs of the community as well as the expectations of economic operators.

Towards Confirmation of a Creative City

As we have already observed, an intelligent combination of agglomeration factors and action to contrast the causes of urban decline in developed countries requires notable development of the economy of knowledge. Creativity is the key to this process in the sense that the correct application of knowledge and creative solutions places humans at the centre of the planning and decision process. It allows for a conscious combination of measures capable of favouring the production and consumption of goods and services under efficient, flexible conditions.

One can likewise claim that the main distinctive characteristic of a creative city is its capacity to promote important urban regeneration and recovery processes without requiring the massive use of public investments or jeopardizing its identifying characteristics. From this particular point of view, the capacity of an urban organism to return to the characteristics and supply of creativity that can favour its success with respect to cities with which it has closer competitive ties has much in common with the qualities that we have seen in resilient cities, at least in its most recent variation.

Resistance to external demands and dangers in the ancient and medieval ages was entrusted to constructive knowledge that was transmitted from generation to generation—and which oriented the fundamental choices of the community relating to the layout of each new settlement and the configuration of its buildings. In contrast, the contemporary city is forced to always find new solutions to challenges and often-unexpected threats. The result is that the supply of intuition and flexibility is favoured over stability and tradition.

Creative resilient cities that we are destined to see in the near future are carriers of a strong innovative character as well as the conviction that "another world is possible". This is es-

pecially true if we manage to implement a careful measure of the costs and benefits of the change and generate resources whose existence we have ignored up to now (George, 2004). This new perspective has the capacity to make a rigorous accounting of the costs of abandonment and poor territorial governance compared to the costs of regeneration and safety measures. As well, it has the choice to aim at containing energy consumption and reducing the costs of mobility without only hinging on technological innovations (reducing emissions, retrofitting existing buildings, etc.), but by more radically reconfiguring the urban system.

In moving towards a new definition of the currently dominant settlement paradigm, it thus seems appropriate to concentrate on the model of the sober city (Moccia, 2014). In the sober city, the governance of processes to enhance urban resources no longer tries to control consumption or prevalently contain it, which would risk translating into a slow, irreversible decline; it rather orients it differently. This substantial modification in the approach used by planning can rely on some important expectations:

- The identification of new principles and rules that can favour reaching some main objectives, such as protecting citizens, residences, workplaces, infrastructures, and urban furniture from risks associated with climate change.
- The adoption of a fiscal policy that can increase the operational margins attributed to the green economy, also considering opportunities offered by new urban policies.
- Accepting the possibility that urban regeneration is based only marginally on capitalization offered by land income, thanks to the search for greater synergy between the orientations pursued by the construction industry and the strategies implemented by the other areas of the urban economy.
- The awareness that the success of public policies reinforces the role assigned to identifying and enhancing local resources.

In this perspective, the availability of conditions necessary for the birth of resilient cities can contribute to overcoming the gap between the awareness that is still limited by the consequences of urban transformations and climate change and the evolution of public policies for taking resolved, effective action. This is an important change from the strong political and cultural impact that can leave adaption strategies with the task of rethinking and redesigning urban spaces that can ensure safety, resilience, and environmental comfort for a growing number of residents in our cities. Once significant progress is made in this direction, the step towards strategies that more generally deal with environmental, economic, and social sustainability can finally be taken.

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Fostering the Urban-Rural Continuum to Design Resilient and Sustainable Cities

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Traditionally, sustainable urbanization is identified with the historical model of European cities, with their dense center and their suburbs. Thus, the "compact city" is often perceived as the universal model of urban transition to sustainability (Neuman M., 2005). Such a claim raises two very simple questions: Is it feasible? Is it desirable?

For over half a century, whatever huge efforts were made by public authorities wherever in the world to limit urban sprawl, they failed miserably. Sprawl has become the usual mode of production of the contemporary city, whatever its size, its institutional and administrative configuration or its policy choices. Even "shrinking cities" and those facing decline and abandonment, have to deal with fragmentation and urban sprawl. It has proved impossible to prevent urban sprawl with the classical urban regulation tools (Mancebo F., 2008).

Besides, in the compact city, sustainability generally means making a better use of what is already there, by recycling the urban fabric and urban functions without going through phases of obsolescence and degraded neighborhoods, and without squandering soils (Swart R. et al., 2003). This is all well and good, but there are other aspects of urban sustainability, which cannot be addressed within the limits of the compact city. For example, any city — be it sustainable or not — has to provide water and energy to its inhabitants, while reducing pollution and processing all the urban waste. Beyond all the well-known technical solutions — smart grids, selective sorting, urban heating, wastewater treatment plants, intelligent buildings, etc. — the energy, the resources, the water, the food still come from outside the city limits. Sewage plants and garbage dumps are also outside. More than that: Even a large number of people working in the city live outside, when they cannot afford to live anymore in the expensive — and sometimes gentrified — compact city. Well, when a place looks sustainable by giving to other places the burden of its transition to sustainability — exporting pollution, waste, polluting activities, while siphoning their resources — this place is not really sustainable. It benefits from what David Pearce calls imported sustainability (Pearce D., Markandya A., Barbier E. B., 1989); a major bias against the implementation of sustainability policies.

Maybe it is time to start thinking different: No, high urban density and compact city are not the be all and end all of transition to sustainability. No, it is not possible to address urban sustainability issues by considering only urbanized areas and urban centers. Yes, it is crucial to design sustainability across or integrating areas large enough to include most of the fluxes of the urban metabolism, which mean areas encompassing suburban, periurban, and dependent rural or natural places (Wheeler S., 2004). As a matter of fact, why on earth are we supposed to set up a false dichotomy between urban and rural areas? Indeed, the social, economic, scientific, technical and cultural transformations

of the last few decades have produced deep changes in how society relates to space. Today, urban areas have either no boundaries or very fuzzy ones. Given that lifestyle, facilities and amenities are not so different between urban and rural areas, is it still worth separating them with an imaginary border? Such a perspective compels us to cast a fresh eye on what is going on with the sprawl, one eye without prejudice, which does not consider from the start only the negative aspects. Naturally urban sprawl has many pervasive effects. It goes without saying that urban sprawl is unsustainable for at least three reasons: the development of estates and the phenomena of urban segregation all conspire to degrade the quality of life with ever-longer commuter travel, accessibility problems; the cost of connection to public service networks is much higher than in urban centers; urban sprawl leads to an exponential waste of land, not only because urban density is low, but also because many cumbersome transport infrastructures need to be built. It must be accepted nevertheless that sprawl does have its advantages. It reduces the concentration of nuisances and pollution, and lowers the density of urban centers that are sometimes on the brink of congestion. Besides, it is geographically impossible for everyone to live downtown. In any case, there is the idealization of an urban life in the countryside, which even if completely illusory, is a myth that fuels the desire. And well, eventually, it is not possible to impose a residential choice when this choice contradicts the deep motivations of a population; this is the reason why all the policies developed to contain urban sprawl have failed.

Thus, to foster urban transition to sustainability the solution is not to oppose urban sprawl but to guide it. After all, low-density urbanization was rather the rule than the exception for centuries all around the world: In villages and hamlets small communities have had a very dynamic social and cultural life. Besides, climate policies introduce new arguments for low-density urbanizations. Green, neighborhoods planted with trees presenting a high water loss coefficient can lower the local temperature. In low density areas more square-meter of roof per household are available than in high-density areas: Thus, generalized photovoltaic roofs can be a significant source of clean energy. Finally, making low density areas sustainable is possible and it obliges to think new lifestyles, in which the improvement of environmental conditions *stricto sensu* (water quality, air, biodiversity, prudent use of resources, land and energy, etc.) lead to improved living conditions (Mancebo F., 2015). For — let there be no mistake about it — addressing sustainability also means recognizing and promoting that cities and urban regions have an unexplored potential in adaptability.

Considering such a perspective, how to design sustainable cities keeping in mind the rural-urban continuum? Is there already any type of urban arrangement that if generalized would deeply transform urban systems while contributing to a more sustainable future. Yes, there is one, and its name is urban agriculture. It postulates that some type of agriculture can flourish within the city. It considers that urban multifunctionality should also include farming. But urban agriculture is both an oxymoronic and elusive term. What are the differences between urban and non-urban agriculture? Urban agriculture is not only about food and landscapes, and urban agriculture production can certainly not be sufficient to feed a whole urban area, anyway. The question then becomes: What specific services may urban agriculture bring to a city and what nuisances and unexpected consequences may result — an important though too often dodged issue—. Indeed, urban agriculture is not such

a fresh idea. Moreover it is certainly not an offspring of sustainable development. Urban agriculture has existed for centuries in very different places around the world, such as the *chinampas* in Tenoch-titlan — the actual Mexico city — since the 15th century or sooner (Torres-Lima P. et al., 1994), the *hortillonnages* in Amiens — a French city north of Paris — for more than twenty centuries (Clauzel C., 2008), or the interstitial gardens (*agriculture d'interstice*) of Yaoundé — Cameroon's capital — which accompanied the foundation of the city in the 19th century (Dauvergne S., 2011).

But what do we really call urban agriculture? And what are its different objectives? Community gardens, kitchen gardens, food farming, for example, are three different things, completely. The types of urban agriculture that exist in a city vary a lot according to the climate, the cultural background, the economic and social situation of the city, etc. In many urban areas of Central America or India, urban agriculture is essentially a food security issue, related to fight against poverty and malnutrition (http://www.fao.org/fileadmin/templates/FCIT/PDF/UPA_-WBpaper-Final_October_2008.pdf). The situation is quite different in European or North American cities. Since the 90s, there has been a growing proliferation of projects promoting urban farming architectures, such as *Agritecture* with *Tree-Like Skyscrapers* (http://agritecture.com/), or *Vertical Farming* (http://www.verticalfarm.com/) — cultivating plants or breeding animals within tall greenhouse buildings or vertically inclined surfaces (Hough M., 1995). At the same time, urban rooftop farms are epitomized by the mainstream medias as the paragon of urban agriculture. There, urban agriculture is mainly seen as a social innovation that contributes to improving the quality of life, fostering social links among neighbors, and enhancing urban landscapes. But what is the real productivity of such a farming? Don't forget that a single cow needs more than 1,5 ha of grassland in his life: There is obviously a huge discrepancy between the dream and the reality. In European and North American cities urban agriculture is not so much about food, really. Its main expressions are community gardens and kitchen gardens. This being said, the complex interactions that food production and distribution has with the urban metabolism should be considered when trying to design a sustainable and thus multifunctional urban fabric (Andraos A., Wood D., 2010).

But, as mentioned by Ulf Sandström (Sandström U., 2002) these gardens as well as urban food farming are often temporary —not to say ephemeral— and eventually they disappear sooner or later under the pressure of urban growth, urban densification and increased property value.

We definitely have a long way to go in including agriculture in urban planning on a permanent basis. Connecting all the types of urban vegetated places from the very center of the city to its outskirts, and beyond to the more rural neighboring areas, would be a good start — as proposed by Andre Viljoen and Joe Howe (Viljoen A., Howe J., 2005). It would establish productive lands as the core as a key component of urban design. Moreover this capillary network, which would penetrate the smallest nooks and crannies of the urban fabric, should be a wonderful tool to link the different components of the city, while providing other ecosystem services such as walking and leisure activities.

Besides, such a network would improve greatly urban resilience, by linking formerly scattered vegetated places within a consistent system. Squares, parks, gardens —community gardens and kitchen gardens, as well as public gardens— and more generally all vegetated urban public

spaces, are obvious components of this network. But forests, wetlands, ancient wastelands and brownfields, slopes and talus, or farmlands may also be part of it. The banks of a river running through an urban area may absorb floodwaters naturally, while being used seasonally as horticultural gardens as it is the case in Amiens with the *hortillonnages*.

In this way, urban agriculture can be the cornerstone that helps reconfigure urban areas, and the backbone of a new and more sustainable urban arrangement to foster urban transition to sustainability in the urban-rural continuum.

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CHAPTER II

Resilient Landscapes for Cities of the Future-Different Keys to Interpreting Change

The Landscape[1] Not Seen

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Reflecting on it now, the title of this session seems imprecise. "The *Paese*[2] not Seen" would be more appropriate. The land is not a landscape, or rather, it is not a landscape yet. *Land* can mean a region, a place, a territory, a group of houses. For the *land* to become landscape, it needs an act, a gesture that transforms it. The gesture can be made by a painter, a writer, but also any one of us. It is enough to pick up the camera and take a photo. I will return to this in a moment.

We begin with the land where I was born, Colli del Tronto, a small town a few kilometres from here. Some years ago my fellow townsfolk organized a committee to block a proposed residential expansion that would have destroyed the last forested area on the hill. The committee was successful and the zoning was blocked. As a manifesto for the initiative they used one of my old drawings, which perhaps contributed to their success. Whether it was good or not, the drawing accomplished the act I mentioned above: it transformed the hill and the town into a landscape. It gave them a form of visually (and therefore definitively) defined lines and colours and, from the moment it was enclosed in a form, it became almost untouchable in the minds of my compatriots. Landscape and drawing wound up coinciding; two different things became the same substance.

Some months later, they met in the square to celebrate. At the end of the evening, one of them stood up and asked me, "I've heard all evening that this landscape is beautiful and so we should defend it. I was born here, I've always lived here, but I've never seen this beauty. Can you explain what this means and why it's beautiful?" I could only give a common reply, but luckily it was late and the meeting finished immediately after. But that question stuck in my mind. What does it mean to say a landscape is beautiful? What makes it beautiful?

Everyone knows the famous saying by Oscar Wilde, "Nature imitates art". We could say that a landscape is beautiful because it looks like a beautiful painting. Wilde maintains that we know the colours and shapes of nature because painters have shown them to us. Starting with Turner and ending with the Impressionists, these are the painters that showed us how the world in which we live is made.

But is painting enough to make us see and understand the nature that surrounds us?

I think the first thing we have to do is manage to see what we have around us in the shape of landscape. English gentlemen from the late 1700s invented a device called a *Claude glass*. This was a small mirror the size of a wallet, usually oval shaped with a small handle. It was carried in one's pocket and taken out when one wanted to look at a landscape. Reflected in the mirror, the surrounding landscape was fragmented into

small images, in some sense becoming small paintings. It was called a *Claude glass* because the surface of the glass was veined with yellow-ochre and imitated the colours in the paintings of Claude Lorrain, who was very fashionable at the time. Thus, the land was transformed into a landscape in an instant.

On YouTube there is an interview with the poet Andrea Zanzotto in which he talks about his father, a landscape painter. His father took him along when he went to paint the country around Pieve di Soligo and urged him to look at the landscape, to examine it, and he explained it to him. Painting a place also means knowing how to describe it. Zanzotto remembers that he credits his father with opening his eyes to the landscape, which thus became the great theme in his poetry. Basically, his father helped Zanzotto understand that he should not just look, but also *see*.

"You should not look at what you want to see, but what you *should* see." I read this sentence in *Colorless Tsukuru Tazaki and His Years of Pilgrimage*, a recent novel by Murakami. What does "should see" mean? It means that decoding what we see is not the work only of our retina, but also of our mind, our memory, what we know, what we are familiar with, etc. When we look at something, whether asked to or not, we can immediately express an opinion, to say if we like it or not. Where does this opinion come from? If we see a painting and we like it, if it moves us, this is not due only to our sight. Vision also involves our mind and inner being. Seeing means not just receiving an image through the retina, but filtering this image through what we have in our most inner repository, which is fed daily throughout our lives. Saying "I like this colour" expresses an apparently simple opinion; in reality it is much more complex than we realize.

Life, school, family, and society never demand that we "should see", even if they demand many other things: knowing, understanding, overcoming, reaching, respect. Never "should see". If I could, I would make it required teaching. Instead, all that we take in with our eyes is stored within as if it were inert material. But it is only apparently inert, because we then discover that this mass of information is what causes us have opinions, and it often directs our actions. Without it, we would have no conscience.

My fellow countryman who did not understand the beauty of his landscape was also right for a second reason. The landscape in which we are born is really the most difficult to see and understand. I sometimes have the impression, which is certainly a little strange, that my body is not completely solid, but is elastic with an almost fluid softness and that it can adapt to different places and situations. I like to believe that when we come into the world, our body adapts to the place where we are born, as if it were a liquid that, while not understanding it, assumes the shape of its container. We are the content and the landscape is our container; we ignore the shape, just as wine does not understand the glass containing it.

Why is the landscape so deeply imprinted on us that it almost modifies us? Because after our mothers' eyes, the place we are born emits the first light that hits us. From that moment, we see through that light, and with that light the world sees us. It is an insoluble graft created between the world and us.

The discovery of my landscape happened almost by chance. When I was twenty-four, I left Colli del Tronto for Milan, hoping to do the work that fortunately I wound up doing. My first job was editing "Il Giorno", an important newspaper at the time, where, along with other tasks, I made one drawing per week for the "Racconto della Domenica" page. There thus passed through my hands manuscripts by authors who are considered classics today: Calvino, Pasolini, Gadda, Primo Levi and many others. One day, after a couple of years, the director, Italo Pietra, appeared before my desk. He always made me very uncomfortable not only for his physical size, but also his importance and political history. He was also an art collector. "I would like one of your works," he said. Surprised and happy, I suggested he choose one or more of my drawings. "No, I don't want one you've done for the paper. I want a painting of your land," he replied. The request left me dumbfounded and at the same time admired. I felt as if a bubble had popped within me, the bubble containing my memories, my feelings, and all the things I had left and now missed—my nostalgia. Up to then I had managed to hide it in a protected place, within me but separate. That request freed the contents and sent them circulating through my veins.

I bought a camera and returned home. But to photograph the town, I realized that I had to distance myself, to leave it, to see it from outside. I went down in the valley of the Tronto River, turned towards the town, and framed it in the camera. In that frame I saw it as never before, as if for the first time. In reality I did what the English gentlemen of the past did with the Claude glass: I put my country in a frame, and it thus became a landscape. In that frame, I saw things I had never noticed before: the shape of the hill, the series and colours of the houses, the trees, the shape of the gardens and cultivated lands. I felt another small crack, like a mirror that breaks painfully, and each fragment reflected a different image. In one was the street I took to school, in another my classmates, the colour of the walls along the streets, my bedroom, the noises, voices, smells. I also had the impression that the houses settled at the top of the hill had not been built, but rather had emerged from the hill as if a seed, an internal energy, had pushed them up, made them grow and flower together with the trees and farmland. I therefore thought about what was below the covering on the hill, what energy was hidden there.

The landscape is like the face of a relative, a friend on which the history of one's life has settled. The face reflects the soul and its past. Just like a face, the surface of a landscape holds its entire history, and the ugly stories are the most difficult to erase. Superficial surgical operations are not enough; action must be made on the places' internal nature and on those who live there.

What is the relationship that develops between a painter and the landscape? To try to answer this question, I refer to two sentences that have struck me. The first is by Rainer Maria Rilke: "It is known how badly we manage to see what is around us, and only those who come from afar can say what surrounds us". The second is by Virginia Woolf: "My roots go down to the depths of the world, through earth dry with brick, and damp earth, through veins of lead and silver. I am all fibre". Two things are necessary to *be* in a land-

scape and represent it. On the one hand, it is true what Rilke says, that to see a place you need to become a foreigner (in general it is always necessary to become a stranger to your ideas in order to understand them better). In fact, to see my land I went away, down into the Tronto valley. But I feel that for me, Woolf's image is also very true. When I paint a hill that is some kilometres away, my feet stand on the same land, and if I planted roots, they would meet those of the hills that I have in front of me. They are nourished with the same humus.

In my paintings there is an attempt to create a real closeness with the landscape to the point that I deceive myself that they are made of the same material.

Tullio Pericoli, *Prima di notte* (*Before Night*), 2012, Oil and pencil on fresco with canvas backing, 60x60 cm (courtesy of the artist)

I would like to conclude by quoting a writer and poet that is very dear to me, Robert Louis Stevenson. In a children's poem, *The Land of Counterpane*, a story about how when he was small and in bed sick, he got lost looking at the extent of the bedspread when he lifted his head from the pillow. The folds and profile became valleys, hills, and seas to imagine adventure stories. The poem ends thus: "I was the giant great and still/That sits upon the pillow-hill/And sees before him, dale and plain/ The pleasant land of counterpane." What Stevenson does not say, instead letting us infer it, is that under the "beautiful country" lies his body, the living body of a poet with a nervous system, a circulatory system, and a soul that creates and modifies the shape of the landscape. We should tiptoe over the landscape and always remember that a poet's soul lives beneath; what we should most fear is to harm it.

Notes

[1] "Paesaggio" in Italian.
[2] "Land" in English in the sense of a place one belongs to.

Tullio Pericol, *Combinazioni* (*Combinations*), 2012, Oil on canvas, 40x40 cm (courtesy of the artist)

New Cultural Landscape

Guido Guidi with Vincenzo Zenobi and Mariano Andreani

☞ Interview with Guido Guidi (GG) led by Mariano Andreani (MA) and Vincenzo Zenobi (VZ)
(GG) Photographer and instructor at the IUAV in Venice, the Ravenna Academy of Fine Arts, and ISIA Urbino, he deals with man-altered landscapes.
(MA) An architect, he collaborated with Guido Guidi in 2003 and carries out research and teaching activities regarding the landscape.
(VZ) An urban planner, he earned his PhD in territorial planning at the IUAV in Venice and works in the urban and landscape planning office for the Marche Region.

MA Tullio Pericoli talks about starting to draw the hill landscape in the Marche Region only after having framed it through a camera. How did you start to photograph and why were you immediately interested in ordinary landscapes?

GG I would start by considering the etymology of the word. In Romance languages, the etymology of *landscape*—*paesaggio* in Italian, *paysage* in French—comes from the word for *country* in the 1400s. English and German—*landscape* and *Landschaft*, respectively—have a different meaning, referring to a portion of the territory, a zone, a part of the region. They are two opposing attitudes. The Romance *landscape* refers to a country and a view of it and recalls a refined experience; the other recalls not only a contemplative aesthetic experience, but also a direct one, with the thing itself, which thus also includes direct knowledge of it.
The idea of the landscape recalls the idea that nature imitates art. I experience nature only if I have experienced art. Kenneth Clark, in his book *Il paesaggio nell'arte* [The Landscape in Art], tells us that Hannibal crossed the Alps, but to really see the Alps it was necessary to wait until Leonardo drew the mountains in the *Mona Lisa* or in the *Virgin of the Rocks*. This is how I would understand "representation that allows one to see". Hannibal crossed the Alps and didn't see them. For him the Alps were simply an obstacle to overcome. There is no description of the Alps in the report of Hannibal's trip because they didn't look at them as they passed through. The everyday landscape is the same for us. We don't see it, we don't describe it, because we think that the landscape should be like what the Po Plain was for Hannibal. For Hannibal, as for the English travellers, the landscape started with the Po Plain, while the Alps, which were overlooked, were also for the English just an obstacle to overcome.

MA In his book Lo *stile documentario in fotografia* [The Documentary Style in Photography], Olivier Lugon shows how, in the 1900s, photography came into contact with other disciplines (geology, geography, natural science, and human science). It was progressively freed from its limits of imitation and the auxiliary role it played to painting and began to conquer new areas of its own. The concept of documentation, which photography has referred to up to today, also began to change in that period. The overriding force of its contract of truth with the observer and therefore the denotative aspect of the document (Urkunde) lessens in favour of a connotative component, the fruit of the

author's individual experience. Now the cognitive value of photographs, their meaning, is negotiated and built around this central figure and its interaction with other areas of knowledge, thus laying the basis for a new idea of art (Kunst). It is interesting to note that in following these epic changes, other concepts in the history of art are organized in new ways. This is the case of the idea of the landscape that I talked about before, which was enriched by the term *Kulturlandschaft*, cultural landscape, used in geography to identify the landscape modified by humans, and which, starting in the 1920s entered the lexicon of photography…

GG Certainly there is not only painting, but also other disciplines such as architecture and urbanism. When I started to photograph, I passed through another school. In industrial design in Venice, the goal was to learn from nature, therefore photography also served to observe how nature builds its forms. One of the exercises we did, for example, was to cut a shell in half, photograph it to see how it was made, to learn to then build a supporting structure like nature does. We halved a pear, an apple, and orange to see how they were built. It's an idea of design that looks at nature according to one of Munari's idea's that was, like the Bauhaus, very different from the idea of nature that is only contemplated. On the contrary, one aspect of modernism is disdain for the landscape. Starting from the 1800s with Baudelaire, who disdained nature, up to Boccioni, it's an attitude that then spread rapidly and arrived almost to today. In contrast, in America, Hopper went back after studying the impressionists in Paris and said, "Enough, I want to paint the American landscape".
I remember once in the 1970s, a painter friend of mine from Cesena stopped to take a picture while he was wandering in the country and said, "What luck you are a photographer and you can shoot the landscape". For modern painters, the landscape was taboo. They could only allude to it at most; they couldn't reproduce or imitate it.

MA The reflection on language seems to refer to signature photographs. What are the distinctive ideas and characteristics of such photos, in your opinion?

GG It is difficult to say what makes them signature. For some people they are recognized by a style. For example, in Petrarch's usage, the son of some person is similar to the father, but it is not the father, it is himself. The same is true of a person's style. It combines others' styles but is individual because that person is himself with his physical connotations, while still resembling the father.
An author is someone who comes from a cultural tradition that he is aware of because he knows history. An author is someone who knows the specific culture of reference, but at the same time is different from the others because of a difference like the one between the son and father. Maybe I am an author because I know a history, because I refer to Evans, Atget, Strand, those fathers who have influenced me in some way, whom I have loved. And in loving I have tried to use their methods.

MA As you understand it, is photography compatible with an idea of repeatability, of returning to places?

GG The analysis of Rosario Assunto already concentrated on this aspect of dealing with both the spatial and temporal aspects of the landscape. Temporality is directed not only at the past but also

at the future: the landscape as history on the one hand, and attention for what it can be, for transformation, on the other.

This idea of seeing the landscape over time, its transformation in time—with the country, the trees, the houses that change, get older, fall, and then are replaced—are part of a temporal glance at the landscape that is also mine. Going back to see how a place has changed to focus precisely not only on space but also on time. And not only on history, but also the future…

Then, it is not by chance that the operation of the *Observatoire du paysage* began in France where Atget worked, who went back to photograph the same places even after twenty years. But I think that the French project was a little mechanical, as Gilbert Fastenaekens told me. He is one of the photographers who participated in this work. Every year you had to photograph the same street corner, which is a little simplistic with respect to the need to look over time and a little reductive with respect to the theme of landscape temporality.

MA When you started to photograph, was your interest immediately aimed at the daily, ordinary landscape?

GG For me it was necessary to work in this way. It was a conscious need. I had no alternative. One can find reasons after the fact, make remarks, but I wouldn't have known what to say before. Maybe the models that I had were American, an experimental culture that derived from John Dewey, a way of working and doing in which the process is everything, the result. What remains are the traces of an experience that was.

At the end of the 1970s and the beginning of the 1980s, we were accused of wanting to "fa l'americano", as the song says: they accused us of a love of foreign things. They said the Americans photographed bollards or fuel dispensers because they had nothing else, while we had to photograph very different subjects, with our many churches and castles.

My friend Luigi [Ghirri] was also considered "American". But he changed the focus a bit, maybe also following some commissions. From an analytical approach to contemporary society, with its pop and conceptual components, he returned to *vedute* and central perspective, the paintings of Bellotto, the landscape as a framework for the Bottai law…

I was also conditioned in some way by commissions, essentially by my architect and urban-planner friends: I was stimulated to look in the opposite direction, that of ordinary, daily landscapes, residential ones or those undergoing change, but with the means of making the landscape an experience. I persisted in looking at the landscape not only from above, but also close-up in an analytical way.

MA Going back to the beginning, I would like to understand what the landscape is, especially the landscape of photographers, and yours in particular, which is not the natural beauty of monuments, but rather the landscape of the Po Plain, an anthropized, cultural landscape.

GG There is an aspect of dominion over the landscape in traditional Italian culture. The cultural landscape of the Italian tradition is introverted, domesticated, directed only at the city, at the *hortus conclusus*, a domesticated garden. In contrast, the "natural" garden also appears in the traditional

English landscape, which is certainly cultivated, but the gardener isn't seen. This aspect of dominion over the landscape in Italian culture is not a useful reference for a view that does not want to dominate the landscape. Not a view from above, but a direct, fragmentary one.

There is, for example, a very nice book by Svetlana Alpers, *Arte del descrivere: scienza e pittura nel Seicento olandese* [The Art of Description: Science and Painting in Seventeenth-Century Holland]. She makes a difference between Italian painting, which is interested in human achievements, and Dutch painting, which is interested in describing places. Like traditional Italian photography, it isn't oriented at places, but at human actions. Italian photography is traditionally that of reportage, not of the landscape.

VZ You are maybe more interested in the traces of actions made on places. Some residue of human action is visible in your photos and seems to question us about the place, forces us to reconstruct or imagine a story. "What might have happened?" "Why is there a sign?" "Why did the work begin and never finish?"

GG I would agree; I wouldn't add anything. Mulas also said this: "If I take a picture of a room, I see a room. If I take a picture of a room with a person in it, the first thing I see is the person, not the room." The background, the container shouldn't be so. I can also photograph a person in the landscape or in the room, but my aim is to highlight, increase the landscape through the person and not represent the landscape as a function of the person.

This was also the hypothesis of the Thomists, to consider the background as a fundamental part of what a person originates from…

VZ I would like to understand better—in relation to the photography campaign you did for the Marche Region, but also related to your work in general—what captures your attention when you work. When you wander through the landscape, why do some things strike you more than others? And how do you compose them in the image? Does it interest you how one object relates to another or the question the object can pose for the observer? Even if each photo is obviously different from another, is there a thread that connects them, even in the way you build an image?

GG It is difficult to describe the process, which is varied and not always the same. Sometimes I start from other photos. As Gombrich said, "You start from what you have already seen, even if you then have to delete what you have seen and start from zero". I am here, I see a wall that in some way intrigues me, due to I know not what; because of other photos I've seen or childhood memories or experiences I had as a child or as an adult. The aesthetic experience can't be separated from life. I start from this situation. Then the problem is to give structure to the image. Here's an example. There is a wall; there's a lizard on the wall I would like to photograph. Based on the camera I have, I place myself at the right distance so the lizard and a fly that is nearby are both visible in the final print, which I imagine to be 20 x 25 cm. Then I structure the image, the frame, and I choose the distance especially based on what I would like to appear, for which the photograph holds a memory. To memorize the lizard I should see it. If it were a point, it wouldn't be recognized and would disappear. On the other hand, if I get too close, I would see only the lizard and not the context, because

in the photo there is not just the lizard, but also the brick, the chipped plaster, the doorjamb, the shadow of the leaves in the tree…

All of these elements should be visible through a structure that I create. It is not a composition but rather a structure that I try to create quickly; it is a question of seconds. I can't stop to think too much. There are the rules of three-thirds, four-thirds, the golden rule… They are all sort of a background that one makes and which requires no thought because the structure comes by itself. So what are the things that interest me? I would say that anything I can realize is a possibility.

I'm also inspired by James Agee, who said, this object is beautiful, this house is beautiful not because I say it is, but because it is beautiful. I simply photograph it to recognize, to participate in this beauty, to care for this beauty. Photography is a gesture of love as Lattuada said in *L'occhio quadrato* [The Square Eye], a book published in the '40s that spoke about the eye of love. For the rest, Gregory the Great, I think it was, said "*ubi amor ibi oculum*": where there is love, there is also the eye.

Roland Barthes, in a letter to Antonioni published in *Cahiers du cinéma* [Notes on the Cinema] about the documentary he had filmed about China, talks of three virtues of the artist. One is to care for, watch over, and love the things you are dealing with. Attention is an insistence in the look that results in a sort of vigilance, the vigilance of love.

VZ It is also interesting this desire to make also the more secondary elements of the ordinary landscape last, to find the sublime in the ordinary, which are then no longer such separate dimensions. This attitude, as you said, of love for things means that attention is concentrated on the rest, on the shadow, on what quickly disappears.

GG Yes. Making an ordinary landscape become extraordinary, to find the sublime in the ordinary. It is also very Zen, if you will. It isn't necessary to go to exotic places to take pictures because everything is mysterious, extraordinary, starting from the doorway of your house. Just go down the steps and you find the world. The world can be around the house. One can go further, but it isn't necessary to take a plane. It is excess attention for things not to discount them as negative, as anti-aesthetic, even the surrounding landscape. Guilty is the art that, not dealing with the landscape, is complicit in degrading the territory.

VZ Your attitude about the things you photograph is clear, but do you in turn expect some attitude or assumptions from those who look at your photos? Your photos often pose questions rather than give answers. So it seems it's important, as you have an open attitude towards the world, that those who look at your photos are open to your images.

GG I expect an attentive, meticulous look, as Belinda Rathbone said about Evans: a look that is so attentive that it also makes me, who have seen and photographed, also see. When I photograph I sometimes realize I have made a fair photograph, but not really deeply. I realize it over time.

And this is wonderful; otherwise it would be boring to take pictures of things when you already know why. In time, you realize you have captured something… I wouldn't want to be rhetorical, but

a few days ago an English critic David Campany asked me why I use such delicate colours. And how it was possible to use delicate colours when one is trying to criticize the world. I answered that criticism didn't interest me. The problem was that of the view, not the criticism. Then there can also be the charge that I have taken sides…

At a conference of the Association of Architects in Bologna, the president of the association observed that the photos I had taken were at least bizarre, at the very least, because I had very carefully photographed buildings that according to him should be razed; they were sheds for farming equipment. Through this well-made, careful photograph I had challenged his preconceived notions about what was right to raze and what should be conserved.

One of the things I inevitably think about and try to include in the photo I am taking is a sort of view of things. I am looking at what I'm shooting through the camera; the object in front of me is a living object, it should be something that looks at me, which in turn also has a view.

This relationship should be felt between two subjects but it especially refers to the act of looking itself. I can't sympathize with the entire world if I acknowledge what I'm doing. When I look and shoot, I acknowledge what I see, but this isn't complete until I also realize the fact that I am looking. Everything acts within the act of looking. Listen by looking and acknowledge it.

Fig. 1: Ancona, 2009

Figg. 2, 3, 4, 5: Lucrezia (PU), 2009

Figg. 6,7: "Fossombrone (PU), 2009"

The View from Urban Planning: New Landscape Scenarios for the Changing City

Massimo Sargolini

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The great ecological, economic, and social changes underway are provoking serious crises on different levels. Cities are becoming ever more vulnerable to external demands, especially because they have always been designed and organized to provide static images and respond to unchangeable balances. Despite the fact that the ability of an organism to adapt and therefore be flexible has been theorized for living systems for some time (Bateson G., 1972), it is late in affecting and seeing applications in the field of urban planning. Tension in civil society, and therefore in cities, had to increase in order for it to become aware of concerns about the future of the planet, which were punctually announced by different international bodies even at the beginning of the 1970s[1].

Finally, planners, administrators, and even economic entrepreneurs are uniting in a need to increase flexibility for the survival of the system. Naturally, as often occurs, it was precisely the economic sectors, which were at first inattentive to and distant from the ecological questions, that have shown the necessary acceleration for new policies to structure and organize the city and territory. The awareness is that there cannot be economic prosperity in territories subject to ecological crises. In addition, at a time when traditional economies are stagnating globally, the hypothesis of emerging forms of green economy would represent new opportunities to realize less energy-consuming cities. Such cities are also more livable, capable of adapting in real-time to internal and external perturbations, which have been uncontrolled and uncontrollable up to now.

It has been convenient, in a broad, extensively shared way, that the increase in urban resilience was the main way for cities to respond to the changes underway. This common interest and view regarding the diagnosis of a sickness that afflicts our cities to be combated through an increase in flexibility, crosses a wide range of possible therapies.

Resilience is the capacity of natural, human, social, economic, and institutional systems to react to crises. They therefore not only know how to react to pressures, but also know how to trace new processes of urban and territorial sustainability. Cities and territories are impressed with approaches that enhance and produce resilient landscapes. This is an effect of policies, plans, and projects characterized by elasticity (self-regulating tools that are dynamic and continually evolve), retroactiveness (multi-scale tools that are incremental and cumulative), and ecology (adaptable, qualitative and recyclable, compensatory).

In city regeneration processes, the landscape vision becomes the right angle to pursue the objective of resilience. Resilient urban landscapes will be the indicators of the good health

of the territory, which is due to policies, plans, and projects centred on protecting and strengthening natural cycles, the livability of cities, sustainable mobility, culture and territorial identity, and safety and personal health.

To reach these goals, the rationalist view of the city should be overcome. This includes the monofunctional division of human activities that has led to defining plans and projects that are ineffective at managing urban and territorial phenomena and unadaptable to external shocks caused by climate change and social and economic change (Harvey D., 1990). This reflection is even more poignant when facing large contemporary urban areas where the continuous contamination and confused juxtaposition between city and country already presents ways of overcoming the rigid division of land functions and uses to introduce new means of interaction between parts and components of the city that are different but intimately connected (Gambino R., 1997).

When designing new urban and territorial organizations it is necessary to provide more integrated and systemic points of view, especially in these new areas of complexity. This means recognizing that climate, and therefore ecological, changes are not disconnected from social, and therefore economic, changes. In some previous research projects, attention has been focused on the role of open spaces in favouring the formation of more flexible, more adaptive cities (Sargolini M., 2012). Starting from the landscape vision as the way to define local actions capable of linking human activity and nature, we would like to investigate its relationships with urban resilience. The landscape vision can read and make design interpretations (Peano A. et al., 2011): ecological conditions and economic dynamics, aesthetic formalisms, and collective recognition. In this way, the landscape vision is prepared to control not only what could be local actions for urban regeneration in technically circumscribed terms, but also and more in-depth, dynamics and virtuosity to implement so the city's identity can survive.

Global changes and local changes

Our cities are affected by global and local changes. The former relate to ecological, social, and economic phenomena that involve the entire planet. They run from climate change to the resulting desertification of some lands that are becoming sterile and inhospitable; from pollution to the resulting depletion of essential resources; from wars to the persecution of some ethnicities; from the loss of liberty to the growth in cases of extreme poverty and consequent large migration phenomena. These changes require rapid, immediate measures to deal with emergencies and world politics in the medium to long term to increase the sensitivity of national and regional governance and mitigate or reduce problems at the root, knowing how to offer responses and reactions in real time.

On the local level, growth or degrowth processes in urban and peri-urban areas can be seen and sometimes identified as a direct consequence of global changes. Contemporary cities do not seem capable of orienting these types of change. Some grow excessively to-

wards the country, occupying spaces that were once natural or rural in search of a new human-nature rapport seen less in cities. Thus develops the phenomenon of the diffuse city (Forman R.T.T., 2008). Others tend to dry up, to contract until almost disappearing; this is the phenomenon of shrinking cities (Langner M., Endlicher W., 2014).

While extra-urban and rural spaces close to large demographic centres undergo the invasion of dusty, diffuse urban components, those falling in the marginal areas of the hinterland, once anchored to the liveliness of rural and mountain towns, register devastating processes of demographic hemorrage and cases of real abandonment. The result is the depletion of the diversity of agrarian land use that is trapped in dangerous homogenization and standardization trends due to the industrial agriculture or to the widespread renaturalizing that invades and also absorbs original traces and signs. From research developed for the area of Castelluccio di Norcia within the National Park of the Sibillini Mountains (see Fig. 1) it is clear how the progress of abandonment processes in the Great Plain by local farmers and breeders could favour the disappearance of different types of cultivation in the area (barley, wheat, lentils, etc.). It would also favour the development of homogeneous beech forest (considered the vegetation belt above 1200 m), with the related loss of biological and landscape diversity (Teofili C., Clarino R., 2008).

In research underway in the Marche Region and Lombardy in accordance with the strategic areas within the Italian Ministry of Social Development and Cohesion, we highlighted criticalities that result from the abandonment of inland areas. These go from the loss of territorial reference for local communities to advanced hydrogeological degradation due to the

Fig. 1: Castelluccio di Norcia. Pastures at the foot of Mount Vettore (photo: Ilenia Pierantoni)

lack of "sentinels" and "territorial defence". In response to these problems, pillars have been identified to impose a rebirth of inland areas, starting by rationalizing school, health, and transport services, digital agendas, and coordinated actions for endogenous development. Italy is a country characterized by a polycentric territorial model, where a tight network of relationships between urban, rural, and small town areas define an interdependent space in which the major centres, offering services to citizens, grow as population attractors.

The less easily accessible rural territories, with their scarcity of services, have been key players in a long, progressive abandonment in favour of urban areas, with elevated costs for society. These territories, which today cover about 60% of Italy and are home to around 14 million people, are, however, also the place of great unused territorial, natural, and human capital, which is considered to be strategic for the relaunch and growth of the country. At the same time, some inland areas have been the home of good policies and practice, with the result of having stable or growing populations. The communities have cooperated to produce essential services; environmental or cultural resources have been protected and enhanced, thus demonstrating the non-inevitability of the general marginalization process and the capability of these areas to contribute to processes of growth and cohesion. It is therefore evident that there is, in this wide part of the country, strong potential for de-velopment that the construction of a continuous national, robust, participatory strategy can liberate[2]. At the centre of the national strategy for inland areas is the quality of life of the people: intensive development, with an increase in well-being and social inclusion for those who live in these areas; extensive development, with an increase in demand for work and the use of territorial capital. This new strategy is capable of touching each region and macro-region of the country, initiating local actions in response to global changes, and can contribute to reigniting the economic and social development of Italy.

New Relationships Between City and Country: The case study of the Adriatic City

It is impossible to imagine working on the new flexibilities introduced in cities to increase their resilience without considering the new universes of sense that orient the relation-ships between city and country. The resilience necessary to respond effectively to external and internal pressures on the city should involve forms and networks to be organized precisely with regard to relationships between urban and extra-urban areas. Along these lines, important advances should be designed with respect to the determinism of traditional urban planning that is still based on the development of rigid, immutable approaches to technical urban planning. These approaches are incapable of confronting the complexity of evolutionary dynamics of the environment and landscape. We often forget that we can nev-er resolve the problems of the city by prefiguring functional and definitive compositional configurations. However, we should learn from ecology and study systemic and complex means of intervention that are continual and progressive, keeping in mind the ecological, economic, and social structure in continuous, unstoppable evolution. In sum, this is about

intervening in territorial governance. It also includes technical urban planning, but goes well beyond and forces systems of decision-making support to be favoured over pre-packaged recipes that are slavishly applied.

The case study of the Adriatic City lends itself very well to this experimentation precisely for the intense dynamics that have characterized it in recent decades along with evolution of the settlement, infrastructure, and production morphology and the ecological balances in this part of the country. The Adriatic City presents a coastal agglomeration charged with hydrogeological criticalities (the different cases of flooding in populated coastal areas come to mind) and sources of isolation between the seaside area and the inland resources. The longitudinal development of the Adriatic City, essentially due to concentration of the main economic activities (tourism, industry, specialized agriculture) following the main infra-structures along the coast (all in a north-south direction), has always opposed any rapport with the inland areas (Fig. 2). Paradoxically, sprawl, which from the coast expands towards the rural hill system in the background, has not facilitated this contact in that the transfer of some urban conclaves in the rural area has often polluted contact with true rurality. Faced with this phenomenon of urban diffusion, three different possible scenarios can be profiled.

• The first is limited to stopping sprawl with univocal territorial choices aimed at pursuing zero land consumption in the coming years. Pursued alone, this scenario does not give just importance to the social value of these places that, in their chaotic juxtaposition of functions and uses, maintain a relevant settlement vitality and the energy adopted to activate a regenerative process. In fact, these areas are often home to more entrepreneurial and dynamic economic forces and the necessary impetus for urban rebirth.

• The second supports this form of urban growth without interfering too much and without blocking the basic spontaneity of settlement diffusion. It is true, in fact, that

Fig. 2: View of the Adriatic coastal city from the historical centre of Grottammare (photo: Ilenia Pierantoni)

these pseudo-cities, while presenting a low quality of life, respond to the needs of extraordinary productive functionality (for example, the manufacturing districts in the Marche or Veneto Regions). However, this strategic option, on the one hand, would be like renouncing assurance that these areas can finally transform into real cities. On the other hand, it favours continuing land consumption, with all the unsustainable ecological effects that this choice entails.

• The third is to work within urban sprawl, regenerating and giving meaning to parts of the city that are still not city. This is probably the most complex and laborious route for planners and those responsible for governance, which is configured sometimes as a real cultural bet. Without diffusing the good energy and vitality of those peri-urban areas of settlement spread where many nodes of activity and entrepreneurial initiatives are now concentrated, it will be necessary to start again from consolidated successful relationships between uses and functions to reach an opportune functional rationalization and consequent redesign of the territorial structure and overall urban form (Maldonado T., 1970).

Bringing into play the relationships between city and country, the third scenario could probably contribute to reducing or mitigating those deleterious effects for the quality of life that mark the current peri-urban structure, that is:

• negative ecological effects relate to very serious contraction of the soil for the groundwater replenishment, reduction of biodiversity, increased pollution (Massa R. (2005);
• negative effects on the economic and productive activities strong increase in energy consumption;
• lack of green open spaces for recreation and activities in contact with "nature";
• lack of environmental comfort.

This would involve defining strategies and rules to:

• orient and discipline the urban contamination of rural areas that occurs spontaneously and without regulations, monitoring its effects. For now, the phenomenon of movement towards the country by urban populations is not quantitatively very significant and it involves classes of a medium-high cultural level (Salsa A., 2007) in search of livable environments;
• guide the landscape from traditional agriculture, concentrated exclusively on productivity, to the development of important interactions between agriculture, wine and food, and tourism. Beyond facilitating physical and virtual access to many inland areas that were once remote and inaccessible, the search for quality agricultural products and the resulting incentives for organic agriculture favour this landscape;
• find an adequate formalization of human-nature contact, also within cities. Forms of urban agriculture and urban gardens, first spontaneous and then ever more designed and planned, have facilitated quality local production on the one hand, and, on the other, have given form to new places of collective identification, considering the social role that such realizations imply (Fig. 3).

Fig. 3: Riparian greenery along the waterways bordering Civitanova Marche enters the city and redesigns the form (graphics: Serena Bordoni)

The Landscape Vision for a new City Project

Therefore, sprawl, with all its negative effects on ecological and territorial balances, has been favoured by citizens moving towards the country to re-establish new contact with nature. It seems paradoxical, but it is precisely thus. Natural, semi-natural, and extra-urban areas have been contaminated by a slice of the population that, expelled from ever more congested and unlivable cities, has made a life choice aimed at re-establishing refreshing contact between humans and nature. However, this deals with small data that do not invert the phenomenon of urbanization (Osti G., 2013) in constant growth (Burdett R., 2006).

So that this relationship can reform a transformed, compromised territory, it is necessary to assume a special systemic vision: the landscape. The landscape of contemporary life is made up of relations between the modern settlements, production areas, rural areas, and nature (see Fig. 4). The European Landscape Convention is very explicit in this sense and

leads us to affirm that one cannot speak about landscape and not reveal a relationship between man and nature (Priore R., 2009). But when the relationship between the work of humans and nature also produce degraded landscapes, we should also consider this as landscape (see Fig. 5). In this case, the quality of the landscape is low and the goal of urban planning is to reorganize the relationship between human activity and nature to increase the quality of the landscape (Lefebvre H., 1970).

Therefore, to respond to those expectations of populations that leave the cities to rediscover a favourable rapport with nature, it is necessary to start from the landscape vision (Magnaghi A., 2007). Only with the landscape vision can the urban planner unite environmental needs with the expectations of the people; the practical requirements of the city with the quality of living in the city and energy savings; the management of open spaces with the emotions of the people. In this sense, a synthetic assessment of the landscape is also useful to bring together the different limits and components (Cassatella C., Peano A., 2011).

In the case study of the Adriatic City, starting from the landscape vision, it is possible to:

- design the means through which the environmental networks, the heart of naturalness (the Apennines), penetrate the diffuse coastal city, assuming different compositional

Fig. 4: Contemporary landscapes in the Chienti Valley are composed of close interactions between new settlement areas, production areas, and rural areas (photo: Ilenia Pierantoni)

aspects: densification, disperse points, threadlike forms (Fig. 5), thus contributing to designing the city lands;

• restore peri-urban areas, both when the borders of the cities, close to the limits of the densest settled areas compared to those more diffuse, can be delineated with green belts, and when they can be identified with that wide, dynamic band composed of the interweaving between settlement diffusion and rural residue (Fig. 6);

• reorganize the distribution of open spaces and urban green areas, encouraging an implicit desire in the population to recreate contact between people and the land (the case of developing urban agriculture also assumes an aesthetic-decorative role in open urban spaces beyond the social role) and between people and nature (artificially introducing wilderness spaces in the heart of the city. Starting from the experience of English and American parks in the last century, is actually reproposes a "more Mediterranean" version in Italian cities) (Fig. 7);

• study the means of aggregating buildings and open spaces to compose less energy-hungry and more energy-efficient cities from the performance point of view[3], considering the extraordinary role of open spaces in the development of ecosystem services in favour of the population (Santolini R., 2010)[4]. This also includes studying new uses for ex-industrial areas (Sargolini M. et al., 2009), residual areas, and urban swaths that become strategic areas and strong points in reorganizing the city (Clement G., 2005);

Fig. 5: Degraded landscapes. Hydrogeological instabilities caused by the poor interaction of nature and human intervention: the Fiastra River near Sforzacosta (MC)

• orient and discipline the means of interaction between the city and forests, considering the risk for the contemporary city to be absorbed by the expansion of nature and the desire of nature, which tends to interest ever wider swaths of the population;

• favour the interaction between the system of small- and large-scale urban green areas, and the heart of extra-urban naturalness, establishing distances that the urban area extends "beyond the doors" to situate itself in the natural circuit of the territorial context; regulate relationships between the environmental and infrastructure networks (Mell I. C., 2008), green, blue, and grey networks, with particular attention to accessibility, the system of ecological mobility, technological networks, and more generally, the system of access and use of the city. This in particular relates to the fact that cities were not designed to place the movement of animals and plants before those of humans, but rather to reconcile the activities of different guests on planet Earth.
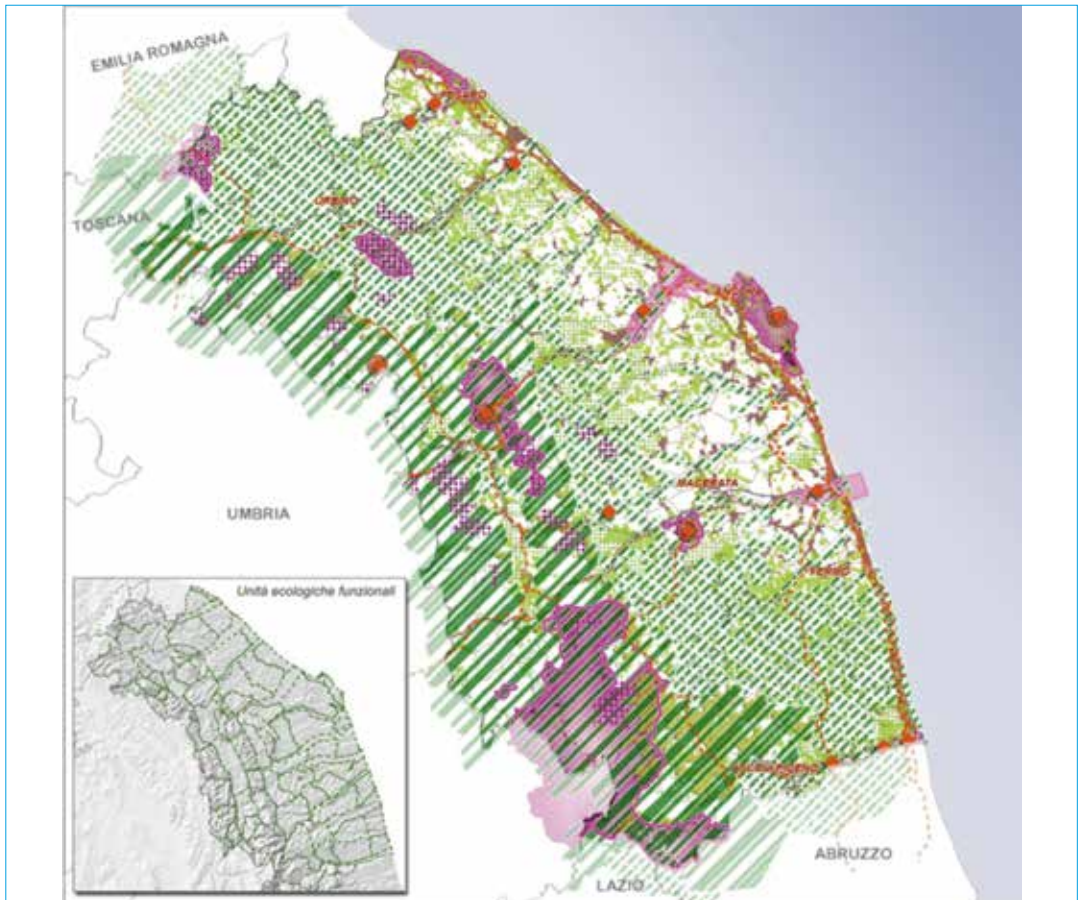
Fig. 6: REM (Marche Environmental Network). The ecological functional units of the Apennines thin out and enter the Adriatic City

Fig. 7-Hypotheses to reorganize the green continuity and open spaces in the city of Ascoli Piceno (graphics: Bocci, Ciavatta, and Cicconi)

Notes

[1] See, in particular, reports produced by UNEP and WWF International in recent decades.

[2] This strategy will be activated using the programming of municipal funds available for all regions of the country for 2014-2020, combined with the availability of resources dedicated by law to stability as the financial and methodological occasion and lever. It is a work in progress, through a close understanding with the regions and the profitable involvement of the municipalities and provinces, aware that a national strategy should contribute to setting local, open, and innovative communities at centre stage. More in-depth information: UVAL (Italian Assessment Unit for Public Investments) "National strategy for inland areas: definition, objectives, tools, and governance" year 31 2014.

[3] In studies conducted under FAR UNICAM 2013-2016 research within the interdisciplinary working group "Quality of Landscape and Quality of Life" coordinated by Massimo Sargolini, it was confirmed that to control the temperature (a large-scale indicator of the quality of life), the intervention limited to the building cannot exceed a certain threshold. It is necessary to intervene on the overall organization of the city.

[4] According to the definition given by the Millennium Ecosystem Assessment (MA), 2005, ecosystems are "the multiple benefits provided by ecosystems for the human race". The MA describes four categories of ecosystem services (Monfreda C., 2008): life support (cycle of nutrients, land formation, and primary production); provision (food production, potable water, materials, or combustibles); regulation (climate and tides, water purification, pollination, and infestation control); cultural values (aesthetics, spirituality, education, recreation).

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CHAPTER III

The Landscape as a Laboratory for Good Living: The Fruitful Relationship Between Agriculture, Tourism, Natural and Historical/Artistic Resources, and Knowledge of Places

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Introduction

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In recent years, many policies have promoted a vision that integrates agriculture, tourism, the environment, cultural legacy, and quality food production. Reference is often made to the landscape as an icon for promoting the uniqueness of European territories and as the expression of a new humanism in living, public enjoyment, production, consumption, and externally recounting the experiences and knowledge of a place.

In promoting the details of the territory as suggested by the European Landscape Convention (ELC), the landscape becomes an essential factor in evaluating the quality of life and the well-being of individuals and society. The landscape also becomes a laboratory for experimenting with the effects on people of behaviours and policies regarding the environment, rural areas, cultural heritage goods, and food quality.

Furthermore, the quality of life is the point of contact between the attractiveness of a place for reasons of temporary touristic stays and the use of an urban or territorial area for long-term living. In this time of profound economic change, a wide debate on the ways of evaluating a community's well-being is underway. Other indices combined in different ways are replacing the GDP (gross domestic product). In such cases, a quality landscape can contribute to improving the living conditions of local populations and increasing the touristic attractiveness of a place.

Landscape Laboratory for City and Territorial Projects

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Agrarian landscape, cultural landscape, enhancement of minor historical centres and the historical/architectural heritage, small islands and sustainable development, city and natural reserves, decommissioned areas as an opportunity for innovation, green infrastructure: these are the concepts emerging from the session *The landscape as a laboratory for good living: the fruitful relationship between agriculture, tourism, natural and historical/artistic resources, and knowledge of places*. They are different point-like themes that address the question of city and territorial design with a wider view encompassing an overall landscape project as the synthesis of research, knowledge, socio-behavioural practices, and urban-planning projects, organized on both the urban and/or territorial scale. The experiences presented prefigure an open landscape laboratory that is home to multidisciplinary and multi-scale proposals and projects, attributable in many cases to precise urban-planning tools.

The demand for design that emerges from the session relates to the conservation, protection, enhancement, and management of the transformations on different scales. It seems to suggest an integrated design process based on a renewed territory/landscape/city rapport in which the landscape becomes the supporting structure of a developing project. It is a real, open, daily laboratory of city and territorial maintenance, care, planning, and reconstruction, where technical knowledge and local knowledge combine to enhance the different resources present. In relation to this, it is good to highlight how two important questions emerge in transverse ways from the cases presented. The first refers to some keywords implicitly present in all the experiences, reducible to *geo-urbanity*, *biodiversity*, and *multiscaling* as common denominators of landscape projects. These terms are dear to me because I have already tried to trace out an integrated path of landscape design as the result of national and international research on the landscape[1]. The second question refers to the "two ends of the scale and content" of the cases presented, that is, the built cultural heritage on the city scale and the agrarian landscape on the territorial scale. These represent the extremities of a large container, two ends of a single wire that go, even historically, from protecting minor historical centres to the protection, enhancement, and management of the wider territory. In this specific case, it refers to the agrarian and rural territory in its overall acceptance with cultivation, economic, maintenance, identifying, and historical/cultural worth. In regard to the first question, one can hypothesize that *geo-urbanity*, *biodiversity*, and *multiscaling* synthetically represent the dominant aspects of the landscape laboratory as well as being three terms on which the landscape project for the city and territory can be based. They identify, enclose, and reinforce the multi-system approach, exalting the landscape of scale and focusing on the problems to solve.

Geo-urbanity identifies the condition as a type of new geographical and territorial phenomenon where territorial and local planning instruments "collide". In other words, they should know how to dialogue in that problematic space of limiting realities and border areas between the consolidated city and the wider territory where the challenge relates to the integrated, flexible design of those limiting, fringe, and undefined areas between the city and the territory. Planning and not restoration: maybe we should also begin a new reflection about this. It is here that the landscape project is placed on the dual territory/city scale: the areas where the challenge is open to conceptual innovations, ranging from the urban country to areas of technological experimentation on the ecosystem. These are the areas of integration and exchange between the city and the territory.

Biodiversity acts as an element of ecological strength in the landscape as well as a multi-system connection between the city and territory. It represents a structural invariant to restore balance to relationships, flows, and territorial connections and to design the new territorial and urban green infrastructure. It constitutes a system of systems for pursuing the objectives of integration, quality, and balance of the territories, objectives that are scientifically proven from quantitative data inherent to the landscape components, the fabric of that landscape mosaic making use of the land, vegetation cover, biodiversity, patches quantifying the existing state, photograph and design it, structuring point-like interventions and strategic projects within the overall network design. Precisely because of this, biodiversity is understood as a potential multiscale connection between the territory and city, that is, as a system to establish the landscape project from the regional to the local scale as a structural invariant of the vast area and as material for the local project in recomposing, reconstructing, and redesigning the city.

Multiscaling is the condition of verifying and monitoring the interventions. It is the dimension of the dialogue between tools; it is the fertile field of design organization in the problem areas; it is the point of synthesis between guidelines and prescriptive norms; it is the construction of new landscapes; it is the domain and technical control of three-dimensionality between the local and territorial scales. It is the indispensable condition to prefigure the design space and to manage territorial landscape transformations. It is the strong point in knowledge-building research developed for the elements, characteristics, and types of landscape; it is the strong point in identifying the structural and aesthetic rules of the landscape; it is the strong point in the project proposal and its realization (Trusiani, 2014). It is here, perhaps, that the game of guiding projects is played as the synthesis between different levels of design and as a multiscale verification of guidelines and interventions.

Geo-urbanity, biodiversity, and multiscaling also draw attention to a more general request within technical and social organization, that is, the theme of direct and indirect knowledge of the field of investigation. This includes both landscape techniques and sector indicators so that the dialogue between different intervention scales is operational and can bridge the gap between landscape planning and local planning. This is where the heart of questions about designing and

managing the landscape project seem to reside, at least in the Italian experiences presented in the session.

The second question is represented by "two extremes of scale and content", which the cases presented subject to our attention. On the one hand, there are the minor historical centres with the enhancement of the architectural heritage through point-like projects, integrated programs, a route network, and open spaces. On the other, there is the agrarian and cultural landscape in the territorial dimension. As mentioned above, these are two ends of a continuous thread. Around it, the procedures, decision-making system, and design of interventions loosen and re-entangle questions regarding protection, conservation, design, and transformation. In this sense, from a historical/cultural point of view, we can identify two extreme ends of this sequence in the Gubbio Charter of 1960 and the new one developed in 1990 by the National Association of Artistic Historical Centres, where the discourse is expanded to the existing city and the territory (almost prophetic of what would occur a decade later with the European Landscape Convention). Today, however, we can try a different tack. Faced with current transformations and the challenges our discipline is called to respond to, even in light of the full papers presented, we can assume two recent reflections pertaining to the enhancement and management of the cultural and rural landscape heritage as cultural references for the landscape laboratory/container. In the first case, I refer to the *seven ideas*[2] for a new idea of conservation developed by a group of international experts for the 50-year anniversary of the Historic Preservation Master at the Graduate School of Architecture, Planning, and Preservation at Columbia University in New York. These key ideas are *community, flexibility, datareality, open-endedness, structure, time,* and *resourcefulness*. Very briefly, they refer to:

"*Community*: more than money, preservationists need to gain the much-needed exposure to community members, hopefully turning them into future donors and ensuring the future of their historic treasures. Strong corporate partnerships can serve as a springboard for public engagement, sustainable tourism, and urban revitalization" (Tim McClimon).

"*Flexibility:* historic buildings today are subject to new and faster dynamics of transformation driven by environmental and social forces that cannot be adequately solved by traditional preservation expertise. We need to imagine new principles of flexibility to adapt to the new reality without sacrificing ideals of quality and continuity. It is urgent and necessary to change our view of historic objects from static things to elements of broader development" (Ilaria Cavaggioni).

"*Datareality:* heritage can no longer be thought of in terms of unique immutable objects. Digital technology has thrown heritage into a new reality where scanning and printing, de-materialization and re-materialization blur the boundary between the physical and the virtual, the tangible and the intangible. The digital is no longer linked only to the virtual; it now has a physical presence. We are witnessing the rise of a new "datareality" that is related to but not the same as materiality, and that will change how we think and practice preservation" (Adam Lowe).

"Open-endedness: more than a reactionary movement, preservation is a catalyst for urban development. The histories of the city—both the official story and the stories that have yet to be written—can form the basis of a progressive, open-ended, participatory process that promotes a more diverse and culturally-specific urbanism" (Peter Mullan,).

"Structure: Preservation straddles the "two cultures" of the sciences and the humanities, and therefore demands deep engagement with both the technical and the cultural aspects of the built environment. Engineering requirements can be the greatest threat as well as the clearest opportunity for sound stewardship of cultural heritage, and a more nuanced approach must be developed within the emerging discipline of preservation engineering. To accomplish this, we must grasp recent developments in preservation engineering and identify challenges for the decades ahead" (John Ochendorf).

"Time: Working with heritage means working with time. Past, present, and future must all be accommodated in one physical manifestation of a building or site. Do changing expectations of what time means to us as a networked society demand we change our attitudes towards heritage?" (Gunny Harboe)

"Resourcefulness: Haiti's heritage preservation is paralyzed in the face of the country's increasingly severe challenges: galloping demography, degraded environment, economic and political quagmires. Paradoxically, this may be the moment when specific experiences in Haiti involving underprivileged populations in the understanding of their own environment, of their own capacity to affect their history in the making, and consequently to see themselves as agents in the preservation of heritage can constitute the basis for a thought provoking dialogue of universal scope" (Michele Pierre-Louis).

The second case relates to *seven rules for the future of rural landscapes* developed by Jørgen Primdahl and Lone Kristensen[3]. These especially deal with questions in the area of strategic decision-making regarding the rural landscape, assumed as potential fields of action for the contemporary project.
In brief, Primdhal and Kristensen identify the following rules:

• *Capturing the entity*. The rural landscape represents a whole—*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factor*—to quote the well known definition from the European Landscape Convention (Art 1A)…However, today's local landscape may not at all be a given 'area' and the protection and change challenges may also vary. This is why creating a common understanding of the local landscape is crucial for any strategy or planning process. Landscape character mapping, that is, the mapping of landscapes according to character, is explicitly mentioned in the ELC and has now been carried out on various scales throughout Europe (Wancher, 2005).

• *Constructing the present.* Formulation of goals and objectives is an important dimension of any strategy making process. And it is of course a challenge for a socially fragmented rural community to agree on common goals, but in our experience it has been possible in all the processes we have been involved in although the ambitions and the concrete results have varied…However equally important to common understandings of the goals and objectives set is a shared understanding of what is there at present. If there are different views of what is significant and problematic in the present day landscape it will not be of much help to agree on where development should be heading. It is like having a map and only knowing where you want to go to and not where you are…

• *Bringing knowledge into process.* According to John Friedman planning is about linking knowledge to action (Friedman 1987). In a rural landscape context knowledge here means both expert knowledge provided mostly by external persons or sources and internal knowledge brought into the process by local citizens. In making a landscape strategy, there are many ways to bring knowledge into the discussion and the process. Landscape lectures and excursions have been mentioned. Other ways include interviews of key persons, for example, farmers, about the past, present and future of landscape as they see it, or incomers about reasons why they moved to the area and their use of the landscape, or even children about their places…

• *Mobilizing resources.* In any case, an important challenge when creating landscape strategy in a rural development perspective is to mobilize such resources. Inspired by Knickel et al. (2004), we suggest looking for three different ways to mobilize landscape resources: (1) Deepening agricultural production towards more value by adding types of production such as organic agriculture, landscape-specific products, gourmet, or other special types of products; (2) Landscape-oriented types of activities and services such as habitat management, tourism, energy (wind, solar, biomas), and the maintenance of public works (walking trails, roads, visitor sites, flood protection, etc.); (3) New resource mobilization (empty buildings, water resources, minerals, human skills, and knowledge etc.).

• *Struggling through.* It is hard to image a landscape strategy making processes without disagreements and conflicting interests. And clearly, hard-core conflicts between national/regional public interests (clean drinking water for cities, for example) and local preferences will not be 'solved' through dialogue alone; the legal infrastructure must be in place. However provided that the legislation and the associated policies needed for such regulations are well designed, there are no principal reasons why such overall objects cannot be pursued in processes where local communities are included and enabled to play an active role in finding the right solutions. In fact, it may often be difficult or impossible (economically and/or politically) to implement such overall goals if there is severe local resistance.

• *Generating ideas and synthesizing solutions.* Concentrated workshop activities with par-

ticipating experts and planners, stakeholders, and local citizens may be a productive way to generate ideas and synthesize these into coherent strategies.

• *Framing the strategy*. Framing the strategy through clear and convincing headlines, names, metaphors, slogans etc. is an important part of the strategy-making process. A name for the strategy that captures the main vision contributes to the ongoing acceptance of the overall vision of the strategy. The Copenhagen Finger, The Dutch Green Heart, The London Green Belt, New York High Line Park can be mentioned as examples of such iconic names.

The seven ideas (7i) involve an overall reflection on how to rethink conservation beyond the physical facts, involving economic, environmental, but especially social, behavioural, and temporal factors. In contrast, the seven rules for rural landscapes (7r) delineate landscape-building process that is strongly based on procedural aspects and the involvement of local populations and actors, who have now assumed a profile quite removed from that of previous generations. The message that the 7i and 7r transmit is not only to adapt approaches, methods, and tools to conserve and/or enhance architectural goods and the rural landscape, but also to rethink actions and processes within a social, spatial, and temporal dimension that is very different from the past, especially in a general state of global climate change, with its unpredictable events and related effects. Probably also in virtue of this, the tools and categories of intervention are redesigned for the protection, enhancement, and management of resources.

The landscape laboratory is therefore configured as an open laboratory and a community project (Talia, 2014). It increasingly assumes the concept of *open source*, as was said during the introduction to the session itself. By sharing knowledge and experiences, it answers the question of design from the territories, while being developed between norms and rules capable of managing the common good and the better use by all. From a more technical point of view, the landscape laboratory takes charge of a territorial and city project structurally based on the three terms cited above—geo-urbanity, biodiversity, and multiscaling—that is, a developing design path that, as Magnaghi confirms, goes beyond protection, conservation, enhancement, and restoration. It "should be constituted as a reconstruction project capable of identifying and activating rules based on the principle of precaution, that is, the local unpredictability of the effects of global change…, recovering building and urban-planning knowledge to regulate urban and rural microclimates. [It should] construct the rules of living connected to the defence of climate jumps, create systems of protecting agriculture and harvests and, especially, recover community emergency-management structures, stopping the urbanization of fertile lands. [This is accompanied by] an urgent search for human habitats that are more respectful of their local peculiarities, of necessary balances that have coevolved between human settlements and the environment, reproducing ecosystem services, contributing to immediately defending human settlements from the consequences of current changes, and revitalizing ancient knowledge with appropriate innovative technologies" (Magnaghi).

Notes

[1] Particular reference is made to research carried out by the PDTA department of the Sapienza University of Rome: "Euroscapes Project" under the INTERREG IVC European Program, a project on "Mediterranean Space" under the OTREMED European Program, the project "Lands to explore" in agreement with the Italian Ministry of Environmental and Cultural Goods and the Territory, the project "Activation of the European Landscape Convention for protected areas. The Canale Monterano Regional Natural Reserve" in agreement with the Regional Parks Agency for the Lazio Region, the project "Cultural landscape and renewable energy" realized with research financing from the Sapienza University of Rome, "Proposal for the landscape enhancement of the Vernazzola (SP) creek" in agreement with the E. Vittoria School of Architecture and Design and the landscape management of the Liguria Region of the Italian Ministry of Environmental and Cultural Goods and the Territory.

[2] http://events.gsapp.org/event/the-fitch-colloquium-transformative-seven-ideas-for-a-new-preservation

[3] The partial text is taken from J. Primdahl, L. Soderkvist Kristensen, Rural landscape future in E. Trusiani, E. Biscotto, S.B. d'Astoli (Ed.), *Landscape between conervation and transformation*, Gangemi, 2013.

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http://events.gsapp.org/event/the-fitch-colloquium-transformative-seven-ideas-for-a-new-preservation

Recovered Villages as Future Resilient Landscapes

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🐾 ABSTRACT

The complexity of the territorial transformations leads to a precise reflection on the possible ways of operate on the landscape, aiming at the quality of interventions at different scales. Considering the size of the central landscape, it is possible to experiment reading methods and different tools of project, able to highlight the potential of the places, such as in a qualitative sense redefine the operational models. The goal is to re-enacting and re-evaluate the strategic role of cultural values, history and identity of the territory (area), aiming to build innovative territorial policies. The frames of reference are the villages, where the action of intervention becomes both a design tool able to protect and manage the land, and that creates a balance between the places linked to the past with the present needs. Have been examined case studies Italians and foreigners where they highlight the different modes of intervention, aimed at building a new relationship between man, nature, society, can also spread outside its borders. The enhancement of the villages has thus the purpose of creating a new economic opportunities for the area, creating an attractive area for tourism through targeted, they are able to make the supply system of the place. Critical step also becomes the disclosure of its tourist offer and the ability to fit into national and international computer networks, capable of reaching a large number of users of a certain category of consumers.

A Stronger Identity

Francesca Muzzillo

What is the strength of a landscape that makes its identity stronger in the time? And how to design this strength? It is difficult to define as landscape is part of a complex system, which combines aspects of production, perception, ecology, history, taking into account each specific environmental situation and its own particular constraint, and there is no homogeneous disposition for recovery of natural environments. But one may assume that opportune landscape design is first of all related to the capability of promoting at different scales experimentation of a new sustainable way of living in a landscape. Moreover it corresponds to the ability to increase landscape capacity for not being destroyed. In this perspective a designer should individualize some intact characteristics, which are fundamental for a strong resilience and promote the ability to adaptation. Which obviously is intrinsically bound to human habits into a territory.

Focusing on existing relations between human habits and natural ecosystem, we move again towards an integrated system rediscovering cultural identities of local communities. We should respect the identity of places as strong elements in order to promote agreement between social needs and landscape quality. The human involvement in a territory tends to operate focalization on diversity, which is strictly connected to the variety of styles of life. And the consequences are evident in a mosaic of different areas in landscape. It is the idea of "living heritage" that in fact is at the basis of traditional way of living typically of a zone.

The aspiration is re-enacting the role of cultural historical values, aiming to build innovative territorial policies at the same time. Considering the basic aspect of landscape dimension, it is possible to experiment new methods of project, which are apt to guide attention to the potentiality of the places, through different factors, identity, heritage, economy. But even if we can realize a synopsis of these different aspects, the fundamental ones are the psychological aspects related to social identification with a landscape. There is always a place in which man's ability to affect the territory is expressed in the fact that people identify a place as an own one, even if there has been a damage, a change, which makes the place different into the appearance. The frames of reference could be the villages, where the action of intervention becomes both a design tool, which is capable of protecting and managing the land, and a mediation tool that creates a symmetry between the places linked to the past with the present needs. Even if we referred to an old small village, something there will remain the same at the basis and this is into common sense the reason why leaving in a place, aiming at building a new relationship between man, nature and society.

Nature is always a state of mind. The consequence is the refusal to uniform rules to each framework with the consequence of losing vital connection with specific environments. As people are now beginning to question that uniformity, many opportunities for richness and meaning come from connecting a village to its environment which is intrinsically variable into space and time.

No doubt that recognizable simplicity is one of the most important characteristic of village architecture, the aspect that people is searching for. But it is also, perhaps, the most difficult characteristic to restore. When people say "as the ancients did", they essentially include an idea of simplification in doing things, and this is a profound longing. So in a village restoration today taking into account the desire of simplicity is the first objective, trying to taking up again a relationship with nature, a direct and mutual action process between natural elements and living forms: a process that man was continually experimenting with his own hands in the rural world.

Upstanding examples of recovered villages

Fosca Tortorelli

Landscapes are spaces in which there are multiple resources, however, are often neither organized nor connected in a system that allows a coordinated management. If we begin from

the idea that the promotion of our cultural heritage can and must become an opportunity for sustainable development, we should look not only to the big attractors centers and the Art Cities, but to the many small villages, towns, dens of its own history, traditions and the will of those who live and believe in these places. The main attention is focused on these smaller towns, which are often located in inland areas, in the belief that these villages themselves and their wealth can become driving force for development and stimulating the entire territory. Also, the growing tourism market can be a further thrust to recover landscapes, places and traditions, avoiding the phenomenon of preserving the memory and recovering those places almost forgotten.

Therefore become necessary specific territorial restructuring, aiming mainly to make these interventions able to give and not take away resources, following the dictates of political restructuring of the territory such as to achieve sustainability, wellness and health both at a global scale, and in the local one.

With these criteria, you can redefine a new perspective, able to move towards the concept of Resilient Landscape, where the importance of integration between man and environment becomes the great challenge of local communities. Resilience integrates the concept of vulnerability and tries to return - in a viewpoint strategy - the relational components ("physical-morphological, environmental and economic systemic, socio-cultural, economic, perceptual"; Plummer and Armitage, 2007).

Several are the concepts that should be followed, first of all that of the non-conservation "tout court", which, considered the ever-changing landscape, should be oriented towards integrated actions for the conservation, planning and management. Another key aspect is the need for awareness and social participation in the processes of landscape management and considering the resilience itself as a process not only planned and designed, but that should enhance the spontaneous actions, with organized and institutionalized policies and processes. There are various Italians and foreigners cases who are responding to these new criteria, starting from the small village of Torraca, located into the Cilento area near the coastal town of Sapri, that reveals itself as one of the most characteristic village of the Gulf of Policastro for its strategic location, which allows you to enjoy a wide view of the saprese bay, including a huge part of the Cilento's area. The town has been developed over the centuries around the baronial castle, perched on a hill. The real origin of the place dates back to ancient times, as testified from the remains of Lucanian tombs dating back to the fourth century BC and the numerous Roman farms. The historic center of Torraca is characterized by sequences of terraces, courtyards and alleys that help recreate an atmosphere typical of rural culture. But its further value became in 2007, as the first town in the world that can use the title of Led City. An huge investment of regional funds has made possible to replace the city's public lighting network with LED lights ensuring, and according to the calculations of the municipal administration, it is guaranteed about 65% of energy savings, the 50% of reduction of maintenance and the 90% of reduction of light pollution. This village, with its eco-friendly choices, stands as a powerful example to follow in lighting energy efficiency. Torraca, through his vocation for the environment, has also become an university branch, where it has been established a degree in Political Science in collaboration

with the Second University of Naples and in particular with the Faculty of Political Studies "Jean Monnet". Torraca is a well-rendered example of how the increasing attention to environmental issues can originate combined benefits to the population, through the implementation of individual projects coordinated in a coherent manner. (Fig. 1)
Another considerable example is the Tuscan village of Borro; this village deep in the green
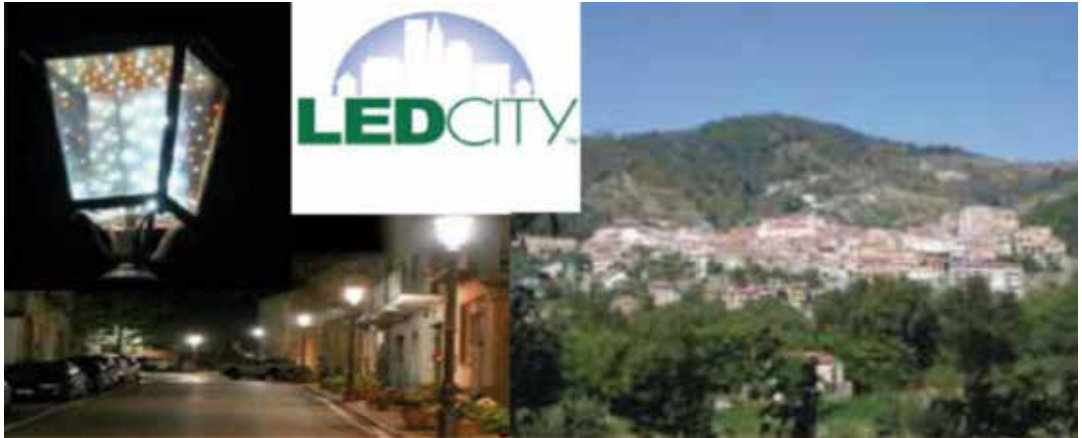
Fig. 1: Torraca Led City

hills of Tuscany, today is recognizable as a medieval village, in fact, from the ancient walls and the remains of the bridge, it is deduced that it was a fortress located on a spur of rock. It should also be highlighted that the Borro has had over the centuries a great importance from the point of view of political-strategic. But was in the 1900 century the deep period for renovations for the village of Borro; in early '90, the Duke Amedeo di Savoia-Aosta sold all his property to Ferruccio Ferragamo family that has transformed and shaped this ancient village restoring and giving new life to it. During1993 Ferruccio Ferragamo and his son Salvatore curried out an important renovation, restoration and installation of this ancient village. Everything started with the desire to bring back life to this place carrying on its traditions and its history, with the primary intent to operate in harmony with nature, trying to create a perfect continuum between past, present and future. During the restoration it was decided to bring almost everything to its original state using the old paved and giving new life to the old cellars. The respect for nature is expressed through many projects, including the photovoltaic systems introduced in 2011 and the houses at zero cost, but especially we found it in his special link with the history and traditions of the Borro's wine production.
In fact, the Borro guarantees unique climatic conditions, which give a perfect terroir for growing grapes. And it is also in 1993 that the Ferragamo family begins the restoration of the first vineyards and today the wine production is a very important part of their business. The current winery of Borro is connected harmoniously to the old underground cellar, which is organized into a structure, partially underground and used for fermentation and bottling of the wine. Furthermore inside the cellar is designed a space for exhibitions and cultural events,

as his owners focus their attention also for art. The complex is seen not only as a place of work, but as a multifunctional environment, closely connected to the entire village in order to highlight the ties with the territory, as assets of natural, cultural, tourist and social values.

In light of the above examples it is clear that to restore value to the villages, making them new Resilient Landscapes and future tourist destinations, must structure their resources and things uniting them to the services and offerings in a way that constitutes real "territorial tourism products" that meet the demands required by today's society, while at the same time reducing environmental impacts to generate a virtuous cycle.

Villages interpreted as "Sustainable Hamlet" represent an oriented reality towards a tourism that makes the quality of a resource, essential condition that must focus on environmental attractors and on their integrity as a pull factor for tourists.

Saint Guillelm le Desert et la Communauté de commune Vallée de l'Hérault: Representation of landscape and integrated management

Alessandro Ciambrone

La Communauté de communes Vallée de l'Hérault in the *Languedoc-Roussillon* Region, is located in the heart of the Department *de l'Hérault*. It consists of 28 Municipalities and its population of 32.000 inhabitants has grown rapidly in recent decades. The territory extends over 400 square kilometers, accounting for 8% of the Department's surface. This is characterized by a unique natural landscape, eroded by the river *Hérault*, including forests, vineyards, olive groves and scrubland. The area is also characterized by ancient villages such as *Saint-Guihelm-le-Désert* that with its *Abbaye de Gellone* and the near *Pont du Diable* are included in the route of *Saint Jacques de Compostella en France. Saint-Guihelm-le-Désert* and other four villages in the Valley (*Saint-Jean-de-Fos, Montpeyroux, Aniane, Puéchabon*), in 2002, were awarded the *Grand Site de France* label. This is a prestigious recognition given by the State for an integrated management that combines preservation of landscape, "spirit of place", quality in the visitors' welcoming, and participation of local communities. It was estimated in 2006 that these Municipalities welcomed a number of unsustainable visitors - about 700.000 a year - with peaks of 13.000 per day during the high season. All this resulted in inevitable negative consequences for the preservation of cultural and landscape assets. To avoid these impacts and limit tourist arrivals, local authorities, since 1991, decided to join the *Opération Grand Site*, launched by the French government in the eighties. The main objectives of this initiative were: to manage tourist flows and to involve local communities in the process of protecting cultural identity. In this framework, it was realized a welcome center for the territory, which is located in *Pont du Diable*, and a parking lot, well integrated into the landscape. Thus, visitors can leave there their vehicles without causing congestion. From the welcoming center, a shuttle system provides access to the most and visited popular places of the *Grand Site*. Within the area around *Pont du Diable*, the "*des anges*" pedestrian bridge connects to the path, which directs visitors to the lake below and to the neighboring villages of *Saint Jean*

de Fos et Saint Guilhem. The new bridge perfectly integrates with the pre-existing Roman bridge (XI century), the road bridge (XX century), and the surrounding landscape.

In the Management Plan of the *Grand Site*, particular attention was paid to the enhancement of the rural landscape, the promotion of agricultural products and local handicrafts as an engine for the sustainable development of the territory. In fact, in the *maison du Pont du Diable* - welcome center and gateway to the territory - was set up a point of exposition and sales of the main local products. From the *maison*, visitors can reach the nearby village of potters of *Saint Jean de Fos*, in which is located the *maison de la poterie*. This hosts an interpretative space and a well-known museum of handicrafts ceramics. Through a pedestrian promenade along the river, existing but being aesthetically and functionally restored, visitors can reach the village of *Saint Guilhem le Désert*, located two kilometers away (Fig. 2; Fig. 3).

The management of the agricultural and pastoral landscape is the aim of the "local program of concerted management" developed in 2004, joined by the association of landowners "*Les Terrasses de Gallon*". Farmers dealt with the recovery of two thirds of the cultivation of olive trees in the territory from 2005 to 2007, and the production and sale of olive oil since 2006. The Community of municipalities of the *Vallée de l'Hérault*, extended management policies related to the identity of rural land in all 28 Municipalities constituting, among other things, an observatory on landscapes. The property management system is based on a strong partnership among public institutions and local communities. The objective is to strengthen the partnership and cooperation at local level that allows to establish the conditions for the shared governance of the territory. The partnership

Fig. 2: Saint-Guihelm-le-Désert (photo by Alessandro Ciambrone)

Fig. 3: Saint-Guihelm-le-Désert, Abbaye de Gellone (photo by Alessandro Ciambrone)

project of the *Grand Site*, managed by the *Communauté*, is the expression of a shared desire that was supported by the economic contribution of the Municipalities involved as well as the Department, the Region, the State and the European Community.

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The Landscape Produces Innovative Strategies for Local Communities (Innovative Cultural Marketing Plan for Ager Cuprensis's Area)

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🐾 ABSTRACT

In the last decade a quality coastal landscape has generated job and investment opportunities for entrepreneurs and discovery of attractiveness for the local community: a number of sites for building renovations and for public works, public investment in cultural development, diversified offers for a beach natural and cultural tourism, enhancement the resident population. The base of this positive trend, limited in numbers but explosive in the involvement of various sectors of human life, are a series of project actions and policies directly related to the character of the place. Cupra Marittima, in the southern Marche, is a site of ancient memory, the headquarters of Ager Cuprensis that extends into the territories between the rivers Aso and Tesino, and has a lot of historical, archaeological and natural values. The idea of an innovative marketing plan has taken life from these basic conditions and aims to give the assets the character of "system" in all its complexity, producing actions, projects and policies to restore values, consistency and quality to individual parts, too long confined in its own. The connective value of the landscape is expressed through a precious floristic area and extensive ilex grove on the hill, a rare shape of sand dune, a hill with olives and pines, gardens and vegetable gardens along the city walls, naturalistic paths, reinforced by the presence of a walled historical center, a castle with a tower, an archaeological site, a solitary parish church, several palaces and many scattered assets. The identification and functionalization of all the value elements of the system has developed enhancement and management optimization of tourism and receptivity, but also new opportunities for study reports and knowledge related to the history of the place, for years carried out by cultural sector and local activities, being an impetus to the local activities and a reference to a chance to live in this community.

The awareness of living a transition process that regards a society and an economy in trouble and that, in recent years, has become a real lifestyle, brought some Italian regions to react to events through renewed adaptive ways, involving local people, basic economies and public administrations. The social and economic crisis has determined, in affected populations, a great sense of uncertainty, and, also, a great determination towards the reaction, supported sometimes by creative public policies and good private practices that have been able to get away from processes caused by extreme external agents. So, actions and projects that have encouraged research and technological innovation, skilled employment and strengthening of smart technologies, have often completed a social and economic change of course. However, this has not always been enough to stand the shock in some regions such as Marche, structured and grown into a smaller and regional production network, comprehensively distributed throughout family economies and raised in a few districts of productive sectors. This necessarily has stimulated the search for different points of view to withstand the stresses, causing, in local communities, a different 'resilience' as a result of different absorption, adaptation and transformation capacities.

Often the place where a local community originated, has preserved recognizable characteristics for its inhabitants, able to adapt to different historical periods and different needs, always providing a reference to the local lifestyle. The presence of an articulated landscape and diversified ecosystems has been able to provide valuable support to its inhabitants' quality of life and to generate sustainable economic development (Scolozzi, Morri, Santolini, 2012). In these cases the presence of a natural capital has placed a resistance to external shocks safeguarding the people and constituting a starting point or an incentive to active transformation of lifestyles. In this way, some areas, more than others, have had, at its disposal, a substrate of resources that can be used to build more persuasive development cases, on which the local communities efforts, the interests of investors and some government prospects of administrations, have been directed.

The hypothesis is applied to the territory Cuprensis Ager, along the coast of the Middle Adriatic, extended between the rivers Tesino and Aso, where the town of Cupra Marittima, which has several natural, archaeological and historical valuable elements, is the urban core of reference. The Ager Cuprensis, rich in agricultural soils with high productivity in the hills among Grottammare, Ripatransone, Campofilone and Montefiore, in the context of the V° Regio of Roman Italy extending from these hills to the coast, overseen by Civita on the right of the Menocchia stream, which was the natural landing place in the Paleolithic era (Colucci, 1791). The strategic role of the town is consolidated, later, when the village of Saint Andrew and of Boccabianca, and the medieval historic center of Marano born, and goes on until the nineteenth century when the settlement is housed in the coastal plain with installation of the seaside village and of the modern town. There has been no overlapping of these tissues in different historical periods, but a presence, on the territory, of recognizable and independent urban, classical, Roman, medieval and nineteenth century plots, which tell the clearly story of urban planning even where the signs of aging have partly damaged the structural integrity. This great wealth of archaeological and historical remains would not be so exceptional if it were not held together by an extraordinary bonding like the landscape of the Marches, articulated in different spaces and places even at various settlements. The Ager Cuprensis still manages to manifest its own presence by preserving its original morphology, hills, knolls and crags, river and coastal plains, coast, coastal dunes and beaches, through cultivated areas, and characterized mainly by olive and fruit trees and recently, by vegetable crops and farms, and through natural areas such as the Mediterranean bush, the floristic area, the pinewood, the holm oak woodland, riparian and compliant with sand vegetation.

The idea of the "Marketing Plan for an Integrated Cultural System" comes to life from the basic conditions of the territory of Cupra Marittima: the variety of natural, historical and archaeological elements forms the plot, in which, nowadays and in the past, stories of life and work of people who had settled here, joined up. All this may contribute to determine the importance of the places and to aspire to a prospect for the strengthening of the most favorable conditions to the socioeconomic development of the territory, setting tools and procedures for an "exemplary", quality and sustainable project. The change of perspective that goes from the consideration of such goods as 'individual elements' in the territory to that of 'integrated cultural system' is

the innovative strategy of marketing plan, which aims to transform the 'importance' inherent in each of them into a 'value' for the entire territory. The project aims to give the identified goods the character of "system" legible in all its complexity, producing actions to restore value, consistency and quality of the individual parts that were, too long confined in their own being referential. Each element of this system is brought out one another "if" and "as" part of a recognizable landscaped area and in a systematic pattern that has the sense of a route, not simply as measurable and conceivable, but taking on the values of a composed system of independent elements that can be activated separately and for different excerpts and complementary elements that both enhance the wealth and the several resources of the Ager territory, as the base of a unique and innovative concept in the field of territorial marketing. (Fig. 1)
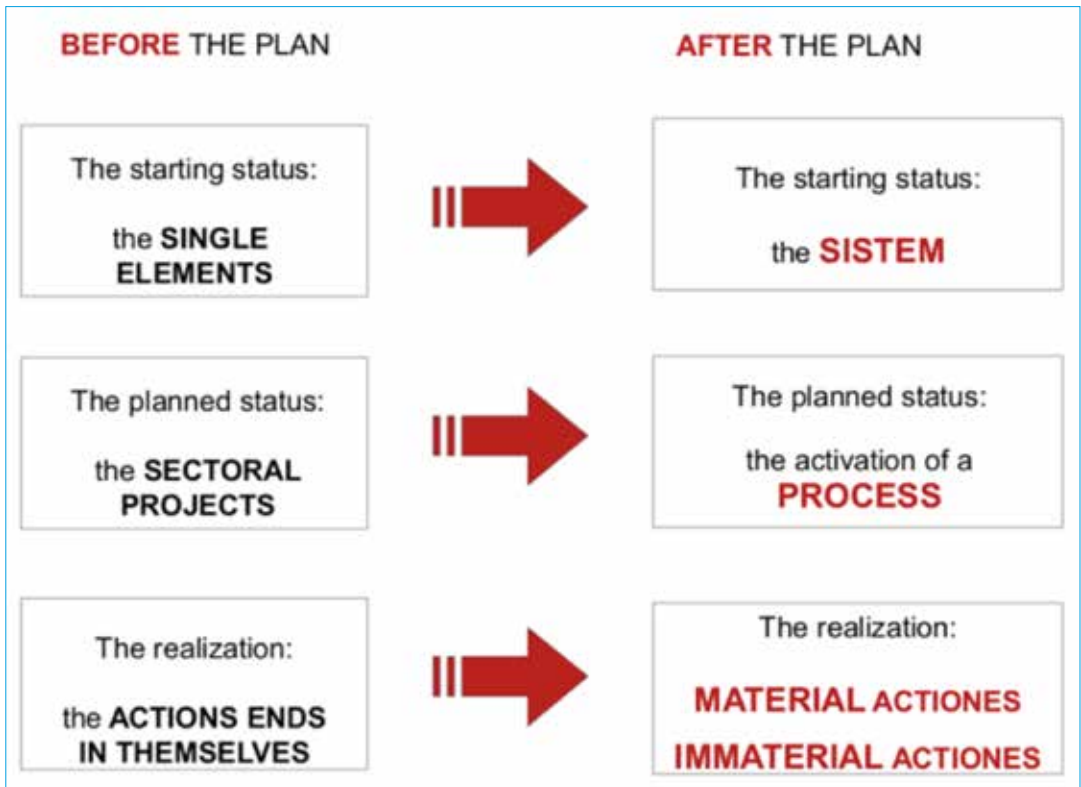
Fig. 1: Pattern of the Marketing Plan

The main projects concern Interventions and Actions:

• *Natural Archeological Park*: enhancement of the archaeological site integrated into the historical-archaeological-naturalistic local and territorial features.
The area of the archaeological park, with the presence on the site of the ancient town of Cupra, has an important installation of historic archaeological recognition. The operations involved a campaign of excavations in the Roman forum and basilica, mapping, surveying

and restoration of archaeological sites, the lighting of the site, the perimeter and the identification of access and dedicated signage.

• *Park and Castle of Sant'Andrea*: renovation of historic and natural site as a center of the territorial system through the development of management services and cultural activities. This site locates the site of the old village, that has the same name. The present castle was, in the past, the church (first half of the the XII century) and it was one of the fortified towns of the Piceno coast. It is located in a place that makes this area unique and an undoubtedly fascinating environment. The view that discovers the coast in the north and in the south, the relationship with the historic center of Marano, the easy accessibility and visibility that it has from the coast, make this place a point of great interest both environmental and historical.

• *Urban Park inside and outside the walls of the old town of Marano:* redevelopment of the historic nature system of the village in the stretch of wall as a support to the use of urban spaces and cultural containers.

The historic center is located on a spur of the Piceno hill topped by castle walls overlooking the sea. The overall building structure has elements of great historical interest: from the Middle Ages to the eighteenth century, stratifications and juxtapositions of entities, make it a great historical and architectural center besides of particular value to the considerable presence of green areas and for its beautiful locations overlooking the sea.

• *Ancient nature trails:* enhancement and restoration of the ancient distances between different nodes of the local cultural system network.

Human movement in the ancient villages and among the elements scattered throughout the area, for life, work and devotion reasons, has lain dormant traces of a trail network, detectable directly or through descriptions and historical designs, which are the basis of operations of recovery and reutilization. (Fig. 2)

The marketing Plan has suggested a number of actions aimed at physical enhancing of identified material goods, but also at the development of activities that require effective contribution of the institutions and the local business world. Exceeding the static conception of each individual asset (or place) identified in the system toward an opening to a series of actions that can support their business enhancement as a good and the use as a place, through an exchange of relations between intrinsic value and economic resource. It has been thought in co-financing of structural interventions supported by sponsorships entrepreneurial, forms of management granted to associations and/or local cooperatives, and training activities related to the teaching of the territory from primary levels to specialization ones.

• Operations research and excavation in the Natural Archeological Park are related to the implementation of a range of services related to the use of the place, as the point of reception and management of the park (information, guesthouse, ...) and the didactic museum. The impact on the socio-economic system concerns the possibility of management through the local network of cultural associations, the initiation of study activities with
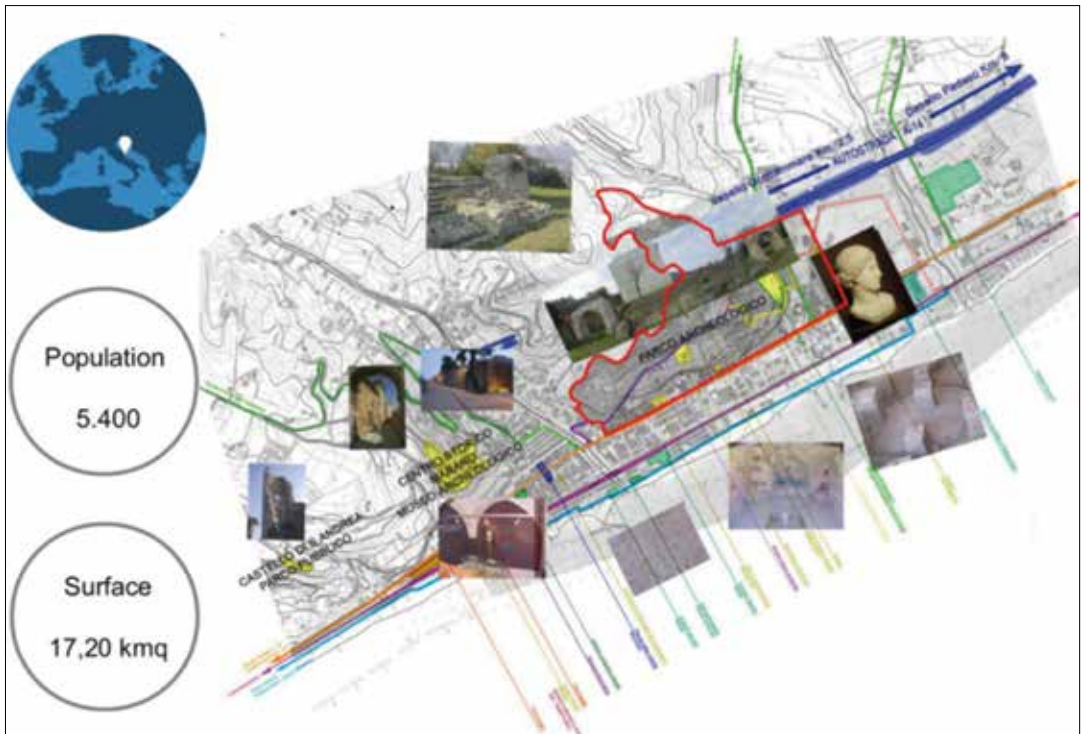
Fig. 2: Places of the project (excerpt from projects of the municipality of Cupra Marittima)

primary schools on the themes of archeology, but also high professional collaborations and experiment (center studies) with national and international institutions of this field.

• The equipment of the natural park around the ruined village of St. Andrew moves in the direction of an integrated enhancement of the site, already used in the viewpoint and in the green theater for cultural events. A range of support services to the use of the site, such as the panoramic square for cultural events, the parking area, the info-box, the refreshment rooms, the media room and the exhibition hall, representing the opportunity to start promotional, tourist and commercial activities, supporting the economy and cultural tourist vocation of the town, providing logistical support also to initiatives in progress (typical markets, cultural events, conferences and thematic exhibitions, etc.). (Fig. 3)

• The historic center of Marano entering in the system with already carried out initiatives (restoration of the old flooring, recovery of the caves, consolidation the ridges, recovery of the squares, building renovations) and with the goal of the Municipal to aim an integrated redevelopment, covering the housing stock, the allocation of the green, and especially the presence of social and economic activities. Uncultivated areas along the walls, landscape and history high-value, allow you to create new urban places for amusements, leisure and culture, denoting the operation as a redevelopment project that invests a currently totally degraded area in the historic center.

• The several landscape assets as the floristic area of San Basso, the holm oak wood, the coastal dune, the park of St. Andrew and the walk along the walls, by their nature become
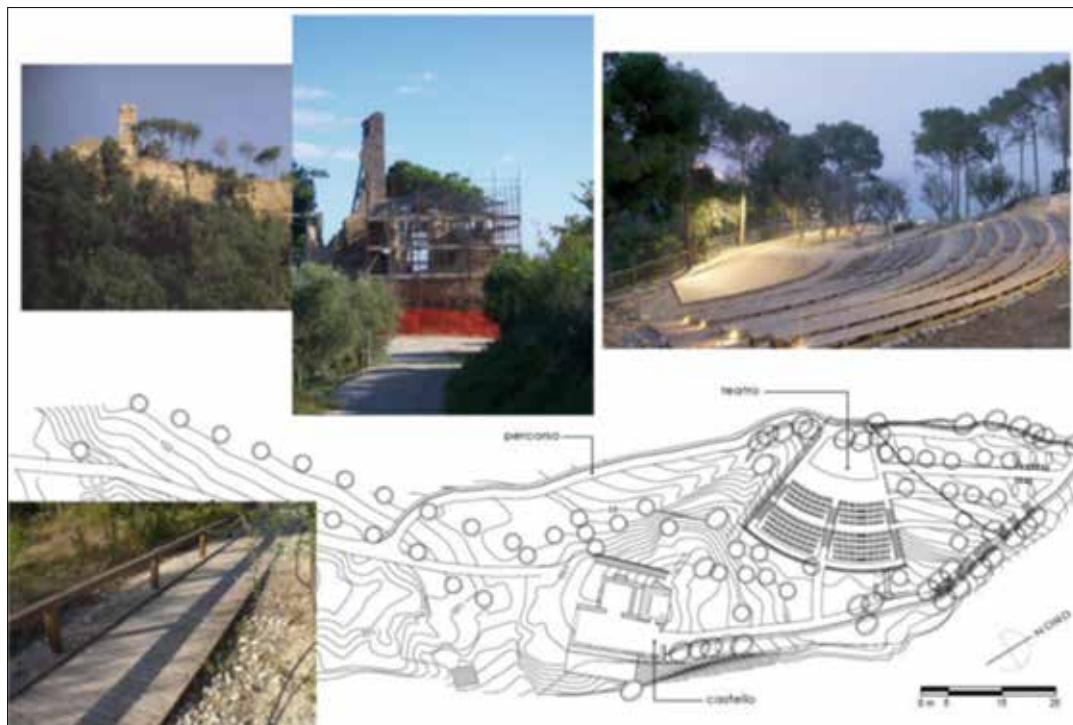
Fig. 3: Some works made.

the connective tissue of the historical and cultural system, providing comprehensive material for the study and mapping of essences, for the direct use of green areas and for the integrated protection of the places image that might not have the high value they have, if the natural environment does not maintain its integrity and its high aesthetic value. Within these areas, through the choice of enhancement and restoration of existing natural paths, creating new links between the ancient rows, taking care of typical plants in a poor state of repair and re-planting in situ those which have documented evidence, the rationalization of the green system is particularly important. These actions are strongly tied to local development because of great importance in studies and in maintenance experiments and facility related to the activities of the Picena nursery coast.

Finally, with respect to innovative cultural perspective, the marketing plan aims to shift from traditional local community to the realization of a *"Connected Community"*, where network technologies enable to obtain a dual purpose: to keep together through the Internet, far off sites (the municipalities of Ager) and mediate socio cultural connections inside the Community with the help of dedicated interactive multimedia languages. You create a system that allows to access and receive global information through the net, and, at the same time, it matures and strengthens a relationship among local community places and sites of the same system, developing the theme of a network that is sustainable too. To exist, every community needs the recognition

of its roots and own memory, and communication and sharing of information related to the character of the place can be a contemporary form of social bonding.

In the last decade this high quality coastal landscape has created job opportunities and investment for entrepreneurs and a rediscovery of attractiveness for the local community: a number of sites for building renovations and for public works, public investment in cultural development, diversified offers for seaside, natural and cultural tourism, enhancement of the resident population. At the basis of this positive trend, limited in numbers but explosive in the involvement of various sectors of human life, actions and policies directly related to the character of the place but directed toward an innovative perspective of management and fruition, have been planned. This has increased and optimized tourist flows and receptivity, it has developed new opportunities for cultural relations, and has been an element of pulse to local activities and a reference in the choice of living here.

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Between Resilience and Sense of Place: Understanding The Agricultural Traditional Landscape

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✔ KEYWORDS: Traditional Agricultural Landscapes, Italy.

● ABSTRACT

This research belongs within the framework of a PRIN project named "i paesaggi tradizionali dell'agricoltura italiana (TAL): definizione di un modello interpretativo multidisciplinare e multiscala finalizzato alla pianificazione e alla gestione."

The focus is the development of a methodology to define, identify and study traditional agricultural landscapes, their dynamics and transformation.

Nowadays many new elements and structures are superimposed upon the traditional landscape that become highly fragmented and lose their identity. Many heritage, values and resources become irreversibly lost. Specific landscape inventories indicate that many valuable fragments of traditional landscapes still remain, and they demand special attention (Antrop M. 2004) Our study had this particular purpose.

Our definition of TAL builds upon the co-evolution paradigm (Noorgard, 1994). TAL is the result of a dynamic balance produced by secular and reciprocal interactions between the environment and settled population. TAL can be considered as a maximum degree of harmonisation between corema and iconema (Turri 1998) as well as between ecological and socio-cultural components of ecosystems. TAL is the guardian of an unwritten vernacular, of traditional agronomical knowledge.

In particular, the subsistence of the traditional condition is valued by an analysis that crosses some parameters. The inner connection, complexity, and resilience of agroecosystem are the main factors considered in the assessment. The evaluation is based on a set of specific indicators. The analysis deals separately with all ecological, social and economic components that interact to determine habitus and functionality of landscape. In consideration of this key principle, the traditional condition can be released by historicity and persistence conditio sine qua non. This allows the opportunity for construction and conversion into new TAL with interesting applications for landscape planning and management. Identification, localisation and transformation of TAL are based on a diachronic analysis (1960-2015) which involves Land Use Change Cover (detected by GIS) and a set of driving forces indicators.

Introduction

For the purpose of this work, TAL refers to those traditional agricultural landscapes that have existed for a long time in a particular territory. These landscapes can be stabilised within their forms, relations and productive functions, or may also (but not only) evolve slowly (Marino and Cavallo, 2009, Barbera et al., 2014). Our definition allows for the creation of new TAL, as the historical permanence is neither a necessary nor a sufficient condition. Traditional means

that the agronomical landscape is the result of a long co-evolution between socio-cultural and environmental systems (Noorgard, 1994).

Traditional means that the agricultural landscape is at the interface of an active dynamic equilibrium, where the involved forces are the human niche-construction and the multiple feedbacks that the habitat returns to the community. Traditional means that such human activities were conducted using knowledge passed down through 300 generations of farmers (Blondel e Aronson, 1999).

With this definition the TAL are configured as laboratories of the knowledge of places. Finally, traditional means that the agricultural landscape and the underlying agro-ecosystem have high ecological resilience.

Anthropic ecosystems that are products of a built environment, are affected by human actions which act as a driving force relative to the "ability of a system to adsorb change and return to its equilibrium state after a temporary disturbance" (Holling, 1973).

Therefore, within the concept of TAL ecosystem resilience, the conditions of economic and cultural subsystems are nested.

The landscapes cultivated by traditional practices are paradigmatic examples, which provide functional choices according to the site ecological conditions and the vegetation vocation. Furthermore, they are examples of the human mark merging and harmonizing with the *coremi* geography, examples of places of familiarity, and offer a sense of place.

This trait - a sense of place, site-specific and co-evolutive knowledge, as opposed to atopic homogenization of industrial agricultural landscape - makes the landscape a laboratory for good living, an attractive destination for cultural tourism and the amenity of local products.

A methodology note: rules and paths to define TAL

Read changes in agricultural phenomenon ask us for a definition of a timeframe and different areas of interest with same characters in terms physiography, settlements, farming type, infrastructure, usable to understand new and old forms and functions in different landscapes. We set our timeframe from 50s to today in order to look at evolutionary phenomena in Italian agricultural landscape. We choose as T0 the period after the war because during the second half of the twentieth century, all process of transformation increases in direction of a new model of production – mechanization, intensification, and industrialization. Defining areas of interest, we choose different sources able to built a common picture of the Italian agricultural landscape and a model to make sources interact. The first source is the "Carta delle Ecoregioni" (Blasi et al., 2014), it divide Italy in homogeneous ecological areas – with same weather trend, physiographic, hydrographic, faunistic and environmental characters - and give back to us a set of frames to understand ecological process and driving force in change. With the "Carta delle Ecoregioni" we look at the "Analisi zonale dell'agricoltura" (Rossi Doria, 1969), it define homogeneous area in terms of economic trend and characters in agriculture, it tell us about agricultural system and their role in defining different trend. We also use the

"Catasto Agrario" (1929) and the "Carta dei Tipi di Impresa" (Medici, 1958), both minor role sources but able to describe farm model, property aspects and labor system characters. At last the "Carta di Uso di Suolo" (TCI, 1963) and the "IGM" to look at hydrography, morphology and settlements.

The model organize sources in a hierarchical way, it's not because we recognize different value to each source, but just because each source can act at different level in terms of scale and detail. All sources – except the "Carta delle Ecoregioni" – are products of research project developed by dataset during the 50s and published during the 60s and 70s. We also look at a different reports and documents by the INEA (Istituto Nazionale di Economia Agraria) about agriculture, local farms systems, relations between property and agricultural characters, social movement linked or not with agriculture and historic process of change.

Looking at all sources, we define different "Unità di Paesaggio Agrario, UPA" (Agricultural Landscapes Unit, Area of agricultural landscape with same characters) 50s, homogenous areas in terms environmental, economical and social aspect and their forms and functions in landscape, not just overlaying data and sources but query each one by itself and with all others. UPA can be also aggregate in groups of areas applying a thematic filter or an administrative boundary.

We have aggregate UPAs in "Sistemi di Paesaggio Agrario, SPA" (Agricultural Landscape System), UPAs tells about characters, SPAs about rules and structure of agrarian landscape.

Testing the processes on Lazio and Puglia Region we appoint that it is inductive and based on experience and knowledge - outcome information are not just a sum and overlay of sources - and it has an interdisciplinary approach. At the same time all sources have both a descriptive and interpretative point of view and we used them as a base point to understand forms and functions relation.

Reading Traditional Agricultural Landscape between evolution and permanence

Our study is based on a conceptual framework of the relationships between rural landscape and land use cover (LUC) organization of traditional agricultural systems, (Van Eetvelde and Antrop, 2004; Sluiter and De Jong, 2007; Serra et. al. 2008). We consider the permanence of LUC as an indicator of a long term interaction between the environment and human settlements (Antrop, 1997).

However the permanence of LUC is a necessary but not sufficient requirement to define TAL. In fact the permanence of LUC proves the stability and continuity in the relationship between socio-economic and environmental systems, but does not supply any information about the processes used to maintain the agricultural ecosystems. Moreover, in order to locate a TAL it is necessary to consider its wider territorial frame, whose extension must consistently identify the relation between rural and local settlement systems. Our approach is based on the analysis of land use cover change (LUCC). The first phase is the study of LUCC spatial struc-

tures and patterns using GIS- through the comparison between cartographic data[1] (Veldkamp and Fresco, 1996; Verburg et al., 1999; Pontius et al., 2001; White and Engelen, 2000; Pijanowski et al., 2000).

The second phase is the study of evaluation of socio-economic and environmental factors comparing different parameters acquired from regional demographics[2] to describe LUC transformation and stability features.

These phenomena were studied on different scales of SPA, UPA and and micro "Agricultural Landscape" (AL). Each of the three zooms has consistent levels of detail in the analyses of transformation, stability and descriptive factors.

The reporting period covers 50 years, from the late 50s to 2006. The analogical and digital geographical information for the 1950s was deduced from "*Carta della utilizzazione del suolo d'Italia 1:200.000 degli anni '50*"[3] (CNR-TCI '60) edited by CNR and published by Touring Club Italiano between 1957 and 1967. Corine Land Cover 2006 (CLC'06) was used for data of 2006.

The first step was the conception of a transition legend between the CNR-TCI 1960 and CLC 2010 maps. This implied the conversion of the entries from "land cover" (2006) to "land use" (1960), in order to make them comparable - we remind the reader that land use can be presumed but not directly derived from land cover (Brown and Duh, 2004). For this reason CLC '06 land cover entries were specifically checked comparing cartographic land use sources edited by regional and local authorities.

At a later stage, maps overlaying resulted in a transition matrix and thematic mapping which define three levels of detail according to the analysis scale:

  - the first layer, at SPA scale, allows to determine, with a binary interpretation, the permanence or the variation of LUC spatial structures and patterns. It also allows to give a first interpretation of the processes which caused the transformations;

  - the second layer, at UPA scale, allows to define, for each pattern unit, the permanence or variation LUC, using a dual code system that describes the land use values of the 1950s and of 2006;

  - the third layer, at AL scale, allows to understand the spatial relationship between permanence and variation in a consistent portion of the territory, wide enough to describe the connection between local urban and rural settlements.

The interpretation of LUCC results on the first level - SPA scale - allowed to identify macro categories of permanence and transformation useful to describe LUCC phenomena related to the agricultural landscapes.

The second layer of interpretation - UPA scale - allows to introduce an approximate multi-criteria analysis of statistic data related to LUCC spatial structures and patterns.

On this level it is possible to formulate a general description of the socio-economic and environmental factors which are essential for LUC permanence. Moreover these factors can be filed in a descriptive and interpretational matrix that connects environmental, social, economic and settlement systems with complexity, resilience and connection parameters (Barbera, et. al., 2014).

The third layer - AL scale - allows to identify a study and observation area of LUC perma-nence and variations and descriptive and interpretative indicators related to specific portions of territory. This framework enables to understand precisely space, time and process-related interactions between the two elements of analysis above mentioned. It is defined by an inte-grated combination of morphology and processes of the territory, such as forms and organi-zation of urban and infrastructural settlements, morphology of the territory, features of the environment, social and cultural characteristics of the local population, organization of the local economy.

The chosen methodology implies practical verification on site as an instrument to verify and adjust the analysis model.

Some final remarks

In this perspective, UPA and SPA have to be considered as a method to investigate and under-stand transformations and changes in landscape.

Indeed, UPA and SPA are defined by layers of relations, processes and rules between parts, in this sense they can be considered like framework in which study a landscape dynamics of evolution and its definition in spatial terms (Marino and Cavallo, 2009). In this context, it is clear that observing landscapes does not involve only analyzing transformations in land use or study landscape from an ecological point of view but, rather, it means reading changes oc-curring in agricultural production, in its relationships with urban phenomenon and its impact on social issues, building patterns and the environment. UPA and SPA can help us in defining planning and governance actions able to consider agricultural landscape as a key tool in terms of development.

Analyzing transformations in agricultural landscapes is a key step in organizing a regulation policies and a territorial-level programme and planning action able to recognize and under-line differences and value in landscape processes. The point of view chosen here is that of the landscape, analyzed and interpreted within a wider context involving the relationships between agriculture, environment and society and our way of settling and transforming a landscape. This development is located within a conceptual path that involves moving from a sector-based to a territory-based approach, and it underlines the necessity for a greater integration between disciplinary areas and areas of intervention, both in the scientific debate and in the actual planning of policies that are both the foundation and the purpose of territo-rial research.

As part of the widespread processes for landscape uniformity, we have tried to highlight the role of intelligent understanding as a decisive tool for improving our capacity to interpret and plan agricultural landscape, while keeping in mind and recognizing environmental, productive, social and cultural processes that have directed its construction.

Notes

[1] Carta dell'Utilizzazione del Suolo CNR-TCI, 1960, Corine Land Cover 2010) and satellite images
[2] *Sistemi Locali del Lavoro, Censimento della popolazione, Censimento dell'Agricoltura*
[3] CNR-TCI'60 is based on land registry data of Nuovo Catasto Terreni d'Italia, it has a minimum unit of 35-36 hectares and divides the territory in 22 land use categories, derived from the 30 types of cultivation set by Direzione Generale del Catasto.

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Landscape, Identity, Development: a Sustainable Project

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✔ KEYWORDS: landscape development, ecomuseum, semiology, strategic projects, identity.

🔊 ABSTRACT

Incoherent or superficial answers to economic and social pressures are likely to generate fragile landscapes, void of their cultural value and identity. In accordance with the European Landscape Convention, landscape development projects must involve the local populations as the true proponents of the transformation of their territory. The landscape project developed for S. Peter Island (San Pietro), in the south-west of Sardinia aims to replace the local economy based on mass-tourism with a more sustainable approach. Through the institution of an ecomuseum, the S. Peter project balances delicate ecological requirements of a highly naturalistic landscape with policies of economic efficiency based on the knowledge and transmission of the tangible and intangible heritage throughout the territory (typical agriculture and land use, vineyards, food, tuna-fishing…). The ecomuseum considers the opportunity for all local actors to consciously take part in the process of transforming and developing their economic, social and cultural landscape. Analyzing the territory through a semiotic perspective, we extrapolated the most significant signs and their more frequent configurations of the landscape system. We then highlighted several strategic polarities of landscape design where valuable elements and critical factors of landscape conservation coexist. Intervention in the territory not only affects the individual asset to be redeveloped or protected, but the entire landscape system in which it is set. The implementation of the best solution for the enhancement and promotion of a landscape requires careful consideration of many different aspects: landscape protection is not sufficient without an ecosystemic landscape management aimed at rethinking roles and functions. It is in the complex relationship between a landscape's various elements that a landscape can tell the story and the identity of a territory, with its culture, values, languages.

Introduction

We propose here a landscape project for the small Italian island of S. Peter Island (San Pietro), in the south-west of Sardinia. As many small islands in the Mediterranean sea, its economy is mostly based on tourism, but the high load of people, concentrated in a small period of time, poses a threat to the ecological and social equilibrium. The risk consists in a gradual but irreversible impoverishment of the island's natural resources. A place can be considered resilient for its capability not so much to overcome a transformation and to return to its initial state, but to manage and direct such change. To make this possible, organic and comprehensive territorial planning strategies are needed. According to the European Landscape Convention, landscape has to be considered as a whole, as a visible manifestation of human intervention in the environment, as a community's cultural traces. Within this project we aimed to give an alternative to a standardized touristic offer, focusing on the landscape peculiarities and a strong awareness of their value in the local inhabitants.

A methodological proposal for the S. Peter Island's landscape project

S. Peter (San Pietro) is a small island only ten kilometers from Sardinia's in the south-west coast. The island can be reached from Sardinia from the small harbors of Portovesme or Calasetta via forty minutes ferry ride. The island has a surface of 51 km^2 and 6500 people clustered in the small village of Carloforte.

The village was founded in the 18th century by some families of coral fishers, originally from Pegli, near Genoa, Liguria. They were coming from Tabarka, in Tunisia, where they had settled two centuries earlier, looking for coral. Carloforte maintains strong cultural ties with the towns of Pegli and Genoa. In recent years, they have also set up cultural ties with Tunisia. The population still speaks a variant of Ligurian language, completely different from Italian and Sardinian.

The Island has a rich naturalistic patrimony but a precarious economic and social condition, the result of isolation and limited natural recourses. Today, the main source of income for the island is mass tourism. The project proposes a different approach to mass tourism for long term sustainable economic development. The proposal is based on the assumption that all development projects must involve the local populations as the true proponents of the transformation of their territory.

Any environmental intervention that irreversibly alters the landscape and its cultural identity requires a holistic approach (Calcagno Maniglio 2008) based on the respect of local features, the long term valorization and improvement of these features, and on the involvement of the inhabitants, ultimately responsible for the management of their territory, as the ELC suggests. This requires preliminary research aimed at acquiring information about the territory and its people. Fundamental at this stage is the involvement of the local inhabitants who must make the project "theirs"; it is only this direct involvement of the local inhabitants that guarantees the long term success of a landscape project (Bortolotti, Piani, 2003). Many different courses of action are available in any development project. Our proposal centers on the idea of an ecomuseum. In an ecomuseum any aspect of a territory plays a fundamental part in the museum: typical agriculture and land use, vineyards, food, tuna-fishing, language, religious celebrations, and any other cultural traditions. And since these traditions are held and transmitted by social actors, local actors as well become part of the ecomuseum. Their history is part of the ecomuseum. Cus-cus, a typical Carloforte dish, with its strict summer and winter variety, betrays a centuries-long relationship with the North African Arab world still so alive today on the island.

Methodology

The patterns of land use, the rows and rows of sail boats in the harbor, the walkways that wind their ways through the landscape, the dry stone walls, the Mediterranean brush, the thick clusters of pine trees are all meaningful signs for reading and understanding a landscape. The landscape becomes a text: a structure of signs with meaning (Eco, 1975). In fact, not just *any* text, but a *narrative* text: the

landscape tells the story of its people, the sto ry of relationships between people, the history of the landscape's transformation over time. To understand this narrative, this story, it is fundamental for a landscape project to be true to the history of the land. Such a semiotic approach to landscape as text is meant here to complement, rather than replace, traditional methodologies based on the scientific/naturalistic analysis of landscape characters. In this view, a vineyard is not just an ensemble of vines, a set of houses is not just a hamlet, as the traditional methodology would have it. A semiotic perspective considers all items in specific spatial relations within a structure. A change in the disposition of the elements or a missing element reconfigures the entire structure and consequently its meaning. A traditional and semiotic analysis are both indispensable for a correct interpretation of a landscape. As a text the landscape can be red at three different levels: semantics (the objects as signs and their meaning), syntax (the disposition of signs in the text landscape) and morphology (shape, colour, texture). These levels are identified through an analytical process linked to perception, following a "visual grammar" (Socco 1998).

We start from the landscape text as a whole, we then analytically decompose its parts into the three semiotic levels, and finally we recompose the elements in terms of a narrative structure of the landscape. A critical reading of this three-level semiotic structure follows. The aim is to find available resources and critical points. Available resources are any natural, architectural, historical, and cultural element that can be clearly identified in the landscape structure. Critical points refer to any fragmented and degraded natural components and incoherent type of settlement.

The project

This project concerns the Island of San Pietro. In order to understand the landscape as a dynamic process in which both inhabitants and visitors participate rather than a static "monument", it is vital to have access to all aspects of the landscape. The tourist's experience must not be one of relaxation only but also a cultural one. This way both locals and tourists are enriched by their encounter; furthermore, locals have an incentive to preserve, and update, the places, the traditions, the activities and all other aspects of their culture. Specifically, the project foresees a set of thematic walkways through typical places, landscapes, and architectures:

1. Walkways through nature (highly ecological and naturalistic);
2. Rural walkways (through the countryside with its typical historic vineyards, fields marked by dry stone walls, "baracche carlofortine", the simple rural homes originally meant as storage facilities);
3. Itineraries through the island's historic and cultural activities: through the buildings and seafront of tuna fishing activities, the salt mines, and the dismissed mineral mines.

In the case of San Pietro, a two-level approach to landscape (traditional and semiotic) highlights several broad macro-structures (e.g., natural agricultural areas, natural areas with Mediterranean brush, rural orchard areas…). A deeper analysis, considering all items on the landscape and their spatial disposition, put in evidence more subunits for every macrostructure. E.g., at the level Physical-naturalistic components, the category Naturalistic areas with Mediter-

ranean brush has been divided in five sub-categories, depending on the elements contained:

- Mediterranean brush, dirt paths, isolated rural houses.
- Mediterranean brush, dirt paths, grasslands, small hamlet.
- Mediterranean brush, pinewood, big rocks, small rural areas with houses.
- Mediterranean brush/garigue with visible rocks.
- Garigue with visible rocks, parts of dry stone walls. (Fig. 1)

The most recurrent of these structures are prototypical landscape configurations.

Thanks to this deep understanding of the Island's landscape, the planning work has led to a critical revision of the Regional Landscape Plan and to a restructuring of its landscape units. For instance, the Regional Plan gathers in one category -*Environmental asset*- both natural and rural components, clustered by the different land use (wood, vineyards, crops…). Our semiotic analysis has highlight-
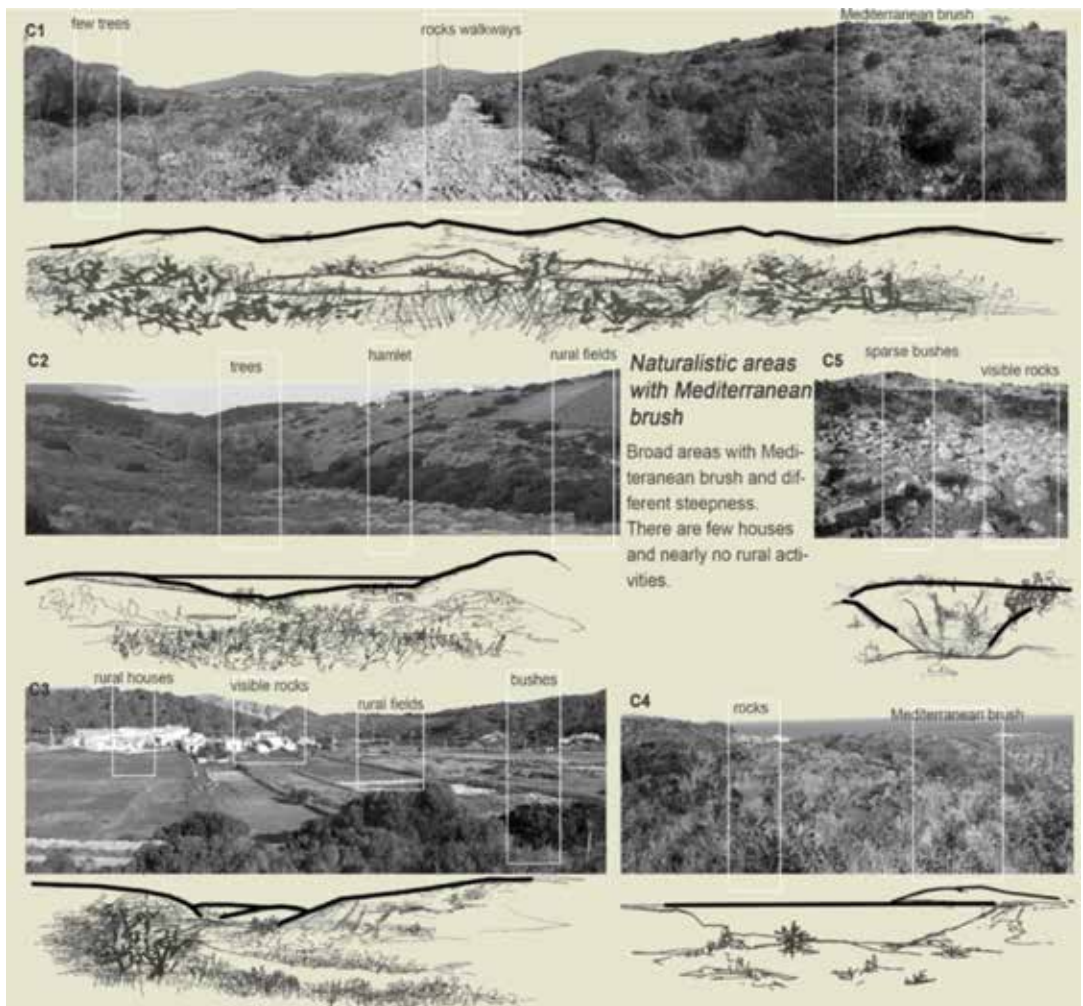
Fig. 1

ed many important differences between natural and agricultural areas, that do not allow them to be considered in the same category. In the proposed reconfiguration, the unit *Environmental asset* is divided in two different units, named *Landscape of naturalistic and environmental value* and *Landscape of rural and agricultural value*. Each unit is then sub-divided into subunits, in accordance with the elements which are composed by (e.g., *High naturalistic landscape*, *naturalistic landscape nearby houses or rural area*). Within these new envisioned landscape units, we have highlighted points of strategic convergence between various aspects of the landscape. We aimed at preserving and requalifying not just specific landscape aspects but entire territorial structures in which these aspects are embedded. This work is based on the active involvement of both planners and locals. The landscape project traces two ideal lines, north-south and east-west. The north-south line connects the "Tonnare" (tuna fishing settings) to the historic mineral mines, trough the marshes of the salt mines just outside the village of Carloforte. East-west, two different parallel lines cut through the island: one, at the centre of the island, connects the various historic dismissed mineral mines; the other, further south, follows the coast line. (Fig. 2)
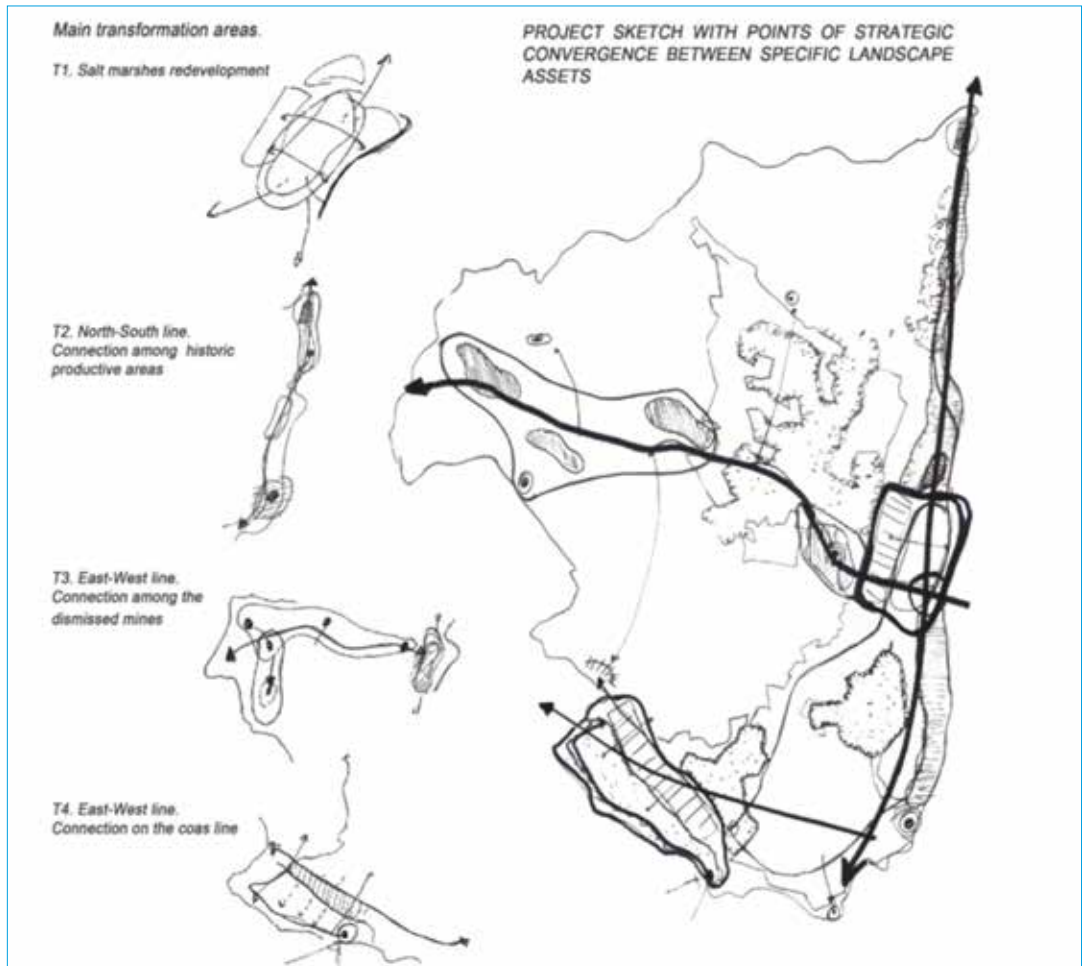
Fig. 2

The project is multi-scalar. It starts from the macro, island level with the proposal of a reorganization of the territory through a resilient perspective; it then zooms in at the micro level of specific areas characterized by specific landscape assets. Notable is our focus on the salt mines (*saline*), no longer used for the extraction of salt, and turned into marshes dedicated to natural preservation. Most visible to the visitor are pink flamingos that spend the spring and summer months there, nesting and breeding before flying back to North Africa. But many more rare botanic and zoological species find shelter in the marsh. Our goal was to focus on people's fruition of these assets. Such is the opening of a walking and jogging path along the old canal of water drainage today home to the locals' boats.

The project is meant to further protect this area of high ecological value, and improve at the same time its daily use. Thus, we extended the existing path with the addition of two cross cutting paths. These paths consist of wooden decks, some 20 centimeters above water, leading to the centre of the marsh. Needless to say, the materials used, the manner of construction, the very spatial placement of the paths and of their constitutive physical elements, fully respect the existing landscape structure. (Fig. 3) The goal of the project is to increase the value of the landscape, starting from a deep awareness of the value of each of its constitutive parts. It is this awareness that let us develop a project true to the identity of the place, without disrupting the current social economic and ecological equilibrium and dynamics.
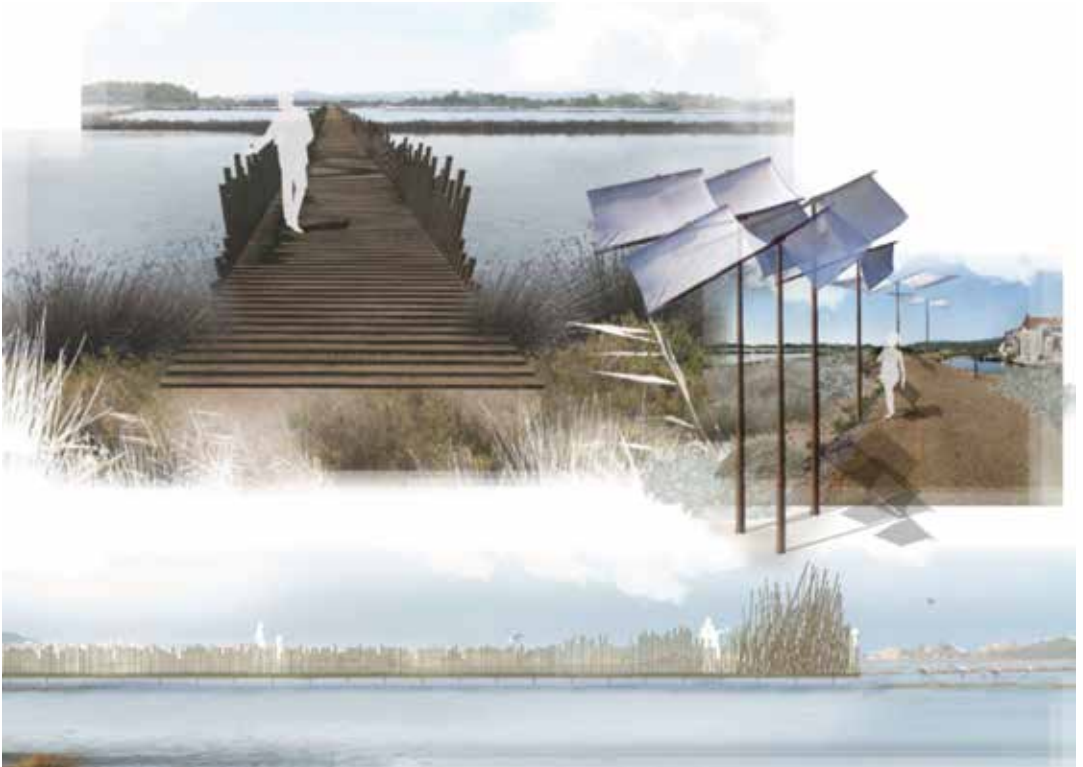
Fig. 3

With an awareness of the financial and economic constraints of landscape design, the project aims at long term sustainability rather than exploitation.

It fundamentally conditions tourism to the capacity of managing the landscape, rather than the current mass tourism concentrated in one summer month. A semiotic reading of the landscape leads to a year-round appreciation of the territory along the rhythms of nature (e.g., tuna fishing in May, wine making in September, spring blooming of the Mediterranean brush). It also leads to an involvement of local inhabitants in the supply of alternative forms of hospitality, based on agro-tourism where one is not just a guest but a participant in the cultural activities of the land (e.g., the repair of dry stone walls, the preparation of cus-cus, the tuna fishing).

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Opportunity to Build the Landscape of Contemporary

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✔ KEYWORDS: Opportunity, Ecology, Places, Community, Quality

🔖 ABSTRACT

For some decades Western societies are experiencing a crisis that is reflected on the space both on a regional scale that urban. But the crisis, κρισις, is opportunity to move from the industrialist paradigm (Khun, 1962) consolidated in almost three centuries - which was based on economies of scale and agglomeration - for propose a new one that, even considering the settlement patterns of the past, has the local context as suggestion of planning and designing. It is defined as "integrated approach" inspired by the "human ecology". At the center and aim of the choices must be the quality of life of the inhabitants. So the economy needs to be at the service of this goal, and not vice versa. Not coincidentally the ISTAT with the BES (*Fair and Equitable Wellbeing*) since 2013 is trying to bring out reading mode and evaluation of the "good life", a multicriteria synthetic indicator composed of 134 items and the AUDIS (Association that deals with the regeneration of brownfield sites) some years ago has produced the *Quality Charter*. To this all the components that constitute the sense of it - that is the natural resources, cultural ones, the agriculture and the knowledge of the place - must participate in an integrated way. Recalling, how does Settis (2014), the ethical responsibility of those involved in the transformation of the territory and in the construction of the landscape. Highlighting, in accordance with the *Charter of Leipzig* (2007), that are required strategic policies between urban and not urban, rural areas to build sustainable and socially inclusive community materially as specified by *Smart City* (2010). All this must be the lab to build the landscape of contemporarity for as indicated by the European Landscape Convention.

The conceptual invariants of the ecological approach to the territory

Dealing of future scenarios of the space, and i.e. the social organization, production and life quality must start by replacing the word territory instead of town as key element, as well as suggested by Matteo Bartolini, President of the European Council of Young Farmers (2015). The basic elements to maintain and propose a landscape consistent with the quality of the territory, in particular of the Italian territory, are the natural resources - of which agriculture is one essential component - the historical and artistic ones together with the place's ancient knowledge i.e. the Cultural Heritage, the aware and dissemination of them i.e. tourism. Consistency which is essential because the "Beautiful Country" remains still such and, at the same time, it also gives "meaning" for the inhabitants.

To achieve this consistency is essential an ecological approach based on the integration of the components before said. This means building a multicriteria methodology formed by elements, that is indicators both quantitative and qualitative. The VAS (Strategic Environmental

Assessment) recalibrated according to these guidelines may be useful. So it is possible have consistency between the uses of space, based on exclusion or minimization of competing uses: think e.g. to agricultural areas transformed into spaces of energy production for photo-voltaic or biogas (Scheme 1).
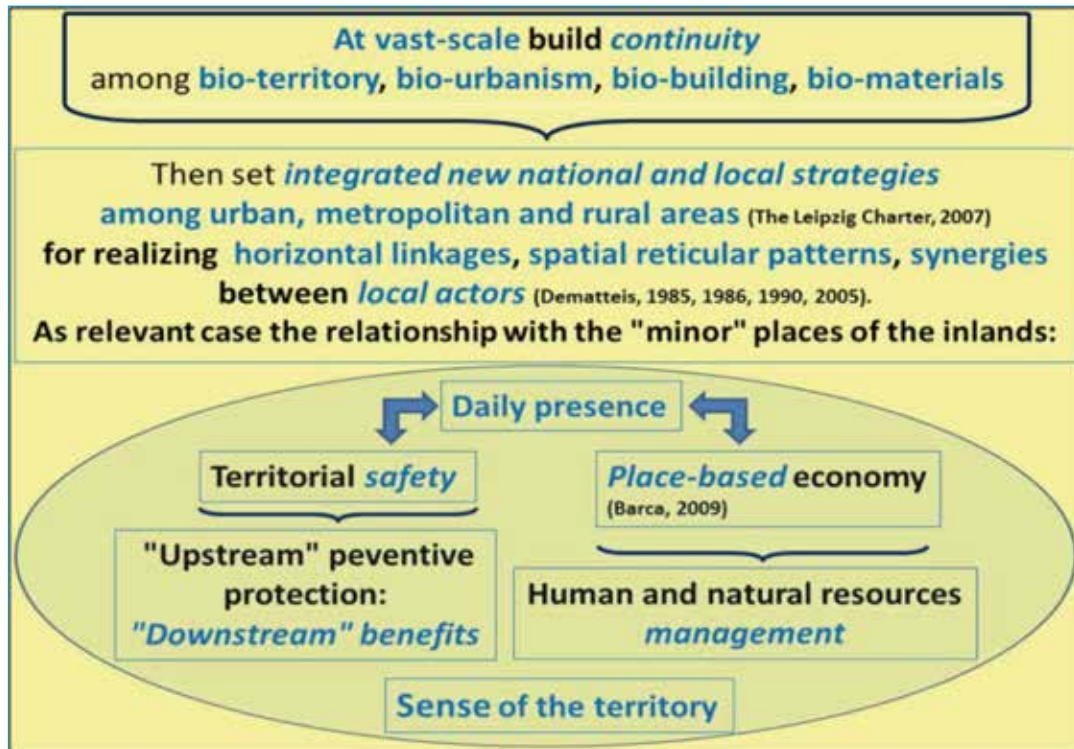
Scheme 1: Addresses for an ecological approach

So it is also possible to highlight the serious disconnect between the choices at macro scale, national, both administrative and infrastructural ones, and the development of the places, the "100 Cities" of the "Beautiful Country", the ones representing much of the Italian typicity. Inconsistency that consists in the cut of local trains (see the opposition by Aragona, 1993) so the closer centres - i.e. the small and medium towns become more far (how much it is difficult to arrive at Ascoli or Camerino ...) - and the far ones - i.e. is the large urban centers - become closer thanks to the high speed trains. Inconsistency due to the privatization of services up to a recent past considered publics as the post offices, pharmacies, the closure of courts, barracks, stations, etc., that make disappear landmarks of the inhabitants both functionally and socially. All this lowers the level of well-being, so urges the abandonment of territories and then increases the hydrogeological risk - both locally and downstream - because without the human presence the daily maintenance disappears, and disappear also the typical landscape. In such a way these choices impose a new scenario that, along with this abandonment of not central areas, they push towards the larger centres increasing their congestion as also shown recently (2015) in the Conference "The big urban challenges: Climate

Change and environmental quality" (ISPRA, DICEA) How is it possible to have sustainable mobility and less congestion in major centers where have been driven the inhabitants of the unarmed territories by microeconomic choices that have impacts on the macro scale.

In the relationship with the natural components, agricultural, the basic element is dimension. In Rome, the largest municipality in Europe and the largest for agriculture, there are calls for managing the rural abandoned areas in the territories of the edge/border of many of the Municipal districts in the Capital. Their planimetric structure means that except the Municipal districts I, II and V, I all the others 13 have a chance / opportunity of agricultural areas or rural areas with different facetes: production sites, historical-archaeological or natural-mining places. As shown at the Biennial of Public Space (2010) the vegetables urban gardens realized alongside roads as beside Via Cristoforo Colombo are participating in the construction of urban landscape in a very different form from that of the vegetable gardens citizens that are present from long time eg in Terni or Perugia.

The conjugation of the Ecological Network with the anthropization is growing in the urban planning tools: so it is in the New Plan of Rome. The question now is to seek ways for the development of this report. Example of this is the construction of the Charter of Values for each of the Municipal districts in the Capital that started in 2014 with four participation tables. Attended by the citizens the tables had as their object the Environment and Heritage Landscape, services and trade, the areas and abandoned buildings, mobility. The management of the formulated proposals has been important aspect of the process Another major theme emerging in the proposition of new or maybe in the recovery of landscapes is the retrieval of the water: mills, canals, waterways. Again relevant is the scale. While in Milan the canals are rethought for the urban landscape, there is the rediscovery of water mills around which arose small and very small centres: these elements, these opportunities, have become so important that the EU has dedicated to their recovery a special attention. (http://www.restor-hydro.eu/en/about-restor-hydro, Fig. 1).

Fig. 1: Water mill (Source: Antonella Saccone)
Fig. 2: Proposal for "Contest 99 ideas for Reggio Calabria", Table 1 (Source: Borruto S., Laface D., Porcino A.T., 2013)

Positive lessons can be drawn from proposals such as that of Reggio Calabria on the museum. The CIPE (Interministerial Committee for Economic Planning), with resolution 39/2012, asks that the completion of the restoration of the museum must be associated with the valorisation of the area and the cultural resources of the city to promote business ventures in the spinneret of culture tourism also internationally. Proposal attentive to the relationship between cultural heritage and urban quality, inserted in an area very "natural" given the location of it and the small size of the city that is almost entirely surrounded by nature - land and water - where the landscape, even rural, sends strong perceptual and emotional signals. So in 2013 promoted by the then existing Ministry of the Territorial Cohesion - the Prime Minister, the Ministry of Heritage and Culture - the Regional Directorate for Calabria, from the Calabria Region and the Municipality of Reggio Calabria, is banished the *International Ideas Competition for the development of the National Archaeological Museum of Reggio Calabria in reference to the cultural and territorial city context* (Fig. 2). Important support, emblematic, of the integrated approach before mentioned, formed by the many components that make up the wealth of the proposal. This case is emblematic of the many Italian centres, 27 municipalities, which have a population size similar to Reggio Calabria, that is, between 100,000 and 200,000 inhabitants.

Quality of space

But all this must be declined with the "cycles closing" and the well-being of the inhabitants, proposing a "sense" for the anthropisation, existing and new. That means give sense to human activity, i.e., to his life. The Indicators of the *Fair and Equitable Wellbeing* (BES) proposed by ISTAT and CNEL (2013) are 134, divided into 12 domains: health; education; reconciliation of work and life; economic well-being; social relationships; policy and institutions; security; subjective well-being; landscape and cultural heritage; environment; research and innovation. The dates are grouped by regions. With respect the landscape and cultural heritage have been used these indicators: resource endowment of cultural heritage: number of archaeological, architectural and museum assets in the information system "Risk Map of cultural heritage" (Ministry of Culture) per 100 km2; the Public expenditure per capita in current communal euro destined to the management of cultural heritage (museums, libraries and art galleries), the rate of illegal construction, the rate of urbanization in areas subject to landscape bond: n. of buildings constructed after 1981 per 100 km2; the areas referred to in Legislative Decree 42/2004 art. 142, letter. a), d), l) (ex Galasso Law); the erosion of the countryside due to the urban sprawl (urban sprawl), the erosion of rural areas caused by abandonment, the presence of historical rural landscapes, the rating of the quality of rural development programming (PSR, Regional Rural Development Program) in relation to the protection of the landscape: Scores awarded to regional rural development programs (RDP) in relation to the measures taken in the field of rural landscape (NSP-National Strategic Plan for Rural Development 2007 -2013);the Density of historic Green and City parks of significant public interest, the consistency of the historical urban tissue, the Dissatisfaction with the quality of the landscape of the place of life: Percentage of people aged 14 and over that

stating that the landscape of the place in which he lives is suffering from obvious degradation; concern over the deterioration of the landscape values. It is emphasized that it is necessary […] deepen the theoretical framework-conceptual and share the definitions and measures to be applied, in a multidisciplinary integration of sources and expertise […] large lack of information, especially about the possibility of constructing long historical series, fundamentals for the analysis of the landscape […] essentially dynamic phenomenon (ISTAT, 2013, P.202).

While regarding the topic Environment the indicators are the drinking water, the quality of marine coastal waters, the Urban air quality, the availability of green areas, the areas with hydrogeological problems, contaminated sites, the terrestrial protected areas, the marine areas protected Areas of particular interest, the concern for the loss of biodiversity, the flows of matter, energy from renewable sources, the 'CO2 emissions and other climate-altering gases. In the BES it is underlined that "This is the start of a exploratory and cognitive path that needs further study in terms of analysis and production of statistical information." (ISTAT, 2013, p.222).

Moreover issues such as the hydrogeological instability in some cases are underestimated due to the omission of information: eg. it is striking that only a little over 5% of the Calabria is "landslide areas". There will be a next phase that synthetizes the data for provinces and metropolitan areas Settis recalls (2014) that anyone involved in space has the great ethical responsibility to propose and build scenarios, visions of the world. He remembers that Vitruvio had already considered all the disciplines that today have to compose the ecological approach to landscape. A landscape that is reconstruction of meaning, of place..Antithesis, in the strict sense of the term, to what the industrial society exponentially has trasformed increasingly as tool/object of production and that tends to modify its use value (perceptive, emotional, psychological) in exchange value. Thus producing the industrial city, mass and urban landscapes increasingly responsive to the logic of economies of scale and to those of agglomeration. Landscape, so as Heritage, which has to be re / constructed starting from cultural value in itself and not (only) as tool for economic goals, as stated in the opening of the International Fifth Conference HERITY - Heri (tage) and (Quali) ty - in 2014 by the Secretary General Maurizio Quagliuolo and proposed by he in the same year also at UNESCO. An opportunity tied to the landscape that characterizes our nation and which must go beyond it being used for purposes cultural-touristic of the three great cities: Rome, Florence and Venice, which, by themselves, attract 80% of tourism (Becheri, Major, 2013).

The key issue is related to the theme of effectiveness and efficiency of choices. More and more it seems that the social effectiveness, i.e. the welfare of citizens comes into conflict with the supposed technological improvements. To this regard, it is relevant the active role of the regions: see e.g. the Statute of Places that has introduced the Region of Tuscany in 1995 in the Regional Planning Act. So the formulation of the many regional laws on the possibility of creating "widespread hotels" is an useful tool d revitalization of city centres. As well as it is important the municipal level: e.g., "The Charter of Values" was the document at the base of the recovery of the municipality of Santo Stefano di Sessanio (AQ).

But there is a sort of decoupling. While the Program "Territories as Articulated Joints" takes note of the need for a different perspective, at regional scale, as recently said in the intervention

"Integrated actions innovative .The Network of Territories" (Giacobone) at Ubanpromo 2014, instead Urban Agenda focuses and urges the political interest and cultural as well as financial, towards the main urban centres. It is also disturbing that these issues are entrusted to the Ministry of Infrastructure and Transport.

Some conclusive insights of a path to be tested

As shown, there are lights and shadows in this alternative route. Although in the modern epoch the first productions have been with the American HD Thoreau (1854), it can be said started in 1969 with McHarg and then it finds the scientific largest base in 1972 with The Limits of Growth. It is relevant remember these important moments because the opportunity of the crisis, namely for the reversal of the path, will take time. Retaking metaphorically Kuhn (1962) the paradigm that has structured territories and cities, since the first industrial revolution until the recent past, may be replaced by an ecological pursuing in the time two parallel roads and competitors: that of the possible scenarios and the other, the transform day to day what can be accomplished in building the landscape of contemporaneity.

It would have been easier to cite many examples of good practice. But they risk not only to be exceptions but also disappear if the elements structuring the territory does not facilitate their formation and survival. The first, essential, element of resilience of an area is to maintain people who live on it. The ways in which this is possible is what characterizes the quality of life. So are the relationships that are built between the various components determining the scenario. In conclusion, we report the words found in the BES and related to the landscape <<*It is a public good, that, however, it is hard to recognize and protect as such. This difficulty reflects a form of impoverishment, which limits the right of citizens of today and future generations to the history and beauty, with great foresight right guaranteed by the Constitution that establishes among its "basic principles" the mission of the Republic of protecting "the landscape and the historical and artistic heritage of the Nation"*>> (ISTAT, p.185). Positive signals and operating results come from the recent (2015) meeting dedicated to the relationship between urban environmental indicators, the smartness and environmentally sustainable management.

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The Potential of Historical Monuments in the (Re) Considering Process of the Residual Landscape

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✔ KEYWORDS: historical urban structures, residual landscape, relational / slow mobility, architectural route, resilience

🔖 ABSTRACT:

This project realizes an analysis regarding the potential of the historical buildings to reconsider the residual landscapes, in order to enhance their resilience capacity. The area, situated close to Dambovita river, belongs to the historical structure of Bucharest, partly affected by the demolitions in the period of 1985-1989 in the dictatorial regime.
This area, including nowadays also parts as chaotic topos, without any continuity, has the potential, due to the still valuable remanent traces, present or hidden, to receive different meanings, to restart there a coherent and stable character.

Introduction

The research, in development at Departament of Basics of Architectural Design at "Ion Mincu" University of Architecture and Urbanism in Bucharest, focuses on the reconsideration of a wider territorial sistem over a vast zone, belonging to the historical structure of Bucharest, extending the limits of the anachronistic concept of „historical centre". Taking into consideration as a subject for a possible touristic architectural route only a part of the historical structure of the city, the study can be extended as pattern model to other delimited areas, reconsidering in this way the whole structure.
According to the guidelines confirmed in the European Landscape Convention, the research tempt to overpass the distinction between the historical centre including most listed monuments, and the areas only partly classified as including buildings with architectural and ambiental quality, being targeted on the identifying of the diversity and eterogenity giving character to the urban landscape in order to reconsider it and to patrimonialise common value and everyday landscape.
Therefore, the research has in vieuw:

- a historical analysis for knowledge of the landscape;
- the importance of individual perception in the landscape;
- the role of monuments, particulary of the monastries and churches, in the configuration,

• the meaning and attraction of a landscape and the methods to preserve their landscape and to enhance its resilience;
• the integrated interrelation with green not only as a chlorophilian scenography, but also as an organic symbiosis.

Concepts definition

In the new context of slow mobility, the concepts of cultural and architectural route, as a particular side of cultural good, receives a wider significance, including aspects regarding history and knowledge of landscape, perception and memory of places. Achieving more inclusive and complex meanings, from „tangible" to „intangible", the concept of „cultural good", part of the program of Cultural Routes of the Council of Europe, has been created from 1984 till 1987, to encourage Europeans to discover a certain sense of „collective memory that remains to be invented". (Catherin Withol de Wenden, European Citizenship, 1997). In the same periode, Pierre Nora formulated the definition of „lieux de memoire": „an object becomes a place of memory when it escaped oblivion, for example with the display of commemorative plaques, and when a community reinvests on it its love and its emotions".

Slow / relational mobility implies the mobility that has as result not only the movement of a person from a destination (place) to another destination (place), but that also offers alternative routes, meetings, involving the concept of rhythm and living mobility, forming a certain sensitivity in the perception of an urban landscape as a life frame, within a cycled structure of networks. It is about that relational mobility which connects space and time, persons and images, feelings and significances, in which the richness of experiences gained in the route becomes more important than its scope and its duration.

In this wider framework of understanding the dynamic dimension of the heritage, a special atention has to be paid to the residual / refused / neglected landscapes - in (toxic)ated landscapes where separated buildings are coexisting in disarmony, as disconnected signes belonging to different periodes which the place survived (fire, earthquake, bombardment, demolition).

The residual landscape doesn't have the capacity to say something to someone who wants to start there a place having a stable character. It has not the capacity to receive different meanings. It becomes a landscape of nowhere, a chaotic topos, without coherence and continuity. Thus, reflecting the transdisciplinary research methods, the attention switches from the individual objects to the history of the processes that have generated the objects, including exceptional landscapes, but also the common and even residual landscapes, from the historical inventory to the dynamic evaluation of the transformings generated phenomena: in the natural as well in the antropic sphere.

The perspective starting from the historical processuality, encouraged by The European Landscape Convention from Florence, enhancing the conscience of the historical dynamics, being them still alive, latent or dissapeared, is essential for the study, for innovative strategic proposals.

Methodology of reference

Trying to understand the actual world, regarded from the perspective of science and sacrum, in the systemic and cuantic vision, and considering the scientific knowledge as an imperfect sphera including also small spheres representing the unknown, Basarab Nicolescu defines sacrum as „something that is continously present and irreductibil at the mental operations", searching the Reality and looking at what does it belong between the disciplines, passing through and existing further than any discipline. (Nicolescu, 2007).

Table 1: Disciplinary Knowing and Transdisciplinary Knowing.

Disciplinary Knowing	Transdisciplinary Knowing
IN VITRO	IN VIVO
External world	Correspondance between external world and internal world
Knowing	Understanding
Analitical intelligence	Intelligence as an equilibrum between body, feelings and mind
Power and possesion orientated	Wondering orientated
Binar logic	Including the third logic
Excluding values	Including values

Some historical considerents regarding urban landscape of Bucharest

A processuality approach in order to understand, to reconsider and to intervent in the historical urban structure of Bucharest, has in vieuw some considerations.
The analysis of the historical values starting from a processuality perspective gives chance to the assimilation of a critical spirit in order to avoid confusion of values.
The first official document mentioning Bucharest dates from 1459, six years after the fall of the Bysantine Empire. Formulated by Nicolae Iorga in 1936, the sintagma „Bysance apres Bysance" refers to the phaenomen occured after the fall of the empire, when the Romanian princes became successors of the old emperors, protecting the bysantinic monastries. Thereafter, the Bysantine culture prolonged in time, independent by the political power of the fallen empire and the architectural Bysantinestyle has been a source for the post - Bysantine Rennaissance and the post – Bysantine architectural styles. The church of Bucur (*beautiful*, in old thracian language), related to the legendary foundation of Bucharest, and church from Curtea Veche, dating from the beginning of the 16th Century, are the oldest buildings of the city, founded on the basements of older wooden churches from the 14th Century, and excepting the princely Palace from Curtea Veche (15th Century), the oldest buildings in Bucharest are dated after this year, being stone churches or monasteries. In all this periode, every generated inhabited districts - so called „mahala", built its own monastery or church, playing along time not only a certain religious and symbolic role, but also a strong cultural, political and defensive one. One of the maps of Bucharest from that time, Borroczynn Plan (1852) let us see an organized city where the churches formed the real

landmarks to establish the limits of a city that has never had a fortification system. It is remarkable the remanence of some models from the rural landscape, posible to be read in the former trade houses from the 18th Century, continuing the original rural pattern, proved by the coherence of materials and features. Sorrounded by huge surfaces of wineyards, the city had also a continuos system of interior gardens, orchards and wijnyards, often used as public spaces, the foreigners that have travelled in Bucharest in the 16th or 17th Century, being impressed not only by the high number of churches but also by the multitude of gardens.

Starting with the second half of the 19th Century, due big fires or earthquakes, almost all patrimoine has been modified, the new one beinng influenced by traditional, neoclacissisme, eclectisme, neogotic, neobysantine or modern architectural styles.

During comunist sistem the urban structure of the city has been marked by the totalitarian interventions, when 40000 people have been displaced, affecting a surface equivalent with more than 6 sq km. (Fig. 1)

Fig. 1: Interventions in the urban structure, 1985

On the idea that Bucharest has been developed as a bigger village, and of the lack a consistent urban tradition, has been founded the new socialism concept, involving the architects in the demolishing of the old heritage and building the civic centres in Bucharest and in almost all cities in Romania. (Fig. 2) Consequently, at the jonction between old and new, residual places remained as disconnected signes surviving the demolition. In this area related to the demolished zone there are a lot of still existing opportunities to reconnect a stable structure, related to a cultural route. As biggest negative aspects can be mentioned and the chaotic buildings after 1990, due to a the lack of coherent policy and a definite development strategy at that moment.

A cognitive route to a sustainable urban landscape approach

The cognitive mapping of the analized area has been founded through a interpretation of the classical literature investigating the perception of the quality of urban spaces. Kevin Lynch

Fig. 2: Intervention in the landscape: 1. Mihai Voda Church – displacement and and "encassing", 2. Sf. Vineri Church – demolition and "memory place", 3. Udricani Church – destroying surroundings.

introduced the use of mental maps revealing the paths, the nodes, the edges, the districts and the landmarks, formulating the image-ability concept structured and related to topography, urban composition, cultural level of inhabitants. Christian Norberg Schultz's phenomenological approach is founded on the evolution of architectural forms as a repository of cultural meanings of a community, while Paola Coppola Pignatelli (1992) investigated how different ways of living shape buildings, urban nature and open spaces. Carlo Socco (2000) researched the role of nature in the city, identifying semiotic issues between cultural and natural sistems in the urban landscape.

The purposed cognitive map focuses on an architectural route following paths through the considered area. Offering an experiential way of knowledge, paths represent therefore a basic property of human existence containig a tension between known and unknown, leading to a goal, but often indicating only an intended direction. Characterized by continuity, imagined as a linear succesion, it is a direction to be followed towards a goal, but it is also experienced as having a character on its own. The goal in this case may be the towers of a church, but also listed civic monuments: theatre, inns, schools, hospital and most of the time, common urban landscape. Thus, the path became an organizing axis for the elements of the landscape, the goal having less importance. Gaining clear and stronger identities, paths gaves the observer

the feeling of coherence and possibility of self orientating through the former „*mahalale*", consisted along times by inhabited districts, each of them organized around its own church of its own monastery.

The case of the starting landmark for the considered architectural route, the Sf. Gheorghe Nou Church (1707), having the authority of a cathedral by its size, preserved statement and own landscape value reinforced by a huge garden with old trees and statues, and the Military Stone edifice, the 0 point for the measuring distances from the capital (1937), recently restored, is a happy one. Sfanta Vineri church has been completely destroyed in 1985, nowadays on its place being an oil station, in the neighbourhood being built a so called „*memory place*" whose value is diminuated by the tram rails surrounding it. Other monuments as Sfantul Ioan cel Nou, Sfantul Gheorghe Vechi or the Blue Sinagogue has been „*encased*", as a consequence of the Civic Centre programme, excluding the city's visual symbols by demolishing, by transferring them to new sites or by hiding them behind screen of tall flats, surrounded by residual spaces.

Along the route there are some keys to be descovered:

1. Balance between built and open spaces, permanence of historical topographic traces, response of urban shape to climate conditions, the organic route, as result of the organic development of the urban structure
2. Rythm, scale, proportions, colours/materials/height accents and detail elements: bowindows, boundaries, ironmongeries gates and balconies, porches, cornices, churches towers and spires
3. Perspective tipology: dynamic, multiaxial, hidden / surprising, frontal, curved ends of perspective
4. Open spaces, public spaces with stable character and residual landscapes – urban heat islands, mostly surrounding a church affected by demolishing surroundings, having potentiality to recompose public spaces and green areas
5. Light, reflections of old facades in the new curtain walls, relation of the cornices design with sky, virtual transparency and spatial porosity
6. The ecosemiotic issues regarding the interrelation with green sistem in order to improve perspective qualities by covering the blind walls as there are already some situations and to continue the former green network; according its climate and tradition, as a garden city, Bucharest should become a *urbs in horto* and not *a hortus in urbe* (Cincinat Sfintescu, 1932).

The research focused also on the establishment based on a participatory approach, of the landscape indicators for landscape quality, to evaluate the amplitude of a disruption, diversity, economical value, landscape fragmentation, empathy and appropriation degree, silence, the continuity of natural system, the capacity to be recognizable and to interact with the inhabitants and level of their satisfaction, public and private activity for conservation, as the „ensamble of ecofields that a individue needs to satisfy his basic resources became his own perceived landscape"(Farina and Belgano, 2005).

Fig. 3: Cognitive Map including monasteries and churches, listed monuments, public spaces, urban heat islands/residual landscapes, tall buildings/accents, hidden perspectives, paths

Conclusions

There is a directly relation between the social and cultural becoming of o certain place and the place itself, and the rouths of a culture belonging to a society including the architectural heritage are fundamental sistems determining the individual and collective creative potential of a society. Defining a new aesthetic of a city, there are to be taken into consideration certain constants as:

human scale;
virtual transparency;
traditional models;
green spaces network continuity.

Despite the agressive process of demolition during the the totalitarian regim, Bucharest still has the advantage and the chance to have kept big parts of stable character, an urban landscape with a very strong identity.
There are to be reconsidered:

- the potential and the viability of the models from traditional, classical and modern architecture;
- the green areas indicator as prioritair for the future strategy;
- a sensitive approach regarding the insertion of new buildings differently and following the architectural context and the real social needs;
- (re)searching the landscape from ecosemiotic key.

In the process of an architectural route, the urban landscape doesn't mean only a scenery, but it represents a history repository either a sume of human experiences, offering different levels of reading and understanding the landscape, finding new network connections in order to provide new synergies.

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Green Change, Big Chance # New Rurality: Food | Tourism | Energy | Environment

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✔ KEYWORDS: New rurality/ food / tourism / energy / environment

🐂 ABSTRACT:

The new multifunctional dimension of agriculture is transforming the rural landscape and the concept of rurality. The SOIL assumes a strategic role in the landscape as an active process.

There are new life cycles for agriculture which increases the possibility of action from the production of material -(goods, timber, fiber, materials for industrial) to ones intangible (landscape, biodiversity, safeguarding hydrogeological, maintenance of territory) and to the creation of services oriented to social welfare.

There is the vocation for more traditional production of food and the innovative activities (power generation, natural fibers and polymers, rural and cultural tourism, social potential) that configure polyhedral rurality which still has to be investigated for spatial and formal implications:

Agriculture Food #

Agriculture # rural and cultural tourism

Agriculture # environment-energy

These themes define a new project of the landscape, in which the space of the campaign is perceived as a common good; the agricultural field is a space enjoyed by all, it is multifunctional in which the figure of the farmer is to act along with many other actors in a scene that belongs to everyone. In this new dimension, the landscape can become a rewarding factor for agriculture, reversing the dialectical relationship between urban space, suburban and agricultural land.

This multi-functionality opens a new design that can be strategic if developed as spatial practices with alternative usage, characterized by a social mix, functional and formal, and a coexistence temporary / stability, compatible with the tiles of a mosaic and economically sustainable.

This green change perspective offers the opportunity to shape new landscapes through an urban-environmental continuous pattern.

Our team is carrying out research on the resilient regeneration of the old citrus fields and the new possibility of production and landscape of multifunctional agriculture in the Plain of Gioia Tauro in Calabria.

Green change, big chance: cibo/turismo/energia/ambiente

The idea of the agricultural landscape as a result of those processes that sediment marks and designs on the territory (Sereni, 1991) is not a remote invention. Although the frescoes by Am-

brogio Lorenzetti, around the middle of the fourteenth century, depict a first scene, anticipating the landscape painting, the acquisition of aesthetic value in the concept of landscape (Rosario Assunto) is a modern achievement that gives the natural place recognition, it makes the figure become symbolic and aesthetic overcoming the idea of a picturesque eighteenth century.

Physical transformations determined by evolution of agricultural techniques and crops, orographic mutations, infrastructure reforms, modification of the system properties determine a dynamic landscape constantly changing, which in Italy are unique and specific characters. This singularity comes from the Roman cadastre (Sereni, 1961) that has imprinted the territory with a network of lines "centuratio" which are still visible, orienting fields and rows and adjusting the relationship between towns and rural areas with a network "limites" as a texture on the constant territory.

Excluding the areas affected by land reclamation or by reform, the Italian agricultural landscape was fairly stable until the sixties when the unchecked growth of the city towards the countryside and opening of agrarian markets with capitalist logic caused a drastic transformation. Prevailing production decisions oriented monoculture and gradually lead to an alteration of the ecological balance between agriculture and the environment with the loss of biodiversity and the cancellation of many elements that characterize the Italian agricultural landscape. The southern latifundia and the cultivations of the Apennine mountain disappeared, it abandoned the network of paths, the water pipes, the terraces, the temporary shelters, signs and lines on which the design of the territory was based. These elements " are on track to become the remains of a history of human exceeded" (Lanzani, 2003). It opens an "Italian way to the modern city" based primarily on an antithesis between urban and rural landscape, which led to a confirmation of the image of historic town centre and to a reduced importance of the urban periphery and industrial areas. (Lanzani, 2003). Today the agricultural landscape is experiencing a moment of re founding due to the prevalence of environmental and climate issues and to the new ecological dimension with an overall rethinking of the agricultural sector. A new life-cycle for agriculture is being profiled which increases the spectrum of action from the production of material goods - food, timber, fibre, materials for industry - intangible goods - the landscape, biodiversity, safeguarding hydro-geological, maintenance of the territory – up to the creation of services oriented to social welfare.

The vocation of the traditional food production is complemented by innovative activities (power generation, natural fibres and polymers, rural and cultural tourism, social potential) that configure polyhedral rurality to investigate the spatial and formal implications.

Agriculture # Food

The traditional production function of agriculture today must respond to recent requests for food security and health imposed by a new awareness and sensitivity. This new requirement has strong implications on the current structure of the agricultural sector for European regulations. At the base of the new dimension there is the demand for greater transparency

in the food chain information, methods and origin of the products. It requires clearer and coordinated planning of companies, called to respond to ecological and environmental targets. The interest is on certified quality products in view of the global food challenge, the central theme of expo 2015. It starts a process that reverses the logic of quantitative market at the base of the agricultural sector and shows a value for the growing biological crops niche which is becoming increasingly common and for scientific research in the field of genetic engineering.

Agriculture # rural and cultural tourism

The demand for leisure of new lifestyles increasingly takes space in rural areas. These respond to new and unusual needs as to enjoy the beauty of the landscape, to have an open space where doing natural sports, such as hiking, biking and enjoying healthy foods. The result is a growing success of rural tourism resulting in the increase of agritourism companies, educational farms, all activities related to the recreational enjoyment of the countryside and linked to a market of agricultural products. This phenomenon generates special interference and connections between cities, peri-urban areas and the countryside and offers an alternative to the request for public spaces and green and sustainability. This trend is a tangible sign of the landscape implications on the quality of life.

The potential system of coexistence between rural area and the city is a testing ground through strategic planning for rationalizing the fragmentation of the spaces between the populated agricultural landscape and the urban space.

Agriculture # environment-energy

Traditionally good agricultural practices allow the maintenance of biodiversity, the protection of the soil from erosive agents and the safeguard the environmental balance but today these are severely threatened.

The agricultural sector is a crucial point for matters of the environmental pollution, and for the concrete actions that should be initiated as the elimination of chemical fertilizers, the specific crops on land at risk for hydro-geological defence.

There are many innovations in environmental and energy such as the phytodepuration, the development of the agricultural and forestry sectors (agriculture non-food) and the systems for renewable energy (biomass co trigenerazione plants, livestock and rural-industrial residues).

This run-up to the production of energy from renewable sources in some cases had a negative impact as the replacement of agricultural fields with expanses of photovoltaic panels that other than building an artificial landscape also raises the problem of the disposal issue of plants at the end of their life cycles and of visual pollution. Contamination between environmental and climate issues with agricultural production may lead to experimental design on the agricultural landscape as in the case of the Digital Mapping of Benedikt Groß. The

invention ties the traditional tractor with the systems GPS and GIS. This allows control over seeding through a precise design which not only has aesthetic implications but it increases the diversity of crops and the production of biogas. The diversity of the plantations and the drawings on the ground are defined according to algorithms that exceed the logic of monoculture and the use of pesticides.

These experiments show the great potential of a multitasking agriculture describing a new schedule of the landscape, in which the space of the countryside is perceived as a common good. The agriculture takes on the meaning of multifunctional space usable by everyone, and the figure of the farmer is to act along with many other actors in a scene that belongs to everyone. Multi-functionality opens new design scenarios that can be strategic if developed as spatial practices, functional and formal. (Gasparrini, 2013).

A change of perspective that should be registered through a project capable of shaping the new dimension of agriculture, as a device to detect the change in the concept of rurality in which the SOIL plays a strategic role in the landscape as an active process.

In this new dimension the landscape project becomes a factor rewarding for agriculture. The process that has seen the city spread to the countryside assaulting her has been reversed and has allowed the overcoming of the historical dialectic relationship between urban space, suburban and agricultural land.

In this re-founding idea, the rural area can be considered as "the green infrastructure of the city" a natural space, inhabited continuously and in which the function-agricultural production is linked to many other functions and where the identity culture of the place can be established through the project.

Given these different perspectives and potential visions of the agricultural landscape, our team has carried out research on the Plain of Gioia Tauro, in Calabria. Here citrus plantations invade the nearest space to the Port among olive trees that become only protagonists of the landscape from the height of 200 meters.

A real geographical room that takes shape from the natural elements of watercourses - Mesina and Pretrace - from walls Tyrrhenian Aspromonte and, as in a great theatre scene, it faces the sea through the port. Natural landscape and infrastructure are not drawn as shapes of a complex territory but they are presented as two closed worlds, near and distant at the same time.

The Plain of Gioia Tauro is taken as the potential place of research in which the generalizing vacuum created around the port, becomes the founding of an urban space and infrastructure that requires content and forms to become the point of interference between the activities of the port and the hinterland.

The research is based on the increase in value of the existing, conceived as a resource available, unexpressed by the re-found through the project and the idea of landscape restoration, restoration not the conservative but as a work of reconstruction and regeneration of the narrative of places.

The first project works on the rural landscape, characterized by groves of olive trees and plantations of citrus fruits: oranges, lemons, mandarins and "clementine ", a particular species that the EU has recognized as the IGP, - protected geographical indication.

Although the citrus is the economic pivot of the Plain of Gioia Tauro, the Calabria region is the first national producer of mandarins; there is a chain link between small producers and the network of mobility of the Port.

Operators do not have access to commercial channels of mass distribution while being close to an international freight centre. Added to this is an increasingly scarce productivity of historical, old and not very fruitful plantations, for which no specific actions have been initiated.

The study presented here addresses both aspects of innovation of those of citrus production processing and marketing. The first involves the regeneration with the introduction of new species and planting techniques. Thanks to the scientific support of the Department of Agriculture, Mediterranean University, which for several years has been developing research on citrus, it has been hypothesized that the design would take agricultural land by planting new species. The work foreshadows the scene of the agricultural landscape of the Plain in 2020 after the regular progressive insertion of grafts that would ensure a higher quality product, which is distributed over longer periods of the year and with a more efficient method of harvesting the fruit.

Furthermore a logistics platform conceived as a large infrastructure that emerges from the field and directs the activities of small producers into a single large system has been proposed.

An object that receives highly technological activities related to the manufacture, marketing and protection of citrus production that overcomes the vision of containers standardized of a globalized world and opens to the field of physical differences and anthropological territory. (Profiles, local peculiarities, forms of land, etc.) .

The logistics platform is designed as a large infrastructure for the export of the product in national and international channels, by sea, rail and road, building interference with the port and also with the national railway line and motorway Salerno -Reggio C.

These assumptions emphasize that the port is a crucial territorial development not only for the transport network, or for the long-awaited industrial expansion in southern Italy that has never been developed.

But this presence can be, as to the historic ports, a source of wealth and development only if actions are triggered for integration with the territory from a thorough knowledge of the places, their specificity, their quality and nature, that is, of that ' idea of existing, previously mentioned.

And it is in that interface of port spaces to the territory, in that disarming vacuum that has been created around it, that it is necessary to define new content and forms, that void that can be conceived as a qualitative difference if rethought in view of the restoration of the experimental landscape.

The second work addresses the relationship between the agriculture and the renewable energy and it consists in the creation of a energy park, designed as a landmark catalyst between the road system at its different scales, the natural elements and the harbour port. The issues of climate change is taken as a connector to technical, social, and landscape.

The project is the formalization of the embodied energy in a place as a result of the sun, wind, water, and biomass. The park is designed by energy production systems (Greenhouses with

PV roofs, wind turbines, carbon poles, hydraulic cylinders, thermal ponds, micro- algae) using an approach that goes beyond the technical dimension and is measured with the design of landscape with the form and land use.

Natural elements, technologies, infrastructure merge into a single narrative that highlights the values and physical and anthropological differences of the "Piana di Gioia Tauro."
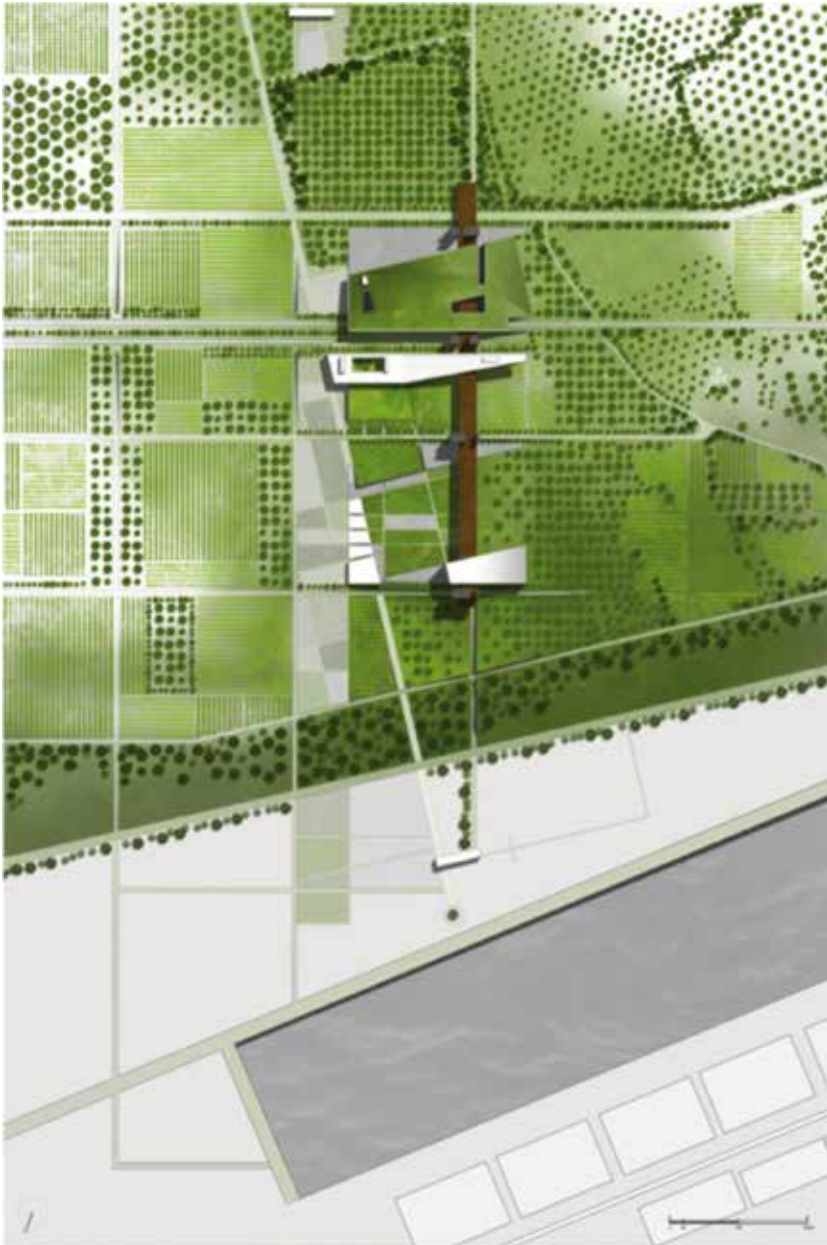
Fig. 1: *Between port and city. Experimental pole project in Gioia Tauro* [thesis] ,Addesi R., Battaglia M.
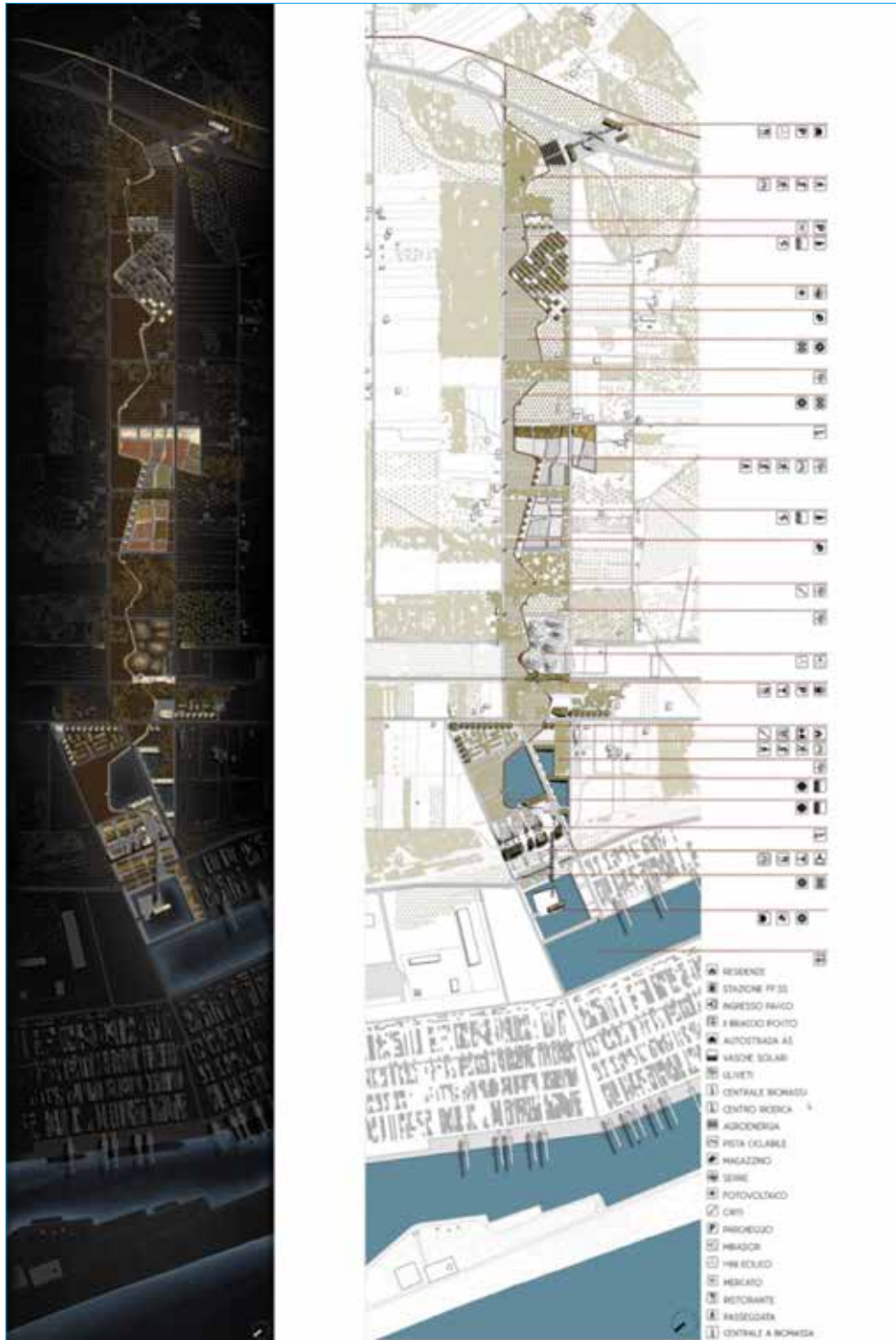
Fig. 2. Project for a renewable energy park in Gioia Tauro's town valley [thesis], Bonaventura S.
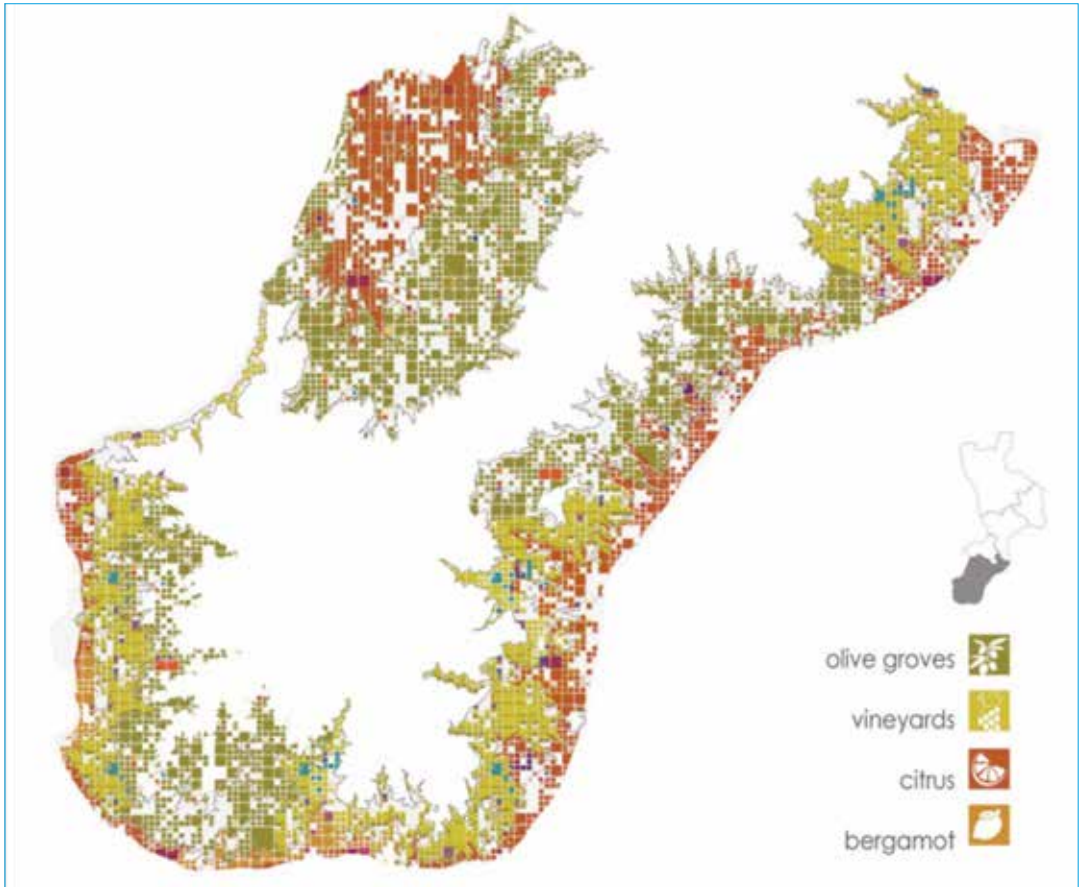
Fig. . 3: The green corridor: the infrastructure of metropolitan city of Reggio Calabria.

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CHAPTER **IV**

The Landscape as a Community Project:
the Role of Inhabitants in the
Construction/Restoration of Territorial Values

Introduction

The connection between landscape quality and the level of community awareness in relation to the geographical area of reference is very close. There are, in fact, different strongly interrelated actions that come together to form the landscape such as caring for places, the transmission of their identifying values to younger generations, and the different ways of using primary resources.

In societies that have lost the traditional and symbolic references and orientations in conjunction with the rapid change and homogenization of the territory, reconstructing the interrupted threads of local and territorial memory cannot help but pass through the transmission of awareness and knowledge that pertain to the landscape and that regard the sharing of a territorial project by a community. A process engaged in an evaluation that the community can make regarding the landscape resources present can orient each planning event for the area.

The project choices are therefore defined in reference to the possibilities and limits allowed by the place, but also in relation to the common feeling of the interested populations. The inhabitants become subjects involved in the decision-making process, actors in the implementation, and living components of the resulting landscape.

Resilience Through Community Landscape Project

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Debate Frame

The cultural and institutional debate on landscape is strongly promoting 'active conservation' (ELC, art. 5d), trying to integrate evolutionary processes and policies for the conservation of natural and cultural resources with plans and projects for territorial transformation; 'active conservation' beside needs to base landscape design actions and management processes on a social participation and also to define actions that integrate different scales of action.

In fact the European Landscape Convention (2000) and its Recommendation (CM/Rec(2008)3) for implementation highlight the need to pay attention to the territory as a whole, linking ecological, archaeological, historical, cultural, perceptive and economic values and incorporating social and economic aspects. For the promotion of "quality of the territory as a whole by defining policies for appraising and planning" (Rec, 2008) the role of community is central.

The landscape quality is directly linked to resilience as an indicator of sustainability and of health of the territory and it needs participation processes for its development; the participation should take into account social perception of landscape and local aspirations in choices regarding landscape protection, management and planning. The community role in this view implies an "exercise in democracy whereby differences are accepted, common characteristics found and operational compromises eventually reached" (CM/Rec (2008)3) for a shared landscape development.

The role of community awareness for defining policies, plans and projects is needed in the identification of landscape values and of their use and management, but it is also important for sharing landscape projects. Community should be involved in the decision-making process, as an essential actor in the implementation and as a living component of the resulting landscape.

The close link between policies for nature and the landscape, between defence and management, between population and territory, finds reference in the international cultural debate also in a new development principle, that of resilience, which brings into play the sustainability and quality of the territory (Kates et al., 2001) as an innovation of social-ecological systems (Gallopín, et Al., 1989; Berkes and Folke, 1998), based on the reciprocal interaction and adaptation between man and the environment / coupled human–environment systems (Turner et al., 2003). (Fig. 1)
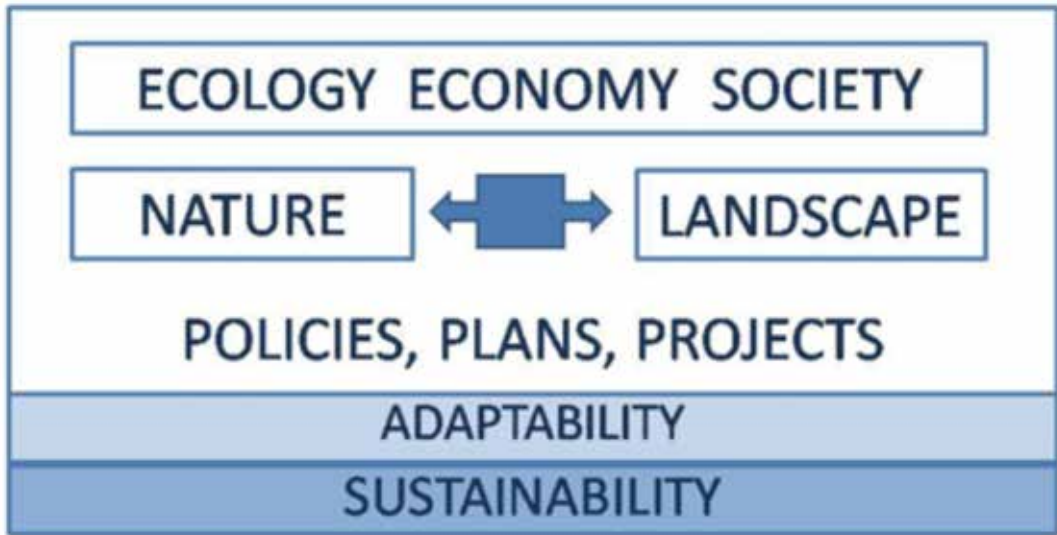
Fig. 1: Innovative concepts linking nature and landscape

Gaining consolidation primarily in ecology (e.g. White, 1949; Steward, 1955), the adaptation concept refers to the process of structural change in response to external circumstances. Adaptability refers to the capacity to adapt to future changes in the environment of the system concerned, taking on a multitude of meanings, which permeate anthropology, human geography, social science (Folke, 2006), risk management (Kasperson et Al., 1995), the fight against climate change and the planning of the territory (Davoudi, 2012). In the cultural debate there emerges a utopic vision that imagines a future for the city, the territory and the landscape which, in its natural and anthropic characteristics, launches a non-linear transformation process which invests the quality of the performance of the environmental and territorial system (Voghera, 2014). The evolutionary approach linked to resilience is applicable to the landscape systems, strongly characterised by an integration between man and nature, crossed by processes of adaptation to the environment that continue in time (ecological approach; Kauffman, 1993) and space (panarchy model; Gunderson et Al., 2010) according to multiple balance models, sustained strongly by the creative capacity of social capital, which is based on the role of communities (i.e. the individual and the institutions). A development model which imagines a territory capable of adapting and innovating through planned and programmed actions and through bottom-up actions, capable of tackling its difficulties, regenerating its memory and its symbolic and landscape system, has been affirmed.

This approach needs an a comprehensive and holistic framework - less considered in urban resilience literature (Rockefeller Foundation, 2014) - that combines the physical aspects of landscapes with the less tangible aspects associated with human behaviour. It needs to incorporate the qualities of resilient systems and their landscapes, especially considering community aspects. The qualities are following recognized:

• Reflective capacity as a continuously evolving of the system, resulting of the people and institutions learning process considering past for future decision-making.

• Robustness that include well-conceived and managed landscape, able to withstand the impacts of events without significant damage or loss of functions.

• Redundancy that refers to the ability to accommodate disruption, extreme pressures or surges in demand, related to the presence of a rich and diverse environment and landscape (i.e. presence of a richness of green network infrastructure).

• Flexibility that implies that systems can change, evolve and adapt in response to changing circumstances.

• Resourcefulness that implies the ability of people and institutions to rapidly find different ways to achieve their quality goals or meet their needs during a stress event.

• Inclusion for contributing to shared visions for the future and for the management of the landscape (integrating bottom-up and top-down approach).

• Integrated in the capacity to develop multi scale actions and plans for territorial and landscape governance.

• So the landscape resilience is based on evolutionary resilience (Chelleri, 2012; Stumpp, 2013), that consider the relationship between scales of action, and between community autonomy and environmental, social and economic connectivity and integration in a wide scale (Allan & Bryant, 2011).

Landscape resilience

Resilience and landscape are indissolubly linked, in that the state of the single elements that combine within it are not connected to the state of the landscape (Van Eetvelde and Antrop, 2004) and the changes can be absorbed by its structures. Resilience integrates the more well-known concept of vulnerability of the landscape (Lyle, 1985, Kozlowski, 1986; Klausmeyer et Al., 2011; with the risks and pressure from outside) highlighting the relational and system components, responding in an integrated and trans-sectorial manner to the transformation processes that touch the various physical-morphological, environmental, eco-systemic, socio-cultural, economic and perceptive aspects of the landscape.

The resilience as a driver of territorial and landscape policy has resulted in an innovation perspective developing a more integrated, multi-disciplinary and open planning system, involving community stakeholders in the planning process and also basing planning strategies on innovative, creative and holistic framework of multi-disciplinarity and multi-functionality (Collier &al., 2013).

For resilience landscape planning and programming become necessary to promote multifunctional development – capable of enhancing the numerous ecological, social and cultural values of the landscape – for the diversification of activities and uses with the aim of regulating the microclimate, soil safety and water quality, as well as the conservation and maintenance of the biotopes. The aim is to encourage sustainable, adaptive and resilient development which place

environmental and landscape aspects in close relationships with those of a socio-economic nature; which makes reference to the conception of landscape- in its ordinary and excellent components- as an eco-systemic service (Costanza et. Al, 1997; Ehrlich, Kennedy, 2005, Egoh et Al, 2008; Granek et Al, 2010), capable of supplying goods and services, linked to food, water, soil, the absorption of Co2, to the creation of recreational and cultural activities, contributing directly and indirectly to human wellbeing.

This approach has been discussed and consolidated in the context of rural landscape planning and management (Naveh, 2000; Palang, Alumae, & Mander, 2000) for sustaining rural livelihoods and nature conservation. Such debates are instead poorly developed in urban landscapes (Wilkinson, 2012). The resilience is a planning theme for urban landscapes which has been given high priority, involving the following emerging areas of actions: geospatial ICT, green infrastructure planning, innovative design using collaborative responses, climate planning, limiting urban sprawl and short-circuit economic approaches.

Operatively the *landscape evaluation* can support the processes of co-evolution between the anthropic and natural system via techniques capable of measuring and qualifying the choices made in terms of defence, planning and management of protected and ordinary landscapes. The evaluation needs to utilize multiple perspectives in the analysis and in the monitoring and management of landscape complex systems. Local, non-expert knowledge has a high value in landscape identification, planning and management.

In this view Folke, Hahn, Olsson, and Norberg (2005) explore the role of the *community engagement*. They suggest that a form of environmental governance may be used to link local stakeholders and expert actors to generate resilience against uncertainty events; this approach has been used to envision resilience-based scenarios (Gidley et al., 2009). To promote landscape development processes aimed at sustainability and adaptability, it is in fact important to create an involvement and a sense of responsibility in the local communities with regard to the decision-making, management and implementative processes.

Emerging issues from the debate

The evolutionary process for landscape conservation, planning and management should consider the local (bottom –up) contribution connected to the emerging and rapidly growing models related to social self-organisation and local and community activism in the management of public goods (co-management model – Borrini et al., 2007).

The goal is adaptive co-management in which a long-term management structure permits stakeholders to share management responsibility within a specific system of natural resources and to learn from their actions (Ruitenbeek and Cartier 2001). This is the significant direction taken by the experience of the Indigenous Community Conserved Areas which focuses on involving the populations in the management of local ecological resources, promoting the resolution of conflicts and encouraging participation to enhance social, environmental, cultural and economic diversity (IUCN WCPA, Durban, 2003). The results lead towards a

continuative involvement of the community in management decisions and efforts lead to the conservation of the territory, area or species and associated cultural values.

Key issues for landscape resilience are: developing decisional models and integration between self community and planned actions. *Decisional models* capable of creating interaction with the strategic view of policies, plans and projects (of the territorial and landscape governance authorities on different scales) are required, with bottom-up actions (defined and/or implemented by the communities), to maximise the benefits deriving from spontaneous and formalised co-management models and synergies between local public-private resources. For resilient landscape in fact it should be also essential to *integrate self-community regulation and local planned evolutionary policies and process*; integrating those perspectives it is possible to imprint flexibility (self-regulating, dynamic instruments in continual evolution), retroactivity (multi-scale, incremental, cumulative instruments), and ecological sustainability. This approach has been limited considered in landscape literature and here in study cases.

The case studies considers instead issues for developing a resilient landscape system: management of green areas, ways of enhancing green infrastructure linking rural and urban context, urban agriculture, innovative and inclusive management, urban landscape design, biodiversity and food security, identity valorisation, public and private initiatives linked in coherent strategies.

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The "Rice Park": Involving Citizens in Urban Design

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✔ KEYWORDS: Rural-urban, ecosystem services, participation, processes, metropolitan area

🔖 ABSTRACT

Milan is the second agricultural municipality in Italy, with about 4% of the city surface cultivated. Multifunctionality and Ecosystems services provided by these areas are strategic for climate adaptation and for a sustainable development of the city.

Either environmental, cultural end economical functions, are influenced by spatial feature and heterogeneity, by intensity of land uses, disturbances overall ensemble, in addition to the native resources and the historical heritage.

Until few years ago the municipality and the citizens of Milan didn't recognize the existence of agricultural land and the related opportunities.

In 2008 a group of Milan's citizens and farmers, founded the "rice Park". They started off a project aiming at promote of urban agriculture that become a leading project for Milan.

The "Rice Park" is a 600 hectares of cultivated land, inside the metropolitan area. The project is a spontaneous answer to critical questions coming from the globalisation, urban expansion and pressures, problems related to multi-ethnic society and according to new trend of urban agriculture.

The main challenges were to preserve the whole area from urban sprawl and to maintain farmers on the land.

The main strategies have been:

the establishment of a no profit Association having as main target to preserve the identity of agricultural area, promoting the productive value of agriculture in the light of a rural landscape enhancement in which citizens involvement plays a crucial role for a new alliance between urban and countryside system,

the involvement of local administrations,

the fund raising

to improve participation of people and adopt a long term project scenario, in order to coordinate different actions, aimed at the general objectives.

Milan is a metropolitan city in a changing world, and its development still depends by services and supplies provided from its outskirts. This is an opportunity for the city of Milan to face environmental problems, catching benefits by the closeness to agricultural land.

It is the "daily landscape" characterizing suburban or periurban areas perceived by the main part of people living in Lombardy, then, it is an important landscape for citizens life (Pedrazzini, 2014). Preserving and improving urban agriculture are the main policies facing climate change and coping the adaptation needs of a resilient city (Anton, 2014). Urbanization goes together with food insecurity related to rising food prices, growing dependence on food import, increasing dominance of supermarkets and fast food chains and challenges from climate change. Urban agriculture is increasingly recognized by public authorities and civil society organizations for

its capacity to strengthen the resilience of urban food system, to generate (self-) employment and income, to help city adaptation to climate change and reduce its ecological foot print, balance the density of the city with spaces suitable for a many functions, including social and cultural ones in a new alliance between urban and country systems (Donadieau, 2013).

These are the reasons of the agriculture increased importance in Milan during last years. Rural land is able to generate resources (not only feeding the city), to provide ecosystem and landscape services for the whole urban metabolism, increasing and citizens' life quality.

Agriculture has been an important resource for the development of Milan and its surrounding area since remote times, thanks to the quality of soil and water present there.

In the ancient time agrarian landscape[1] was strategic to supply food and energy (coming from woods and shrubs located around the fields). The availability of abundant food and access to energy to citizens contributed to the expansion and prosperity of the city during the time.

At present the role of agriculture is still very important for the sustainability and the future of the city. Milan's development challenge is related its dependence from services and supplies coming out from the outskirts, allowing the city to face environmental problems and catch benefits by the closeness to agricultural land (Gibelli M. G., 2011b).

Milan critical situation and the role of agriculture

Milan's environmental situation is critical and need to be faced to ensure the future development. Examples are: air pollution concentration inside and in the surrounding area of Milan and in the Padana Valley, or in general the effects of climate change.

In this an important role is played by open spaces and rural landscapes, where the food production is only one of the many functions. Soil is important for carbon storage and some crops are efficient in carbon capture too. Moreover the infiltration function of soil and the great farms in water management are strategic to face the climate changes effects on the hydrological cycle, as flooding and drought. For these reasons agriculture can help in solving the environmental crisis. Further, agricultural landscapes play an important role in maintaining local identity and culture, improving social cohesion and supplying important social services to the multi-ethnic city.

The modern peri-urban agriculture is also strategic for food safety, as well as for food quality and delivering fresh foods to the city. The urbanised surface of the Province of Milan is as large as the agriculture one but the food supplying capacity in 2011 could satisfy only 18% of the resident population. This number will be reduced to 15%, due to tendency to increasing in land consumption expected in the next years (AA.VV., 2011)[2].

The recent decline in agricultural uses in province of Milano drives to increase in vulnerability of peri-urban agricultural areas, reducing its multifunctionality, services and values as perceived by people. According with TEEB (2011), agricultural areas close to the city can provide *cultural services* including non-material benefits as heritage and traditional knowledge, recreational functions and activities for mental and physical health, as well as material ones, like *provisioning services*, (food supply), *regulating services*, (preserving resources as soil and water, with

carbon sequestration and storage) and *supporting services*, (habitats for species and maintenance of genetic diversity). These services are important for Milan being the city one of the most densely populated in Europe, albeit the second agricultural city in Italy, after Rome, with about 3500 hectares cultivated, 128 farms and 1200 stables.

The "rice Park " and its challenges

The rice Park, is a bottom up project of urban agriculture. It is located within the *Parco agricolo Sud Milano*, the main agricultural periurban park in Europe, located between the historical canals Naviglio Grande and Naviglio Pavese. It is a remnant patch of the historical agricultural landscape of Milan. The agriculture is still present on its 600 ha. The main product is rice, but crops, small livestock (cows and farmyard) and other multifunctional activities are present. (Fig. 1)

Fig. 1: The rice Park: an island inside the urban sea

The fast growth of Milan and surroundings, two new forecasted roads crossing the park, intensely threatened the Rice Park in 2008. Other problems were two quarries, abusive gardens and the trucks circulating throw the main country road. So the persistence itself of the rice fields and existing trees and vegetation was not assured. Moreover, the municipality and the citizens of Milan didn't know the existence of the rice fields and the opportunities coming from it.

The inhabitants of Milan's neighbourhood "Barona" and some urban farmers (the "rice people") decided to team up in order to preserve agricultural area and its value.

The strategies

Primarly, the rice people established a no profit Association, with the goal to preserve the identity of the agricultural area, promoting its productive value in the light of a rural landscape redevelopment and people involvement, thinking in an active and proactive way. The Association is active since 2008 and aims maintain the character of this area with many actions and initiative, including funds raising for the requalification development.

The first point was to communicate the intentions and get the informal adhesion of the Municipality and the Province of Milan, the Lombardy Region and the Parco Agricolo Sud. The second point was the fund raising, to collect economic resources for projects making.

The third point, was to improve the participation and adopt a long term project scenario to coordinate different actions aimed at general objectives. The fourth point was the project implementation and the realization of the Park.

The Operative tools

CARIPLO bank foundation supported the start up the project by financing the "Rete civica Milanese", a foundation aimed is to improve the participation of the citizens of Milan to decision making process. The aim was the achievement of a strong link between citizens and the new Park. This phase was important for the diffusion of the Park's awareness by citizens and for the scenario design, supported by workshops and meetings provided by CIVES. and the web site (http://www.cives.partecipami.it). Further contributes to implement the project come from CARPLO, useful for design scenarios and a preliminary phase of analysis, completed during the consultative stakeholders and citizens planning process. Analysis included a survey on landscape, the outlight of the local land units, vegetation, fauna, architectural heritage, accessibility, and on activities unsuitable with rice fields and the estimate of the vulnerability of land unit.

The result was a map used inside the participated meeting to collect contributions of actors involved and to build a shared vision of the state of the rice Park, including criticties, values and priorities.

The process

A shared scenario for the rice Park was worked out. Planning process was shared with stakeholders as well as the common values and main aims:

• a join force between citizens and farmers to create and manage the Rice Park was needed,
• strengthen and restore the original identity of this area as productive and rural in evolution over time, according to the relationship with Milan,
• favouring a mixing of cultures, urban and rural, to develop a new rururban culture in the citizens ignoring rural landscape's benefits and agriculture's existence in Milan,
• improve farmers activities to meet citizens needs and requirements, including material and nonmaterial services inside the Park
• involve public administrations to spread the knowledge about the rice Park overpassing criticises of land use plan (new roads, new settlements, unsuitable functions, accessibility).

At the end of this process, the different functions in urban rural park were identified, designed agricultural areas and citizens' "leisure" areas and open spaces. Criticities could become threatens, but also positive opportunities; meetings for sharing the project and a series of detailed projects relating to the different phases of implementation.
The participatory process led to carry out a set of rules based on the principle that an agricultural park is different from a city park, and that its production functions require appropriate behaviors (Gibelli M.G., 2011a).
A plan map describes the overall scenario of the "Rice Park". It is the main reference for the implementation of the Park objectives, and many related initiatives. This overall scenarios was then split in different modules, achievable in subsequent steps. Then, the scenarios is completed with a set of explanatory cards related to the individual modules. Each card contains actions, estimated costs and actors involved. In this way the implementation of the Plan Park objectives can take place in several stages, also on the basis of available financing funds and opportunities (Gibelli G., Beretta, S., 2011).

First results

The outcome of the project is an urban rural park interacting with the metropolitan areas in evolution. Some numbers can resume its important functionalities and services:
• *55.000 rice courses/day in 600 ha are produced;*
• *20.075.000 rice courses at 0 Km* improving *the food safety are produced in a year*;
• about *20.000 visitors per year* are admitted: the economic value of this service is estimated about 100.000 €/ year3. The fuel saved by the people, instead of reach some other enjoyable place, is about 800.000 €/year;

• The value estimated for the daily activity of runner and cyclists is about 125.000 €/year.
• It catches about *6.000.000 mc of rainwater per year*, saving about 20.000.000 € that is about the building cost of a flooding basin, capturing 1.800.000 mc of water. This cost doesn't consider the yearly maintenance expenses. Instead the farmers take care daily of the rice park and its hydrological network, for free.
• In summer there are about *5 degrees cooler than inside the town*,
• It host many type of birds of great biodiversity importance (Storks, Night herons…),
• 7.000 tons of CO_2 per year, and it make people safe money with the 0 Km and accessibility by public transportation or bicycle, saving more CO_2 are catched.

In 2011, the Park Rice project won the International competition Pays Med Urban, Mediterranean landscape Prize, 3rd Edition of PAYS.DOC, INTERREG IIIB MEDOCC, "best practices for the landscape" in the category project: E-projects and contests of ideas (PAYS.MED.UR-BAN PROJECT, 2011) (Fig. 2).
The project is considered a starting point to improve citizens participation to decisional processes. A web site for the communication of the Park and for the dialogue with the city was created (http://www.parcodellerisaie.it). At present the stakeholders panel is enlarging, including other municipalities of the outskirts. One of them is the town of Buccinasco, located

Fig. 2: The rice Park scenarious

in the western area, being the Rice Park assumed as the expression of the local culture and of the town community. Moreover, in these years two crossing roads were cancelled in land use plan. This is a great target for the governance of the periurban agricultural landscapes and for the persistence of the Rice Park. This area is going to be further efficient in soil conservation, providing silence, wellbeing and well growing up, biodiversity, direct interaction with food and productions, reduction of food supply vulnerability and education.

Recently the Park Rise, has been involved in the event of Expo 2015, with the financing of green infrastructure and the central line of the path network. Particularly the Rice Park is located by the Expo Water ways, and will be connected with the EXPOI bike path. The plantation of the first trees were done in 2014 and some more fund are available to repair the roof of the Basmetto farm. Nevertheless a lot of jobs are carrying on.

Being a productive area, visitors can learn the behaviour suitable with crops, irrigation water, farmers job, their wastes and pets. There are some degraded areas to recover. Some of them are affected by abusive gardens and their garbage and by variegated waste piles. There is a gypsy camp, that spreads waste around the rice fields. There is still some truck traffic along the main road and a new huge underground storage is scheduled on the northern edge of the Park. It should be at least mitigated. Each of these problem could be solved in a soft way, but with strong decisions: there is a great resistance inside the municipality administrations facing such kind of choice.

The vulnerability assessment

Actually, is ongoing a study on Rice Park Ecosystem services. Their values depend on the vulnerability degree of the overall structures where are located. The study of the dynamics of 6 periurban land units, from 1940, allowed to define vulnerabilty indicators and degrees. One of the land units was the Rice Park area. Some spatial indicators and some farms indicators were correlated in order to highlight the rural land units vulnerability.

Four spatial indicators showed a significant correlation with land units fragmentation and transformation throw the time. The table shows the indicators and their vulnerability levels. (Tab.1).

Tab.1

	STABLE	FROM STABLE TO MEDIUM	MEDIUM	THREETENED	HIGHLY THREETENED
Land Unit Extension [Ha]	> 1000	999 ÷ 700	699 ÷ 500	499 ÷ 200	< 200
Matrix (%)	> 90%	90% ÷ 80%	80% ÷ 70%	70% ÷ 650%	< 65%
Borders with pressure (%)	≤ 20%	20% < X ≤ 40%	40% < X ≤ 60%	60% < X < 80%	≥ 80%
Agricoltural CORE AREAS [Ha]	> 500	500 ÷ 350	350 ÷ 250	250 ÷ 200	< 200

The rice Park, compared to other periurban land units shows a low degree of vulnerability thanks to its compactness: this characteristic has to be preserve in order to maintain its great services (Fig. 3). Indicators are useful tools in the public discussion about the future use of land and can be used for the vulnerability assessment of rural periurban areas.

Fig. 3: The rice Park and its community.

Notes

[1] Agrarian landscapes are shaped by agriculture that is the driver force that maintains the landscape organisation and features. Moreover, stable agriculture can exist if the landscape's overall structure is is suitable to sustain agricultural functions.

[2] This numbers come out from a research developed in the Milan provincial plan. The research estimated the actual state of the food capacity of the Milan agricultural land. Results are based on provincial data on the main cultivation in the province.

[3] This value is estimated as a transfer benefits. With an average of 2 and a half hours of use of the park for visitor, we can consider 50.000 hours per year at an hour cost of 2,00 € that is the average cost per person of an outdoor sports facility.

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Exploring Resilience and Multiple Benefits of Green Infrastructure: Linking Landscapes and Communities

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● ABSTRACT

The role of green infrastructure (GI) in addressing the challenges of the 21st century cannot be underestimated. GI describes the network of green and blue spaces that provide the essential environmental services needed to support the quality of life and the sustainability in our cities, towns and neighborhoods, through: protecting ecosystems state and biodiversity; improving ecosystem functioning and promoting ecosystem services; promoting societal wellbeing and health; supporting the development of a green economy, and sustainable land and water management.

Cities have to face crucial challenges in the coming future, but the approach we use today is too often not integrate and site specific. There is insufficient consideration given to the complex interactions between the complexity of landscape, the role of local communities and the different specific urban issues, for example: housing, flood management, food growing and biodiversity.

This approach prevents from adopting more dynamic, integrated, resilient and forward-thinking solutions. GI offers an effective alternative to this narrow-minded approach, a way not only of tackling specific challenges head on, but of realising multiple secondary benefits at the same time (social, economic, health, etc). It is the integrated approach that will unlock the potential, the quality and resilience of landscape, which is the expression of human communities, expectation and activities. Successful green infrastructure initiatives require considering the perspectives and the role of local communities and the various stakeholders in the public, private, and nonprofit sectors and incorporating the concerns of citizen groups into the design and the implementation processes.

The present contribute focuses on the benefits of Green Infrastructures approach and its interactions with landscape and local communities, by using the case studies of the Mersey Community Forest and St Helens Urban Fringe Action Plan.

The debates surrounding the green infrastructure concept have developed rapidly over the last years.

With government policy increasingly focusing on creating better places to live, work and recreate, green infrastructure thinking has become seen as providing a green space planning mechanism which will help to achieve the objectives of these diverse agendas. Green infrastructure is the physical environment within and between our cities, towns and villages. It is a network of multi-functional open spaces, including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. So, Green Infrastructure is about strengthening the functionality of ecosystems for continued delivery of goods and services; and it's about combating biodiversity loss by increasing spatial and functional

connectivity between existing natural areas and improving landscape functionality. Green infrastructure benefits are better achieved if green space creation and management are well integrated with more traditional land development and built infrastructure planning. An important consideration is the spatial positioning of the component parts of the green infrastructure (Fig. 1).

SITE 1: Urban fringe farmland, used for low-key equestrianism. Near road and rail corridors into commercial side of town. Adjacent river and in floodplain. Few trees, no public rights of way.		Green Infrastructure Function or Benefit	SITE 2: Urban park surrounded by housing of various ages. Pockets of multiple deprivation and several schools within walking distance. Originally a designed landscape, now rather faded.	
EXISTING	POTENTIAL		EXISTING	POTENTIAL
	✔	Create setting for economic growth/regeneration		✔
✔	✔	Job creation & social enterprise	✔	✔
✔	✔	Skills & training		✔
		Community cohesion	✔	✔
		Community safety		✔
✔	✔	Sport		
	✔	Physical health	✔	✔
		Mental health and wellbeing	✔	✔
	✔	Access to natural greenspace	✔	✔
	✔	Land and property value uplift	✔	✔
	✔	Flood management		
	✔	Climate change adaptation and mitigation		✔
	✔	Air & water quality		
		Natural tourism		✔
	✔	Biodiversity in situ	✔	✔
	✔	Environmental connectivity		
		Culture	✔	✔
	✔	Quality of place	✔	✔

Fig. 1: Green Infrastructure functions and benefits (source: North West Green Infrastructure Guide, 2005)

Functions and benefits of GI are also Economic benefits. Flood alleviation & water management (which also means prevention from the risks), economic growth & investment, tourism & recreation, climate change adaptation and mitigation, quality of places, health & well-being, land & property values (increasing the economic values of cities and buildings), labor productivity (related to quality of places and people well being), are all related and directly affected by green infrastructures quality and development.

The UK have a great long experience in green infrastructure planning, and significant is the experience of the North West Green Infrastructure Think Tank, that published a guide to support the Green Infrastructure Policy in the North West Regional Spatial Strategy.

The document state that "the Green Infrastructure approach to planning is important to anyone whose objectives relate to use or draw upon the natural environment: urban renaissance, rural renewal, social inclusion and community cohesion, health and wellbeing, and sustainable development. Green Infrastructure is a core outcome of any regeneration programme involving land or water. As a planning tool, it is highly flexible and therefore can apply to all of the region's different urban and rural settings."

There are five basic steps suggested to Green Infrastructure Planning:
1. *Defining partnerships and priorities*, which means building partnerships of stakeholders who benefit from, and lobby for, green infrastructure; reviewing relevant policies and strategies; determining the key outcomes for the green infrastructure mapping process, and the scope of the plan based on resources, objectives and information available.
2. *Data Audit and Resource Mapping*, by identifying available information, including maps, regional and national guidance, datasets, relevant policy frameworks, regional and national strategies and stakeholders; and generating a map of the physical area showing green infrastructure types and locations.
3. *Functional Assessment*, which is required to locate gaps in physical or functional provision. A spatial representation of the policy framework and consideration of the drivers of landscape change that influence green infrastructure needs to be undertaken in order to inform the resulting intervention plan.
4. *Needs Assessment*, that considers how the green infrastructure of an area currently meets the needs of the particular communities it serves; how well it sustains environmental quality; how its performance will be affected by future changes; and how all these can be improved through the intervention plan.
5. *Intervention Plan*, that will set out what the green infrastructure of an area is, what it is doing and what it might do, where the green infrastructure is functioning well and needs maintaining, how it needs to change, and what will be done to secure change.

There are also specific features that should be common to any good green infrastructure plan:

• effectively communicate the concept of green infrastructure to local communities, build effective partnerships and leadership at strategic and local levels;
• holistically address the three pillars of sustainability (environment, society and economy)

- recognize and advocate the need for improved management and funding of resources for green infrastructure;
- ensure commonality with other Local Authorities, thus ensuring an integrated approach across boundaries, while allowing local distinctiveness;
- provide a comprehensive plan of the existing GI resource, and a strategic vision of how it might be improved and sustained;
- set and determine strategic priorities taking account of regional and sub-regional strategies, public benefit assessment and stakeholder opinion;
- give a public statement of a will to improve green infrastructure;
- set long-term targets and outline mechanisms to attain such targets;
- be a '*Living*' document, updated and enhanced as resources and information becomes available.

In the North West Region the *Mersey Community Forest* have played a vital role in helping to achieve the wide spectrum of Government objectives, by providing green infrastructure and by developing solutions on an environmental, social and economic level.

The Community Forest programme was established in 1990 by the England Countryside commission as a pilot project to demonstrate the potential contribution of environmental improvement to economic and social regeneration. Each Community Forest is a partnership between local authorities and local, regional and national partners including the Forestry Commission and Natural England. The founding basis for each Forest is a government-approved Forest Plan, a 30-year vision of landscape-scale improvement.

1.7 million people live in The Mersey Forest area and the Mersey Forest support them to get involved in creating, improving and enjoying woodlands. The partnership is made up of seven local authorities (Cheshire West and Chester, Halton, Knowsley, Liverpool, Sefton, St.Helens, Warrington), Natural England, the Forestry Commission, the Environment Agency, landowners, businesses and local communities (Fig. 2).

Working in partnership is central to The Mersey Forest and is essential to implement policies and achieve the vision set out in The Mersey Forest Plan. Officers and councilors from these organisations attend Steering and Working Groups to drive forward the delivery of the Plan. Every local authority have a partnership agreement with the others, and contribute funding the Mersey Forest team. The team and partners then draw down other funds to maximise the value and impact of all investments. In addition, they work with a wider range of partners from the public, private and community sectors. In this framework landowners and local communities are important partners, who have real, tangible, and long-term interests in the success of The Mersey Forest.

Such a partnership, which works across local authority boundaries, is of particular importance, and provides an opportunity for partners to share solutions and learn from others experiences. Working across different sectors allows to align objectives, funding, and resources to achieve a greater whole. In this way local initiatives have a strategic voice, and strategic priorities to be delivered locally and quickly.
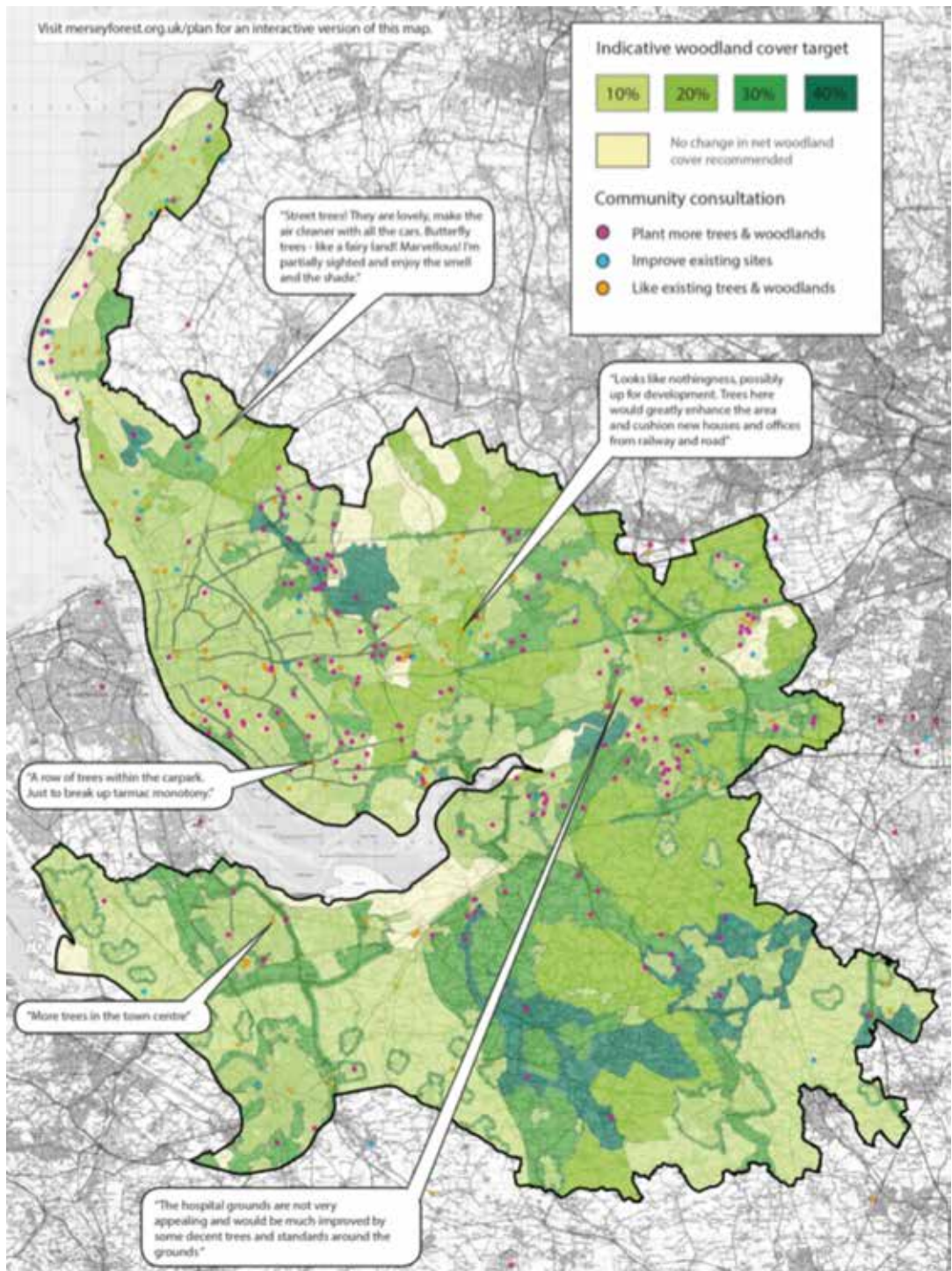
Fig. 2: Indicative woodland cover target and community consultation of the Mersyland (Source: M Forest, 2014, The Mersey forest plan, Warrington)

The Mersey Forest team facilitates and enables the strategic context to allow for more effective local delivery. This involves participating in, coordinating and acting as the secretariat to a range of strategic partnerships such as: the North West Forestry Forum, North West Green Infrastructure Forum, Natural Economy Investment Forum, Local Nature Partnerships, and Sefton Coast Partnership.

"The Mersey Forest is created with people, not just for people", community involvement, participation, and ownership are absolutely fundamental to the success of The Mersey Forest. The communities that live, work and play in The Mersey Forest are those who have the most to gain from its success, and who have the most to offer to make it a success. Empowering people is essential as it strengthens communities and improves quality of life, and ensures that the growing tree and woodland network across The Mersey Forest is used and cherished by local people, and hence is a more sustainable resource.

St Helens Urban Fringe Action Plan - Planning for the Countryside In and Around Town

St Helens is a large town in Merseyside, hearth of the North West, between Liverpool and Manchester. The countryside in and around the town is significant in size and opportunities.

The St.Helens Urban Fringe Action Plan was completed in 2006 and is now being taken forward through a Rural Economy Action Plan that makes the borough's countryside a driving force of its economic development. Over half of the borough is designated as greenbelt with additional green wedges and greenways running through the central urban core, linking town and country.

The roots of the Urban Fringe Action Plan lie in two initiatives. One is The Mersey Forest, which for the last ten years has been planting new community woodlands and reclaiming derelict land. The other is the Countryside In and Around Towns initiative, which has sought to demonstrate how planners can make the most of the open spaces in and around urban areas. The initiative shows how social, economic and environmental benefits can be generated, improving the town's health, education, recreation and regeneration.

The overall purposes of the Strategy is to maximize the contribution that people, businesses and natural environment of rural St.Helens can make also to the borough's economic growth, so delivering improved quality of life for all those who live, work and visit the area.

The Mersey Forest, the University of Liverpool and St Helens Council was put in place to guide development. Initially the study area was categorized and mapped in order to build a picture of its existing functions. This drew together 96 datasets to form individual function maps of the area. This was matched by analysis of local and regional strategies to identify policies which would help to contribute to an improved green infrastructure in and around St Helens. Policy statements were spatially articulated by linkage to individual and multiple functions through an evidence database.

Green infrastructure functions were grouped into four themes: *health, education, recreation,* and *regeneration*, as follow:

1. *Bridge to the Country.* A networks of parks, woodlands and greenspaces in association with footpaths, bridleways and cycleways.
2. *Gateway to the Town.* Prominent features within the countryside that will be visible from nodes which will be based around key transport infrastructure and exemplar sites.
3. *Health Centre.* Safe, enjoyable natural facilities for walking, cycling, horse riding and a place to relax in natural surroundings, so meeting the needs of both active and passive sports and recreation, and contributing to better physical and mental health.
4. *Classroom.* The diversity of land uses in the countryside in and around towns that provides a huge range of outdoor learning environments, an outdoor classroom, linked to the national curriculum or higher education, particularly in environment and rural studies.
5. *Recycling and Renewable Energy Centre.* New and existing woodlands and habitats absorbing large quantities of atmospheric pollution, fully functional flood plains and reinstated water meadows capturing excess winter rainfall and protecting properties and insurance, and recycling schemes drastically reducing the amount of waste going to landfill.
6. *Productive Landscapes.* Opportunities and innovations for farmers and land managers, that need to take full advantage of their proximity to large urban markets through direct marketing as well as local retail centres, and need to be engaged in creating and maintaining a wide range of valuable good and services, in order to ensure that the productive countryside in and around towns remains appropriate for the area.
7. *Heritage and Cultural Legacy.* The countryside in and around towns has a key role in retaining the heritage and cultural legacy function and promoting it in an appropriate way. This function is important in fostering a sense of place, allowing people to establish connections with their roots and providing a physical link to the past.
8. *A Place to Live Sustainably.* To ensure places can be considered sustainable they should meet the needs of new communities establishing in the area particularly through affordable homes and suitable environmental setting. This is particularly relevant where urban villages are planned but existing communities should also be considered.
9. *Engine for Regeneration.* Residents within these areas should be fully involved in creating and managing recreational spaces, community gardens, allotments and delivering environmental improvements to make neighborhoods more livable.
10. *Nature Reserve.* Anywhere that people can encounter and appreciate nature. The countryside in and around towns contain new and reinstated areas of woodland, wetland, meadow and a broad array of other natural habitats. The value of these areas is not just for their wildlife and biodiversity but also their contribution to other functions.
11. *Industrial and Residential Centre.* The patchwork nature of the countryside in and around town means there will always be areas of built environment with a functional role. Residential areas contain the people who will use the urban fringe on a daily basis and industrial areas provide employment for people from both the rural and urban areas. As a result it is necessary to make sure these centers are incorporated into any functional plan for the countryside in and around towns.

The development of all these functions together contributed to the quality of the built and natural environment, and the therefore to the quality of life of inhabitants. The new image of St.Helens as "the heart of the northwest" isn't just marketing. It's supported by this detailed enhancement of the functions and values of the green infrastructure in and around the town and for local communities.

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A Multi-Scale-Qualitative Approach: Community Partecipation and Ecosystem Services in Land Use Planning Processes for Sustainability

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☛ ABSTRACT

The urban periphery is not more understanding only like the place to the margin of the city, in which the undesired activities are concentrated and the greater social problems, but like an urban area that possesses to inside a series of resources that, if recognized and valued, are able to prime mechanisms of "social ransom" and territorial revitalization. For this reason it is necessary rethinking the landscape as a generative resource and not only as a consumption space through a participatory approach. For this reason the decision-makers and the population as a whole must acquire a increased awareness of the economic value of ecosystem goods and services and also to adopt new sensitivity to the landscape. The ecosystem services have a public value because they provide several benefits, direct or indirect, for the inhabitants of a territory. The ecosystem services are the result of ecological processes, social, cultural and of their interactions and, especially in cultural landscapes, they are a result of historical co-evolution uses, rules, social norms and natural processes. The advantage of ecosystem services is to ensure a greater natural capital, but also less vulnerability, increased health and resilience of the territories. The existing planning instruments start from an analysis of the status of environmental resources, often neglecting ecosystem processes, interactions, dynamics and control of processes themselves, particularly their relationships with economic and social factors. Starting from these premises the paradigm of ecosystem services can be then the basis for a review of economic terms to consider landscape and its capital through a territorial planning more aware the meaning of ecological processes and more concrete sustainability-oriented and durable. The paper refers to an experience of planning where through a participatory management process it was possible to encourage the involvement of planning decision makers in considering creative urban reuse and production of new identities with renewed ecosystem paradigms of territorial government as a fundamental concept in developing sustainable planning strategies and policies on land-use that can generate development processes.

Resilience and adaptive capacity of the city

The usefulness of resilience, as a concept, in urban planning, is discussed at several scales, also to the scale of landscape. For the reinvention of the urban landscape, for the future, it needs a new paradigm that considers the landscape a value system and not only a measures system. Resilience is defined as "the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks" (Walker, B et al. 2004; Walker, B.; Salt, D., 2006). A core question of resilience theory is how resilience in a system could be increased. In the city the lack of resilience is mainly

caused by the inflexibility in areas where existing buildings, infrastructure, and public space cannot be moved or modified when deemed necessary. Through self-organizing processes the city becomes adjustable. The city, today, have a capacity for reorganization as a response to changes in the landscape and environmental conditions.

The city to configure itself according to environmental demands. The city is then able to withstand or even anticipate floods, heat waves, droughts, or bushfires. Adjustability can be found in several directions: creating green infrastructure, easing the way objects are constructed, re-using abandoned spaces, recicling heritage and creating new urban polarity, reinventing urbanism, sharing urban activities promoting multilevel governance and sustainable actions. This reorganization can benefit conservation efforts. The city is conceived as a dynamic and "double" complex ecosystem (Portugali, J., 2000). The social, economic and cultural systems cannot escape the rules of abiotic and biotic nature. Taking the view that a city is a complex social-ecological system, we consider a resilience approach to conservation applied at the urban landscape scale. The components and connections that comprise a landscape are continually changing to produce emergent outcomes. The understanding of social-ecological systems, requires focusing on the relationships and internal structure of the system and on ecosystem services. A resilience approach to landscape conservation must be flexible, allowing landscape features to adjust and respond to changing conditions in other parts of the landscape for to consider the broader functioning of the landscape system as a whole. This will require a multi-scale-qualitative approach.

In the context of this paper, the systems in question are urban-ecological and socio-ecological systems, for which is given as the assumption that the evaluation of the state of ecosystem at a given time and place is at the basis of any planning process for the management of natural resources. The existing planning instruments start from an analysis of the status of environmental resources, often neglecting ecosystem processes, interactions, dynamics and control of processes themselves, particularly their relationships with economic and social factors. Starting from these premises the paradigm of ecosystem services can be then the basis for a review of economic terms to consider landscape and its capital through a territorial planning more aware the meaning of ecological processes and more concrete sustainability-oriented and durable. Urban planning will benefit from the incorporation of a resilience perspective of landscapes as social-ecological systems that are continually changing due to both internal dynamics and in response to external factors such as a changing climate.

The ecosystem services

It is necessary contextualizing cities within multi-scale social-ecological functional landscapes. Such functional landscapes are integral to understand and manage individual cities for long-term sustainability. In fact global environmental change and growing cross-scale anthropogenic influences mean that cities, or natural territories can no longer be thought of as ecological islands that function independently of the broader social-ecological system in which they are located. For cities and landscapes to be resilient (and to contribute to broader social-

ecological resilience), they must be able to adapt to changing social and ecological conditions over time in a way that supports the long-term persistence of populations, communities, and ecosystems of conservation concern (Portugali, J., 2000; Antrop M., 2004).

According to definition given by the Millennium Ecosystem Assessment (Millennium Ecosystem Assessment, 2005; De Groot, R. S. et al. 2002) the ecosystem services are the multiple benefits provided by ecosystems to humankind. According to Boyd and Banzhalf (Boyd J.W., J. Banzhaf H.S, 2005), "Ecosystem services are the end products of nature that yield human well-being. Three necessary conditions define an ecosystem service. First, and most obvious, the service has to emerge from the natural environment. Second, a service must enhance human well-being. Third, a service is an end product of nature directly used by people". Then the "service ecosystem "has a close relationship with the welfare conditions of the community. (Fig. 1)

Fig. 1. Relationships between ecosystem services and human well-being (source MEA, 2005)

The general framework for the analysis of ecosystem services refers to the Millennium Eco-system Assessment (Millennium Ecosystem Assessment, 2005). In fact the Millennium Ecosystem Assessment, have provided a structural classification for the ecosystem services:

1. support services: eg. soil formation, photosynthesis, nutrient cycling, primary production;
2. catering services: eg. food, water, timber, fuel, wood and fiber;
3. regulation services: eg. climate stabilization, flood regulation, hydrological settles, barrier to the spread of diseases, waste recycling, water quality;
4. cultural services: eg. aesthetic, recreational, spiritual, educational.

A large part of the ecosystem services are characterized by public goods that to be defended and strengthened, they require stronger governance capacity of environmental resources by public institutions. Therefore in this way we need to know what services are most important for the community and what is the opportunity/cost for their maintenance. (Fig. 2)

The TEEB Manual for Cities: Ecosystem Services in Urban Management

Why and how can a focus on ecosystem services help cities achieve their goals? This manual guides practitioners and decision makers in a stepwise approach towards counting on a city's natural capital - and making it work for you. The concept of 'ecosystem services' is key to this.

This manual builds upon the report TEEB – The Economics of Ecosystems and biodiversity for Local and Regional Policy Makers (2010) and draws on the combined expertise in sustainability management of participating local governments in ICLEI-Local Governments for Sustainability's Local Action for Biodiversity Programme, run in partnership with the International Union for Conservation of Nature (IUCN).

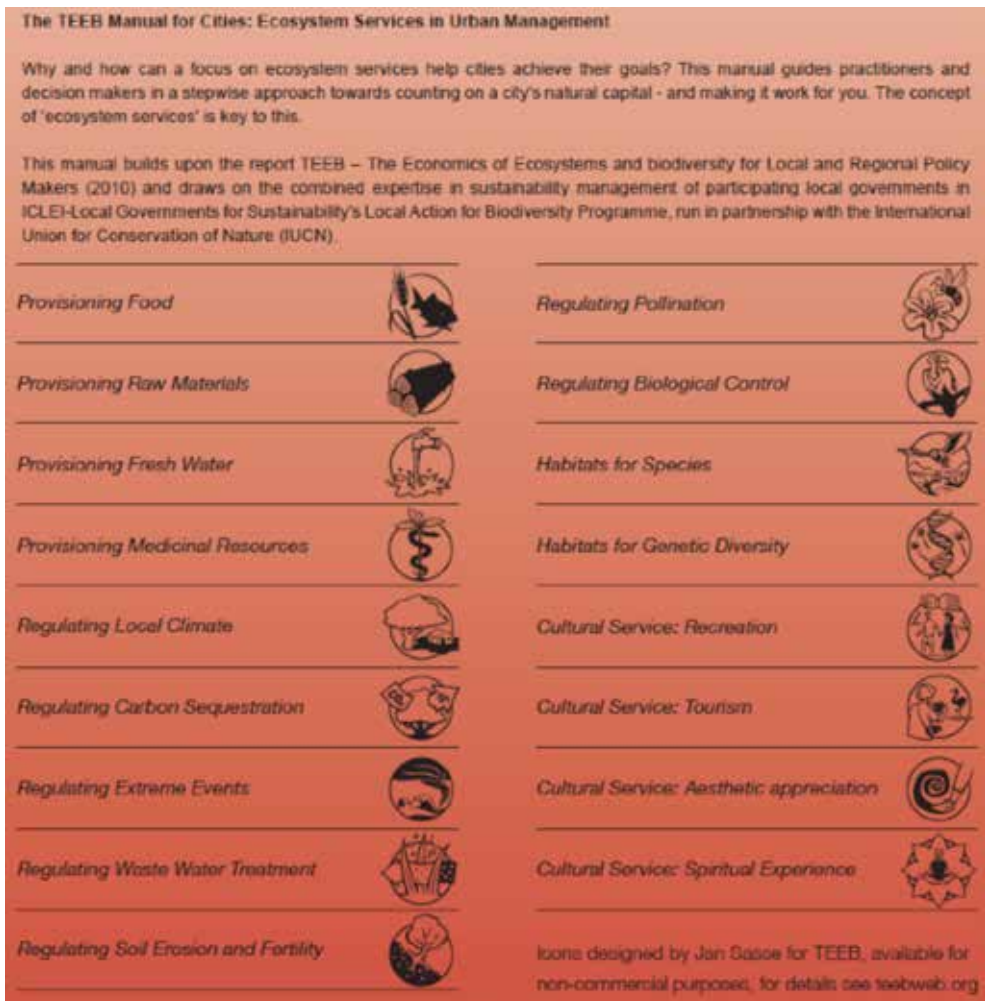|	
Provisioning Food	Regulating Pollination
Provisioning Raw Materials	Regulating Biological Control
Provisioning Fresh Water	Habitats for Species
Provisioning Medicinal Resources	Habitats for Genetic Diversity
Regulating Local Climate	Cultural Service: Recreation
Regulating Carbon Sequestration	Cultural Service: Tourism
Regulating Extreme Events	Cultural Service: Aesthetic appreciation
Regulating Waste Water Treatment	Cultural Service: Spiritual Experience
Regulating Soil Erosion and Fertility	Icons designed by Jan Sasse for TEEB, available for non-commercial purposes, for details see teebweb.org

Fig. 2: Ecosystem services in urban areas (source TEEB Manual for cities, 2011

About the city Manson (Manson, S.M., 2001) identified six key attributes of aggregate complexity: relationships, internal structure, environment, learning and memory, emergence, and change and evolution. Understanding the evolution of a city system, driven both by changing internal structure and from external environmental influences, therefore is necessary to elucidate if the social-ecological system exhibits learning and memory that may increase future resilience.

Analysis of city problems and her sustainable development planning, starting from this conception of landscape as a system of features that are interacting via exchanges, however, depends on a multi-scalar understanding that links the shaping of built form and public space at an urban design scale to larger scales of metropolitan structure and urban landscape and urban flows.

A multi-scale, social-ecological approach

The multiscale or multi-level approach is being extensively applied in landscape planning and research (Rozenblat C., 2009; Berte E. et al., 2013; City History and Multi-Scale Spatial Masterplanning Research Network, 2014) and is implemented at the political and societal levels (Tasan-Kok T., Vranken J., 2011; Jeffery Ch., 1997). Multiscale approach applications means operating across multiple scales solving physical problems, which have important features multiple scales, for example, spatial scales (Geiser J., 2014). According to Berte et al. (Berte E. et al. 2013), multiscale processes in landscapes underpin both the natural and the social systems, which are based on multilevel relations. Thus the urban landscapes as socio-ecological systems (Resilience Alliance, 2002; Low Choy D., Buxton. M.A., 2011) or coupled human and natural systems (Musacchio R. L., 2009) are not an exception. With reference to Berte et al. (Berte E et al. 2013) and Antrop (Antrop M., 2000) several important principles of multiscale systemic approach applicable to urban landscapes. For example urban landscapes change continuously under influence of differents factors, strategies and policies at the local level and at the national and supra-national levels. Also decisions directly or indirectly influencing urban landscapes are made on different hierarchical levels of policy-making (for example, from the European Union level to municipality or local place level) and manifest themselves in terms of actions at different levels. In addition, in particular for marginal areas, the multiscale processes work through connections, junctions, and linkages between the dynamics at different levels (for example, rural-urban interface problematics should be recognized at the global, regional, national levels, and so forth). The urban marginal areas, requesting an integrated rather than a sectorial approach and a regional perspective and scale for their re-development (Antrop M., 2000; Zaleskiené E. et al. 2015).

The challenges contemporary urbanism is to go beyond its classical boundaries and methods, to incorporate other disciplines, to play out its integrating role. In this way landscape research and its applications in planning use and combine very different scientific methods from natural to social sciences, numerous research approaches and methods can be successfully

applied at different levels, in different scales, for analyzing spatial, temporal and other aspects of urban landscapes: landscape monitoring and analysis based on remote sensing, GIS based approaches, for example, historic map overlay and historic landscape characterization, visual landscape characterization, aesthetic and ecological assessment, cultural and economic valuation, analysis of social significance etc.

With the landscape research has been reinterpreted the definition of sustainable development to include the holistic basis of landscapes and distinguished environment, economics, equity, aesthetics, experience, and ethics as the dimensions of landscape sustainability (Musacchio R. L., 2009). The sustainability is focuses on the understanding the complex dynamics that arise from interactions between human and environmental systems (Clark W.C., 2007).

The aim of the method is to predict the impact of land-use changes on local biodiversity and therefore propose measures and rules for a sustainable spatial planning, using a methodology where a complex decision is decomposed into smaller and less complex sub-problems, consisting in a multi-level hierarchic structure of objectives,criteria, subcriteria and alternatives. Moreover the multi scale qualitative approach presented here includes several detailed analyzes (economic, ecological, social, ecc.) to support impact assessment of land-use changes at a local level and evaluation of ecosystem services and PES. The approach was designed to predict the consequences for biodiversity brought about by land-use changes using readily available data sets.

The multi scale approach proposed here is a transparent and adaptive procedure, with the scope, for instance, for different definitions of weights that are discussed with local experts and the outcomes shared with planners and stakeholders. Specifically, the methodology was found to be helpful in providing support in different phases of landscape planning. Moreover, application of the method allows the potential impact of planning scenarios and different measures may be proposed to reduce or compensate for the impacts, also considering the cultural impacts. The SE cultural, because of the need for different skills and methods of analysis, including historical perspective, have generally been overlooked in the various initiatives of evaluation and enhancement (Tengberg A. et al.., 2012). Plieninger et al. (Plieninger T., 2013; Plieninger T, et al. 2013) have developed a method to estimate the social values of the landscape by combining, in a geographic information system (GIS), spatial information and qualitative information obtained from interviews structured knowledge on the local landscape and cultural services. Van Berkel et al. (Van Berkel D.B., Verburg P.H., 2014)with the aim of identifying and quantifying the cultural services offered by the landscape and provide one monetary valuation differentiated contribution to the value of the individual elements of the landscape from that of the structure of the landscape itself, have mapped the hot spots of the provision of cultural services. The willingness of respondents to pay (WTP) for the maintenance of the landscape has been used to obtain an estimate of the potential value of cultural services, in change scenarios.

The model proposed in this paper promotes an approach of planning and management based on the evaluation and valorization of ecosystem services. In many states there are already developed programs of evaluation and payment for ecosystem services (PES).

The PES are one of the possible implementing instruments because they are voluntary agreements established between various stakeholders in relation to a specific ecosystem service.

The definition of a PES has as presupposition the consciousness of the value of the natural capital from the part of stakeholders and the assumption of responsibility for its maintenance in the time with a mutual advantage. Knowledge, responsibility and adaptive management are presuppositions for the definition of a PES and are also the hinges which the ecosystem approach is based to biodiversity conservation. To increase the effectiveness of management of a site it is necessary that the public decision-maker contemplates in the policies of environmental planning the PES that represent innovative tools for the remuneration of SE. In fact, through the application of PES it is possible to improve the governance of the territory in line with the objectives of environmental accounting.

The application of the model

The model, which has been applied in some pilot sites in the Province of Reggio Calabria, has been aimed to increase the resilience of cities cases study considered and to the biodiversity conservation, proposing indications to insert at the level of sustainable planning; the model has been tested through four stages.

In developing the model, preparatory actions are intended to establish a framework of knowledge of ecosystem services. These actions constituted the base, along with the involvement of local stakeholders, of identification of ecosystem services in the study area. The model developed work, in the first place, a qualitative and quantitative evaluation of ecosystem services in the areas of study; successively the model makes an appraisal of the effectiveness of management, focusing the attention on the safeguard of the elements of the landscape, of the biodiversity and of the supply of ecosystem services, and at last indicate innovative actions of sustainable governance in the study area, based on PES and forms of self-financing.

The definition of the tools for the application of PES in the study areas is connected with the identification of specific participative methodologies designed to implement PES in relation to identified services, and the definition of the potential tools of self-financing. The last phase involves the demonstrative application of the governance model in the project sites by measuring and monitoring in particular the actions for the enhancement of natural systems, the value of ecosystem services and actions to protect biodiversity for a resilient and sustainable cities. The monitoring results are converted into concrete actions to insert in the town planning plans.

The first phase of the model, that has planned the analysis of ecosystem services, has helped to increase the consciousness of the value and of the importance of green infrastructure and natural sites and of the biodiversity in general, from local operators and in the opinion of the local population, increasing respect towards the natural areas and the environment and the aspiration, also in terms of financial investment, to protect the own environment. The second phase has shown the critical current operations and the negative projection scenarios that

could occur if there are not prepared appropriate measures to invert the trends in act, as well as the adaptive capacity of the city and of the area of study in terms of resilience.

The third phase brings a new element that consists in the identification and application of a model of governance based on the identification of participative methodologies aimed at implementing forms of payment for ecosystem services (PES) and forms of self-financing. In fact, highlighting the areas of origin of ecosystem services, the critical areas for the flow of services, and the individualization and location of the beneficiaries of the services, it is possible to develop economic solutions of payment for ecosystem services aimed at identifying innovative programs faces to encourage the stakeholders that have the task of safeguard ecosystem services, and the determination of self-financing forms through specific mechanisms (for example negotiable permissions, taxes for the use of the services, Verified Emission Reduction for the CO_2 absorption, business activities, donations, etc.), useful to entities site operators to remedy the scarcity of resources for biodiversity conservation.

The third phase of the project included the definition of new assessment tools and management through the involvement and collaboration of several stakeholders, both institutional and private. A real model of governance sites has been create, capable to value and to quantify ecosystem services, to define the flows, the subject of the local community interested in continuing to benefit, and identify those citizens who managing the ecosystems locally generate the flow of services with the objective of determining a fair compensation and improve the efficiency of the management bodies of the sites through a participatory and shared process. Also pursuing the strategic objective to achieve and maintain a satisfactory state of conservation of the sites, .it was necessary to share with the principal stakeholders also the different tools of governance of the network, providing the resources and knowledge to define management models the most possible shared with the greatest number of social and economic actors. The participatory processes have allowed the dialogue between different areas, integrating their management within the plans and programs of the sector (agriculture, tourism, urban planning, etc.) carrying the conditions necessary to create or to maintain the ecological connections and to ensure the safeguard of a diffused naturalness also in the territories external to the sites.

Through the application of different methodologies consolidated in participatory processes, has managed to create a common basis of comparison in which it has been possible to identify the real needs of the parties and interests connected to define a community position that allows to share an effective governance for the management system of the sites. A change has been made necessary in the common perception from the public opinion, of the business community and of other key stakeholders, relating to the purpose of biodiversity conservation and conditioning of governance on the legitimate interests related to the use of the resources of the territory.

They were identified opportunities to exploit and manage them in correct and organic way, abandoning the idea of bond inhibitor of the development. The participation has allowed to reduce the risk of making wrong choices and has allowed to identify, for the different prob-

lems, solutions more effective and durable, thus decreasing the chances of a failure of conservation strategies. (Fig. 3)

Finally all the proposals that have emerged in the meetings of participation have been translated into design guidelines to be included in the plans.
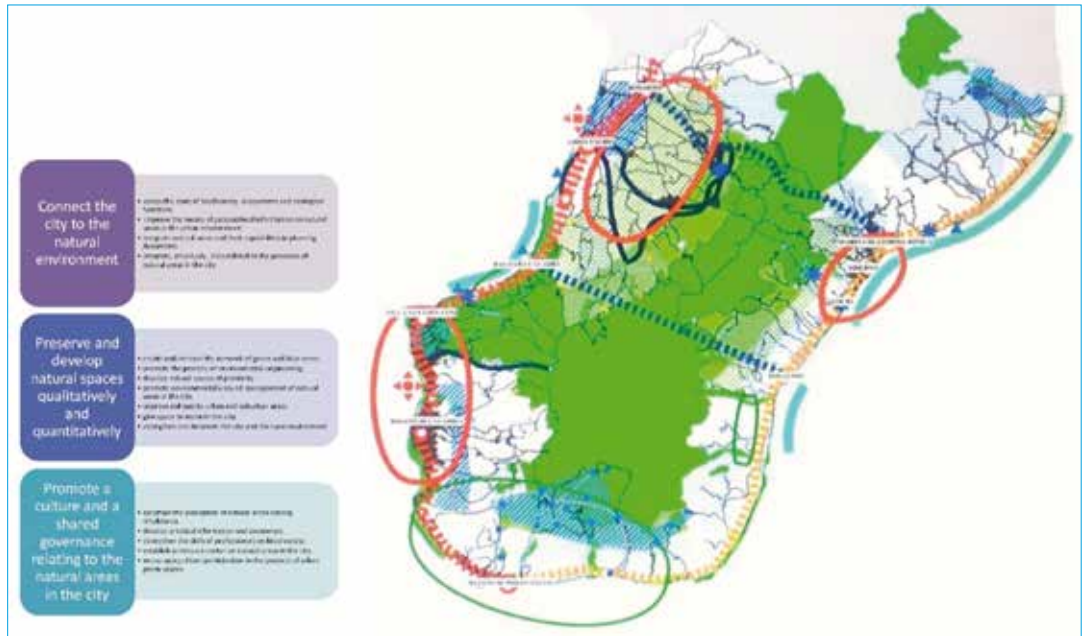

Fig. 3: Some proposed to consider in urban planning in relation to the territorial provincial planning.

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Subirats, a Local «Spot» for Tourism

Soazig Darnay

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❧ ABSTRACT

Spain has experienced a strong economic crisis since 2009 that has redefined the logical of architecture and building. Landscape in Catalonia is a political Concept that benefits from this situation. El Observatori del Paisatge in Olot is defining new challenges to develop the territory using landscape units. These units could respond to the local necessities of social and economic network.

In the Penedès region, a wine area located in Barcelona province, the development of small and local cellars is now depending on tourism. It is not equally developed from one area to another. In Subirats, with about 4.000 habitants, the landscape "met" the people, creating a dynamic that extends its influence.

First, is the landscape more intimate than further down the valley, or is it the people that initiated the proposal: to bring tourists to the middle of the vineyard? The Patronato de Turisme was created in 2001. It has permitted a revalorize of the small train station, now housing a tourism office; to create a summer market around the peach products that are associated with wine and to offer activities for restaurants, artists. In addition, a majority of cellars are now producing wines labelled as D.O. Penedès (it is possible to be labelled by two others D.O., Denominación de Origen: Cava and Catalunya, which do not claim that much the link to the territory), they are almost all producing ecological wines, and one of their leader is now the president of D.O. Penedes, improving quality and image. Subirats has initiated agrotourism in the Penedès. Enoturisme Penedès, an over-comarcal tourism office, has been created to extend the dynamic to all the vineyard area, but Subirats retains its originality and special atmosphere.

Subirats is a village surrounded by scattered hamlets with about 3,000 inhabitants. It is largely a rural area, dedicated to viticulture for centuries, in the heart of the Penedès wine region that allows production under the Penedès DO (Denominación de Origen), Cava DO and Catalonia DO certificates. Subirats is a village that has made an original choice in comparison with the remaining of Penedès's rural areas, since 1990-2000. Unlike many other municipal areas, Penedès's identity and touristic strategy are not the result of a passive attitude, following the economic trends from Spain and Barcelona, but rather that of an individual, original reaction, which gradually generated further dynamics in the region, and somehow sets an example for the development of the existing local tourism. Examples of bottom-up social dynamics are rare enough to be emphasized, and it is useful to understand their context. The OECD's 2014 report on creative tourism states the importance of the social context and of the existence of entrepreneurs endeavouring to develop successful initiatives. What we need to understand is why the individuals react and unite to develop a proposal that will have a regional impact. In the case of Subirats, the reaction is one of revolt. Following the entry of Spain into the European Union (1986) and the Barcelona Olympics (1992), Catalonia experienced, like the rest of the country, a fantastic economic growth. Construction was the main driver of this growth. Roads and expressways were built in a short

time, as well as real estate development projects, creating an estate of terraced houses all alike, industrial areas (every village, even those far away from the main roadways, wished to have one), occupying large areas of agricultural land. At the turn of the 20th century, the villages of Penedès still had a alarge peasant population who witnessed the brutal changes in the scenery, which gradually became the metropolis backyard with its infrastructure, its social and industrial dynamics. Nonetheless Subirats was relatively protected. Despite the construction of the AP7 highway, of the high-speed AVE train line and of an industrial area, there was no solid real estate investment, unlike what happened in nearby villages such as Gelida.
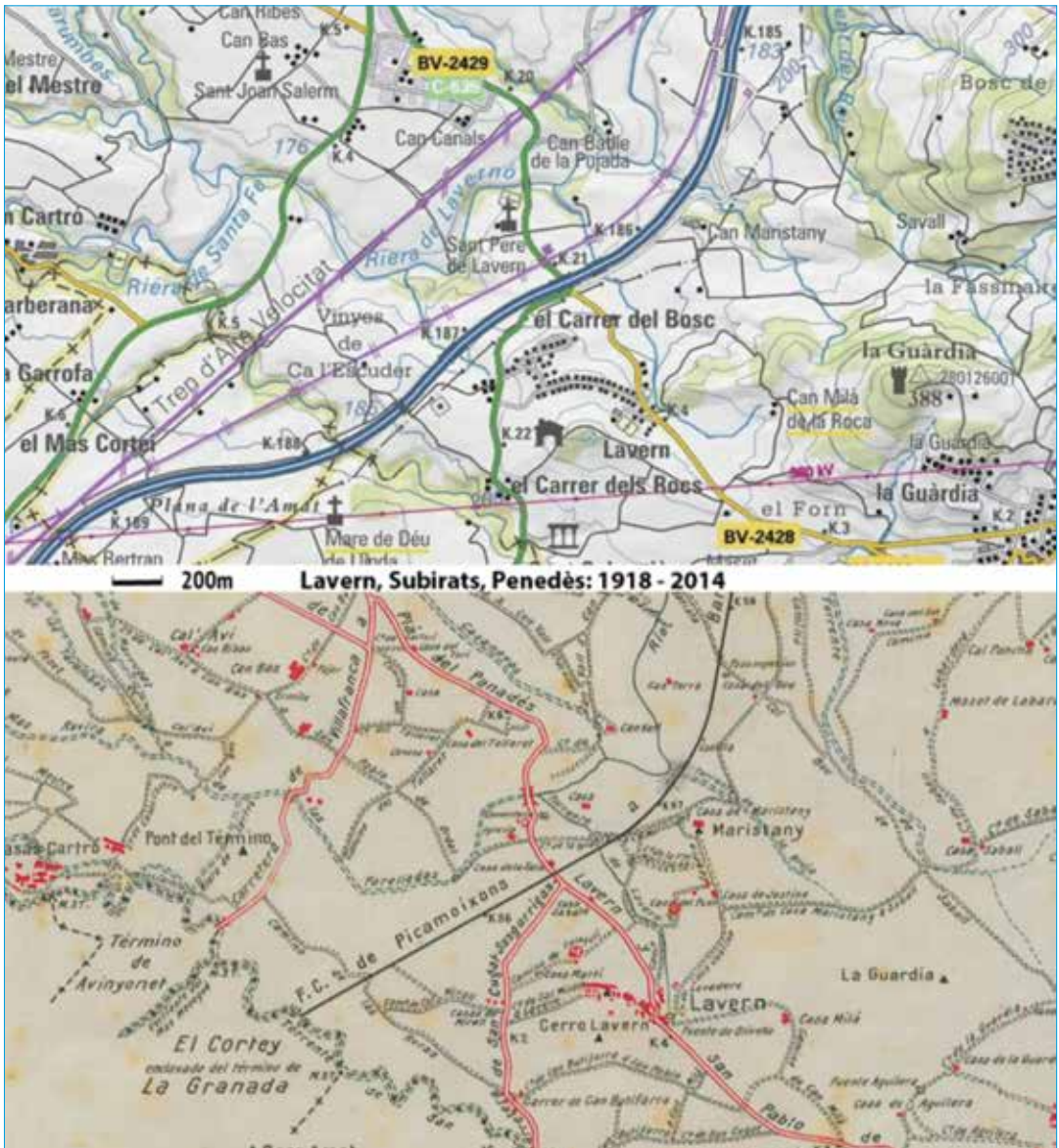

Fig. 1: Comparison of maps, area of Subirats. (Source: ICC Institut Cartografic de Catalunya / Soazig Darnay)

In 2000 a project was introduced, however, for which there was strangely little public consultation that allowed the construction of a waste treatment facility for South Barcelona (i.e. about half of the metropolis...). Some residents hear about and react violently to the announcement. And for good reason : the majority of the local activity is agriculture and this kind of project can jeopardize their economic future, not to mention environmental and landscape related issues that are not appealing. An association called Terra Vitium is created, uniting for the first (and only) time all the players involved in the wine industry: cellars of all sizes, unions... (Fig. 2)

Fig. 2: Landscape of Penedès, down the valley (Source: Soazig Darnay)

Alongside this local historic review, Europe drafts the Landscape Convention signed in Florence in 2000. It is based on already existing policies in European countries such as France, England and Germany. In those days, dealing with landscape management and understanding was not an issue yet. Nevertheless, legal structures (especially lawyers) are fast to understand the interest of this new concept of landscape, which gives consistency to a new reality and allows to question the until then unassailable territorial projects.

Catalonia wants to become the leader in the landscape policy in Spain, and ever since the signature of the agreement, the Generalitat has been searching for lands that can set an example for the development of new territorial management logics. Penedès caught its attention because of its agriculture, strong enough to have resisted most of Barcelona's real estate mad-

ness. The vineyards of Alella, north of the city, did not have this ability and are already reduced to a few isolated cellars within an urban frame. The vegetable growing areas of Llobregat, between the airport and the coastal constructions, are also endangered enough to justify the creation of an agrarian park, as a protection, which illustrates how economically fragile these activities are in regard to the interests of the real estate industry.

The conjunction of Subirats event and the policy research by the Generalitat allows to set up a series of pilot initiatives: vineyard landscape good practices booklets for Penedès, Landscape Charter signed by most mayors and administrative bodies...

Other grounds for agreement were found through events such as the Art and Landscape Congress or other conferences, where the stakeholders met and asserted their common aspiration to support the vineyard areas and their landscapes. Nevertheless, in 2015, we might ask what has become of these administration supervised initiatives: since the charter was signed, there was no follow-up provided, which is precisely what is criticized by CepVi, an association created after the series of "Art i Paisatge Vitivinicola" congresses. This example illustrates the limitations to the "top down" ability to act concerning the local landscape management. The Catalan initiative was a strong one, reinforced through the creation of a Landscape Observatory, that mapped the entire territory, defining the areas and highlighting any existing conflicts. It was also a factor in identifying Penedès as an agricultural area of interest in a precarious state. However it failed to produce concrete initiatives or to develop a new specific action framework for the issues in question.

Subirats has particularly kept its dynamics, whilst within a few years the population seized all the opportunities to take action. The RENFE train station of Subirats is located out of town, lost in the vineyards. It is supposed to have been built according to the will of an officer of the railway company in the early 20th century, a train stop having been scheduled for a wedding ... It is nevertheless an important stop for the local but widely spread population. The very same group of residents of the municipality who had initially reacted to the waste disposal project reunited to propose a development of local tourism, based on the endangerment of this train station, that becomes the tourist office of the village, following the logic: "tourism is an economic activity that can guarantee the protection of our landscapes. If we combine agricultural and tourist activities, we can generate enough profit to counter real estate construction".

Likewise, because the buying price of fruit and in particular peaches, the other main agricultural product of the county, goes down so much that the farmers throw away their crops, it has been decided to create a brand: Subirats peaches, holding a weekly market. Boxes are engraved with the brand name, and stalls are set with standardized shapes and colours. Over the years, journalists from Barcelona have become increasingly interested in this event, new handicrafts were introduced for sale, and cellars indulge in the marriage of wines and peaches, in collaboration with local *Chefs*. All the local restaurants offer Subirats peaches when available. Late and early varieties were planted in order to extend the duration of the season. The brand is not a designation associated with a specific region and variety, and does not define a precise quality framework of the production method, simply ensuring a specific geographical origin and a short cycle. (Fig. 3)

Is it a surprise, considering the above, that in 2012, Josep Maria Albet i Noia, a winemaker of the municipality, and a representative of a family winery pioneer in ecological viticulture, becomes the president of the Penedès DO and proposes to create the first 100% environmentally friendly DO? He follows the logic of local initiatives, claiming his allegiance to a rural part of the territory, a denomination that counts fewer big names than the Cava DO to which it is geographically attached. The acknowledgement of the Penedès landscape by the Generalitat without conducting direct action helps these initiatives, gives them a framework, and support. The landscape, considered as an endangered rural area, becomes a political tool for qualification and management. These words were said by Pere Guilera, one of the major players in this citizen reaction: "Before we did not talk about landscapes. We lived places, we enjoyed watching." He was also the instigator of the biennial Art congresses, and after of Art and Landscape with its 5th edition to be held in 2015. He is to this day the first to present the Penedès landscapes and to use the proper and adequate terms. His knowledge on qualifiers and territorial logics related to this specific issue comes from close contact with academia and administrations. He was able to apply this knowledge to the benefit of his municipality's development, and now the distinctive features of the Penedès landscape are well known.

They are systematically mentioned in all types of related tourism promotion. The vernacular architecture is put forward. The proximity of the city in this context is an advantage for the

Fig. 3: Peaches from Subirats. (Source: Tourism Office of Subirats)

sale of products, the market is attended by locals from Barcelona. The municipality has managed to create a strong rural identity, sustained by the economic health of its agriculture. Peach producers have largely increased their earnings, cellars benefit from the positive image of their town deriving both from a recognition of quality and tourist attractiveness, even though at present the Penedès wine tourism remains focused on the visit of the 3 best cellars of Freixenet, Cordorniu and Torres, internationally renowned. The entire Penedès DO has an average wine export of 50 %, which allows to consider durable dynamics in the mix and match of local and global interests. Subirat's image -among others- thus continues to assert itself against Barcelona, without dependency, with its own identity. It remains necessary to find the right relationship between the various villages of Penedès without creating any competition. Between the "capital del Cava", Sant Sadurni d'Anoia, "the capital del vi", Vilafranca del Penedès, and "the capital of the vinya", Subirats, we can imagine that the other villages that have not yet been marked in the territorial tourism map might have some trouble fitting in... Penedès still needs to cultivate its originality in the Catalan and Spanish context of the œnotourism boom.

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Participation in the Configuration of the Landscape as a Social Representation of the Territory

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•• ABSTRACT

The following contribution can be characterized into two parts:
-The first focuses on the importance of the involvement of the territorial participants and the public in the processes of evaluation and planning of the landscape, considered not only as an individual perception of the territory but as a social representation of the same.

In particular, the actual consideration of the landscape as a social product, in which physical and anthropologic elements are intertwined with the history, culture and experience that link a certain population to a determined area, raises the necessity to individualize what the roles and the subjects are to involve in the decision making processes relative to the landscape and the techniques that render that participation effective.

On that point, the European Landscape Convention is decisive in imposing on the political and administrative decision makers the need to make use of the collaboration of specialists and experts but also to extend the participation to different stakeholders and the actual public who, by living with the landscape, are able to influence the construction and transformation.

-The second part of the work concentrates on the analysis of the different forms of participation and on the effective degree of involvement of the public regarding territorial and urban planning.

It appears from research, that the population, where involved, is often the protagonist of a "pseudo-participating" experience based, most of all, on the communication and exchange of information between the administrators and the local community that has nothing to do with a real and substantial inclusion of the public in the construction of the decision making processes with the possibility to influence them.

Nevertheless, there is no lack of commendable initiatives at the European level, which are pointed out at the end of this work as examples and stimuli towards a more effective participation of the public in the planning programmes chosen in their own territories.

The IV Ministerial Conference of the UNECE "Environment for Europe", held in Aarhus on 25th June 1998, concluded with the underwriting of a Convention on access to information, public participation in decision-making processes and access to justice on environmental matters.

The said Convention represents the first worldwide undertaking of environmental democracy, which places three fundamental rights such as information, participation and justice as the basis for sustainable development (Stec. S., Casey-Lefkowitz S., Jendroska J., 2000).

Participation in the landscape, territorial and environmental policies ceases to be just good practice becoming instead a compulsory and binding phase of every decision-making process. Now, the European Landscape Convention, adopted by the Ministerial Committee of the European Council on 19th July 2000, rightly recalling the Aarhus Convention in its preamble,

complies with this current trend aiming to acknowledge participation as a fundamental role regarding landscape planning choices.

One of the most innovative aspects of the European Landscape Convention consists in the recognized social dimension of the landscape, considered as by Art. 1, letter a), as "*an area as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*".

The Convention considers such perception not only as a human answer to stimuli coming from a certain landscape but as an active factor able to define the actual meaning of that landscape.

This definition also puts at the centre of the actual concept of landscape the population's perception of it, recognizing the human as a dynamic subject who lives the landscape, explores it, modifies it and allows himself to be so modified (Zube E.H., 1997).

In other words, the landscape derives its own meaning not only from the whole elements which compose it and from the relations between those elements but above all by the way in which they, who interact with that landscape, perceive its characteristics. The relationship between population and landscape can be examined from two perspectives.

The first is based on individual perceptions of the landscape, that is to say on needs and desires that different subjects have in its regard. Such needs and desires, although partially influenced by the social-cultural context of life, are essentially brought about through utilitarianism (Tempesta T., 2006).

The second perspective through which it is possible to examine the relationship between population and landscape does not focus attention on individual perception of the landscape but on its social representations. From that angle the landscape is a sort of "*social construction of cultural and symbolic value to which each individual not only attributes their own meanings but also the ones shared with the rest of the population or of the social group to which they belong* (De Nardi A., 2009).

Such perspective is also found in the European Landscape Convention which, at Art. 5, letter a) defines it as an "*essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage and a foundation of their identity*".

The landscape is therefore common goods that belongs to a specific cultural identity, to a community, to the citizens "*but being citizens depends on the political community to which they belong. Being able to recognize the culture you belong to, identifying the cultural basis of your own political community, evaluating the means by which one becomes a citizen, acquiring the consciousness regarding the way by which one participates in the management of common goods, is the first and unavoidable step towards the possibility of the landscape becoming democratic*" (Ruffato M., De Marchi M., 2009).

Considering the landscape as a social product makes it necessary to identify participants and roles in the process of the actual landscape production and of its transformation.

Politicians and local managers are certainly able to influence the landscape as they are the ones who adopt the planning choices thorough regulatory activities which more or less directly tap the landscape. In the decision-making process the politicians are called to make use

of other participants' collaboration such as architects, city planners or other professionals who, being experts in the subject, must provide technical evaluations and, consequently, draw up proposals.

The involvement of the stake-holders in the different decision-making processes – even though in different terms and levels of participation – is becoming a general procedure that allows the interested persons to express opinions, preferences and aspirations, with an incisiveness which often varies depending on the level of the economic power of the interested group and on the different ability to organise lobbies.

If what the Convention says is true, that the definition of the policies and of the "*landscape quality objectives*" must be based on the "*aspirations of the public with regard to the landscape features of their surroundings*", it is absolutely normal and even right and proper that among the subjects called to participate in the decision-making processes, are the citizens for the simple fact that they live in the landscape and so contribute to its construction and modification.

Even so, it is impossible not to notice a sort of resistance in giving effective space to their opinions, also because techniques and methodologies relative to the participative procedures concentrate more than anything else on informative and communicative actions rather than on effective inclusion.

The need to give space to the participation of the community actually comes from a more widespread disquiet towards the representative organizations of the government which, still today, are content with adopting consensual approaches.

Even the Cultural Heritage and Landscape Law, written by the Italian legislator in the Legislative Decree No 42 in 2004, provides in Art. 144, comma 1, where the procedures for the approval of Landscape Planning is forecasted, other than the institutional agreements between State and Regions and between Regions and Local Bodies, also the "*participation of the interested subjects and associations for the defence of widespread interests*". It is obvious how the Law takes into consideration, for the purpose of the participation in decision-making processes, "strong" participants in the social system and practically excludes "normal citizens".

Public participation, meaning participation of the citizens, has a very important role in a democratic society as it is essential in ensuring policies and decision-making processes are transparent and open to the citizens regarding the responsibility of the decision-makers.

Considered as one of the pillars of a "*quality democracy*" (Morlino L., 2003), participation "*inserts itself so deeply into the idea of democracy that it represents one of its most relevant measures*" (Ropelato D., 2013).

On the other hand the choice of participation answers an irrepressible human need to "take part" and "feel part" of a community and at a public level implicates not only the adoption of a procedure or an instrument to allow the sharing of an objective but also and above all means giving space to the care and construction of that same community.

The participative dynamics impose on a civil society a "*widespread sovereignty, in which there exists not only the abstract citizen, bearer of an electoral vote equal to the others, but the concrete person, with their own history, values, family social and religious membership*" (Baggio A.M., 1994).

What has been said also finds confirmation in the Plans of the "Agenda 21" for sustainable

development of territories which link the ability to produce efficient policies to the improvement of the competences and know-how that are preserved inside the nets of society.

The effective participation in the decision-making processes by all the social participants ensures that the decisions are based on shared knowledge, consolidated experiences and scientific evidence and are influenced by the people who can be directly penalized or benefitted by a project, plan or programme.

Furthermore, participation, especially if activated from the first phases of programming makes it possible to find better shared solutions and reduce possible conflicts.

Unfortunately there are some sectors where effective participation in decision-making processes by the citizens finds application with difficulty and territorial and urban planning is one of the areas in which the loudly advocated participation hasn't been able, at least until now, to break up that consolidated practice which sees a decision-making process participated in by only three groups: technicians, administrators and investors. A decision-making model, this one, more advanced than the technical-bureaucratic one where power is an exclusive prerogative of administrators and technicians, but it far from guarantees effective participation of the citizens in planning choices and territorial programming.

A deeper analysis of the citizens' role in processes of definition of functions, localizations, of strategies in management, development, transformation and area reclamation, shows the low level of involvement of the same citizens in such processes.

To improve the quality of the participation processes, systems have been elaborated, in the past few years, of participation measurement, considered both as a method and as an objective. As a method, it can be defined as the process by which the social participants and the communities cooperate and collaborate in the realisation of projects, programmes and plans. The participation develops through various phases of the decision-making process and at different levels of society, taking different forms which range from simple consultations to cooperative decisions.

As an objective, participation is a process which strengthens the local participants and communities through the acquisition of ability, knowledge and experience (Arnstein S., 1969). The evaluation of the participation regards three aspects:

• the level of inclusion, that is who has been involved and what has been the role taken on by the different participants;
• costs and benefits of the participation for the different stake-holders: trying to understand whether participants who have evident interests have participated, if those who participated have derived benefit from it or if the participation of some participants was somehow hampered;
• the impact of the participation on the formulation, performance and results of the decisions, plans and programmes.

Despite the difficulties in realising an inclusive participation of the citizens regarding the choices of landscape planning and programming, some steps forward have been made.

A praiseworthy example of it is the constitution of the Observatory of the Landscape in Catalonia, structured as a Consulting Body of the Regional Catalonian Government and of

the civil society for landscape matters, a meeting point for the administration, the universities, the professional sectors and the citizens regarding all areas directly or indirectly concerning the landscape.

Among its main functions, the Observatory establishes the criteria for the adoption of the protection measures, management and planning of the landscape, to identify the objectives of the landscape quality and the necessary actions to achieve them, to promote campaigns of social sensitization towards the landscape.

Another interesting experience is constituted by the Centre of Landscape and Territory Studies in Andalusia, which represents the consolidation of an important form of dialogue between the administration and the world of research into landscape themes. The said Centre of Studies has the function of guaranteeing the exchange of experiences, knowledge and opinions, during the production of Laws regarding projects and plans that can have effects or are directly related to the landscape.

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Ascol Piceno, Palazzo dei Capitani del Popolo

CHAPTER **V**

The Landscape in Designing a New Form of the City: Offering Planning Responses to Climate Change and Reorganizing Urban Systems

Introduction

The modern city, with its rapid growth and abandonment, which are too fast to be absorbed by historical settlements and physical/social coherence, represents the explosion of a mosaic of distinct fragments, each either with their own form (historic centres, planned communities, large infrastructures) or lacking a form and definite function (nebulae, rubble, sprawl, abandoned central and peripheral areas, derelict lands). Today the loss of environmentally and socially conscious urban design also has to deal with the effects of climate change, which is becoming more aggressive where resource consumption has been the most furious and disordered. Modern landscapes measure dramatically the spatial success of such dynamics and the repercussions that these changes have on the life of cities and their inhabitants. The vulnerability of the city as read through the landscape should be confronted by designing innovative social, economic, and environmental responses that allow them to endure and form the basis for new landscapes. This means configuring and connecting fragments of the city together without nostalgic unitary visions or the fear of overwriting in order to reorganize the pieces, rereading and reinterpreting their connection to the context, recreating new places.

The Landscape in Defining a New Model of the City

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In 2012 when presenting the COST research "Cities Regrowing Smaller" (CIRES), Professor Wiechman at the University of Dortmund stated that in Europe, "…we are dealing with islands of growth in a sea of shrinkage" (Wiechman, 2012). This effectively describes the situation in many European cities, where growth and urban decline processes are occurring simultaneously (Banzhaf, 2007). Around 40% of urban areas (Turok, 2007) are losing people; in Western Europe, shrinking cities account for the large majority (three out of four). But shrinkage is not the only change underway. Increasingly often, urban systems have to confront the catastrophic effects of climate change: intense flooding, drought, violent storms, cyclones, fires, and temperature extremes.

Cities are beginning to ask about policies to resist or adapt to current changes in order to respond to the growing need for equality and inclusiveness of their inhabitants' living spaces. Building these policies often leads to a reflection on the spatial dislocation of human activities and the need/opportunity to generally rethink the form and uses of the city, starting from the existing city (Urbact, 2013). A key element of this is the involvement and responsibility of local communities.

New models of urban development, new city configurations, and new means of "readjusting" existing ones are beginning to be developed.

These new models must resist stress due to extreme weather events through solutions that relate not only to engineering (to rapidly expel water or cool closed and open spaces, etc.), but are also connected to the design of open spaces and the redefinition of the water cycle. These aspects are always echoed by the goals of adapting to the climate and mitigating its effects. A search is under way for solutions that enhance, for example, the role of green infrastructures as tools to increase the carbon storage capacity, improve air quality, reduce the temperature, support biodiversity, collect and manage water, and offer production surfaces and raw materials.

Many such experiments are in progress. For example, the City of Rotterdam, in its "Rotterdam adaptation strategy", has designed an interconnected system of squares, parks, fountains, and channels that, when necessary, become real systems to contain, collect, and discharge rain water. Everything is designed organically, so that the city can continue to "live" during extreme events without disdaining the design, the search for harmonious lines, and enhancement of the landscape. As well, everything is designed to be both appealing and functional. The squares become open spaces with a dual function: promote sociability and reduce risk.

The design proposal by Bernardo Secchi and Paola Viganò for the *ville poreuse* in the "Grand Paris" promotes a porous vision of the city of Paris. It views residual areas, infrastructures,

and high-risk flood zones as a great opportunity for the territorial regeneration of the entire urban organism. It is an urban strategy that allows the city to secure these areas through soft restrictions and the creation of "blue" and "green" networks to recover residual spaces and to connect the city to its natural elements on a large scale.

But cities must also implement policies to recover their daily areas and buildings, which have been emptied of their uses and functions. These areas, awaiting grand urban transformations that are currently uncertain, need to be affected by temporary projects that, with the involvement and dedication of a transverse community (civil society, local entities, artists, creators, intellectuals), can produce consistent low-cost benefits for the entire urban system.

The city of Leipzig, for example, was already able to quickly accept a future of decline and shrinkage starting at the end of the 90s, and it has tried to draw the best possible advantage from the situation. Through intelligent shrinkage, Leipzig has launched the idea of a dynamic city that is greener and less dense. In the urban development plan (STEP) enacted in 2000, the city proposed three main objectives: increase the quality of the city centre, reduce urban density via green spaces, and improve of the city's competitiveness. In this direction, negotiation with private owners has begun regarding both the functions to attribute to the unused buildings and the uncultivated lands to be temporarily transformed into public green areas. From these experiences and others as well, the proposal of an adaptive strategy for the contemporary city clearly distances itself from the idea of the rationalist city. It moves away from the myth of unstoppable growth, the mono-functional subdivision of human activities—therefore dividing the city into parts—the canonical scaled approach to investigation, design, and planning, and the concept of green spaces and spaces that are open only as a "guaranteed minimum quantity".

In addition, the request to adapt to the "indeterminacy" of changes does not contemplate the production of definitive, conclusive planning solutions, but of open, reversible, fluid solutions that probably better correspond to the "liquid society" described by Bauman (2006).

With respect to this future, in which cities are imperfect but also very dynamic and creative, the urban landscape will take shape, represent, and exhibit a continuously changing reality. In this perspective, the landscape can become an extraordinary "material to interpret and design". It can suggest ways to assess the complexity of current phenomena. It can protect identifying characteristics. It can provide knowledge to "assist" the evolution of the city and territories, promoting a strategy of resistance and resilience that implies setting priorities and choices that are even sometimes difficult[1].

It will be necessary and quite likely to make difficult choices in the future. This is the challenge of the city of Detroit, where "Leaner, Greener Detroit" aims to redesign the city not to attract new residents, but to govern urban shrinkage as a sign of a higher quality of life for its inhabitants. An original form of living was thus hypothesized, in which downtown (situated along the Detroit River, and the home to the administrative centres of surviving companies and services such as hospitals, university, theatres, etc.) will be joined to a network of self-sufficient villages with a good functional and social mix. Interwoven between these villages will be green areas dedicated to urban agriculture, and green public and empty spaces (decommissioned areas), forests that will mitigate local pollution, etc.

In Detroit, the current change is inspiring policies and plans to govern the transition towards a new urban model in which natural resources, agricultural areas, and the history of places will give life to a new form of the city and can become the engine of a new type of development. Faced with these changes, disciplinary attention, which has been mainly concentrated on regulatory processes to control land use, should change its field of interest and action. It should concentrate on: city and territorial design; processes of reduction, reuse, and recycling territorial resources; enhancement and giving meaning back to the environmental components of the city; rethinking settlement forms; and the role that the historical/architectural heritage can play in this new design.

In this scenario, open spaces and environmental, infrastructure, and settlement networks will be called to play a central role in reinforcing the identity of urban areas (Gasparrini, 2011), to improve the life of inhabitants by offering essential goods and services and securing and regenerating the spaces of life. As well, the functional and formal distinction of the historical city between urbanized and natural extra-urban space crumbles (Donadieu, 2011) along with the separation between open space and built space. The landscape becomes a fundamental planning reference capable of interpreting temporal changes and the indeterminacy of contemporary urban conditions (Waldheim, 2006).

The landscape is often used as the exclusive means to systematically read and integrate reality; one rarely turns to the landscape to "produce" the territory. In the recent past, this lack of consideration was closely connected to the sterile antinomy between landscape plans and designs and the separation between the large and small scales (D'Onofrio, 2013). Today, these hostilities are deteriorating. Climate change requires solutions and proposals that involve all the tools available and affect both the large and small scales.

The same newfound interest for the large scale (as testified by the theory of landscape urbanism) no longer excludes nearby space or the project of individual places, but recomposes them within a multi-scale relational system and within variable size planning processes. In this new dimension of urban planning, the identification of planning scenarios for the city of the future move by evaluating degrees of uncertainty and the randomness of phenomena caused by climate change and the extreme variability of economic and social events that determine phenomena of abandonment and densification. In this research, with reasoning that is finally inclusive, the landscape can join the urban and environmental disciplines to define ways to use resources within a more comprehensive "territorial project", finally setting aside exclusively protective means of intervention and involving local communities in such projects. In this perspective, plan and design coexist, as do the large and small scales.

Such is the case with the Dryline project in New York. This project foresees a sort of green belt composed of public spaces, a natural barrier to protect the southern part of Manhattan, running from Central Park to Battery Park, which faces the Statue of Liberty. The idea is a real green barrier that acts as a shield against possible flooding and extreme phenomena provoked by climate change. The project includes the large-scale subway, but can also work on the small scale in the neighbourhoods.

The conditions to manage this change of direction in projects for a new city or in readapting the existing city lie in proposing a planning approach that can contemporize the need for "form" (as a territorial project). Also necessary is the regulation of transformation processes that have a place in space and time and that require the definition of "performance rules" rather than quantitative rules or those aimed exclusively at protection or limiting uses.

This search for a new form and new rules deals with promoting:
• A procedural, transdisciplinary approach to themes of the contemporary city which deal contextually with the different problems (hydraulic, hydrogeological, ecological and landscape, economic, productive, social, and cultural) in inclusive reasoning that establishes not only regulatory actions by also actions for stimulus, promotion, and direction;
• Rediscovery of the centrality of forgotten disciplinary skills, especially those related to multi-functional agriculture as a principle engine for maintenance of the urban and peri-urban agrarian landscapes;
• Original partnerships between disciplines that rarely dialogue with urban-planning, such as architectural technology, technical physics, etc., but which are today the first to confront the challenge of climate change with regard to the form of the city and the built space and the high quality of life of city inhabitants;
• New transformation regulatory tools that are characterized by the imprinting of elasticity (self-regulating tools that are dynamic and in continual evolution), retroactivity (multi-scale, incremental, and cumulative tools), and ecology (adaptable, qualitative, and recyclable, compensative). It is necessary to try to overcome the rigidity of typical categories of consolidated planning as "use destinations", "functions", etc., proposing recourse to guidelines and action plans that involve interdisciplinary groups and where the different skills work side-by-side, overcoming the fragmentation of knowledge.
• The involvement of local communities. It is absolutely necessary to expand activation and involvement to social networks as responsible, active subjects in transformation projects and city management. Participation is a necessity of the contemporary project, not a boring option as it sometimes continues to be considered.
The themes dealt with in this contribution were given attention in the parallel session "The landscape in designing a new form of the city: projects to address climate change through the reorganization of the urban systems".
The aim of the session was to debate the form of the contemporary city with reference to the effects of the disordered eager consumption of resources and climate change. In particular, the different presenters were asked to reflect on how interpretation of the landscape (landscape plans and projects) can help to configure new, more resilient and sustainable settlement models in which the landscape vision can contribute to rereading and reinterpreting the connections between natural environment, city, and identity of the places. Some of the papers selected deal with the theme of the multi-scalar approach to the landscape in defining territorial planning tools and in reorganizing the settlements. This is the case of Jonna Majgaard Krarup, who addresses the categories of adaptation measures coordinated across

different planning levels in the Danish Planning System, and Francesca Calace and Carlo Angelastro, who instead develop the theme of reorganizing settlement systems starting from the landscape and environment. The authors illustrate the best practise of the metropolitan area of Bari through comparison with Apulia's new landscape plan.

The paper by Chiara Camaioni instead confronts the theme of the urban form in relation to securing the territory from flood risk. In this paper, the Adriatic City is regenerated starting from the rediscovery of signs of the rural territory's environmental network, which are identified and used by the local plan to promote a new form of the city, in the awareness of the safety of the people and built spaces.

Alexander Kantartzis addresses the theme of green infrastructure continuity in urban areas with an innovative, alternative, and sustainable green infrastructure model. It combines greenways, vertical green walls and green roofs as an extremely dynamic, integrated, and comprehensive green infrastructure planning tool along city waterfronts and riparian corridors, thus fortifying and forging urban resilient fabric contexts.

Finally, Michela Tolli deals with the theme of urban sprawl in the city of Cerveteri, analyzing two temporal scenarios (1990 and 2010). Monitoring the dynamics of sprawl and its causes and impacts serves as a useful preliminary approach to defining guidelines to construct the new local plan.

Far from providing definitive answers to the problems, all the presentations showed common traces in refining the relationship between landscape, climate change, city form, territorial plan and project. These common traces deal with the interest and attention for an integrated vision of the changes underway and the awareness that the landscape can provide interesting keys to interpreting these changes and to help formulate possible solutions with regard both to planning tools and to the project for individual places.

Notes

[1] In the United States, recent research by the University of Oregon, promoted in 2015 through a subsidy from the National Park Service, provides a reference framework to develop "action plans" to make informed decisions regarding the theme of risk with reference to cultural landscapes. The proposed framework is based on the consideration that cultural landscapes can be protected or managed only if they are studied, documented, described, and assessed. As well, it is necessary to promote the resistance and resilience of the cultural landscapes. This research invites us to be ready to make difficult decisions regarding what to save, what can be saved, and what cannot. In extreme cases, this may mean that it is necessary to practice a form of "cultural-landscape triage", choosing to conserve certain places, leaving others only to memory.

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Urban Resilience: a Landscape Goal in Urban-Rural Relations?

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Resilience is both a physical, psychological and ecological notion,[1] which is now being used in urban planning in relation with environmental adaptation. Is resilience going to replace sustainability as a key-notion in planning (Folke & al. 2002), as a way to face crises and risks management (Toubin & al. 2012, Djament-Tran & al. 2012)? Between adaptation, resistance, reconstruction and stability, the meanings –and so the actions– are not so easy to conciliate (Vialar 2014, Guézo & Villar 2015). Resilience seems to be a magic word indeed, as cities have never really been through series of mutations or adaptations. City evolution is a long-term process of transformation. Urban forms develop, turn inadequate, and thus are renewed, over successive urban programs. The urban design of these programs targets a permanent structure, which conceals the very idea of transformation. Quite the contrary of an economic and social resilience approach that should focus on crisis, and therefore transformation. For its part, environmental resilience focus on risks — such as the consequences of climate change — and point the human responsibility in the degradations of the natural and anthropic ecosystems. Thus, since urban resilience naturally focuses on temporalities to reconstruct, adapt or recover, its basis are finally the same as environmental resilience, in the sense that it defines a new state of equilibrium — be it temporary — in response to any perturbation (Hollins 1973), using the inherent characteristic of the place to absorb the perturbation within a new organization scheme that finally keeps the same functions and the same structure (Walker & al. 2004). For both, the problem is, first, to protect and to let grow what is already here and able to regenerate the ecosystem, and, second, to let time for things to develop naturally. Here, the path is more important than the goal.

Since the 1990s, environmental policies, after addressing mainly hazard mitigation and natural conservation, shifted their attention to Global warming and biodiversity loss.[2] In this evolution, the resilience of the ecosystems aggregates other disciplinary fields, particularly urban planning, through three different issues: What type of ecosystems are taken into account? What means "resilience" for landscapes and urban landscapes? How can this concept help designing a new urban fabric? The fact is that these issues invite to consider an "urban ecosystem" that includes urbanized, agricultural and natural areas as three interconnected elements functioning together. The contacts between urban, rural and natural areas are stronger and stronger, closer and closer. This new pattern has been considered as a capacity for agricul-

ture to adapt its productions to the urban markets (Bryant 2012, Poulot 2014). It questions also the possibility of an urban management of the neighboring natural and agricultural areas (Viard 1990, Donadieu 1998). There is a spatial proximity, but at the same time natural space management, urban planning and agricultural organization are still governed by different logics and regulations. The environmental point of view recommends inclusiveness, by introducing interdependence between these three types of management. But the conditions of such an interdependence still remains to invent, as far as urban planning tools are concerned. The know-how that landscape architects is especially important here because it can effectively combine life science knowledge with landscape and urban design.

An ecological viewpoint extended to our urban, peri-urban and rural environment.

From the 1950s to the 1990s, ecology focused on so-called "natural" ecosystems, excluding mankind's influence (Barbault 2006). At the same time, in 1972, the program *Man and Biosphere* developed by the UN conceded that finally sound ecosystems could result from interactions between anthropic and natural forces, but only in some experimental places.[3] Then, the notion of ecosystem services[4] gave birth to a close relationship between mankind and the ecosystems he's part of. Since 2005 eventually, mankind is considered a key actor of the environment because he benefits from the ecosystems in spite of his responsibility in their degradation, thus he also could help in restoring them. At least, so states the UN's Millennium Ecosystem Assessment[5]. Therefore he has an interest in their conservation and a role to play in their restoration. A link is clearly established between ecology and human well being. In this perspective, environmental resilience has a lot to do with the management of the human environment. These evolution show well that Ecology cannot be studied without consideration of mankind's relation to the anthropic systems any more. And anthropic systems include urban organization, obviously. There is a new framework in urban planning here, where a landscape approach can help reconciling living environment, design and ecosystem safety and resilience. Just one point: It doesn't mean that landscapes can be resilient by themselves. Natural recovery and adaptive processes impact the landscapes, which are like "the skin" of ecosystems. But the landscape isn't resilient for all that. The built and natural environments can be resilient, because of their capacities to adapt themselves, in order to face environment or economic crisis. Being mindful of these capacities helps transforming planning and design practices to get them more effective. The issue is using landscape architecture tools to design urban sustainable ecosystems. Thus, if landscapes aren't resilient, landscape tools can use ecosystems resilience to facilitate territories resilience.

Landscape project: An action tool for socio-ecological resilience.

Ecology and landscape are more and more close friends that are getting involved in urban development, and local authorities usually don't distinguish between the quality of life due to a

specific environment –and its representations as a landscape– and its biophysical characteristics. So, it is necessary to link ecological values, aesthetic values and use values, in a resilient approach of the urban systems. Traditionally, studying the functioning of an ecosystem and the restoration of its biodiversity refers to specific strategies and technologies. But, in urban communities, it should also involve symbolic relationships. Ecological tools design corridors, water or plants systems to protect against erosion or flooding: Massive pine trees plantings in the Landes -a littoral French region— was ordered by Napoleon III at the end of the 19th century to prevent coastal erosion. He built also a new landscape for tourism. Now, Chiara Camaioni shows how the environmental strategic vision of the Adriatic city of Pineto is focused on the creation of local development. River management and flood protection plans are another examples of how environmental engineering and landscape approaches may mix. In Nancy — a city east of France — local authorities chose to control flooding of the river Meurthe, by improving the river ecological conditions while creating new amenities related to the river (strolling zones, pathways, water-based activities), especially addressing the riverbanks. In this case landscape endorses new mental representations, while fostering better quality of life for the inhabitants (Salles 2011).

It's important to involve people in the definition of ecologic, economic or development strategies. Landscape is the way we perceive our environment, and this perception guides our way of taking care of it (Berque 1990). Indeed, resilience is a complex theoretical object, depending on various disciplinary fields. But they all include human practices. Giving a special attention to human uses and perceptions can be beneficial also for ecological issues: Alexander Kantartzis showed that planning green infrastructures in Igoumenitsa —a greek city— helps preserving the habitat of plants and animals and, at the same times, improves the urban environment. A landscape architecture approach consists in linking together different aspects of our relation to the environment: accessibility of different areas and preservation of species and ecosystems; but also quality of life, comfort and beauty. Ecological and landscape qualities can easily converge to improve urban and peri-urban environments and to make them more resilient (Salles 2014).

Acting locally to foster global resilience

Resilience as a socio-ecological concept refers to an ecosystemic modelling functioning with external and internal factors. Such a statement calls for the question of the right scale of intervention, in space but also in time. Designing a resilient urban system needs simultaneously two approaches that may seem antagonistic at first glance. On the one hand, a natural ecosystem articulates different levels from a spatial point of view: From local to global and from global to local. Its resilience takes place in the long run. On the other hand, an anthropic ecosystem refers to local human practises and perceptions, which are mainly short-term focused. The problem is that human settlements are situated on an ecological substratum, which evolves slowly, while being planned by local authorities with essentially short-term priorities. There is a real gap between these two options, or at least a balancing game! Jonna Majgaard

Krarup showed that the 2007 revision of the Danish Planning System, which transfers nature and environment responsibilities from the regional scale to the national and local scales, allows better coordination between rural and urban planning. Nevertheless, local scale does not always mean taking really into account the ecosystem functioning, such as watersheds or drainages — a way to plan urban development on an ecological and landscape perspective.

Landscape architect Ian McHarg promoted, in the 60s, an ecological vision of landscape design, inclusive of soil analysis, climate conditions, hydrology, etc. to build a methodology reconciling modern development and ecology (1969). He associated the sensual qualities of picturesque landscapes with ecological sensibility to design human environments in tune with the place, its climate and its environment. Mixing landscape design and environmental engineering, he developed an approach that takes advantage of the existant resources and of the specific fertility of the substratum. This type of development doesn't envision an ideal future. It fosters future regeneration or another land occupation, as a gardener does more than as a planner does. Designing resilient urban system needs this kind of local-based approach, which also is a fact-based approach that collects all the ecologic, land, built, wasteland or natural potentials. Francesca Calace and Carlo Angelastro offered an urban strategy for Bari, based on the gathering of all this opportunities. Doing so, they formed a framework for urban development planning.

As a matter of fact, designing a resilient form for urban areas finally consists in working at multiple local levels and weaving all these actions into an interactive network. If spatial scales are important, the critical issue for a resilient urban system are time scales. It's not only about temporalities of practices and uses, rather allowing self-regeneration of the "urban-rural" system using its inherent potentials.

Notes

[1] If the resilience is a physical phenomena (energy absorption during transformation), the term is an ecological issue since … and a psychological issue since the 80s. It's a way to describe the capacity of natural ecosystems to adapt themselves to resist to natural or anthropogenic transformations (Holling, C.S., 1973). It's the capacity for an human being to be "vulnerable, but invincible" like the boy studied by E. Werner and R. Smith (1982).

[2] The Earth Summit, in 1992, was a trigger moment, which resulted in the signature of the Convention on Biodiversity. It establishes an active approach of restoration. In France, a step furthermore is made, in 2007, with the "Grenelle" law, which insists on the role of the urban planning in the improvement of the biodiversity and the state of the ecosystems.

[3] MAB is an interdisciplinary program, which goals were to reduce lost of biodiversity by an ecological, social and economic approach. http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/man-and-biosphere-programme/

[4] Ecosystem services are the services provided to humans by ecosystems. The ecologist Gretchen Daily defines ecosystem services as the conditions and processes through which natural ecosystems, and the species that constitute them, support and enable human life (Nature's Services: Societal Dependence on Natural Ecosystems, Washington, Island Press, 1997).

[5] From 2001 to 2005, the MEA conducted by the United Nations assessed the consequences of ecosystem change for human well-being. http://www.millenniumassessment.org/en/index.html

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Adapting Planning to Climate Change – Minding the Gap

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✔ KEYWORDS: Planning, climate change, adaptation, watersheds

●❯ ABSTRACT

This paper address questions on the Danish Planning System in relation to climate change adaptation, and suggests using, and coordinating,
1. Categories of climate adaptation measures across administrative divisions in order to qualify adaptation strategies and plans.
2. Introducing natural watersheds as framework for climate adaptation regions.
Up-till 2007 the Danish planning system was organized according to three levels, the local, the regional and the national level, and divided into three zones, the urban, the rural and a summerhouse zone. In 2007 this organisation was revised and tasks and responsibilities on nature and environment were transferred from the regional level to the national, and to the local, municipality level.
This reorganization opened for a potentially better coordination and connectivity in planning, which seems both interesting and productive regarding planning of climate adaptation in so far that either climate or water are limited by administrative zones and divisions.
But even though the responsibility for rural planning and water management was transferred, the man-hours and the knowledge on rural planning and water management weren't necessarily also transferred to the municipalities. The revision of the planning system didn't take climate change adaptation into account, nor did it address the current stealth urbanization and industrialisation of the rural zone, nor were the arguments for the use of binding local plans in the rural zone heard. Based on examples from my recent research this paper discusses and suggests that working with natural watersheds as water regions - frameworks for coordinating and developing climate adaptation - and with categories of adaptation measures coordinated across planning levels, administrative divisions and zones could be additional planning tools adequate in developing more holistic climate change adaptation strategies and plans, that support a planning thinking and process that seeks to re-construct broken connections and entities between landscapes and cities.

Introduction

The Danish Planning System was reorganized in 2007 as part of the Structural Reform (The Municipal Reform). The idea was to reduce the number of municipalities, to reorganize the public sector, qualify the public service, and to simplify the planning system and processes by reducing the former three planning bodies (state, counties and municipals) too two (state and municipals). In the following I will first discuss some of the forces and weaknesses in the reorganized planning system regarding spatial planning and climate change adaptation.
Secondly, based on my on-going research I will discuss possibilities of qualifying the planning tools by adding categories of adaptation measures across administrative divisions and zones.

And thirdly, I will introduce the idea of using watersheds as a regional, spatial planning frame for coordinating and qualifying climate change adaptation strategies and thus bridging the gap that has resulted in the planning system by dismantling the former counties.

The Structural Reform 2007:

The 2007 revision of the Danish Planning System was part of the Structural Reform (The Municipal Reform), where the former 270 Danish municipalities were merged into 98 municipalities, and the former 13 counties were transformed into 5 regions.

The reform was based on three principles (Henrichsen 2013),

1. A changed distribution of tasks between the state, regions and municipalities on the principle *"less region - more municipality"*
2. A modified administrative division of Denmark into municipalities and regions on the principle, *"larger municipalities and regions - better and cheaper administration"*.
3. A change of the geographical extent of the new municipalities and regions.

In defining the extent of the municipals the emphasis were on minimum sizes and on the cultural, commercial and industrial context, while in the definitions of the regions a particular emphasis on the establishment of regions of relatively uniform (quantitative) sizes were decisive. (Fig. 1)

Changes in the planning system:

Tasks within nature, environment and planning were previously shared between the counties and municipalities and with only a few tasks at the state level. As a result of the reform the responsibility for most of these assignments were transferred to the municipalities. National and particularly technically complicated tasks were allocated to the state level, that is, to seven new decentralized environment centres under the Ministry of Environment.

Tasks involving mineral resource planning, soil contamination along with a new planning document, The Regional Development Plan, were allocated to five new regions.

The Regional Development Plan is a vision document describing a desirable future for the development of the five new regions, and their relationship with and cooperation with the state and municipals, and with neighbouring countries' authorities. Its purpose is to cut across sector boundaries, and support the municipals new regional tasks - but without regulating the land-use.

Comments and discussion:

It was argued that the revision of the planning system would,

1. Open for a more comprehensive planning and coordination of plans between the rural and the urban zones

2. Qualify the opportunities to correlate the relationship between nature conservation and nature use.

The revision of the planning system did on the one hand open for a more comprehensive planning and coordination of plans between the rural and the urban zones, and for the possibility of making the planning of the rural zone more locally anchored (Primdahl and Kristensen 2007; Højgaard Jensen 2005).
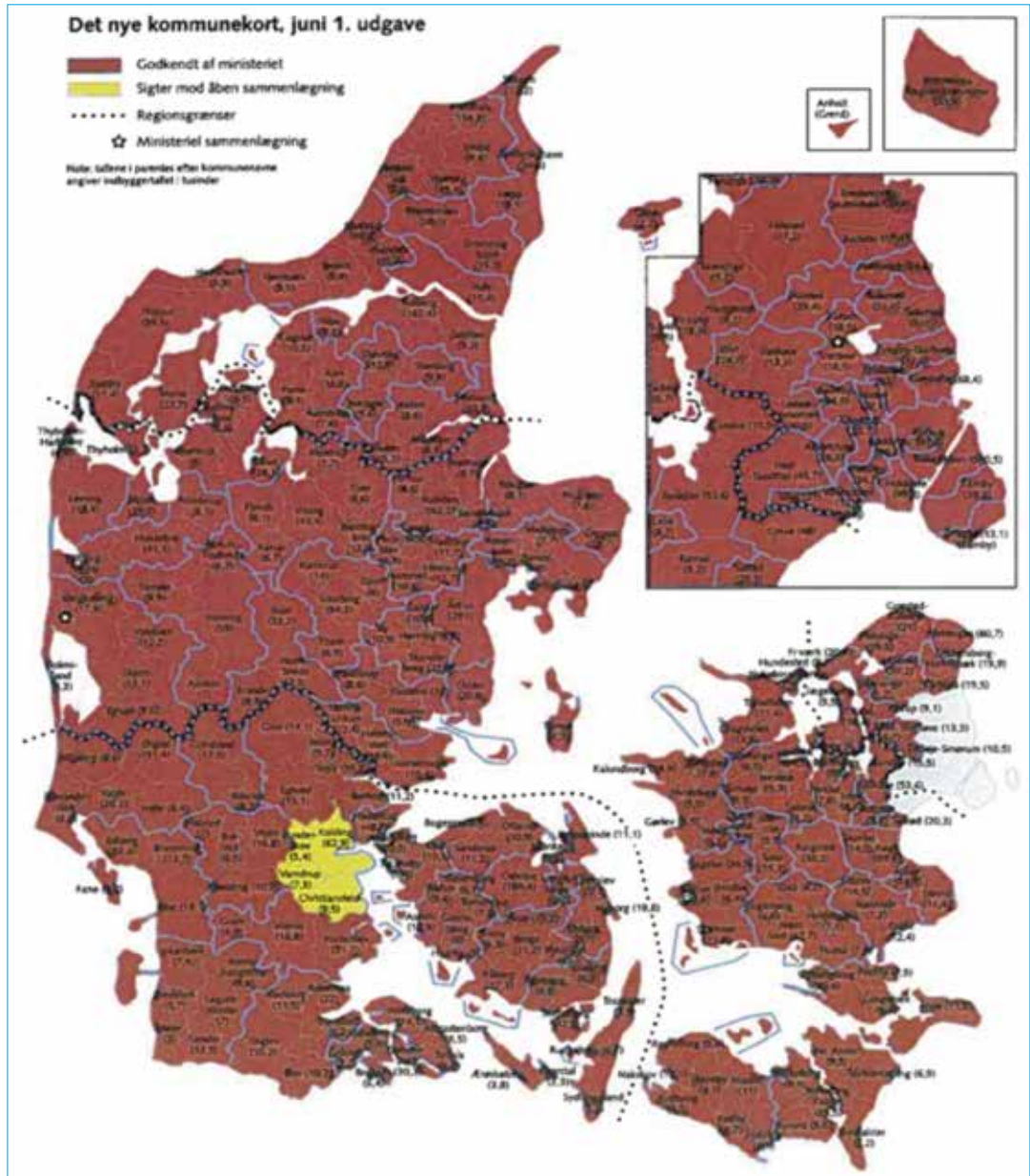

Fig. 1: Denmark/new municipalities

On the other hand is has been questioned whether things actually were functioning so badly, that such a comprehensive reform was needed?

An examination (Primdahl et al. 2003; 2006; 2006) of three medium-sized cities actual growth from 1970 to1995 showed that only very few and small high-priority natural areas in the period were designated as urban zone. Further examinations (Primdahl, Busck & Lindeman 2006) of development in eight urban areas in the capital region showed similar trends, indicating that the previous planning framework undertaken by the former counties actually worked satisfactorily, and natural areas and valuable landscapes were protected from urban growth.

On the other hand there is a risk (Primdahl & Kristensen 2007) that we in the future will see an increased parcelling in valuable natural areas and thus a weakening of nature and landscape protection, due to the fact that a single municipality will hardly considered it their job to protect values based on a broad societal perspective.

Rural landscape planning in Denmark has been characterized by sector planning based on the assumption that people and businesses situated in the rural zone were a rather homogeneous group, i.e. full time farmers. This is not the case any more.

Many former farmhouses are now owned by people who have their primary income from the non-agricultural sector, and we see an increasing degree of occupancy of rural property by urban industries. This suggests (Primdahl & Kristensen 2007), a re-definition of the concept of the rural zone, adapted to the different conditions characterizing the local areas, and that it should be possible to make binding local planning in the rural zone, regulating building development, industries, forestation etc. Currently no one has an overview on how a local area will develop as a whole; being able to use local planning in the rural zone could provide a basic overview for both users and authorities.

Climate change adaptation wasn't part of the discussion leading up to the reform. The setting up of the seven new decentralized environment centres under the Ministry of Environment, and later, a travelling Task Force with the purpose of assisting the municipalities suggests the recognition of a gap on climate adaptation in the reform.

In the following I will introduce the ideas of,

1. Organising and using climate change adaptation in categories across administrative divisions.
2. Using natural watersheds as a planning framework that support coordination between the municipalities in developing comprehensive adaptation plans and projects based on the local landscapes.

Climate change adaptation

According to UN climate panel, IPCC (2013) there is up to a 90-99% probability of greenhouse gases emitted as a by-product of human activities are causing the on-going climate changes. The climatic changes may be described as a hyperobject (Morton 2013) an entity of such vast temporal and spatial dimensions that it defeats the traditional idea about what an object is. In a Danish context, climate changes are primarily manifested in an interaction between modi-

fied wind and precipitation patterns, increasing temperature and a rising sea level (IPPC 2007; IPPC 2013; DMI 2010). The individual factors in the process often act together, why Paskal (2009) suggests that climate changes leads to *'environmental changes'*, and she illustrates this by referring to damages on buildings, roads and energy delivery systems in permafrost areas, which now no longer are permanently frozen, and thus no longer provides stable bases. This also means that a standard impact assessment methodology, Assessments of Environmental Impact (EIA) is no longer sufficient - the effects of the environmental impact on a given system now also have to be evaluated. Hence climate change processes cannot be considered and handled isolated. Climate changes impact our understandings and notions of not only climate but of nature *per se*, and of man's interaction with nature and natural phenomena, and therefor also the built environment.

Based on observations in my previous research (Majgaard Krarup 2014) five categories of protection and adaptation measurements have crystallized:

1. Protection and adaptation at building level
2. Protection and adaptation measures at urban space level
3. Protection and adaptation measures on structural and spatial urban level (urban plan level)
4. Protection and adaptation measures at landscape plan level
5. Protection and adaptation measures at administrative level (detection and monitoring systems).

Each initiative interacts and is part of a complex network of both natural and cultural processes and activities, visible and invisible conditions, and it crosses scales, and administrative divisions. The individual initiative in itself may be both functional and effective, but relating it to other initiatives across scales and domains qualifies each initiative. This presupposes,

• Understandings of the problem across fields of knowledge, scales and interests, and economic and administrative boundaries

• The development of adequate tools for example analysis methods for identifying relationships, impacts and interactions between natural (climatic, geological), and cultural (economic, social) and spatial phenomena.

In the rural zone in Denmark we see urbanization and a development of alternative industrial areas – a stealth development out of reach of the current planning system and tools.

This brings into mind Henri Lefebvre's (1970/2002) hypothesis of society being a completely urbanized one. The term 'urban society' refers, *'(…) to the society that results from industrialisation, which is a process of domination that absorbs agricultural production'*.

Applied to the discussion on climate change adaptation and the planning system, this suggests that both the rural and the urban zones and the inhabitants and the productions conditions within these, are subject to urbanization and to the impacts of climate change – and both these are global phenomena. This could be interpret as an argument for merging zoning categories into one, subject to one set of rules and one type of planning, but it could also be interpret as an argument for maintaining and developing the zoning system, and strengthening and adjusting the planning tools. My suggestion is to maintain and develop the zoning system, and to strengthen and adjust the planning tools by applying the categories of climate changes adaptation measures listed above to the exiting tools. By combining the different categories according to local circumstances the categories may be

functional across zoning in developing adequate climate adaptation strategies and projects, and in distributing tasks and responsibilities between planning bodies.It would further align requirements across administrative divisions, which will make it easier to coordinate.

Watersheds

Peter Bredsdorff published in 1973 a report on orohydrological maps and urban planning; an orohydrological map shows heights in the terrain and coastlines, streams, lakes, wet areas and rivers, and sometimes also the watersheds. (Fig. 2)
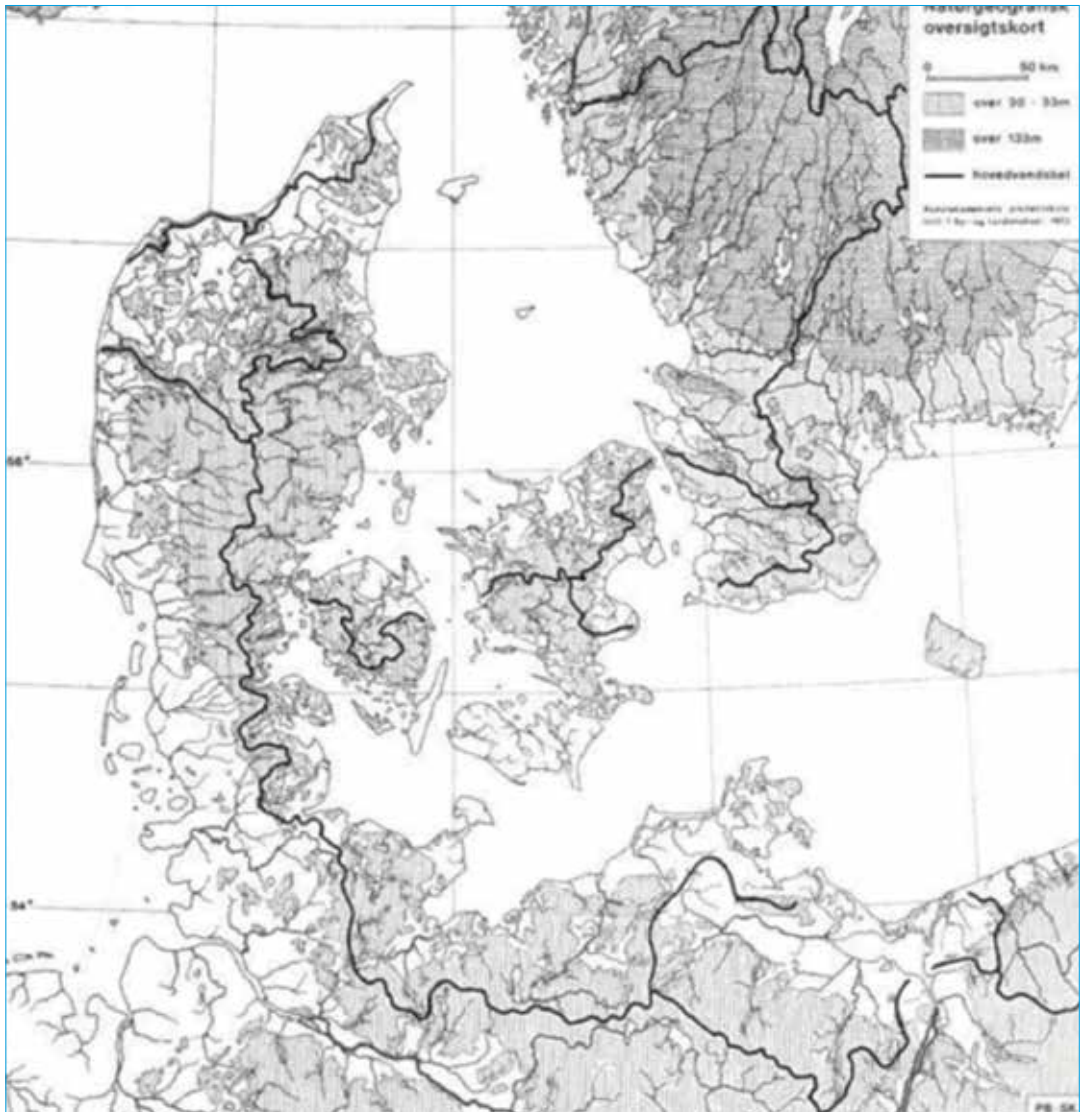
Fig. 2: Denmark/Watersheds. Map by Peter Bredsdorff

Bredsdorff's theory, *The Dry Feet Theory*, focused on how man in historic times used his ability to read and understand the natural landscape, its features, and to settle, cultivate and transport himself accordingly. He thus followed a line of planning thinking emphasizing the interdependencies between settlements and cities and the natural landscape.

Too this line of thinking also belongs Patrick Geddes, *Cities in Evolution* (1915), in which, Geddes looked at the city through an organic (ecological) lens, suggesting that planning should take it's point of departure in the landscape and the local natural conditions.

Similarly Marcel Smets (2002/08) has worked with different design approaches, where, *'(the Casco) is based on local geological and hydrological conditions.. (…) the form and the character of the landscape determine the program'*.

In light of the climatic change processes it seems rather interesting and relevant to discuss whether such a '*back to nature*' might hold a potential in qualifying planning and adaptation strategies and projects. Similar thoughts on urban ecology are developed by Susannah Hagan (2015) and Mohsen Mostafavi (2010, 2012).

One option could be using watersheds as frameworks for defining water regions.

Watersheds, or water divides, are the lines that separate neighboring drainage basins, constituting natural entities in the landscape and often the natural watersheds will still, despite barriers created by infrastructure, buildings, settlements etc., still be the guiding principles for water flows. The main watersheds in Denmark (fig. XX) constitute five to seven natural water entities or regions: three in Jutland, one on Fyn, one-two on Sjælland, and one on Bornholm. (Fig. 3) I suggest exploring whether watershed could function as frameworks for defining climate adaptation regions. By doing so meaningful entities for planning climate change adaptation and coordination between the municipalities and the state within the watershed region could be established. The challenges in climate adaptation within each watershed region would thus be part of one natural water system and hence be easier to coordinate, and perhaps therefor also promote similar and simple solutions, which might even prove more economical. Another advantage hereof would be a more sustainable and locally defined and related planning.

In conclusion:

One the one hand, this paper suggests and discusses lager flexibility in the planning system by,

1. Developing different sub-categories of zoning within the three existing zones, more specific by expanding the definition of the rural zone by formulating local anchored sub-zones for example around the major cities.

This flexibility should be followed by,

2. Introducing a new planning document type in the rural zone, namely the binding local plan, which could provide a current missing overview of the development and plans for local rural areas.

On the other hand, more homogeneity in the planning thinking and tools is also suggested and discussed. An increased homogeneity is suggested established by,
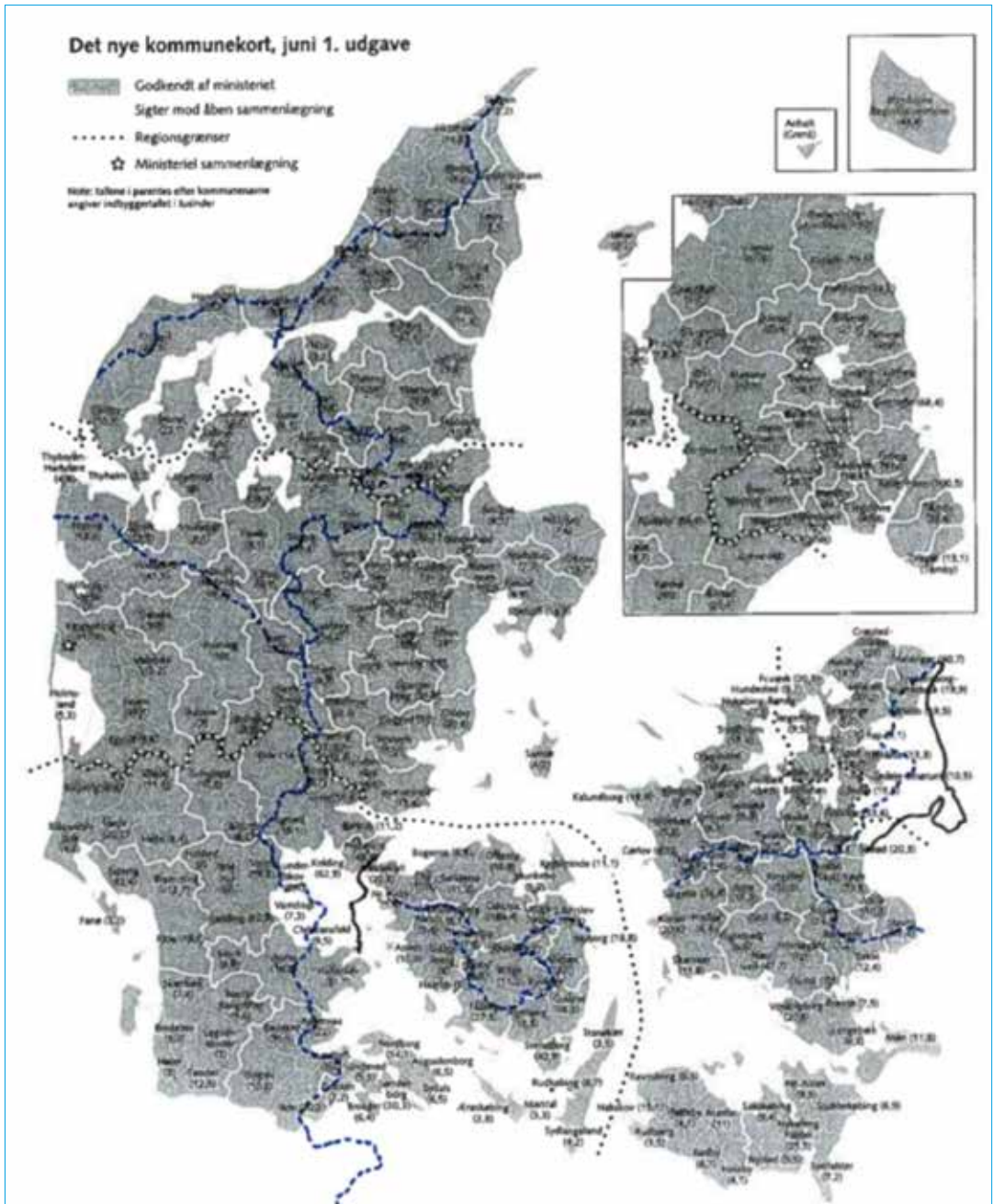
Fig. 3: Denmark/new municipalities + watersheds (by Peter Bredsdorff)

1. Introducing the use of categories of climate change adaptation measurements across administrative and legislative divisions.
2. Introducing natural watersheds as frameworks for climate adaptation regions.

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Alternative Sustainable Green Infrastructure Planning: Re-organizing Urban Waterfront Resilient Mediterranean Landscapes Via an Innovative 'Greenways - Green Walls - Green Roofs' Integrated System. The Case of Igoumenitsa, Greece

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🔖 ABSTRACT

The paper presents a new innovative, alternative, and sustainable green infrastructure model of landscape urbanism development by synergistically combining greenways, vertical green walls and green roofs as an extremely dynamic, integrated and comprehensive green infrastructure planning tool along city waterfronts and riparian corridors, thus fortifying and forging urban resilient fabric contexts. Greenways are corridors of protected open space managed for conservation and/or recreation. They link urban open areas, parks, cultural and historic sites among many. Greenways not only protect environmentally sensitive lands and wildlife, but also provide people with access to outdoor recreation and enjoyment close to home typically found in an urban environment. What sets the greenways concept apart from other initiatives is its emphasis on connections. Connectivity is a critical landscape characteristic important to the health, well-being, and aesthetic values of urban human communities and equally vital to the maintenance of functional native ecosystems. Green or living walls are self sufficient vertical gardens attached to the exterior or interior of a building. They offer improved aesthetics, air quality, building shell protection, energy savings, acoustics, property values, health and wellness, and sustainability. Green Roofs absorb rainwater, provide insulation, create habitat for wildlife, increase benevolence and decrease stress of people around the roof by providing a more aesthetically pleasing urban landscape, help lower urban air temperatures and mitigate the heat island effect, hence promoting healthy and resilient people within urban settings. A 'greenway - green wall - green roof' system, profoundly offering improved connectivity, ecological efficiency, and social cohesion, can provide the alternative basis for an integrated system of urban green resilient spaces. The city of Igoumenitsa, Greece has been selected as the catalyst and case study in order to evaluate the ability and examine the validity of this ambitious urban planning effort of linking the city's waterfront with the perpendicularly layered riparian corridors and other urban open spaces. This new comprehensive urban green open spaces management via the creation of a dynamic 'greenway - green wall - green roof' integrated system exposes as many of the local and regional physical, ecological, historical, cultural, social, aesthetic and economic resources, hence offering upgraded resilient civic life quality.

Introduction: Urban Heat Island Effect and other Urban Climate related Issues

In today's world, urban and suburban areas comprise over 80% of the global population. As urban centers are developed, areas that were once green are built upon and paved over, creating 'heat islands' (also known as 'reverse oases'), reporting air and surface temperatures hotter than in their rural surroundings. Heat islands are urban areas with the least vegetation, great-

est development and tend to become more intense as cities grow larger. Watertight buildings and pavements form canyons that cannot dissipate heat by evaporation, tend to trap reflected heat, delaying the transfer of heat from surfaces to the air. Heat islands contribute to human discomfort, health problems, higher energy bills, and increased pollution (even particles in the air absorb and emit heat to a city's surfaces). Urban heat generation is produced from heating, cooling, transportation, industrial and other human-related activities and land uses.

The following couplings prove the problematic relationship between the leading urban characteristics and the main causes of heat island formation responsible for the negative effect on the energy balance of the Earth's surface:

a) lack of vegetation and widespread use of impermeable surfaces reduce evaporation, b) increased thermal diffusivity increase heat storage, c) low solar reflectance of urban materials, urban geometries that trap heat and increased levels of air pollution increase net radiation, d) urban geometries that slow wind speeds reduce convection, e) increased energy use increases anthropogenic heat (Gartland 2008).

Increased heat absorption, decreased water absorption, and reduced air flow resulting in increased temperatures, water runoff, and air pollution have contributed to and are magnified by climate change, so steps need to be taken to both mitigate those factors that lead to climate change, and adapt our cities to better handle the effects of climate change (http://www.greenspacehealth.com/tag/biowalls).

Landscape Urbanism views the city as a landscape which is the result of mainly natural and built interactive processes. Urban waterfront cities in the Mediterranean context require a challenging tackle approach in order to be coined, act, and function as 'sustainable' and 'resilient' landscapes within the Landscape Urbanism concept.

Green Infrastructure: A planning tool promoting Urban Heat Island (UHI) effect mitigation

Green Infrastructure

Urban heat island effects occur because built environments do not take in solar energy like natural ecosystems, they reflect most energy away from the earth raising the temperature of the urban area. The proportion of incident sunlight reflected by the Earth's surface is known as the albedo. Trees which form the backbone of greenways, through photosynthesis, take in the sun's energy maintaining a balance in heating and cooling of the urban environment and plant evapotranspiration reduces heat by dissipating it to the environment. The idea that nature is also infrastructure isn't new, but it's lately more widely understood to be true. Nature can be harnessed to provide critical services for communities, protecting them against flooding or excessive heat, or helping to improve air and water quality, which underpin human and environmental health. When nature is harnessed by people and used as an infrastructural system it's termed "green infrastructure." Green infrastructure occurs at all scales and is much larger in scope. Green infrastructure (closely associated with green stormwater management

systems, which are smart and cost-effective) can be a centerpiece of smart regional and even metropolitan planning. As a result ensuring communities have a livable environment, with clean air and water, for generations to come. Green infrastructure is designed to address the needs of wildlife (increasingly threatened by climate change), providing systems of corridors or greenways to enable movement through human settlements. Those corridors are often harmonious places that people want to live nearby. Green infrastructure is also park systems and urban forests: trees are a critical piece in green infrastructural systems and shouldn't be discounted in favor of other technologies. At the site-scale, smart communities are using green infrastructure for transportation systems (green streets), and green roofs, bringing the benefits of nature to the built environment. Green infrastructure systems are shown to be more cost-effective than outmoded grey infrastructure models, and provide far more benefits for both people and the environment. Nature can be largely incorporated to provide many benefits at once (http://www.asla.org/greeninfrastructure.aspx).

Urban green spaces

A multi-faceted approach is necessary to address the aforementioned threats to the urban environment, of which green spaces offer an important approach. Urban green spaces can come in many shapes and sizes including parks, gardens, greenways, tree-lined streets, forested areas, rooftop gardens, and green walls also known as biowalls. Each of these independently, and within a larger network of green spaces, can play an important role in making cities more beautiful, safer and healthier quality places to live and work.
Green spaces can impact temperatures, water and air pollution in urban environments, and in turn potentially improve human health. On average, temperatures in urban areas are up to 5°C higher than surrounding areas exposing an even greater differential at night as cities retain heat. In the summer months increased temperatures result in increased greenhouse gas emissions due to increased energy demands of cooling systems, as well as atmospheric conditions favoring ozone-producing reactions. As the frequency, intensity and duration of heat waves increases with climate change, there is a growing need to control temperatures in urban environments to protect human health and control air pollution (http://www.greenspacehealth.com/tag/biowalls).
Green spaces offer a partial solution primarily through the planting of trees, rooftop gardens, and biowalls as vegetation decreases temperatures through evapotranspiration, which lowers temperatures by using heat from the air to evaporate water. Planted roofs and walls provide more reflective surfaces, thereby reducing heat retention as compared to more traditional, darker roofing materials. Rooftop gardens and biowalls have the added advantage of decreasing cooling demands of the building, resulting in decreased fossil fuel use and increased longevity of the roof, and in turn, cost savings for the building.
When temperatures are elevated, vulnerable populations are susceptible to heat exhaustion, cardiac stress, breathing difficulties and even heat-related death. Prolonged exposure to heat increases the body temperature putting individuals at increased risk for heat exhaustion, stroke, heart attacks, and death. Increased air temperatures result in increased air pollution, increasing

the risk for asthma and other respiratory difficulties. In combination with other strategies, green spaces can decrease air temperatures and minimize adverse health effects, saving lives and making our cities more beautiful places to live and work (http://www.greenspacehealth.com/tag/biowalls).

Greenways

Studies show that the majority of journeys in cities scarcely exceed five kilometers and the bicycle is recommended as the means of transport best adapted to urban environments. Greenways in urban areas are ideal mitigators of the urban heat island effects. The establishment of ecological networks in Europe and greenways in America (Ahern &Fabos 1995) has required some of the most advanced applications of the principles of landscape ecology to land use planning. Over the past two decades developments in this emerging field have arised combining the theoretical concepts of landscape ecology with the actual practice of landscape planning and management (Jongman & Pungetti 1999). Greenways are an innovative and effective land use tool available for non-motorised soft and slow traffic. The unique and quite innovative feature of greenways is that they are linear spaces, not just blocks of land set aside as landscaped parks or 'green' pedestrian friendly urban streets. Their linear design is measured in terms of connectivity as well as in the size of their space. Connectivity is pivotal in their function as greenways are primary transport corridors. "Greenways are networks of land containing linear elements that are planned, designed and managed for multiple purposes including ecological, recreational, cultural aesthetic or other purposes compatible with the concept of sustainable land use". Greenways as a planning strategy are one part of a complex interconnected set of solutions to move towards ecologicaly sustainable urban development (Ahern 1995).
According to the European Greenways Association, greenways: a) improve communications and non-motorised itineraries for pedestrians, cyclists, equestrians and mobility impaired people, b) promote healthier and more balanced ways of life and transport reducing the congestion and the pollution of cities, c) promote rural development, active tourism and local employment, and d) encourage a more human and closer relationship among citizens, e) heighten sensitivity towards the natural environment, f) promote additional greenway and parkland development, g) protect open space and promote livability within urban areas, h) separate and buffer incompatible adjacent land uses, i) promote economically efficient and productive land uses of lands marginal for development, j) provide opportunities for recreation, exercise and alternative transportation, k) raise property values, increasing the city's tax base (EGWA, 1998).

Green Roofs & Green / Bio Walls (Vertical Gardens)

At the larger scale, landscape architects analyze the context and connectivity of green roofs within the urban landscape, seeing them as opportunities to create networks for wildlife habitat and stormwater management. Landscape architects also play a primary role in the details of green roof design, from selecting the plants to specifying the growth media and structural elements. Landscape architects also take advantage of the psychological benefits of providing

more access to green vegetation and outdoor social spaces. From small urban row homes to apartment and office buildings and large institutions such as schools and government buildings, landscape architects intertwine the many social, educational, economic, and ecological benefits of green roofs (http://www.asla.org/ContentDetail.aspx?id=43536).

Traditional roofs experience extreme flux of surface temperature over a 24 hour period & fuel the urban heat island effect. Living roofs help to mitigate urban heat islands by regulating the surface temperature through absorption of sunlight. Reduction of temperature extremes also reduces the stresses on the waterproofing layer and extends their lifespan (http://www.sky-garden.co.uk/green-roofs/benefits.php). The beneficial effects of green roofs can be reaped not only when applied to buildings but to transportation systems as well, including bus stops and busses (http://popupcity.net/bus-top-gardening).

Igoumenitsa: The argument catalyst

A field study of an Adriatic city on resilient waterfront urban landscapes within the Mediterranean climatic zone framework

The city of Igoumenitsa, Greece has been selected as the catalyst and case study in order to evaluate the ability and examine the validity of this ambitious urban planning effort of mitigating the Heat Island Effect and of linking the city's waterfront with the perpendicularly layered and planted riparian corridors and other urban open spaces via greenways. (Fig1, 2, 3)

The new proposed greenways system, as competent as it proved itself around its surroundings, it could further multiply its efficiency in a city scale if it could only be viewed beyond
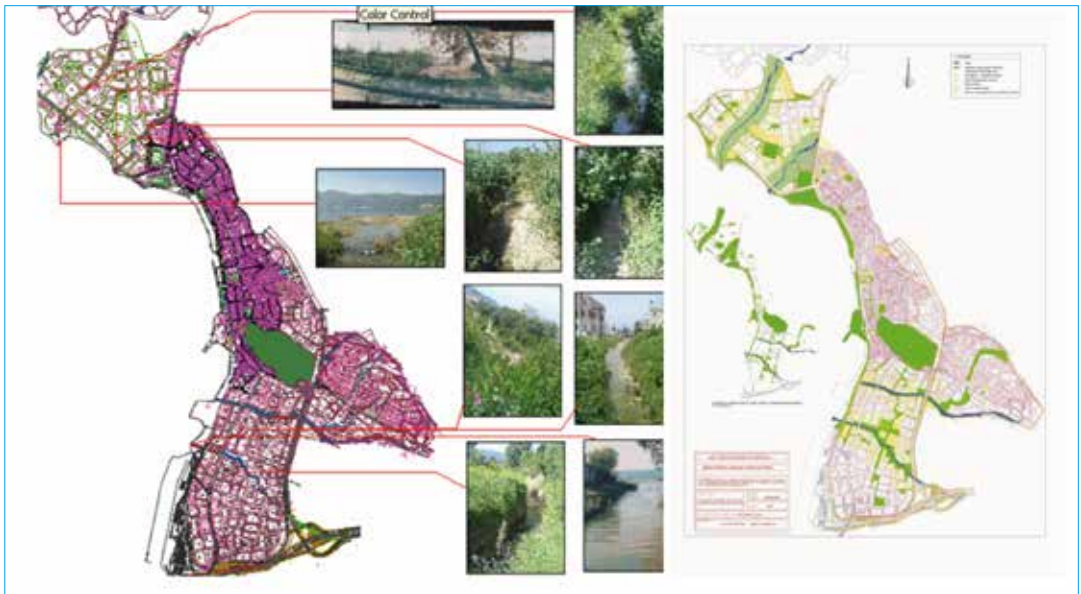

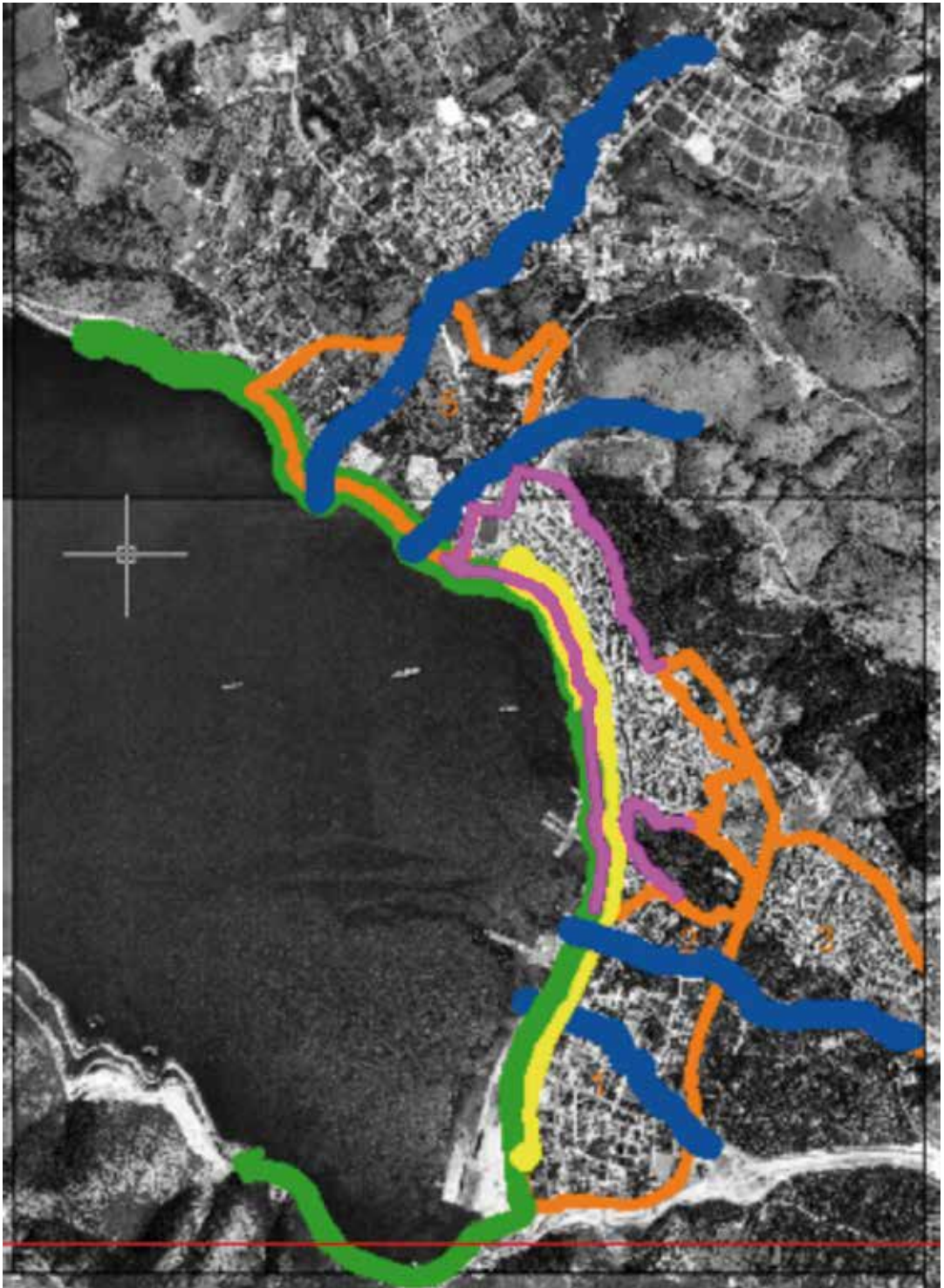Figg. 1, 2: Igoumenitsa city plans with main riparian coridors

Fig. 3: Proposed comprehensive green infrastructure system (greenways, green walls, green roofs)

a green space connector and as a means to have an effect over the entire urban fabric. By joining forces with other green infrastructure mechanisms such as the green walls and green roofs, and covering the entire city limits and beyond with a continuous plant canopy, this new comprehensive urban green infrastructure and open spaces management system can: a) promote clean air, temperature, humidity, wind, shades (cool spots) and flood (stormwater management, water collection, run-off, catchments, and riparian vegetation) controls and b) expose as many of the local and regional physical, ecological, historical, cultural, social, aesthetic and economic resources the city of Igoumenitsa has to offer, hence offering upgraded resilient civic life quality.

In supporting the European Landscape Convention (ELC): A Comprehensive Heat Island Mitigation Plan for Urban Communities or a fresh Vision Plan for Global Action?

A Heat Island mitigation Plan for urban communities is only the tip of the iceberg. One must comprehend and always be aware of the true magnitude and depth of where modern City Life and Planning have set sail and is headed today.
Truth said that Constantinos Doxiades' prophesy of World Ecumenopolis in 1975 (Doxiadis 2006) has already-too soon materialized to a great extent today, and a full scale socioeconomic and physical infrastructure growth trend is converting Earth's surface into a Global Megacity at an unprecedented rate. (Fig. 4)
The time has come not simply to rethink but to reverse the old nature/city dichotomy into a fruitful argument or even abandon it altogether in favor of new insight and enlightenment.
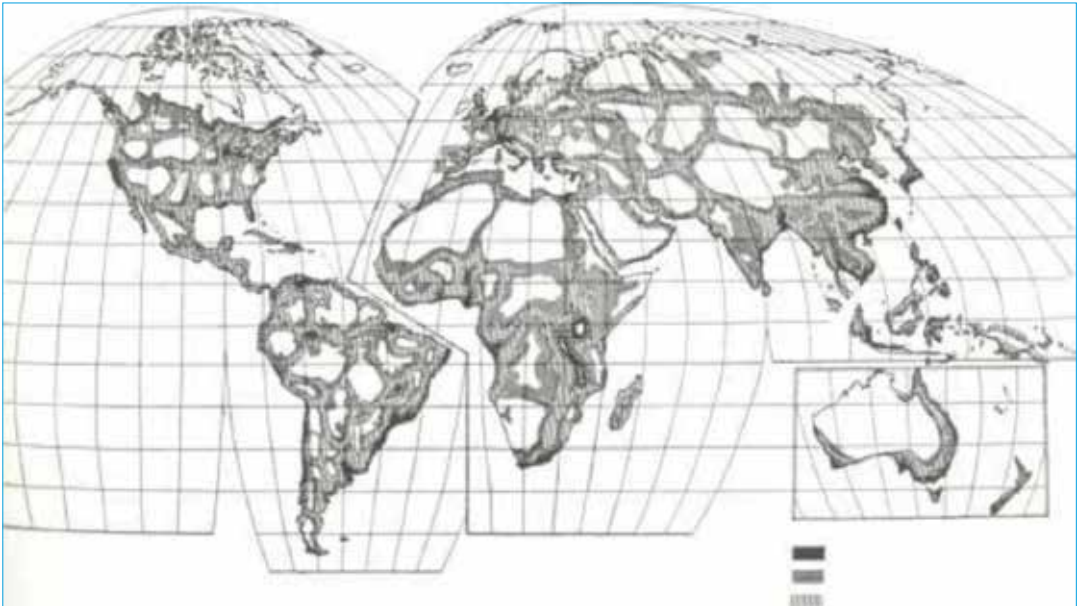

Fig. 4: Constantinos Doxiades' World Ecumenopolis Plan

Global Megacity is just around the bend and only a matter of a few generations down the road to come to a full fruition (or halt?). The road has been paved in the past few decades by Landscape Urbanism theories for a new and innovative approach in order to deal with a comprehensive worldview of city planning that is beyond merely nature- friendly or nature-oriented. We must not only allow but wholeheartedly welcome ecological processes to once again offer refuge to the cities we have erected in order for them to be transformed to viable, sustainable, and resilient urban landscapes.

In closing, the paper outgrows its scope by proposing An Urban Green Canopy Shield, or A Green Canopy Shield over the City that has taken already bold and courageous steps. Urban greenways and green streets could elevate with green biowalls and building facades, and 'climb' atop planted green building roofs, covering and 'canopying' the city, comprehensively combined as one great green infrastructure device that can encompass the urban fabric and convert/integrate cities (and ultimately the MegaCity) into The New Natural Realm Continuum.

Up to date, the benefits of such a Vision and Action Plan have been supported and proofed by relevant theories and implemented case studies in only limited scales as well as scarce and fragmented geographies. One questions: has the time come to upgrade our globe with An Urban Green Canopy Shield that covers all cities transforming them into A Global Urban Green Canopy Shield? Could this be The New Global Natural Continuum worth adopting by City Planning and Landscape Urbanism? If the answer to this question is yes then new policies must be explored, formulated, implemented and exploited for maximum planning outcomes.

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Issues, Resources and Strategies. The Landscape of the Central Bari Area

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✔ KEYWORDS: Central Bari area, landscape plan, water spaces, brownfields, urban planning

🕭 ABSTRACT:

Among the long sequence of the Adriatic cities, the metropolitan area of Bari is certainly custodian of some specificities – but only partially different from the others. Being the largest and the most southern on the coastal line, in fact, it summarizes all the problematic nature of Adriatic cities: infrastructural crushing, coastal artificialization, vulnerability in case of natural disasters, loss of its historical links with the backland, abandonment of the soils inside and around the urban borders. These issues are distinctive features of this area as of many others, but they appear here emphasized due to the city's metropolitan dimension. A dimension, by the way, that was never managed as a whole, and therefore representing the result of disordered and overlapping policies and transformations which only recently have begun to compose a consistent framework. This contribution aims at analyzing the environmental, landscape and settlement specificities of this metropolitan area, which now constitute at the same time its criticalities and a possible instrument of regeneration: the water system, which invisibly shaped the territory; random dynamics of the settlements, as well as the size and potential of the wrecks they produced: demise, abandonment.

These are the three elements which will be discussed, aiming at assessing each one's size and challenges, the state of the art of innovative researches, in order to finally understand to what extent current policies (concerning the urban area, urban planning and the rural territory) are aware of the centrality of these themes. These reflections are placed today in a new scenario – the one of the recent Piano Paesaggistico, the first in Italy applying the European Landscape Convention and the Code of Cultural Heritage and Landscape. A plan with an entirely new concept, projected into the social construction of the landscape and characterized by a series of widespread and innovative projects.

Combining dynamically the challenges of the metropolitan area of Bari with this planning, and especially with the attempt to build new landscapes and new "identity landscape" represents today a challenge and an unknown territory.

Bari area, the center of the metropolitan area

The institutional events of the last decade have led to identify – and now to formalize – the large extension of the metropolitan area of Bari, which includes the 41 municipalities of the former Province of Bari. This is a very broad and diverse territory, which has at its core the geographical environment that will be analyzed now: the basin of Bari in its most urbanized dimension, next to its administrative center and, therefore, where the environmental, landscape and settlement-related issues show with greater intensity, deserving for this reason a closer look. This look, even if focused on the city of Bari, is still able to describe its surroundings in several ways.

Among the long sequence of the Adriatic cities, the metropolitan area of Bari is certainly custodian of some specificities – but only partially different from the others. Being the largest and the most southern on the coastal line, in fact, it summarizes all the problematic nature of Adriatic cities: infrastructural crushing, coastal artificialization, vulnerability in case of natural disasters, loss of its historical links with the backland, abandonment of the soils within and around the urban borders. These issues are distinctive features of this area as of many others, but they appear here emphasized due to the city's metropolitan dimension. A dimension, by the way, that was never managed as a whole, representing for this reason the result of disordered and overlapping policies and transformations which only recently (and only regarding certain aspects) have begun to compose a consistent framework.

The conurbation of Bari has now dimensions and dynamics concerning the exploitation of the territory going well beyond its administrative borders. It is a highly urbanized area, resulting from the juxtaposition of local urban policies to the infrastructural ones, which during the decades of its growth resulted in the construction of its major urban facilities, production poles and infrastructural systems.

The planning of the administrative center, dating back to the 70s, still offers huge residual potentialities (estimated around 15 million cubic meters). On the other hand, urban policies promoted by other centers contributed to establish the former's settlement dynamics, pouring into the market a wide offer of building soils competing with the expensive real estate market of the provincial capital. Today, after the decline of the real estate market, the settlement system is characterized by the juxtaposition of a range of urban patterns with their own form (historic centers, planned communities, large infrastructures), or lacking any structure or definite function (nebulae, rubble, sprawl, abandoned central and peripheral areas, derelict lands) – exactly how they have been described by the main theme of this conference.

In the central Bari area (a 22,402 hectares surface that includes the city of Bari, the adjacent urban centers and all the landlocked rural territory, where the greatest concentration of settlements dynamics and human fluxes is found, but also a great landscape and environmental junction), the urban area represents the 39.5%, the natural zones the 6.5% of its territory, the agricultural the 54%.

Since the latter still represents a perceptible presence, dominant in large districts or insinuated into urbanized areas, resistant but not resilient and therefore fragile, there are two aspects worth noting, since they represent some of its current issues and, at the same time, a possible instrument for a potential regeneration. The first is its environmental features, and particularly its water system, which invisibly shaped the territory; the second is the random dynamics of the settlements, as well as the size and potential of the wrecks they produced: demise, abandonment, terrain vague.(Fig. 1)

Water spaces as an invisible resource

Considering that Puglia is not excluded from the desertification process that involves all the southern regions, the area of Bari is characterized by an almost complete absence of a surface
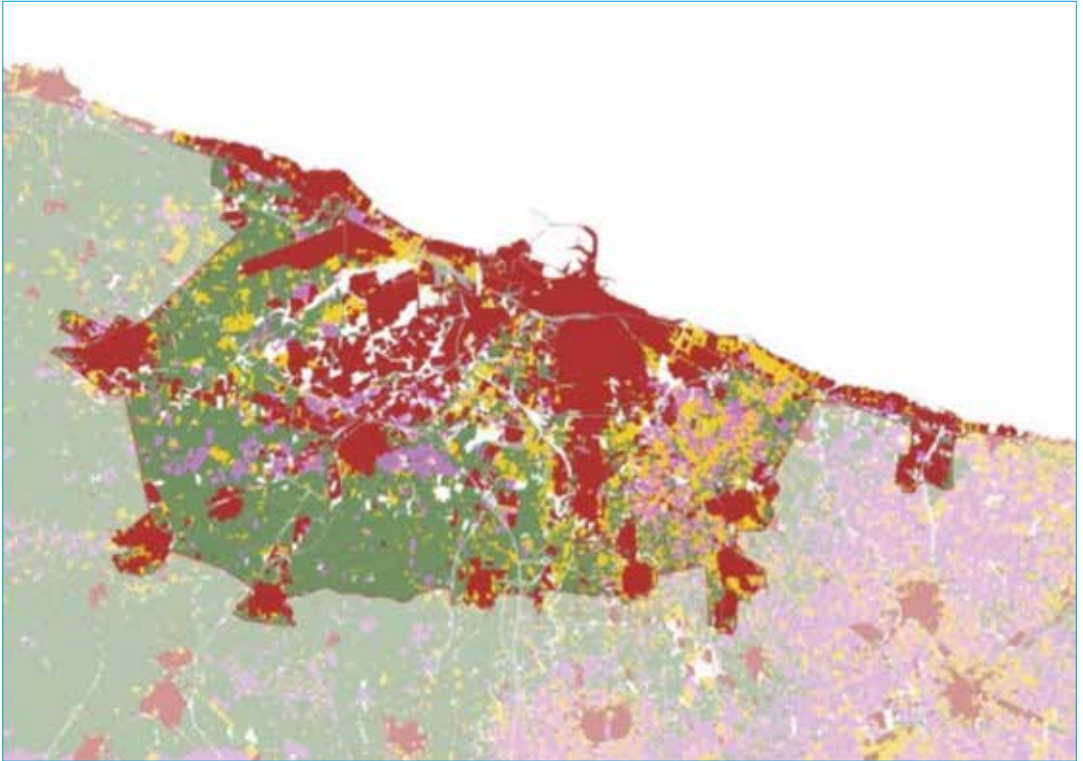
Fig. 1: Bari area, the center of the metropolitan area

hydrographic network mainly due to the karstic nature of its soil, which quickly absorbs rainwater preventing the surface runoff. The "lame", erosive cracks caused by the karstic activities, are dry for most part of the year but still periodically perform their function of rainwater receptors. In many of these "lame" located in the area of Bari converge, due to their slopes and geomorphologic trends (in this area, the "lame" occupy 1,900 hectares, approximately the 8.5% of the territory); the current conditions obstruct their hydraulic function due to the presence of buildings, fillings, improper uses. The poverty of the surface water system is associated with the limited amount of the natural spaces.

Climate changes, with its exasperation of the weather events, overlap the geography of the area; therefore any event that takes place upstream – on the Murgia – has downstream effects, and any improper use on the coastal strip pushes its effects more and more in depth in the backcountry, as for example in the case of the salinization of groundwater and soils caused by the uncontrolled captures – a widespread phenomenon in the whole region due to its shape, which has a large land/sea contact surface (over 700 km). If the entire coastal area is fragile and under stress, the one of Bari, because of its artificialization, is fragile in a very peculiar way. The state of health and the scarcity of water resources requires as necessary – as well as prescribed by law – the reuse of water. This reuse was never made, despite the fact that during the 80s the Regional Administration invested substantial resources for the construction of

refining plants, which were never put into operation. Particularly significant is the case of the plant linked to the purification system of East Bari, built with CasMez funds, with a network of rural aqueduct for 1,800 hectares and now obsolete. (Fig. 2)
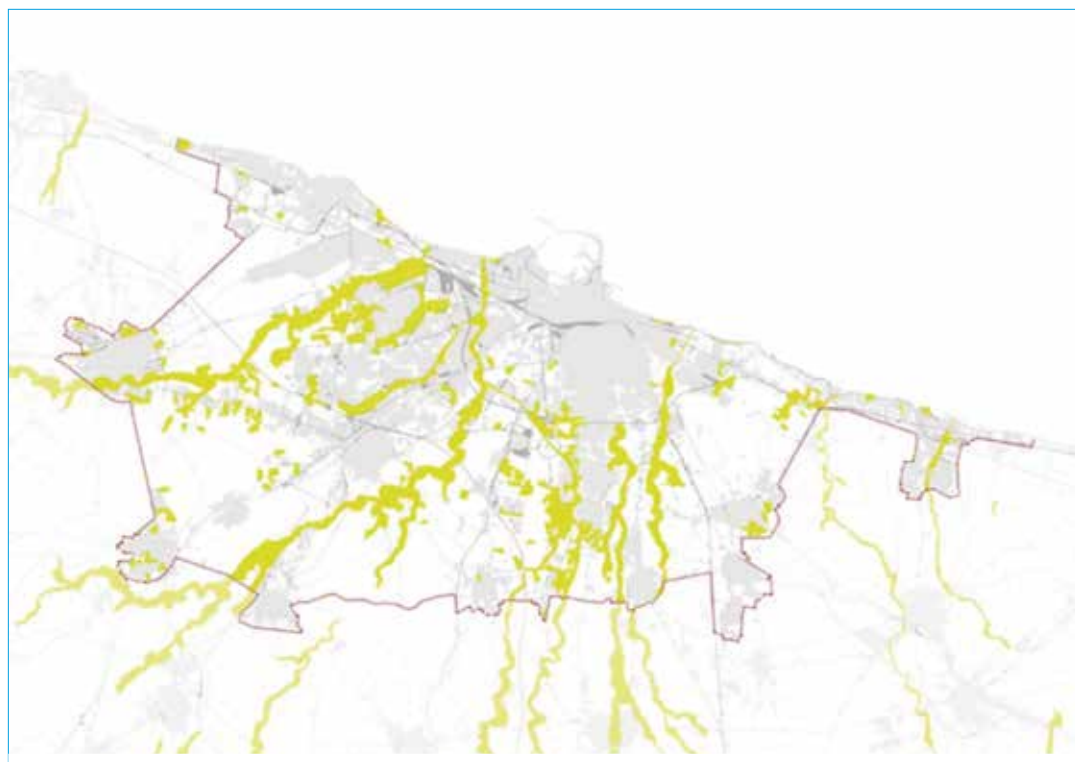

Fig. 2: Water spaces as an invisible resource

Settlements and abandonment

In a recent study conducted for the WWF Italy we mapped and classified within the central area of Bari all the abandoned or anthropized spaces that were never used. Brownfields represent 8.5% of the urban areas, of which just under 2/3 is represented by production areas, and the remaining by former (or about to be abandoned) military zones, abandoned public property, infrastructural wrecks and historical sites. In the same area, as many as 13% of the non-urbanized areas are actually now anthropized but not used: residual areas or awaiting to be processed, unrealized standards, buffer areas and landlocked spaces.

In the analyzed territory, 11% of the soil belongs to the universe of decommissioning and abandonment, for a total of 2,500 hectares. Being the size of the problem this big, it is not a matter of single objects, but more of an actual structural layer of the territory and the city. Analyzing the phenomenon in its temporal evolution, in recent years the large-scale and chronic decommissioning (concerning large areas in which there was no intervention before the crisis) is accompanied by a "fine-grained", widespread and common decommissioning in

all types of contexts: residential, manufacturing, mixed, marginal, landlocked. This constitutes a diverse set of places and spaces, whose arrangement, size and memory have a potential that today is very little used, and often through "case by case" solutions and with too complex and expensive procedures. In particular, what seems to be completely lacking is that overall, strategic vision needed to reuse in the best way a huge heritage, potentially able to give answers to many unresolved issues of our cities: equipment, environmental equipment, social housing, etc. In this way, the opportunity to create a system able to answer on one hand the growing demand for space for services, activities, residence and, on the other hand, the needs that the decommissioned areas could satisfy. This is an unbearable detachment, especially when the will to fighting against the land consumption has been claimed. (Fig. 3)
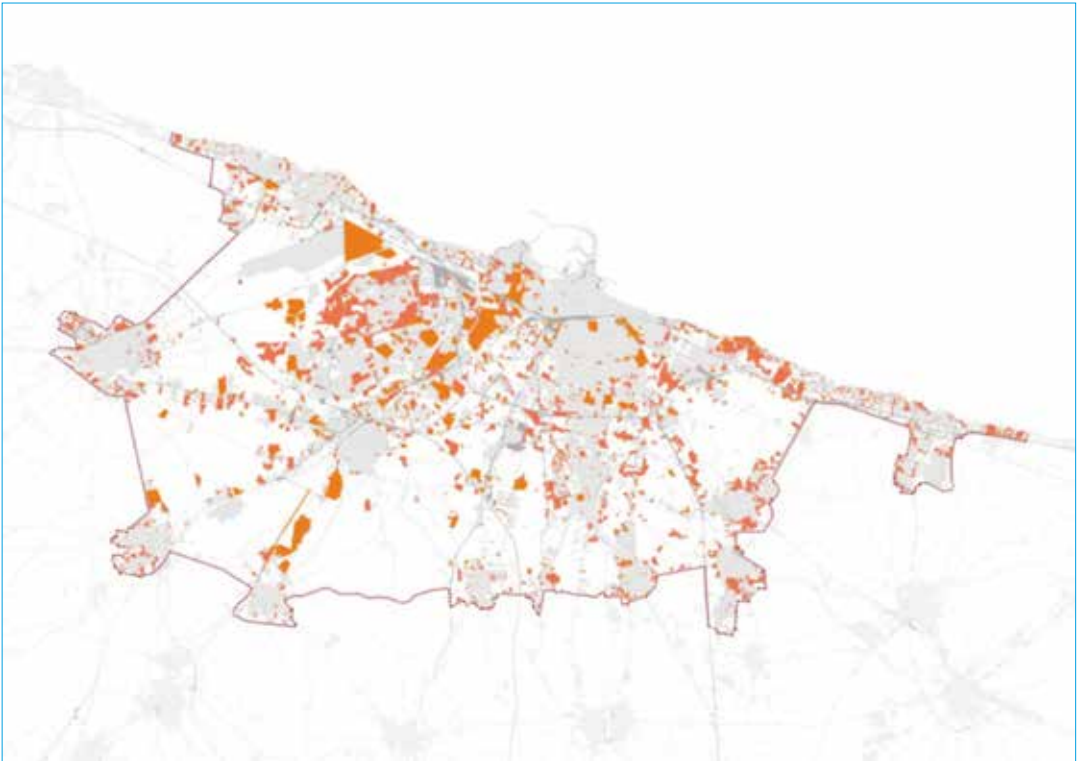

Fig. 3: Settlements and abandonment

The new landscape plan, the ongoing planning and the strategies for a resilient landscape

The thesis here proposed is that the elements described in their critical condition, for their lying and size, represent also strategic resources for the requalification of the central and metropolitan area of Bari.
For this reason, it is necessary to ask whether the current policies are appropriate for the problems discussed here. Among these policies, the most recent and innovative is the new landscape planning, being the planning of the new metropolitan city still in its embryonic stage.

The new landscape plan certainly introduces requalification strategies regarding the aimed to obtain a greater resilience.

Undoubtedly the Regional Landscape Territorial Plan (PPTR) introduces a new vision of the territory for what regards its interpretation (the Atlas), its goals (the Strategic Projects) and, finally, its method (the Guidelines and the Instruments of Governance). The provisions of the PPTR, starting from the safeguard system and following the strategic projects, provide a "work environment" supported by a vision and a set of strategies, the implementation of which is entrusted to a variety of instruments, first of all the urban and agro-environmental policies – which are, in some cases, explicitly recalled. Under this light, the PPTR invites to rethink the entire territory through a new environmental and landscape sensitivity, as well as to compose a sort of 'patchwork' of good practices.

The visions and the strategic projects of the PPTR need to combine and connect with the practices of territory planning, in a dimension that can no longer depend upon the policies of the single municipalities; on the contrary, they must start from what all these municipalities have currently in progress. Among these new approaches, the Preliminary Planning Document (DPP) for the new General Urban Plan (currently being developed) adopts a new strategy for the building of a new ecological network founded on the environmental and landscape requalification of the "lame". These are also considered as an instrument of morphological reconfiguration for the city and its territory, trying to use these signs (in addition to their role of nature carriers and instrument to allow the territory's proper hydraulic functioning) also as spatial coordinates – in other word, as real morphological matrices – shaped around the city itself. Doing so, the usual logic (dating back to the 19th century) of a rational expansion which advancing in the territory cancels its signs can be finally reverted.

This process, however, starts from particularly difficult conditions: the traditional indicators of Territorial Biopotentials and the Compactness Index are, respectively, 1.11 mcal/m^2/year and 0.19 mq/ml.

However, making the deep sign of the territory visible again in order to configure and connect the fragments of a city is, today, a difficult operation, whose outcome is far from obvious – and this for at least two reasons. First of all, because these signs are now fragments themselves, and their total reconfiguration is impossible; therefore, their ecological and landscape per-formances need to be reinvented from scratch. The open, landlocked spaces, even if they are wrecks of continuous environmental systems, must today be rethought; a simple return to the past is not enough, being necessary to reinterpret the connection with the broader context – creating, this way, new places.

Moreover, these goals inevitably intertwine with the management of urban provisions: in the case of Bari, the enforcement of these provisions would result in a further lowering to 0,90 of the territorial biopotential; on the other hand increasing it, for instance, to 1,5 mcal/m^2/year (that is, the average-class value) would led to a planning scenario which would force not only to dismiss all the plan's provisions still to be enforced, but also to reconvert to green zones the areas currently hosting industries and infrastructures, for a total of almost 2,000 acres. This is an unlikely scenario that the DPP itself labeled as non-reachable directly; for

this reason, the project of the ecological network was based on a set of specific actions of denaturalization, requalification and transformation aimed at working in accordance with the current territorial biopotential.

Considering also that, for the shape of the soil and for the size and the multi-polarity of the settlement system, the index of compactness appears not particularly relevant, it is evident how these traditional indicators fail to deal with the problem of resilience in the heart of the metropolitan area. New indicators and realistic policies, therefore, are needed.

Work themes

The research and plans for the area clearly show the problems and difficulties in pursuing structural solutions, especially at a time in history when it seems that there are no resources for those big investments necessary to modernize the infrastructures and for the environmental remediation. In fact, the practices are oriented towards smaller, incremental, temporary greening interventions: green roofs, social gardens, reuse – usually without any broader strategy. Those are certainly signs of the birth of a new awareness on the topics covered, but it risks of being simply an epidermal and extemporaneous consciousness, reaching only non-structural, local effects.

Within this framework, we have highlighted some work themes that can help in different ways building a resilient landscape.

First of all, considering the restrictions as strengths, a policy for the management of water resources becomes fundamental, from the safety of the territory to the capillary and cautious management of the water. If the landscape is an *indicator of the state of health of an area, the quality of life of its inhabitants, the sustainability of the development*, then the protection of water and its spaces, in this context, is able to shape the city and increase its quality.

The urban greening, in its various forms already mentioned, as well as the reuse of abandoned and decommissioned spaces, should have a background strategy aimed at selecting places and proper operations, in order to maximize the benefits in terms of connectivity and both environmental and urban requalification.

For this reason, the PPTR and the DPP need today to be paired with strategies able to make them feasible: managing for an urban standpoint the implementation of the current Town General Plan's provisions, *through the adoption of proper compensation and mitigation measures of the new settlements and, where necessary, through their delocalization,* currently means that together with each environmental requalification must be produced elsewhere new impacts – both in terms of new transformations and amount of compensation. The urban planning, if lacking the complementary instruments and the connected policies (environmental, landscape, economic, fiscal), appears doomed to perpetrate unsustainable transformations in space and time, being forced measures to mitigate their effects later on.

In other words, we need a good urban planning to obtain a better landscape; to have a good urban planning, able to contribute to the quality of the city, an integrated and multidimen-

sional approach to the territorial government is needed. Therefore, it is necessary that the urban planning forms an alliance with environmental and economic policies. The former will ensure that the transformations are able to increase effectively and significantly the quality of the environment; the latter, to make these interventions feasible without necessarily be forced to resort the volumetric lever – which, presently, is the only we use.

Such strategy also implies that, in view of the overcoming of the "case by case" basis and of the definition of policies synergic with the environmental and economic ones, the planning would be built around these strategies, not considering them as desirable eventuality, but as an actual performance planning. This could be done also orienting awarding mechanisms and formulas in this direction, obviously at the expense of simpler operations with a simpler procedure, but inevitably involving the consumption of new soil. More importantly, this could be done overcoming the now inadequate local dimension, using a renewed notion of public interest, specifically related to the constitutional principles of landscape preservation and human health.

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Urban Planning and Coastal Landscape

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✔ KEYWORDS: hydro-geological risks, coastal landscape, local plan

🐾 ABSTRACT

The disastrous floods that have occurred in Europe in recent years have brought with them a rethinking of mitigation strategies for hydraulic and hydro-geological risks. The experience being carried forward in the new local plan in the City of Pineto in the territory of Città Adriatica (Italy) sees the possibility of recovering the capacity to project and govern the changes in the costal landscape through the specification of mitigation and adaptive strategies without such changes determining further loss of sense of place. In the case of Pineto, this means protecting a territory in which the evolution of agriculture, the claims of urban sprawl, and the perpetuation of sectorial risk mitigation intervention readily bring up the theme of protection from floods and overflowing of natural and artificial waterways. In this context, the new local plan develops a strategic vision and identifies operational solutions to regain rules for the organization of agricultural land and the historical landscape that once entrusted the role of "taming" nature to the construction of artificial canals, preserving houses and activities.

Climate changes that have occurred in Europe in recent years and the consequent impact on hydrogeological cycles and related phenomena have led to a general rethinking of the strategies and rules to mitigate/eliminate/prevent environmental risks and protect territories in order to protect the landscape. In Italy since 1996, more than 245 civil-protection ordinances have confronted hydrogeological risks. This clearly highlights how, beyond regulatory provisions, land conservation policies in the country have long been undervalued.

Faced with the effects of calamitous events, the need to spread a culture of territorial maintenance has taken shape. The priority is the safety of communities and the need to fight territorial speculation, which demands a national plan for river and hillside maintenance. In addition, awareness is growing that preventing damage and creating environmental resilience depend above all on urban planning, and that urban expansion should be limited since it exerts significant pressure on rural areas, thus destroying the landscape. As a consequence, there is growing awareness that land-consumption containment should be accompanied by two aspects. On the one hand, compensation policies should be activated in which those who make the land impermeable should be required either to re-establish the original state of the land before the intervention or to pay for the loss of the natural resources as well as social costs (loss of quality of life, of the landscape) and those related to health (increase in noise, dust emission, use of toxic substances, etc.). On the other hand, land consumption should be accompanied by the development of good rules to orient the transformations

rather than just imposing limits and restrictions. These changes are particularly necessary in fragile, compromised urban contexts, for example, the Adriatic coast, which has experienced excessive degradation of the landscape in a very short time. Urbanization began in 1860 with the establishment of the Adriatic railway along the coast and accelerated starting in the 1960s when large tracts of coastal urbanization along the main roads grew together, creating a single city with a linear structure that is strongly connected with the transverse inland valleys.

In this context, the School of Architecture and Design at the University of Camerino has been researching the Adriatic City for several years. Today, it acts as a scientific consultant in drafting the new GRP[1] for the City of Pineto, a town of about 14,000 in the Province of Teramo in the Abruzzi Region. This coastal city, whose origin is connected to the construction of the Adriatic railway in 1863 and the realization, starting some decades before, of numerous summer residences (villas) for rich land holders in the area, has, since the 1950s, experienced significant settlement expansion connected to population growth and the development of manufacturing and tourism. From the end of the 1800s to 1930, the territory was characterized by two aspects. First, significant agrarian reclamation activities were made to construct an artificial canal network to collect rainwater from the hill and irrigate the coastal agricultural areas. Second, the landscape was built through a system of pine groves along the sea and on the hill, from which the city takes its name, and which still today constitutes the major characteristic of the town.

After World War II, economic and social changes (population growth, settlement expansion, industrial development, etc.) triggered a process of hydrogeological instability and landscape and nature impoverishment that has become more evident over time. In particular, the increase in impermeable surfaces and the change in agricultural practices aimed at mechanized cultivation, the abandonment of maintaining the private water network (business and interbusiness) still represent factors that determine the increase in flow rates carried by the artificial canals and rivers, reducing the hydraulic security of agricultural areas and settlements. The result is a territory with a notably reduced hydraulic security in which mitigation and ecological balance are absent, especially in areas with a significant presence of production and urban settlement.

As of today, the operational solutions adopted to reduce the risks have wound up 'plastering' the territory with increasingly invasive works (dams, canals, restraint walls, gabions), which have neither impeded nor prevented risks, nor contrasted land transformations, which are essentially due to urbanization and related phenomena.

The evidence of the situation described thus far lies in disastrous floods that have only increased in recent years.

The new local plan (GRP) offers the possibility to integrate in urban/territorial planning aspects connected to managing environmental risks in matters of hydraulic and hydrogeological danger. Based on detailed studies of landslide risk for the coastal hills and the plain, the plan promotes planning visions, regulatory devices, and operational interventions, giving artificial canals (recovered and new) the fundamental role of mending the urban and peri-urban

coastal landscape and recovering the nexus between the landscape and the role of humans in structural transformations induced on the territory.

This specific content is included in the "Preliminary Planning Document" (DPP), which represents the strategic phase of the process to construct the new plan, which is subject to a participation phase with citizens and stakeholders. This document mainly interprets the distinctive aspects of the territory and identifies the main problems related to the landscape and environment.

The methodological path established in the DPP is characterized by several basic steps:

-   creation of a knowledge framework;
-   interpretation of the knowledge framework;
-   identification of problems and important issues related to the landscape, the environment, and mobility;
-   creation of the idea of the city and development of a model for the local plan that objectives, actions, and interventions can be based on;
-   development of the structural and strategic content of the "preliminary scheme" and specification of the "strategic projects";
-   identification of tools, rules, and guidelines to build and manage the city and the landscape;
-   inviting the local population and stakeholders to participate.

The knowledge and interpretational framework show that we are facing a coastal territory characterized by a linear, continuous settlement that develops along the main roads and becomes fragmented and sparse near agricultural areas, leaving large environmental and landscape gaps, which are necessary to ensure the efficiency of natural cycles and connections between different environments (sea-hill, hill-river areas). In spite of this, criticalities that depend on natural and anthropic causes are clearly evident.

Problems related to nature regard: the flood areas along the main river ways and the coastal plain; hydrogeologically sensitive coastal hill areas; coastal erosion; and the deterioration of vegetation relative to the coastal and hillside pine stands. Problems due to anthropization relate to: natural and artificial water ways, especially near the coastal plain; discontinuities in the ecological network due to settlement and infrastructure pressure; deterioration of vegetation in green public areas and parks in the historical areas; and modifications of the flora, fauna, and dune environments due to excessive human presence.

The preliminary scheme of the new plan develops an idea of the city to promote an image of tourism, sustainable development, territorial protection, and urban quality by identifying a series of strategic actions and projects.

The technical construction phase of the new GRP, which will follow the DPP and the participatory phase, will also include the physical/functional conditions necessary to create the new proposed development model by identifying the means of implementation and management (Fig. 1).

Fig. 1: GRP – Preliminary Scheme

The new development model established in the preliminary scheme (Figure 1), published as "Pineto: Quality City", sets out:

-   the recovery/restoration of the east-west (sea-hill) environmental and ecological con-
    nections;
-   reconnection of the different parts of the territory through a capillary system of green
    infrastructures;
-   recovery of the capacity to plan and manage landscape changes, with particular attention
    to green tourism;
-   rethinking the form and quality of public spaces.

In addition, the preliminary scheme, whose contents will inform the subsequent technical construction of the local plan as well as the prescriptive regulatory content, also promotes the strategic actions listed below.

Hydraulic conservation interventions: the new plan pursues hydraulic protection in the territory in light of risks seen following March flooding through:

-   flood plains at the foot of the hills, new open canals, water collectors crossing infrastruc-
    tures;
-   enlargement of the end of the canals to ensure their efficiency;
-   manuals for good agricultural practices.

Interventions to create and reinforce the ecological network: the primary objective is to construct the ecological network. This plays a dual role of improving and restoring the ecological function of the territory and to morphologically structure the settlement. The plan pursues this objective through a systematic combination of interventions for:

- recovery of natural and anthropic vegetation and water quality;
- continuity of the ecological network (sea-hill green wedges, coastal and hill pine forests);
- river parks with urban and regional significance (Vomano park, Calvano park, Formale Ponno linear park);
- tree-lined avenues in the city and green areas to mitigate the impact of the infrastructure and to connect north-south and east-west areas with cycle and pedestrian lanes;
- the morphological definition of the settlement and recovery of the historic rule for the development of the city.
- Interventions for the landscape restoration of the city in form and containing land consumption that are promoted by the preliminary scheme through:
- the morphological definition of the boundaries between settled areas and rural areas;
- improvement of existing urban margins through mitigation landscaping and compensational interventions;
- settlement containment through urban completion rather than new expansion;
- maintenance and integration of open spaces within the settlement.

At the end of the research, several planning scenarios were proposed that organize the system of strategies, actions, and interventions set out by the plan, using meta-planning explorations as well. These scenarios, called "strategic projects", aim to favour an integrated approach to construct specific parts of the city and territory. They entail unitary planning definitions and relate to components of the ecological network and the settlement system. Each project identifies the main policies and interventions that should be implemented to reach the objectives of the local plan.

Below we present the salient points of some strategic projects, selecting those that are deemed most useful to the nature of the discourse.

The strategic project "For Eco-Compatible Tourism" (Fig. 2). This strategic project studies a wide plain area that extends between the sea and first coastal hills. It also includes areas that are currently occupied by artisan and commercial settlements. The goals established by the DPP relate to: securing the territory, protecting and enhancing existing east-west environmental crossings; environmental enhancement and the collective use of the broad agricultural space on the sea with the establishment of an agricultural/nature park, also equipped for sports and free time; the environmental and functional restoration of production areas through new uses (commerce, direction, tourism); the qualification of open spaces, with the aim of restoring settlements according to criteria of integration with the landscape and introducing quality elements in green spaces and innovative energy-production systems.
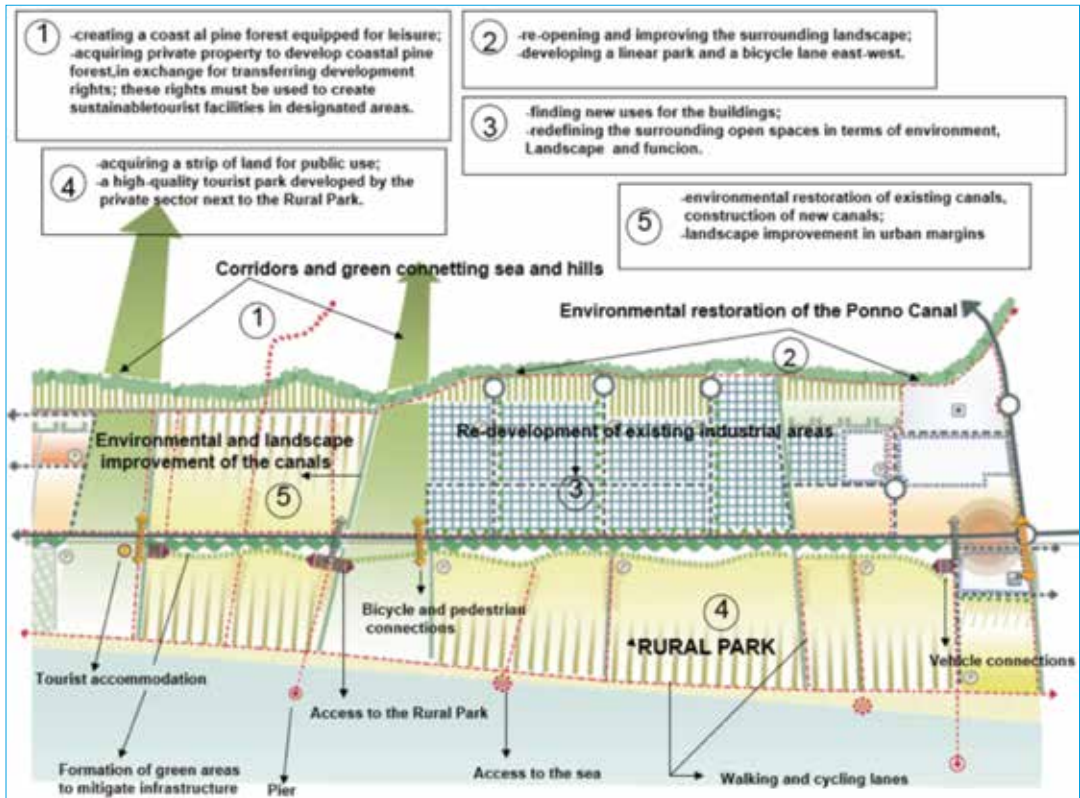
Fig. 2: Strategic project "For Eco-Compatible Tourism"

Another strategic project is "North Gate" (Fig. 3). This project deals with substantially free areas of the coastal plain, which are found near the centre of Pineto close to the tourist zone. The proposed idea of the city includes: securing the territory and restoring its environmental and ecological balance by regimenting water from the hills by constructing a new north-south canal parallel to the "formale Ponno" artifical canal and new artificial canals; the recovery of existing canals; establishment of east-west and north-south corridors of environmental continuity; a linear urban park along the old and new "formale Ponno" and a greenway between Pineto and Scerne as an alternative to ordinary roads and services to the settlements and the new educational complex; completing the Villa Fumosa settlement system by creating a green belt and reconverting the incompatible production activities that are present.

In conclusion, faced with the lack of success in policies for territorial infrastructures to contain the hydrogeological risk and the growing awareness of environmental and landscape defence, the opportunity/need arises that environmental risks be defined beyond the sense of protection in order to include them within planning and "landscape creation" actions. On the one hand, this circumstance imposes the modification and renewal of the traditional urban and territorial plans in a search for greater synergy between protecting environmental values and discipline of the transformations. On the other hand, it entails a capacity for syn-
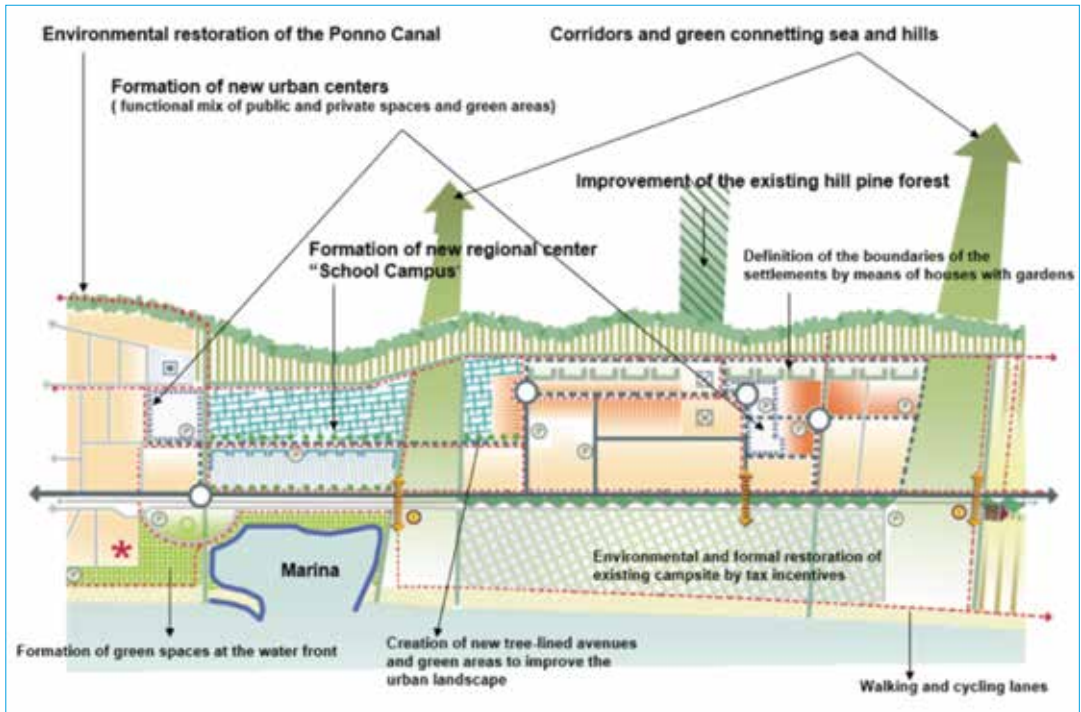
Fig. 3: Strategic project "Porta Nord"

thesis that, faced with the administrative stratification including multiple levels of protection and multiple government tools, recognizes a really responsible subject in the compatibility between environmental protection and territorial use, and therefore between norms and actions. This second option implies institutional collaboration and collaboration between institutions and citizens based on the compatibility between public and private interests. The case study examined draws upon this condition and its possible organization and experimentation. The drafting of the new local plan has faced different aspects that are often incongruent if not directly in conflict, such as: hydrogeological security, reinforcing the ecological network, the quality of life in the city, and the renewal of the coastal landscape, containing land consumption and redefining the urban form, recovery of the nexus between landscape, and the role of humans in the structural transformations induced on the territory.

The proposed model requires recourse to investigation methods and rather innovative technical solutions such as restoring balance to urban planning and environmental compensation, as well as the recovery of good practices that have been forgotten over time, especially in agriculture. The aim is twofold. On the one hand, it favours a participatory attitude that lays the basis to grow a new social demand based on the awareness of environmental rights and duties and the knowledge of risks. On the other hand, it researches the series of conflicts that are inevitably generated when intervening to guide transformations in sensitive areas, which are however characterized by settlement developments and important economics.

In fact, in these circumstances, strategies for territorial defence and protection should be measured effectively with the expectations, needs, and rights of citizens, pursuing the idea of environmental sustainability that in no way can be distinguished from social, economic, and cultural sustainability.

Notes

[1] The General Regulatory Plan (GRP) is the tool in Italian legislation that regulates building in the municipal territory.

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Urban Sprawl and its Impacts: the Case of Cerveteri (Central Italy)

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✔ KEYWORDS: Urban Sprawl; Environmental impacts; Landscape quality; GIS

•• ABSTRACT

Sprawl threatens European culture producing significant social, environmental and economic impacts, both in cities and in the countryside of Europe (Eea, 2006). In Italy, the landscape has changed profoundly, in particular in the last sixty years. In the first eighty years of Italy's Union, the landscape had remained coherent with the image of the medium Italian city, which stood out as a compact volume in the country (Companion, 1963). Since the mid-eighties takes over a new culture of living, more prone to colonization of the countryside. It is in this socio-cultural context that begins the deconstruction of old landscape patterns, leading to the formation of new landscapes of living (Lanzani, 2003). The Mediterranean basin is characterized by a number of traditional agricultural landscapes, which have undergone rapid changes in land use, and in particular, to a sharp decline in the agricultural area. Therefore, many traditional landscapes are at risk of becoming landscapes "forgotten" and disappear (Frattaroli 2014). Europe is showing more and more interest in these issues, raising awareness policies of the Member States in pursuing the concept of "compact city". (Eea, 2013). It has been shown, in fact, that the widespread urbanization is very often linked to the development of second homes and the growing preference for suburban areas (Bruegmann 2005; Salvati 2014). But, although this phenomenon allows people to have more living space, the low density that characterizes it, brings negative impacts from many points of view, as the increase in energy demand, the division of socio-economic and loss of natural resources (Salvati 2014). This research examines features and driving forces of urban sprawl in Cerveteri Municipality (134,43 Km2), located 40 Km from Rome, analyzing two temporal scenarios (1990 e 2010) in GIS environment using urban expansion classification, density analysis, spatial metrics, and geospatial analysis, as decision support planning at the local scale.

Introduction

Sprawl threatens European culture producing significant social, environmental and economic impacts, both in cities and in the countryside of Europe (Eea, 2006). In Italy the urban landscape has changed profoundly, particularly in the last sixty years, in fact, in the first eighty years of united Italy the landscape had remained consistent with the image of the historic Italian city, which emerged as a compact volume in a countryside still recognizable (Compagna, 1963). Since the mid-eighties takes over a new culture of living, more prone to colonization of the countryside, it is in this socio-cultural context that begins the deconstruction of old settlement structures, leading to the formation of new landscapes of living (Lanzani, 2003). There are many international scholars who have analyzed the phenomenon and there are many definitions emerged, the urban conurbation of Patrick Geddes (1915),

the megalopolis of Gottman (1961). The new landscapes of living mainly involve a conversion of agricultural land to urban uses; the conversion is continuous and irreversible, with effects of varying degrees on several issues. Sprawl consists mostly of isolated interventions and unplanned, location and criteria of achievement go to interfere biological flows and cultural resources. The impact then is on the entire landscape, causing structural and functional disorders. Resources depleted by this process are both ecological, increasing the fragility of ecosystems and decreasing biodiversity, but also of a cultural nature, changing the original landscaping in which people could identify with (Lelli & Pieces, 2012). Understand the dynamics that drive the process of urban sprawl, means first of all look for a spatial correlation between sprawl and the main elements existing in the territory, as the viability, morphology and downtowns that have interacted and changed the spatialization of phenomenon. It has been shown, in fact, that the urban sprawl is very often linked to the development of second homes and the growing preference for suburban areas (Bruegmann 2005; Salvati 2014), but, although this phenomenon allows people to have more living space, the low density that characterizes it entails negative impacts from many points of view. First of all, the increase in energy demand, the division socio-economic and loss of natural resources (Phelps et al. 2006; Scalenghe and Marsan 2009; Salvati 2014) as the soil, which is the most valuable natural resource that we possess. Therefore it is particularly important to manage the transformation of the landscape while respecting the needs of the soil and in line with its potential (Ceccarelli et al. 2014). This work focuses on the analysis of drivers and effects of the spatial dimension of urban sprawl, investigating the local scale, the dynamics of urbanization and the structural relationships between factors. After establishing, spatial relationships between territorial components, through GIS applications, the work focuses on the effects of urbanization spread, analyzing in particular the loss of fertile soil, in relation to the kinds farming replaced by new urbanization, and the transformation of the landscape characteristics as identified by the Regional Landscape Plan. Finally the multi criteria analysis was applied to identify the effects that the dynamics of urbanization have on the ecological balance. This type of analysis is widely used in the decision sciences because it allows reaching a final summary assessment, taking into account many variables.

Material and Methods

Study Area

The study area is represented by the municipal area of Cerveteri, in the province of Rome, which is 40 km to the north. The territory covers an area of 135.23 square kilometers, with a morphology mountains, in the North West; in the North East the rivers are more numerous and the morphology is more varied, with the continuous alternation of plateaus and tuffaceous rock walls that stand out in the valleys. Through an analysis of historical maps of the territory (Alexandrin Land Registry, Gregorian Land Registry, IGM 1935, 1950, Map Agro-

forestry 1975) it was possible to identify the peculiar character of the agricultural landscape. The agricultural landscape was strongly characterized by the presence of numerous vineyards, olive groves and peach orchards, representing the three traditional crops of the place. Even today, despite the continued decline of land planted with vines, will follow the tradition of winemaking through the most important exhibition of the country, the "Festival of grapes and wine from the hills". The territory also is strongly historicized, with very important sites of Etruscan age, the main one is the "Etruscan necropolis of Banditaccia", designated UNESCO site in 2004, but the entire area is strewn with archaeological remains predominantly of Etruscan and Roman times.

Methods and Results

The presence of sprawl has been digitized and analysed for the entire municipality of Cerveteri, in the periods of 1990-1991 by the Regional Technical Map (CTR 1990-91, Lazio Region, scale 1: 10,000), and 2010 through photo-interpretation from ortho-photos (Flight AGEA 2009-2012, resolution 50cm / pixel). For the scenario of 1990, sprawl has 2,559 units; through the photo-interpretation is noted that in 2010 the urban sprawl has increased by 60.98% to 4,124 units. The data unit was associated with an average area of sealed soil equal to 500 square meters per unit of settlement, so in terms of area until 1990 built the sprawl employed about 128 hectares, arriving in 2010 to cover an area of about 206 ha. Starting from the data unit of sprawl, it was possible to calculate the level of settlement density for the two temporal scenarios (1990 and 2010). It was realized a grid of cells of 100m from the side, used to calculate the large number of buildings per hectare. To facilitate the comparison of this data with other processing, it was decided to group the unit values in density classes, three for 1990 and five for 2010: Class 1: 1-4 buildings / ha; Class 2: 5-8 buildings / ha; Class 3: 9-12 buildings / ha; Class 4: 13-16 buildings / ha; Class 5: 17 buildings / ha. In 1990, the density class 1 (1 to 4 buildings per hectare) comprises over 90% of sprawl; in 2010 this percentage drops to 85%, but increases the maximum number of buildings per hectare, from 12 in 1990 to 17 in 2010 (Figure 2), this above all close to the pricnipali urban centers. Overall it can be said that the process of urbanization in the twenty years analyzed is predominantly low density; this type of settlement, especially when connecting to an urban lifestyle, is a source of much more serious organizational difficulties for the services and transport, as the population densities decrease. Also leads to an increase in direct proportion of the energy requirement and therefore a greater impact on climate change. (Fig. 1)

In order to understand structures, functional relationships and polarity that guided and guide the process of urban sprawl in the territory analyzed, were compared the data of sprawl, with the morphology, viability and built consolidated.

Regarding the morphology, from DEM (Digital Elevation Model, 40m), was built the map of slopes, with values grouped in four slope classes: class 1: 0-12%; Class 2: 12-25%; Class 3: 25-55%; Class 4:> 55%. The interaction between the slope classes and classes density sprawl, it
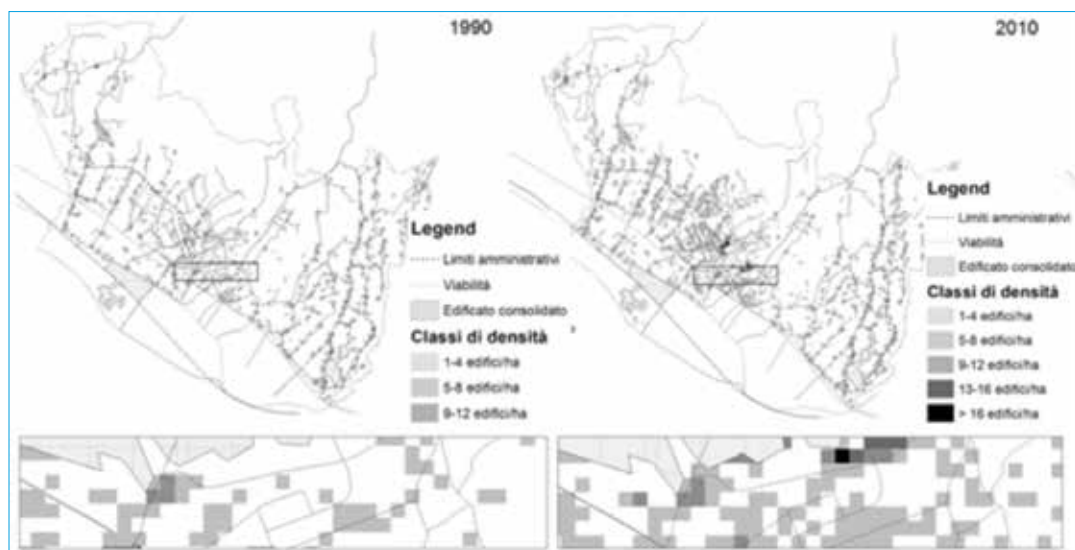
Fig. 1: Buildings density 1990 e 2010

can be noted that in both scenarios investigated, this component has greatly influenced the spatial structure of the phenomenon, which makes it impractical and very costly urbanization in areas with slope levels higher than 20%.

The comparison between sprawl and viability through the buffer zones multiple, each of a progressive distance of 50 m (50 to 1000 m), it is observed that about 80% of built widespread, in both scenarios, falls in the range distance of between 0 and 150 m. One can therefore speak of a densification along the main roads, which play a key driver for new transformations. This aspect has been linked with an analysis of the spatial sprawl by distance from built consolidated. According to the example of Yaqi Shi et al., (2012) and Limin Jiao et al. (2015), the region was divided into bands of progressive distance of 500m: Class 1: 0-1000 m; Class 2: 1000-2500 m; Class 3: 2500-5000 m; Class 4:> 5000 m. This process has shown that proximity to major urban centers are not well correlated to the process of sprawling, but is related to the density of settlement. In fact in the first distance range (0 to 5000m) we observe an increase of the density classes 1990 to 2010, from a maximum of 12 buildings per hectare to 17 buildings per hectare. To better understand what are the effects of this dynamic expansion, and if there is a correlation with other factors, such as the use of the soil or the quality of the landscape, were also compared the data of sprawl with Corine land cover and with the Regional Landscape Plan. It was found that, in 1990 the two types of land use most affected by the new urban expansion are not irrigated arable with 34,73%, which remains very high values for 2010 (44.78%) and residential with 28.15% which in 2010 is lowered to 6.49%. These data are already a confirmation of many previous deductions, in fact the new building expansion will further and further away from areas already urbanized, the trend is not that of densification, but that of the dispersion. (Fig. 2).
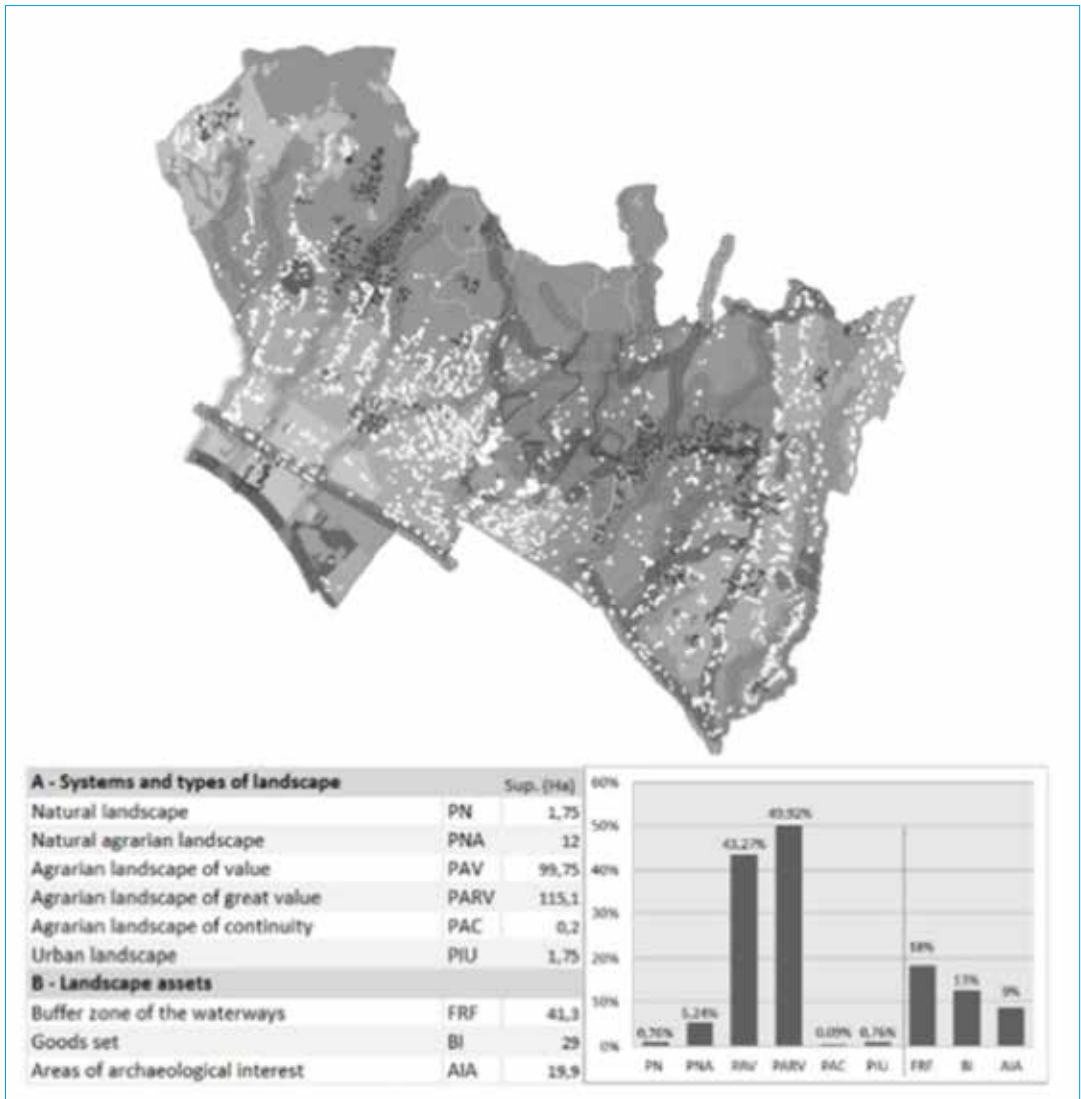
A - Systems and types of landscape		Sup. (Ha)
Natural landscape	PN	1,75
Natural agrarian landscape	PNA	12
Agrarian landscape of value	PAV	99,75
Agrarian landscape of great value	PARV	115,1
Agrarian landscape of continuity	PAC	0,2
Urban landscape	PIU	1,75
B - Landscape assets		
Buffer zone of the waterways	FRF	41,3
Goods set	BI	29
Areas of archaeological interest	AIA	19,9

Fig. 2: Regional Landscape Plan

Another important fact that emerges from this comparison is the replacement of perennial crops typical of the area, such as vineyards, with 3.71% in 1990 and 9.45% in 2010, Orchards and minor fruits, that in the territory are identified primarily with the cultivation of peaches, with 2.87% in 1990 and 1.98% in 2010, and finally the olive groves with 3.41% in 1990 and 4.20% in 2010. There is an increase in the transformation of land occupied by olive groves and vineyards, despite representing a traditional culture and identity of the place. It is evident that the settlement dynamics analyzed, are not guided by any address planning that ensures the preservation of the particular characteristics of the landscape. This is confirmed by the comparison between urban sprawl and the Regional Landscape Territorial Plan (PTPR),

through which it can be seen that the main types of landscape affected by urban sprawl are: the Agricultural Landscape of Relevant Value, with 49.92 % corresponding to 115.1 ha, and the Agricultural Landscape of value with 43.27%, 99.75 ha. The remaining shares are very low, from 5.24% of the Natural Landscape Agrarian up to 0.09% of the Agricultural Landscape of Continuity. Later it was also calculated the surface area occupied by sprawl that falls in areas that the Plan identifies as landscape assets, Table B. The types of assets affected by

the phenomenon of urban sprawl are three, the buffer zones of rivers, 18%; the "goods together" with 13%: large resort with traditional aesthetic value, scenic beauties (art. 136 Dlvo 42/04, letter. c and d), and Archaeological Areas with 9%. These dynamics have negative effects on all components of the landscape, decreasing the value of identity and culture of the place and weakening ecological balances that ensure ecosystem functionality. Through the criteria of Fuzzy Logic has been applied a method of analysis borrowed from the sciences of the decisions, the Multicriteria Analysis (MCA), which has allowed us to estimate the degree of sprawl interfering with the ecological balance of the area analyzed. The results show that the territory is composed in large part from areas in which the value of the relational suitability is very low (Figure 3), this means that the presence of elements having the value of naturalness are in isolation conditions, resulting in a lack of environmental continuity (Battisti & Romano, 2007). The data emerging from the MCA allow to give a value not just quantitative, but also qualitative. Infact it is not only the large number of new settlements achieved to arouse the ecological imbalances in the landscape studied, rather the spatial characteristics, shape, size and location, are the ones that make sprawl more or less incident. This tool allows to point out areas that still maintain a level of ecological functionality active or potential. On the basis of these values can be processed plans able to manage, to plan, to aim, and of course also contain, the new building expansion.

Discussion and conclusions

The case of Cerveteri is characterized by growth of sprawl with very high values, and spatial characteristics well correlated. Comparing the data of the increase percentage of sprawl with the increase of the population, you can confirm the statement of Bruegmann (2005), who argues that sprawl is very often linked to the development of second homes and the increased preference for suburban areas. There is not in fact, a direct correlation between the needs of settlement from population growth, and the rate of sprawl growing. The population of Cerveteri in 1990 was 26.625, increased by 34% to 35.692 inhabitants in 2010, an increase not correlated with the 60% of that sprawl growing. Citing Luca Martinelli (2012), we could say that the blame for all this is the community, the common dream to change his life thanks to the rent of land, or a zoning variance that makes building the field cultivated by his grandfather, perhaps to build the desirable home in the countryside. Social dynamics, together with the conditions of the terrain, have so strongly influenced the future of the Cerveteri landscape. The expansion of sprawl in fact occupied mainly flat areas. The correlation with the bands away from built consolidated however, confirms the social dynamics mentioned above, in fact, although the settlement density

is much higher within the first 1000 m from the main urban areas, while low density new expansions have also found place in places further away. The presence of a coastline fitted, the charm of the numerous archaeological remains and morphology incoherent, capable of surprising with deep valleys and tuffaceous wooded hills, have certainly powered the dynamics of urbanization of the territory for tourism and recreation, but the close proximity with the city of Rome, just 40 Km, and the presence of both direct rail and motorway service stations, are certainly factors that have most influenced the dynamics of sprawl in this territory, increasing its attractiveness also as principal residence. This is how the unique characteristics of the agricultural landscape are turning into a new landscape, whose identity struggling to emerge.

"After the death camps, we are witnessing the extermination of the fields," said the poet Andrea Zanotto, shortly after World War II. The data on the types of land use consumed by urban sprawl point out the actuality of this assertion. The types of crops most characteristic, such as vineyards, plantations of peaches and olive groves, are abundantly and constantly threatened by these processes, again linked to socio-economic dynamics, because to produce wine, oil or peaches is not still cheaper. From the interaction between sprawl and the landscape plan emerges in fact, a large transformation of areas defined "Agricultural Landscape Value" and "Agricultural Landscape of significant value"; these are areas with natural agricultural vocation that preserve the characteristics of the traditional agricultural landscape, which have significant landscape value for the aesthetic quality, even in relation to the significant archaeological interest and its historical evolution. The regional landscape plan for these areas provides a quality goal mainly linked to the preservation of maintaining forms of agricultural use of the land.

The transformations that occurred in the last twenty years have not respected the quality objectives, it is constructed by subtracting fertile soil for agriculture, and it is often done in variant or in derogation from existing planning instruments and with three cycles of amnesties. The monitoring of the dynamics of sprawl, of their causes and impacts, is a useful preliminary approach to the definition of guidelines for planning, that local governments have to turn into concrete actions, consistent with the data obtained. By applying Multi Criteria Analysis, we can assume a Plan capable of considering both the quantity of land taking, which can be considered sustainable, both strategic areas that can be transformed with less impact and those which must be preserved.

Therefore, through the results of the research conducted, you highlights the need to "relaunch the plan as a guarantee for the entire community" (Romano, 2014), as a tool to define not only what you can still build, but above where and how. To do this it is necessary to use innovative technologies, involve actors and administrations must show collaborative and open to participation.

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The UNSCAPE-En Route International Seminar

CHAPTER **VI**

The Landscape in Overcoming the Economic Crisis: Favouring the Social And Economic Growth of Local Communities, Acting on Natural and Cultural Resources that Have Not Yet Been Appropriately Enhanced

Introduction

When discussing the landscape and plans and projects for its protection and enhancement, the value it has in the production of territorial wealth is often overlooked. Such reflection is urgent in a recession like the current one. Numerous scholars and operators in the territory are focusing attention on the economy of the landscape, based on the fact that the competitive advantage of a business and a territory lies in the capacity of knowing how to organize the valuable, rare, and inimitable resources present. The landscape and the cultural legacy that settles over time directly and indirectly affect the creation of value and the economic advantage of a business. The connection between the industrial and touristic/cultural, rural/environmental chains therefore constitutes an opportunity and strategy to relaunch the economic development of European territories, recovering the traditions and signs of the past, the landscape, and the historical/cultural heritage.

The objective is to further enhance and eventually reposition production activities that have made the European territory prosperous.

The Landscape in Overcoming the Economic Crisis

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Landscape in a context of crisis

Despite the media success of the landscape in terms of images, representations, and public discourse, its role in constructing territorial and economic policies is not so clearly defined. Rather than offer shared solutions for the problems and conflicts characterizing modern territorial realities, the concept of *landscape* is highly and intrinsically problematic. Of course, it is quite obvious that landscape degradation, the waste of the natural and cultural environment, and the weakening or loss of identifying values are important aspects of more general syndromes. But it is not always evident that such aspects can hardly be understood and managed outside the context of crisis affecting the contemporary society. Facing global changes and the related growing environmental dangers is increasingly perceived not only as a task for future generations, but as a core challenge for the present. In fact, it concerns not only the climate and physical transformation of the planet, but the whole complex of tangible and intangible changes related to such transformations. We are at a turning point that implies a revolution in the processes but also in the visions, hopes and expectations of the societies that inhabit the planet. At the very centre of such a revolution lies a question concerning the role that must be reserved to actively conserving what the man has built in the past. But, *is such conservation a necessity or an optional luxury*? Speaking about the qualities—including beauty—concerning territorial contexts, we may give the impression that we are looking for something less important than what such contexts can offer in terms of basic natural and cultural resources, in order to promote their sustainable development. In fact, any search for environmental and cultural quality seems to be increasingly overlooked by the main worries related to the global crisis such as poverty, migration, human rights violations, geopolitical iniquities, and so on. Of course, this is not the place to deal with such worries. But recent international debates and resolutions are pushing to question the idea implied by the alternative above, in other words, the idea that conserving environmental and cultural values and heritage could be neglected or even contrasted by any option aiming to foster the economic growth, full employment, or the physical development of human settlements. On the contrary, it seems that there is growing awareness (even if it is still inadequate) of the close relationship between quantity and quality, development and conservation, economics and culture. And it is thanks to this relationship that landscape can play a central role.

Landscape and attractiveness

A primary reason for the role of landscape in overcoming the economic crisis concerns its capacity to influence the attractiveness of each part of the territory in terms of investment, the

movement of capital and population, mobility and accessibility. All these factors have soundly changed in the last decades, determining important transformations and/or the creation of new landscapes, for instance landscapes dominated by shopping centres, which have arisen in the traditional countryside. As a consequence, classic interpretation models—such as gravitational models, or the theories of the development poles—are giving way to new, more complex interpretations. But trying to understate the role that landscape can play in increasing the attractiveness of places, we must ask a preliminary question: *Ought this role to be essentially thought of as a function of the local, regional or national economy, or rather as a function of social and cultural cohesion?* In other words, is the landscape a powerful lever to improve the competitiveness of economic systems, or is it a tool to build and enhance the identity of places, a flag to give visibility to local communities? Both functions can be entrusted to landscape. It can combine identity with competitiveness, integration with openness, connectivity with autonomy, the creativity of places with the continuity of networks. But the choice among the different functions is not neutral; it is highly political.

Landscape and conservation

Another reason for the role of landscape in overcoming the economic crisis concerns the relation between conservation and innovation. Both terms have been heavily questioned in recent decades. The progressive erosion of natural spaces (only partially balanced by re-naturalizing the abandoned previously cultivated areas), the transition of ex-rural spaces towards mixed patterns of functions, the wide spread of abandonment of agriculture and forestry, and the growing relevance of urban sprawl are only part of the complex syn-dromes, that, under the push of the great contemporary economic, social, and cultural revo-lutions, are changing the triangle of naturalness-rurality-urbanity that has developed since the beginning of the modern age. The change is destroying the traditional meaning of both conservation and innovation. This is particularly true when referring to the conservation of nature and the historical/cultural heritage and by consequence to the landscape, which can be seen here as a bridge between nature and culture. As a basic reference for this, see the statements of IUCN, UNESCO, and the Council of Europe. In this light, we are reminded of the new concept of *conservation*: never separate from innovation, never relegate to a past without a future, never banish any spatial boundaries. *The active conservation of our heritage becomes the privileged place of innovation, with a growing impact on territorial reuse and the regeneration of urban space.*

Landscape for living

Experiences of landscape policies often show an impressive impact on the processes of physical transformation, particularly in mountain areas and other marginalized territories.

But the enhancement of landscape and the natural and cultural heritage also reinforces the image and local sense of identity, the perception and the awareness of local places and values, as well as the visions and promises for the future. But this change in relationship between the observer and observed reality is not the same for each observer. Costs and benefits for territorial enhancement are supported and even perceived in different ways by the diverse subjects intervening in the processes (see for instance the case of inequalities inside and outside of national parks). *In particular, the cost/benefit perception is not the same for tourists and residents, depending on their different objectives, behaviors and attitudes.* Such a difference may turn into explicit conflict when the territorial qualities needed for tourists, for instance, accessibility or urban services, require interventions that are incompatible with those needed for living or for production activities. More in general, enhancing the landscape can contribute to improving territorial conditions, with diverse stake- and rights-holders fairly sharing costs and benefits, and searching for a sustainable mix of economic output and positive environmental impacts. Such active enhancement strategies can contribute effectively to overcoming the economic crisis if it is framed in a coherent process of regulation based on the participation of local entities: "good governance" strengthening their role in territorial projects.

Urban Planning and Inequality

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Recently urban and spatial planners have indirectly been summoned in a context that would seem purely economic at first sight.

In "The Capital in the 21st century", Thomas Piketty suggested that net capital share on total income has been increasing since 1948. In his view, basically capital share on total income is the component that would have met a rampant surge in the whole economy (compared to labour and salaries and other components of total income) which brought to broadened economic inequality; thus Piketty proposed a global tax on capital as a solution to increasing inequality. However a young scholar called Matthew Rognlie (*Deciphering the fall and rise in the net capital share*, Brookings Institution Papers on economic activity, 2015) disaggregated Piketty's results. His paper, that has been discussed at the Brookings institution, seems to highlight how the mentioned increase depends entirely on the housing sector (since the other sectors would have offset, with falls and rises).

The responsible subjects for economic inequality (identified as a major problem of our times, according to many analysts OECD. 2015) thus would not be the banking and financial sector, but the far wider group of homeowners: according to Rognlie, other types of capital seem to be subject to the law of diminishing returns, but the money invested in the housing sector would behave differently.

Thus housing costs might be regarded carefully as a major responsible for economic inequality and in particular as being more responsible for economic inequality than the financial sector – which means that urban planning should reconsider its classical policies and the model of management of the territory it has been applying. If housing policies are responsible for holding back growth and exacerbating inequality, action is required in quite a novel fashion from the urban studies community and the institutions and public administrations responsible for spatial planning on the appropriate level.

Experts in spatial planning and urbanism should carefully look at the restrictions that local governments traditionally put on building more housing in and around economically vibrant areas, that would have long been responsible for slowing economic growth and hindering the economic mobility of workers. Building restrictions in those towns and their exclusive suburbs prevent upwardly mobile people from relocating to places that offer the most economic opportunity, as cities typically are. Not so far from the theory according to which a "green belt" is created "to preserve the *status quo* of those living within the zone", the advantage of landlords who derive profits from the Ricardian "power of scarcity" in the field of housing and

the ultimate result of the decision to green-belt a city is to prevent housing demand within the zone to be met with consistent supply, thus exacerbating high housing prices and stifling competitive forces in general.

This might lead to believe that it would be possible to curb the rising tide of inequality by weakening real estate regulations: allowing more building and eliminating policies that bring housing prices high (like the mortgage interest deduction). However economists have also recognised that such policies are harmful to the economy.

It has been observed that under the social point of view, homeowners are unlikely to enthusiastically welcome new affordable multi-family housing in their nice and conveniently located suburbs. Therefore, the spatial and urban planners' community should address the issue of which kind of spatial and landscape planning is needed in the future, if these observations prove to be correct.

Discussion of the presented papers

The main question asked in this Session was whether and how can landscape provide adequate assets to overcome the signs and wounds of the economic crisis. This explains well enough why this session tried to address resilience, by challenging us to check whether we can ask or not the landscape to perform a proactive action (or an enhanced form of resilience) that delivers economic and social growth coupled together. The measurability of such a delivery is central to the validity of the proposed reasoning and is a topic being addressed in some of the papers discussed in the session.

From the analysis of the papers and their discussion, a need is perceived of a further specification on the contents that are focused, for all the papers, on the local level.

The cases explored in the papers are significantly diverse, but all of them were expected to cover a list of items that were seen as invariably needed to address the situation at stake and include the following key-terms:

Crisis
Attractiveness
Innovation
Cultural Heritage
Governance
Participation

In *Battaglia et al.* "Rethinking Attractiveness. The transformation of tangible and intangible factors fostering competitiveness in post-rural areas", the paradigm of *post-rurality* was suggested as a point of departure for envisaging a potential strategic development of a territory where there is a need for economic diversification as in the Chianti area (Tuscany, IT), based on the concept of "attractiveness", suggesting that local resources and peculiar enabling conditions,

including the exposure to and familiarity with global trade and foreign direct investment (FDI), can act as the basis for further development and wider participation also in wealth distribution of the local population.

In *Romero Hidalgo et al.* "Can Cabanyes as a green infrastructure for local economy: the ecological and social restoration of the area", a consistent case of landscape reclamation in Can Cabanyes (Catalunya, ES) is presented, delivering benefits across the whole spectrum of sustainability (in terms of water sewage treatment for a municipality, creation of a Natura 2000 site, construction of an education centre, set up of a green belt for recreational use, provision of suitable business location) made possible by the availability of a huge amount of EU funds taught us that public money can be invested in projects delivering both private (for profit, or at least *for returns*) and public goods. However it would be important to introduce a *scoreboard of indicators* from which to start a systematic measurement of these benefits that might be spread across local stakeholders willing to undertake similar projects by using articulated mechanisms of finance, that could not include the huge public funding scheme adopted e.g. in the Can Cabanyes case.

The contribution by *Amaro et al.* "Tourism as art of the places. Calabria and the Metropolitan city of Reggio Calabria" has shed some light on the pivotal role that landscape resources, their understanding and unexplored connections (made by using a form of "creative thinking") can provide a knowledge basis for development opportunities of an Italian administrative region (Calabria, IT) confronted with decay and a still improper, poor public perception in mainstream mindset. In this case, the paper drilled an oil well and estimated the resource availability and some potential exploitation patterns. However it still needs the engine to start the race as well as the driving code setting the traffic rules.

Solving a crisis means to stimulate private investment (that at least sides back public finance) and risk taking. Adequate mechanisms of finance that may support private and public investment and give back adequate returns and framework enabling conditions need to be clarified and disclosed to the private sector. This requires a proper governance and an effective spreading of information as well as a set of even soft incentives that may drive a behavioural change and new spending patterns.

The other case examined in *D'Anna* "Mining Landscapes in Sicily. Problems, Strategies and Perspectives" deals with a decaying industrial sector being responsible for deep landscape transformation: the mining industry in inner Sicily. The history of the site tells that change didn't stop. However – notwithstanding the remarkable case study of "Pas de Calais" (France) in the field of mining sites and land reclamation to other uses, it is essential to determine the cost of enhanced resilience and depict scenarios based on sound economic figures. Here again the term *attractiveness* would need to be coupled with the courageous choice to consider the "opportunity cost" of renovation and once again the value creation process that should trigger a growth process fuelled by rational decisions made by utility-maximizing individual actors - as well as by concerned, contemporary policy makers subject to transparency, required to collect savings and direct them on effective projects.

Drawing some general conclusions, a few simple factors that link the described experiences can be mentioned:

1) the assets analysed by the papers are invariably *local factors intrinsically connected to landscape and its set of values*: the link to the global level would deserve a major attention from all these projects;

2) the *paradigm of value creation* that is envisaged is *intrinsically "societal" and addresses also the non-economic pillars of sustainability*, which requires that these projects are undertaken and assessed on the basis of a multiple set of indicators, ranging on the long run and addressing all the dimensions and values of sustainable development. In practice, such a choice could result in an actual support to decision makers and would support them in adopting instruments they are strongly encouraged to use by EU institutions. In this line quite interestingly, the EU Commission DG of Regional and Urban policy is expected to use the Social Progress Index (SPI), which enables countries to evaluate how effectively they translate economic success into social progress, as a key tool in deciding how to allocate €63.4bn to deprived regions in the European Union. The SPI index is based on 52 indicators ranging from healthcare and housing to ecosystem sustainability and freedom from discrimination;

3) the landscape, as depicted here, is an asset being able to deliver public and semi-public goods (non-excludable / non-rival in consumption but consistent with a classical production function in provision, thus with a real cost for their supply) often as a result of the efforts undertaken by multiple actors on the territory – with some cases of *private provision of public goods*. Consistently with this undeniable nature of public policy, the role of governance played by the institutions appears to be justified and delicate. A greater attention might be paid to the paradigm of "Green Economy" that is expected to deliver both public and private benefits in different domains, but in a sound market context by achieving the goals of resource-efficiency, low carbon actions and social inclusiveness. It seems that not enough instruments for control and decision making are currently available to support sound public investment.

4) the subject of landscape use as a resource has to be addressed with a growing attention to the providers of fresh money (citizens and businesses) in a context wherein the prevailing economic policies in EU - such as the low interest rates, the European Central Bank (ECB) "Quantitative Easing" (QE) policy, the Juncker Plan - seem to support joint private-public investment in framework infrastructures. Underinvestment, particularly by the public sector has been identified as responsible for low economic performance. Often infrastructure investment remains suboptimal, and so is investment in the economy's knowledge and technology base. Europe is also constrained by excessive public debt and weak fiscal positions. However the quality of investment that is to be proposed to those actors requires to be high and to pay back by means of increasing returns and real growth creation. Appropriate means and tools to assess the quality of those framework investment are therefore urgently required and spread around Europe, also aiming to grasp the opportunities provided by the financial market

now. Faced with tight fiscal (and political) constraints, policy makers should abandon the idea that investments with broad – and, to some extent, non-appropriable – public benefits must be financed entirely with public funds. Instead, they should establish intermediation channels for long-term financing. Which means that policymakers must find ways to ensure that public investments provide returns for private investors, as it happens with a few existing models, such as those applied to ports, roads, and rail systems, or the royalties system for intellectual property.

5) a resilient landscape needs to be able to manage complexity and adapt to change, including informational and economic change in the framework conditions: shocks can have different origins and economic consequences that require to be properly addressed. Building resilience becomes then a priority for all the projects to be implemented, thus such a target should be addressed openly and the benefits brought about by the envisaged solutions should be assessed also against their results in terms of improved resilience.

Rethinking Attractiveness. The Transformation of Tangible and Intangible Factors in Post-Rural Areas

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🔹 ABSTRACT

Scientific community and policy-makers recently devoted an increasing attention to the development opportunities for rural areas, most notably with the identification of attractiveness factors as potential drivers of economic growth and socio-environment quality achievements. While regional studies identify the attractiveness of rural areas in their recreational function for urban creative class, building upon Florida's seminal contribute; current post-rural studies signals that rural areas may present distinctive factors of attractiveness. These emerge from the diffusion of a post-rural countryside, in contrast with traditional understanding of the rural as mere location for amenities provision. Post-rural studies focus on the agency of actor-networks crossbordering the urban/rural divide, and influencing the material and symbolic production of the rural by mobilising multiple sets of power relations. Particular attention is dedicated to the inside-outside dynamics in the generation of governance patterns and the role of external actors in the new (rural) capitalism.
The process is exemplified by the transformation of Chianti area, which help at defining attractiveness factors in post-rural contexts. This contribute provides, eventually, some insights on specificities of post-rural areas that work as attractive factors for engaging translocal networks in place-building processes.

Introduction. The Floridian reading of urban areas

Scientific community and policy-makers recently devoted an increasing attention to the development opportunities for rural areas, most notably with the identification of attractiveness factors as potential drivers of economic growth and socio-environment quality achievements. Attractiveness is to be understood as an expression of the ability of a region to value tangible and intangible resources favouring investment, promoting innovative processes, and drawing high skilled human capital in the local place, in order to increase local well-being and growth. In traditional neo-classical models, when productive factors are paid according to their marginal productivity, salary levels and land rent represent the attractiveness factors for workers and businesses (Borts and Stein, 1964; Coelho and Shepherd, 1979; Layard et al., 1991). In this framework, urban areas, characterised by "agglomeration economies", play a crucial role in regional development strategies (Royuela V, et al., 2010).
In 2002, by questioning traditional studies on attractiveness, Florida introduced a new understanding of attractiveness factors in urban areas, and focused on the presence of specific skills (namely, the *3Ts: Technology, Tolerance and Talents*) able to increase the territorial competitiveness (Florida, 2002a). In particular Florida explains how the creative class (particularly im-

migrants and young urban professionals) is a key driving force for economic development of the modern postindustrial cities. This *bohemian* culture is particularly keen to establish in the city area, providing them with a vibrant cultural environment; however, they much appreciate the possibility for outdoor recreation in the countryside (particularly for the natural amenities it provides), but this is not a sufficient reason for stably setting in the rural areas (Florida 2002a; 2002b).

Recent trends in rural studies signals, however, that many of the attractiveness characters Florida described as specifically urban (and capable of determining the economic, political and cultural leadership of cities) now widely characterised (a large part of) rural areas (in the global North). By translating the Floridian model on the analysis of rural areas, many studies (Beyers and Lindahl, 1996; Goe, 2002; McGranahan & Wojan, 2007; Dorfman et al., 2011), since the end of '90s, have demonstrated how rural areas have been characterized by a relevant growth of jobs and incomes of communities due to migration driven by specific factors of attractiveness (McGranahan, 1999; Deller et al., 2001, 2006). Migration phenomenon extends far beyond the effects of tourists and retirees, and extends to the businesses too (McGranahan, 2002). Technological innovation played a key role because it reduced the cost related to distances and remoteness and stimulated the location of workers and advanced technology firms in rural counties (Kotkin, 1998). These analyses proved that outdoor amenities are an important quality-of-life attribute for the creative class, which is, in turn, instrumental in job creation and local development.

Nevertheless, while the analysis of rural areas based on Florida's model focuses on the gentrification of rural countryside generated by creative class migration and its attracting role for business and related services, mainly on the base of the amenities rural areas are able to provide them with, post-rural studies described current qualitative transformation of rural areas and open the door for a more substantial rethinking of its attractiveness factors.

With a little help from post-rural studies

Post-rural studies, specifically signals that not only amenities (providing recreation value for the members of the creative class) bootstrap the local development strategies in post-rural areas; rather these currently present a number of peculiar characters emerging from their very socio-environmental structure, and not as a mere transposition of urban features in a rural context induced by urban dwellers migration. For a long time rural world has been associated with stability, pleasant landscape and tradition – and often with conservationism and poverty, in contrast with the ephemeral urban world associated with the dynamicity of global society. However things are rapidly changing (Milbourne 1997) and, while some transformations did not really introduced brand-new processes (Hoggart, Paniagua 2001), changes become evident by analyzing the production, symbolization and socialisation of rurality (Phillips 2002, Halfacree 2007), and lead to the definition of a "consumption countryside" (Marsden, 1999) or "post-productivist countryside" (Ilbery, Bowler 1998). A large corpus of researches going under the

label of "post-rural studies" (Philo 1992, 1993; Murdoch and Pratt, 1993) was intended to report the "myriad notions of 'the rural' produced by all manner of 'everyday' […] people in all manner of 'everyday' circumstances." (Murdoch, Pratt 1993, p. 434). These attempted at restituting the real life experiences in contrasts with idyllic views of rurality (being the idyllium associated with astatic appreciation of landscape (Cosgrove, Daniels 1988) or the environmental national ideology (Potts, 1989) etc.). In contrast with classic and stereotypical view of rural world and some conventional understandings of neo-rural as bulwarks against industrialization, technicalisation and virtualization of life (Marchettini et al. 2004), post-rural studies focus on the analysis of the relationship between rural and external actors (e.g. job-seeking immigrants, foreign investors and neo-rural middle-class) as drivers of changes toward the production of new capitalism governance patterns (Murdoch, 2003; Hines 2012). From such a perspective rural areas are not understood as passive recipients of external movements of capital, culture and labour in the midst of globalization geometries (Cloke, 1997), but rather as centre of new social, economic and environmental innovation in themselves.

In general, it can be said that post-rural theory focus on the agency of actor-networks cross-bordering the urban/rural divide, and influencing the material and symbolic production of the rural (Halfacree 1995) by mobilising multiple sets of power relations (Murdoch, Pratt 1994). Particular attention is dedicated to the inside-outside dynamics in governance patterns production and the role of external actors in the new (rural) capitalism.

Post-rural studies signals how power relations play a prominent role in the social, political, cultural and economic identity transformations of the rural areas. More specifically they overcome the classic analysis of the spatial uneven development of the rural world inherent to capitalist economies (namely, of dependent relations emanating from agribusiness), and rather explore how "despite what some may regard as the demise of agriculture as a major agent of power in the rural domain, its selective and highly differential withdrawal and reorientation is providing a major element in the new reconstitution of rural space" (Marsden 1995, p.285). In setting up political and agricultural agenda and in the marketing of goods and services, a key role is played by culture (as Floridian studies already signalled) (Miele, Murdoch 2002; Holloway 2004). Despite not sitting at the top places in the decision hierarchy, the rural is nonetheless able to elaborate independent development strategies that overcome the territorial boundaries of local areas and interact with global economies and culture. The weaknesses of traditional development strategies, over-relying on state support (to overcome market deficiency with incentives or infrastructure provision) or mono-sectorial large firms (to promote locally rooted, endogenous development capabilities) became now evident (Iacoponi et al. 1995; Lowe et al., 1995). The new panorama of rural development strategies is defined by horizontal networks, i.e. "distributed network forms that link rural spaces into more general and non-agricultural processes of economic change" (Murdoch 2000, p. 407), which complements the vertical networks connecting rural spaces into the global agro-food sector. The post-rural theory describe network approach as a third way able to connect state and market, exogenous and endogenous forces in a coherent development strategy to ensure the best use of existing resources (Murdoch 2000).

Chianti, for example

The post-rural transformation of Chianti, Tuscany, exemplifies how attractiveness factors are transforming in post-rural contexts.

Wine-producing areas clearly stand as partial exception to the problem of underestimation, economic marginalization and lack of political consideration of rural areas, as most-reputed wine-producing regions are identity-generating location, important sources of economic revenues and agglomerates of key actors networks influencing political and economic regional planning. However, while top-ranking wine-producing areas do not suffer- or suffer to a lesser degree- from some of the problems experienced by other rural areas, they are nonetheless affected by the slippage toward post-rurality. This last is characterised by the increment of technological investments, the participation in the global chain of production and distribution, and the attraction of foreign capitals and people for both residential, business or leisure purposes.

The region conventionally called Chianti is associated in the common imaginary with the Chianti Classico wine-producing area (Fasano, Guarini 2001; Pazzagli 1973) for historical, cultural, oenological, ecological and economic reasons that make it quite well identifiable. The area is not however sharply defined as the total area of Chianti wine production area extends to territories included in the "Consorzio del vino Chianti". The entire story of the creation of Chianti would be worth of analysis but for the sake of brevity, we only focus on the most recent developments. The post-rural transformation of Chianti has been explored by Brunori and Rossi (Brunori, Rossi 2007) who interpreted the area in terms of dynamic hybrid networks (Brunori, Rossi, Malandrin 2011) by performing a material-semiotic analysis of the agency of two main actors networks gathering around the Consorzio Chianti Classico, and the municipalities' mayors who claim that "rural development and farming should be more diversified and more coherent in terms of environmental sustainability and social equity and that should be based on an identity and cultural values wider than those linked to wine "mono-culture" and to the tourist stereotypical image of the area" (Brunori, Rossi 2007, p. 202).1 Quite often the oppressive presence of mono thematic wine presence and production is felt by other actors (citizens associations, small farmers, municipalities etc.) as an obstacle to the development of other symbols and codes of local rurality, that can be pursued by introducing heterogeneous interests to challenge "the dominant viticultural spatio-temporality of the area" (Brunori, Rossi 2007, p.203). This recalls the issue of multifunctionality of agriculture. Data confirm, together with a massive relevance of wine production (wine export amount to the 35% total agro-food export of Tuscany with the Consorzio del vino Chianti, exporting the 70% of the total production; Jadeluca 2012), the role of other agricultural productions (mainly olive and grain), handcrafting, industrial transformation and tourism. In fact, the area is a most appreciated destination and a large parte of the building once occupied by sharecropping are now used for rural tourism (Brunori, Rossi 2007); since the 60s (Henke, Salvioni 2010) this determined the diversification of farm economy, as a response to the crisis of agricultural activity, via a process of 'hidden urbanisation' (Orsini 2013).

The intense presence of non-local and transient presences increases the social complexity of the area, both in terms of cultural habits and demographic pressure; and the attraction of foreign capital in the purchasing of lands and building changed the economy of the area and the landscape management regimes. This largely affected the real estate market and caused the significant increase in the prices of land and houses, and also brings about the need of integrating conflicting exigencies of local communities (housing, services, road system, etc.), industrial economic activities, landscape and the cultural identity so important for the quality of production and the tourist sector (Brunori, Rossi 2007). As a consequence, despite the area is one of the wealthiest in Tuscany and often regarded as a model for rural development, a number of tension are also present (Brunori, Rossi 2007) because local population have a marginal role compared with the role of upper-mid class countryside owners, and they have different degrees of representativeness in terms of governance (Di Iacovo, Scarpellini 2003). It is worth of mentioning that the traditional image of Chianti is still largely used by the international entrepreneurs to promote the brand of Chianti, with the aim to associating in the public imaginary the quality of the product with a specific stereotyped image of Chianti involving landscape, culture, tradition, identity. This means, that, for instance, marketing campaigns –including the most recent experiential marketing campaign, e.g. *ChiantiE'*- still evoke a conventional understanding of Chianti that, despite its superficial allure, does not explain the reality of the post-rural transformation of the area. The complex actor-networks involved in the process of rural governance today (Di Iacovo, Scarpellini 2003) also include –together with the traditional ones- an increasing presence of global players endowed with propensity to innovate, whose production and distribution chains extend far beyond the regional area; and contribute at re-shaping Chianti as a globalised and globalising macro-actor in itself. They re-defined the social and economic dynamics leading to local identity definition, and control over material and immaterial assets (e.g. the symbolic capital of Chianti).

Conclusions. Rethinking attractiveness

By merging current researches in regional and rural studies, it becomes evident that studies about territorial attractiveness can benefit of suggestions from post-rural studies, which explore the complexity of rural world in contrast to the classic understanding of rural areas. In fact the rapid changes induced by the emergence and worldwide diffusion of a post-rural countryside requires a reconsideration of attractiveness. This can be performed by complementing the results of the application of Floridian model to rural areas, with the consideration of specific characters of post-rural areas, which makes them attractive in themselves, rather than as mere "leisure garden" for urban creative class. Tangible and intangible factors characterizing post-rural areas relates to "the particular relationship between local actors and the environment that is embodied in their 'contextual knowledge', which lies at the foundations of practices that produce and reproduce cultural landscapes, typical food and rural heritage" (Brunori, Rossi 2007, p. 186).

Post-rural studies suggest that the following territorial features can represent in themselves (or support the definition of) attractiveness factors:

• the emergence of peculiar post-rural governance patterns not necessarily based on direct participation in policy-making, but, nonetheless, entailing a high degree of consensus on identity definition, objectives and development strategies involving both public and private, internal and external, official and unofficial actors (Marsden 1995);
• the capacity to turn consensus into formal institutions (norms and routines, agreements, policy measures, etc.) so to make the territory able to effectively interact with the global;
• the associational capacity (Cooke and Morgan 1993), i.e. the ability to create new networks including other than classic market–based actors, as virtual loci for knowledge exchange and collaboration promoted by reciprocal trust that originates in local cultures and consolidated social structures;
• the creation of a constructive dialogue between heterogeneous actors able to generate real attachment, commitment and understanding of territorial identities, by granting all actors mediation tools that can make their voice heard.

Notes

[1] In 1997 the mayors of 8 municipalities of the Chianti Classico signed the "Manifesto di Pontignano" and ratifying a strategy for a common vision of Chianti territory based on "(a) the will by the working class and its political representatives to counterbalance a historically dominant power in the area, (b) the process of institutional decentralisation, and (c) rural change." (Brunori, Rossi 2007, p. 197).

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Can Cabanyes as a Green Infrastructure for Local Economy: the Ecological and Social Restoration of the Area

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🐟 ABSTRACT

The area of "Can Cabanyes" was a residual part of one of the most important industrial pols in the metropolitan area of Barcelona. In 2002, the Administration invested European funds to start a recovery process of the whole area. The first step was to create a constructed wetland improving the water quality that coming from the nearby sewage treatment plant. Afterwards, a landscape restoration was incited which led to the recognition of the area within "Natura 2000". Moreover, its social use was implemented through policies aimed at highlighting the identity of the area: the project proceeded by building an environmental educational center, a birds' observatory and a pedestrian and cycle path that runs through the area of Can Cabanyes to reconnect the existing wood located at the edge of the industrial pole and the Circuit of Catalonia.

Nowadays, Can Cabanyes has become one of the most valuable regenerated landscapes of the city of Granollers. This area has activated a virtuous cycle of green economy linked to the waste water recovery. In fact, the city uses reclaimed water for municipal services (green areas and street cleaning) and soon it is expected to supply reused water to the industry. Furthermore, the environmental and landscape enhancement has restored a habitat for many animal species that reappeared in the area. The design of the path called "Green Belt" has also contributed to strengthening the social value of the area. The trail was realized in co-planning with the neighboring municipality of Montmeló with the aim of giving back portions of abandoned wood in a highly urbanized area to the citizens. Can Cabanyes has been converted from a forgotten place to a natural area of municipal interest, that may contribute to the city economy and to the recovery of the existing environmental resources.

Nowadays, the area of "Can Cabanyes" is one of the most important regenerated site located in the peri-urban area of the City of Granollers (Barcelona). Thanks to a long process that involved the local administration, and recently the neighboring municipality of Montmeló, a suburban area with an high anthropic impacts has been restored in a natural space with social and cultural values. At the beginning, Can Cabanyes was an empty spot in the south-east industrial pole of Granollers occupied by landfill waste but the Administration decided to start the recovery of the whole area in 2002.

Introduction

Nowadays, the concept of "green infrastructure" is being developed in all Europe, as a strategical approach of environmental, economic and social sustainability of cities, implemented

through local and regional policies. These kinds of strategies and projects are capable of boosting the economic development, addressing different issues such as the water management, the enhancement of natural resources, and the regeneration of degraded landscape.

In this framework, the authors of this paper analyse and discuss the project of ecological and social recovery in which they participated: "*Can Cabanyes*".

Can Cabanyes used to be a residual undeveloped land located in the south-east industrial pole of Granollers (metropolitan area of Barcelona), right across the Congost River and behind de Motor Racing Circuit of Catalonia, surrounded by the old landfill and the wastewater treatment plant (Fig. 1).

Fig. 1: Can Cabanyes: aerial view

Therefore, *Can Cabanyes* was effectively a peri-urban area with an high antropic impact, but with valuable strengths and potential (its proximity to the river, and residual wooded areas), which have been exploited by the local administration in order to galvanize a smart growth of this area.

Overall, the green infrastructure strategy has led to many benefits, as well as the economic improvement, the recovery of natural existing resources, and also bolstering of the entire community. The objective of regenerating this peri-urban landscape was accomplished through specific projectual actions: the tertiary treatment wetland activated a virtuous cycle of water management, and it recreated a natural habitat for numerous species; the newly built educational structures such as the Environmental Educational Center and the Birds Observatory allowed

community strengthening, and the improvement of public participation in city's social life. Furthermore, the design of pedestrian and cycling path enabled the recovery of abandoned wood in the industrial area and, consequently, greater accessibility and new social spaces.

This paper discuss and analyze the impact of all the singular projectual actions that have contributed to the achievement of the unitary vision of a "*Can Cabanyes's project*" as a green infrastructure system.

Tertiary Treatment Wetland- Method

In 2002, Granollers City Council took advantage of two opportunities to improve and diversify the Can Cabanyes area and the nearby river area : the financing of a Cohesion fund of the European Union and also the urbanisation of an adjacent industrial sector. The sum of these projects enabled to construct a wetland and the improvement the landscaping of the fluvial area. As a result, a highly impacted fluvial environment was restored, mainly thanks to the new wetland which received a part of the effluent waters of the Granollers waste water treatment plant with a double objective: create a new waterbody for biodiversity and set up a reused water system.

The wetland, filled by a 3-5% part of the secondary effluent of Granollers' wastewater treatment plant, eventually amounted to a surface of 1 ha. Areas with different depths and characteristics were created in order to optimize the entire system of phyto-purification and also to increase the ecological value of the area. Subsequently, the wetland was planted with two main species, respectively: common reed (*Phragmites autralis*) and bulrush (*Typha latifolia*). The vegetation grew rapidly, and a year later, it covered almost the entire wetland surface.

The wetland began receiving water from the wastewater treatment plant in 2003, after which specific measures, including assessment of physicochemical and microbiological water quality, to test the functioning of the system. In the first year, experts tackled the issue of wetland's low nitrification capacity, discovered by measuring the ammonium concentration (an environmental contaminant), which proved to be too high. This was probably due to the system's reaction to the conditions of the influent water. Consequently, as the vegetation developed, water quality improved as well, until it reached a low ammonium level in 2005. Nowadays there is a reliable and accurate knowledge of the working of the wetland and the reclamation treatment plant.

This has enabled that the wetland was judged positively as the water quality reached the international standards of reclaimed water (US EPA guidelines).

Results

Given the satisfactory implementation of the wetland, the administration fulfilled one of its main objectives, which was to contribute to the efficient use of urban water resources and

reduce human impact on the environment. In fact, the water of *Can Cabanyes* is now used for several municipal activities, such as the irrigation of urban green areas and street cleaning, thanks to a water pumping system that links different zones of the city of Granollers (rural and urban areas).

Actually, the tertiary treatment wetland and its water supply network are capable of supplying the city a reclaimed water capacity of 200 m3/day (representing a volume of 73,000 m3 / year). Additionally, in the future, *Can Cabanyes* constructed wetland is expected to increase its reused water flow and supply the industry, as a way of improving the local economy even more and increase the attractiveness of the municipality for the implantation of industries which are concerned for innovative and environmentally friendly water treatment technologies, a great opportunity for enhancing the company image and cooperate with a successful local best practice.

Moreover, another massive benefit, which is directly link to the implementation of the wetland, was the ecological regeneration of the area. In fact, *Can Cabanyes* was included firstly in 2003 under the recognition of "municipal areas of natural interest", and subsequently in 2006 was recognized into "*Natura 2000*" network as an integral part of the Congost river area.

Overall, *Can Cabanyes* was transformed in a refuge for wildlife and birds, with a significant increase of local biodiversity. It provides new natural habitats where 86 plant species and 35 bird species, together with the presence of small mammals, amphibians and fishes, have been identified.

Educational Structures-Method

After the fulfillment of the first phase of the project, the administration led the development of *Can Cabanyes* through the incorporation of educational facilities, aimed at the strengthening of the visibility and usefulness of the area. Firstly, an Environmental Education Center managed by the Municipality and the Museum of Natural Science of the city was built, in order to galvanize educational activities with schools and the community in general and to increase the capacity of the site to offer recreational opportunities. After that a bird's observatory was added on the wetland' bank. Moreover, in order to create a more attractive and diversified environment for ecology and educational activities, a 168 m^2 pond for amphibians, as well as two more temporary ponds with a smaller surface of 36 m^2 each, were built by the wetland. Furthermore, every pond is surrounded by natural structures in stone, wood or gravel to recreate suitable environment for the refuge of small mammals, reptiles and amphibians.

Results

Thanks to the environmental center and other facilities included in *Can Cabanyes*, many activities have been carried out, including scientific studies in order to monitor the wetland

habitats and biodiversity of the area, guided tours and natural laboratories with school groups and citizens Therefore, *Can Cabanyes* has slowly become a center of attraction for the entire community of the city of Granollers and also for the neighboring municipalities, with its own recognizability in terms of environmental and social values. And the fact is that around 400 people visit daily Can Cabanyes, a huge amount of users that represents almost a 2% of the inhabitants of Granollers.

Green Belt -Method

The last element of the *Can Cabanyes* project was the design of the *Green Belt*.
The *Green Belt* consists of a pedestrian and cycle path that runs from the Environmental Center through the whole area of *Can Cabanyes* and behind it, along the edges of the Racing Circuit of Catalonia. It was designed to reconnect the abandoned portions of plain woodlands and some parts of the hilly countryside of the city of Granollers (Fig. 2). The project included the cooperation of the neighboring municipality of Montmeló and it represented a key point for the enhancement of *Can Cabanyes'* ecological and social regeneration, because it helped add further fragmented natural areas into the ongoing recovery process belonging to the "green infrastructure" strategy, which aims at creating a new natural and social space between the industrial settlements and the Congost river.
The importance of these existent wooded areas is highlighted by the fact that they represented the only fringes of woods conserved after the industrial expansion of both cities that however lacked a specific function and were subject to deterioration and abandonment.
First of all, a 5.6 km belt was designed along the territory of the two municipalities in order to craft a continuous path around the industrial center and the Racing Circuit of Catalonia. The path reconnected the largest part of woodland possible, amounting to 1.2 km of trail completely immersed in the plain natural woods, within a highly urbanized area. The remaining part of the path crosses and enhances different landscapes of both cities, simultaneously connecting them. Secondly, signs at each nodal point of the path have a specific aim of raising environmental awareness and promoting discussion on the management of *Can Cabanyes* area. Lastly, the path was rendered recognizable by the invention of an easily reproducible logotype, which has contributed to strengthen the identity of the new path.

Results

The *Green Belt* recovered important portions of abandoned woods in a highly urbanized area, thus contributing to strengthen the identity of these natural areas and integrate it in the community by creating a path for leisure and sport (Fig. 3). Moreover, the path reinforced green connections between natural existent spaces, which improved the aesthetics of the region, especially around the Circuit of Catalonia.

Fig. 2: Green belt

Overall, the *Green Belt* reached a new goal of the recovery of green abandoned areas, which were turned into public spaces for the citizens. Furthermore, the cooperation between municipalities led to broader view of territorial planning characterized by the desire to use portions of land that had never been considered for purposes of social development.

Conclusion

Can Cabanyes is a strategic project of the local administration of the area that aims at tackling issues and challenges modern European cities currently face. The strength of this proj-

Fig. 3: Social use of the area

ect lies in its application of multifunctional purposes with a wide vision linked both to the protection and improvement of local resources (water, land, woods) capable of boosting the local economy, as well as strengthening of social ties within the community and offering space for socialization. Therefore, each portion of the project, implemented in the area, helped create an entire system capable of regenerating a degraded landscape and favoring the local economy.

Hence, this tertiary-treatment wetland represents merely the beginning of a process that, starting with the production of reclaimed water for municipal purposes, has led to the restoration of a high-impact area. Specifically, the area of the wetland and its surroundings today exemplify an ecological niche and a focal point for the displacement of flora and fauna. Consequently, the recovery of the area has reactivated its social usability, which was underscored through the inclusion of educational structures such as the Environmental Education Center and the Bird Observatory. Moreover, the Green Belt has extended the benefits of the project by recovering important portions of lowland forests and giving it back to the community. Overall, the project *Can Cabanyes* shows exactly how initiatives of local communities can successfully not only regenerate an important portion of the land in ecological terms, but by doing so, also contribute to the economic development, social

cohesion, and regional cooperation through the creation of additional budgetary resources and eco-friendly facilities with educational and social purposes all at once.

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Landscape as a Laboratory of Knowledge

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❧ ABSTRACT

Interesting experiences are found only in a few cities, and in particular in the city of small size. The experiences of "virtuous community," Grid "Slow City" may offer a number of good practices from which to learn how to make the circuit saving, reuse, recovery, recycling, reclamation, renewable, and most importantly how to transform the ecological, territorial in cultural / civil values. They offer interesting interpretations of what is called "good governance" especially from an environmental perspective (often caught in a systemic dimension). For example, consider the network of "slow city". It was founded as a cultural and proposal of new lifestyle. But that possesses significant practical implications in terms of more balanced regional development, because polycentric. The same report city / country is improved by slow development of these practices. They are able to reduce the depopulation and activities to the centers of larger size, reducing costs (congestion, agglomeration, overuse of resources) both in the areas of concentration in the internal ones (better use of resources, maintenance / control of the territory, etc.).

The development strategy of slow city starts from the recognition and enhancement of local identity, of what is specific in the territory, culture and geography of places and determines a comparative advantage. The culture promotes a slow redevelopment of the area, enhancing agricultural production (especially biological), craft production, livestock production, the gastronomic etc.. At the same time preserves the landscape and makes it attractive for the application farm, thanks to a multifunctional approach, which protects the use values but also the values of existence of the landscape itself.

A new governance is absolutely essential to promote creativity / innovation and to improve the resilience of ecological, economic, social, cultural city and then to actually implement sustainability.

Introduction

Old and new risks facing the world today, in an international context increasingly uncertain, unstable and turbulent: economic / financial crisis, decline in employment, poverty increase, new migration processes, emergence of new geopolitical and economic realities.

The general framework provides us with a starting characterized by its historical reality and by now well-known deficiencies (that greatly reduce the attractiveness of the area). And then, more generally, as a strategic *vision* of the future is feasible? The argument that we want to propose in the following lines is that there is no escape from these conditions, to the decline they can lead, acting only at the *macro* level, but also acting (and especially) at the *micro* level, that is at low level, single subject or territory. Exit from the crisis if we start from the

territory: the local dimension, and in particular the small-scale, which should be made more resilient. The challenge of development today stands as the problem of resilience. C*ities and city networks* are the critical element in promoting economic development. Urban issues, environmental issues and the issue of culture are closely intertwined. For example, economic development, can be born as a reaction to environmental degradation, and generate (or less) capacity for self-organization created, self-management. Central issue is to make the city *more resilient* and all its different components, in order to avoid the decline under the pressure external and internal turmoil, and for her ability to compete.

Of course, we do not have recipes: we can only prepare proposals and considering very carefully the results of that trial.

Resilience and Sustainability

The city is a complex dynamic system, which is subjected to the force fields more and more intense, which bring into play its *resilience*, its ability to preserve the organizational structure and identity, despite the pressures of change.

Maintain and improve the resilience of today becomes the essential condition for growth and development.

The resilience depends primarily on the metabolism of the city. Today it is mainly of type "linear" in the sense that the city receives inputs (materials, energy, water, food) from its external environment and get it on the waste products from the production and consumption (heat, pollution, etc. .).

It is thought that, at the same time when you go urbanizing population in the world, it turns out that cities are the biggest threat to the conservation of the environment. It becomes, therefore, requires a new and different organization of the city, which modifies the metabolism significantly.

Where to start?

Ecological economic is careful to promote the metabolism in the production processes of conversion of waste products into new resources, energy efficiency and use of renewable energy; more and more intense involvement of society. The characteristics of ecological economic can be summed up in the slogan of five "r": *reuse, recovery, recycling, reclamation, renewable.*

However, it is feasible, and under what conditions, a gender perspective?

It is assumed, in the following lines, the experience led to some small size cities. It can be interpreted as an attempt to develop a new base urban economic that derives precisely from the environment and on it, organizes a new chain of production value: an ecological economic (based on the economy of materials, energy and waste processed in resources), which is related with the processes of the knowledge economy and civil economy. It is believed that this new model of base urban economic can be extended also to the areas of historical industrialization and greater size.

Strategies of sustainable development

Interesting experiences are found only in a few cities, and in particular in the city of small size. The experiences of the "virtuous community," Grid "Slow City" may offer a number of good practices from which to learn how to make the circuit saving, reuse, recovery, recycling, reclamation, renewable, and most importantly how to transform the ecological, territorial in cultural / civil values. They offer interesting interpretations of what is called "good governance" especially from an environmental perspective (often caught in a systemic dimension). Represent concrete examples of creativity and then increased resilience of ecological, economic and socio-cultural city, to promote sustainability. For example, consider the network of "slow city". It was founded as a cultural and proposal of new lifestyle. But that possesses significant practical implications in terms of more balanced regional development, because polycentric. The same report city / country is improved by slow development of these practices. They are able to reduce the depopulation and activities to the centers of larger size, reducing costs (congestion, agglomeration, overuse of resources) both in the areas of concentration in the internal ones (better use of resources, maintenance / control of the territory, etc.). The slow city were born as a reaction to the faster, the bigger, the North American culture of instant cities, and have embraced a philosophy (shared both Abbiategrasso, Chiavenna, Fontanellato that from Amalfi, Positano, Pollica, Trani, Francavilla al Mare, up of slow city of Sicily etc.) reaction to the increasing de-contextualization.

These cities "find" a common element in the culture of slow, the slowness in response to the acceleration of life, which then leads to a strong reduction in the quality of life itself. The philosophy of slow city is precisely to offer a new path for local development trajectories compared to traditional development based on the centrality of "commons goods": landscape, environment, cultural heritage, territory, etc..

This culture is very slow assonant culture of sustainable development. It produced trajectories of local self-sustainability. The development strategy of slow city starts from the recognition and enhancement of local identity, of what is specific in the territory, culture and geography of places and determines a comparative advantage.

This culture, in particular, takes the notion of the centrality of person, who lives in relationship with other people, who live in relationship with the ecosystem: that lives in a bundle of relationships / interdependencies. The public space (streets, avenues, parks, etc.) becomes a central element to improve the exchange of relationships.

The natural ecosystem / ecological, but also the social common goods are considered to be preserved and enhanced. Commons and communities are closely interdependent. And this leads to a series of consequences for the fight against standardization and homogenization, demanded the involvement of all cities in the world.

The culture slow, however, is the culture in which we try to reconstruct identity, with which to satisfy the central question of our time is to find identity in a globalized society of standardization. The culture promotes a slow redevelopment of the area, enhancing agricultural production (especially biological), craft production, livestock production, the gastronomic etc..

At the same time preserves the landscape and makes it attractive for the application farm, thanks to a multifunctional approach, which protects the use values but also the values of existence of the landscape itself. The slow culture not only want to refer to the specific characteristics / identity, but to promote the "circularization process." And this is the most important point: circularization of economics processes means it wants to start promoting the transition to '"green economy", (for example, the experience of Giuliano Teatino, etc.).

In these experiments we proceeded to aggregate creative ideas, interests, objectives, behaviors around specific public goods and thus to promote their conservation, particularly their management together with the production of new commons goods.

Were considered to be examples of commons goods: landscape, historical / artistic / cultural heritage, biodiversity, water, cultural diversity. They have been the entry point to the cultural transformation of people, through the reconstruction of a link between these and the territory. The redevelopment of architectural and cultural heritage is a source of attraction of additional demand. At the same time with this reclassification has managed to retain many activities that were in danger of collapse. Also has built capacity for social gathering and production of relational goods. The experiments carried out have been able to expand the horizon of time and space of the participants in their decisions thanks also recognized the importance of the role of third sector: cooperative economy, social, civil.

These experiences are bearers of a message on a cultural level, which can be to build combined lists of priorities with respect to multiple objectives, heterogeneous and conflicting is shared by population and that express the idea of city / local community common good, in the short, medium and long term, in which intrinsic and instrumental values are integrated with each other. Around commons goods have been developed experimental projects that make a synthesis between tradition and modernity, in order to enable creative new practices with which we reconstruct relationships, connections that increase the density of the network of social relations. It is experience that can be applied - under certain conditions - including the cities of medium / large, through processes of real decentralization.

In other words, these experiences also cover inland areas of Southern Italy (Cerreto Sannita, Caiazzo, San Potito Sannitico, Giffoni, Orsaia di Puglia, etc.) may also suggest original perspectives for the larger cities. They have promoted a significant involvement of the civil economy to support the green economy and the knowledge economy.

If we want to promote the implementation of a proposed new urban economy must be published as soon as possible, at all levels, these positive approaches that widen the horizon of decision and make and resistance to progressive weakening of public spaces. More this cultural perspective becomes widespread, greater the chance of success.

Conclusions

A better environment and quality landscapes are necessary conditions for attracting investments, assets and people. But they are not sufficient. It should also be a social and human

landscape quality to trigger local development. However, if you want to carry out the general principles of a new development which respects the environment and human and sustainable development, we need to invest in creativity and innovation. Many cities in Europe and the world are moving in the direction of the green economy, with employment benefits as well as economic and environmental well. Are significant examples of New York, San Francisco, Boston, etc.. How are denser networks and circular relationships between research, business, public institutions, providers of finance and civil society, the greater the success.

The brownfield sites and the port areas are the entry point where you can try out a development strategy that turns problems into opportunities. Need entrepreneurs capable of organizing the recovery, reuse, recycling, regeneration of materials in the production of compost in the clean economy, in the handicraft production of excellence in the field of knowledge / culture, stimulating circularization.

Without the spread of this culture, any effort exclusively technical, organizational, management is doomed to failure.

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"Tourism as Art of the Places". Calabria and the Metropolitan City of Reggio Calabria

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✔ KEYWORDS: Tourism, landscape, arts, cultural heritage, city

🔗 ABSTRACT

"Tourism as art of the places" is an innovative approach to knowledge and use of places interpreted in their general cultural expression:
• Tourism as a need to overcome the distinction between travelers and tourists;
• Art as the high point of knowledge and research into the places;
• The Places as a set of tangible and intangible aspects (landscape, cultural heritage, city etc.)
The issue is connected with the global tourist circuits, that expand quantitatively the tourism demand but find the places able to tell their own identity through discovery. Our team is committed to research PON 2007-2013 entitled "InMoto: INformation and MObility for Tourism" involving three Calabria's Universities. The multidisciplinary research group is experimenting with new topics and new ways of communication. The effort is to build thematic and figurative networks great suggestion, concerning:
Iconography and journey;
Literary tale;
Green corridor and food;
Places of Art;
Places of Cinema;
Lands desecrated of mafia;
Places of classical archaeology;
The great ruin.
In particular, the work explores the Calabria region that needs to recover a deficit of image, of representation, of contemporary communication. Unfortunately the last sixty years, the Communication on Calabria came only through the images of decay and the news of chronicle that have overlapped and often replaced the deep image of the region, recognized as a place with a strong narrative, iconographic and artistic history.
In this sense it must be an ability to resume its interrupted tradition, as "locus" art-historical as well as literary and to be used on the world tourist offer. The research team is committed to organize an exhibition and a Call for Proposal concerning the area of the future metropolitan city of Reggio Calabria. The exhibition will collect the ideas and projects which covered this area in the past 15 years.

Introduction

The apologetic conception of landscape as a resource is increasingly opposed to the crisis of urban landscapes. In the year 2000 twenty-seven States of the European Union subscribe the *European Convention on the landscape* about a new political and cultural awareness that

must be preserved *"[...] landscapes that might be considered outstanding as well as everyday or degraded landscapes". That "[...] area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors",* is subject to the regulatory action, not without the risk of contradicting a definition of landscape understood as construction and historic-cultural palimpsest in which space and time come together in an ongoing process and where the project contributes to new heights and aesthetic configurations.

The defense of the landscape as a local identity, from which to start actions of regeneration of places, is opposed to the landscapes of the crisis, (the endless megalopolis where coexist simultaneously slums and high tech buildings, financial symbols of the globalization; the abandoned territories reduced to ruins, a paradigmatic example is Detroit: the 'dead' city; the atopic suburbs of western cities; all those buildings that cements the coasts) now present in the contemporary iconography under different and dramatic appearances.

The language rediscovers the value of the word landscape, often subject, in the last 50 years to that of territory, compared to planning and urban planning, or to that of environment used in a generalized way under the ecologist pressure. Rosario Assunto (Rassegna, 1980, p.50) states that the concept of territory dates back to the French provinces of Jacobin-Napoleonic origin arbitrarily demarcated that *"philosophically favored 'space' more than 'time', 'geography' more than 'history 'and they hate 'memory';* about the environment we can say that *"... it is something more complex than the 'territory', being the environment territory biologically, historically and culturally qualified ";* landscape is a synthetic unity of the first two in *"... the Kantian sense: not 'unification' of data separately received, but 'unit' necessary for the formation of a consciousness."* Surely, we must consider the value of the landscape not only in its identification with nature, but about his being an anthropogeographic element characterized by the by human presence and action. It moves within a dialectical dualism that on one hand considers its as an object of aesthetic philosophy, on the other side as the object of the sensitive and visual geography. In this context, able to understand its natural and objective value in relation to its development through the aesthetics action, should be seen the value of the landscape as a resource, as a chance to rename territories, a so productive and functional value for the development of local communities.

Calabrian Landscapes

Calabria is an island without sea. It is the summary description contained in the book *Mediterraneo* (P. Matvejevic, 2000). In it you can find a double meaning: on the one hand the concept of isolation and territorial detachment accentuated by a difficult accessibility and penetrability; on the other hand the paradox of a condition 'translated' and evidently little organic and symbiotic with the use of its *more structural* landscape.

This aspect is particularly true in the relationship between the sea, the coastline and the internal landscape. Despite the 793 km of coastal landscape, its varied internal morphology historically favored its economy, with 96% of the territory of hills and mountains. Until the First World War the coastline was synonymous with marginality, desolation, malarial areas; the

whole settlement has historically favored a higher elevation and an arrangement where you can see the sea from afar.

But if the definition of Matvejevic could lead to regard the island as a unitary fact, this does not correspond to morphological and territorial reality, and landscaping of Calabria.

More of that landscape, in fact, we have to talk about landscapes, relative to a complex and varied territory that already led to divide the region in *Citeriore* e *Ulteriore*.

L. Gambi (Calabria, 1965) writes about 10 general conditions: The Pollino, the Vallo of the Crati, the Paolana Chain, the Sila, the Marchesato, the Serre, the Aspromonte, the Plain of Sibari, the Plain of Lamezia Terme the Plain of Gioia Tauro. This is a connotation of identity in the region, together with a specific delineation of economies, resources, cultural and environmental values.

Guido Piovene in 1956 noted: *"Travelling in Calabria means making a lot of coming and going, as if you were to follow the wayward path of a labyrinth. Calabria is shattered by those streams on a steep slope, it is not only different from area to area, but abruptly changes its landscape, its climate, its ethnic composition of the population. It is certainly the strangest of all our regions".* (G. Piovene, 1956)

Commander Curier following the army of Napoleon: *"... what is this beauty is not easy to say. Of course it depends largely on the strong contrast between the mountains and sea, by the alternation of fertile valleys and granite peaks sunburned pleased by the sudden appearance of a landscape full of light, to the dark shadow of impenetrable forests, by the wide open horizons on the seas, the many gorges Alpine sound of running water...."* (L. Curier, 1806)

Based on these considerations, a careful historical and geographical reading, that takes an overview of the main steps in the complex and heterogeneous morphology of Calabria, led to the identification of geographical areas that we called as *landscape rooms*. You can then forward the idea of a new map of the region built through a schedule of 14 rooms that identify the state of the territory and landscape (Fig. 1), within which to work for the promotion and strengthening of cultural resources. In this context, the question may be dissolved between local and global, as a research of economies able to engage on the specific values of the territories.

In particular, the attention is focused on the relationship between resources and the cultural identity of the landscape. In this way we recognize the concept of *resilience* as the possibility of recovery the memory of places. Resilient landscapes in fact, are those able to re-discover identities and relationships stratified and consolidated over time and space without losing the story of the places. It is also linked to their transformation and aesthetic geographical configuration. It can be assumed a kind of archaeological practice which aims to re-compose layers and steps back to a contemporary reading unit, in its complex articulation.

Within this framework becomes central the symbiotic relationship between culture and landscape, that is, between nature and artifice, between human resources and environmental resources. In Calabria, nature is still able to assert a presence linked to its original historical stratification, often destroyed (also by the constant catastrophic events), hidden, to be valued and to be used as a production value and local development. Various national and international statistics, show a steady increase of cultural tourism. This means that it is gradually transformed the profile of the tourist towards an image of 'traveler' interested to places and their use in terms of knowledge and discovery. Cultural tourism in Calabria, here repurposed as
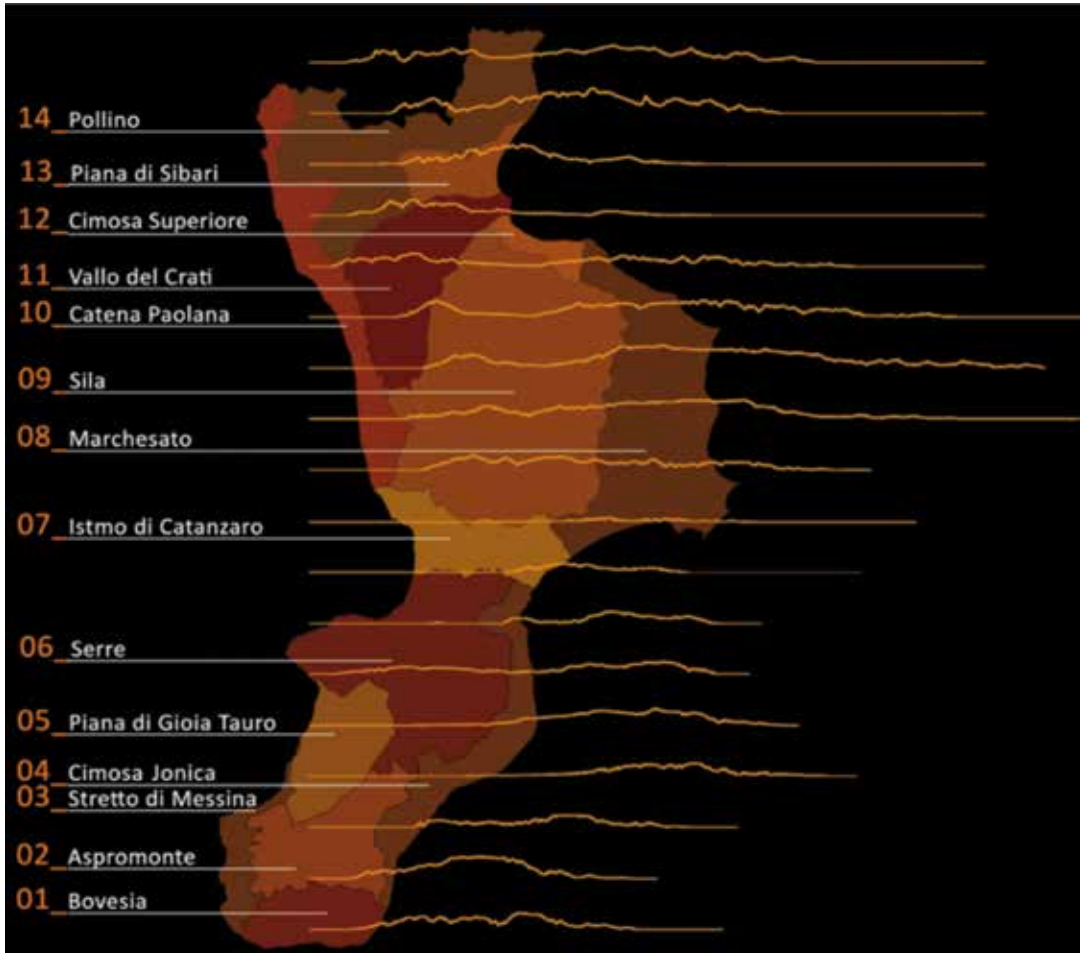
Fig. 1: A new map of the Calabria Region

The tourism as art of the places, translates into an awareness of the place, from its geographical position in the Mediterranean area, then projected in a 'globalization' not abstract or anonymous, but which traces the time and the events that have characterized it.

The tourism as art of the places

The tourism as art of the places is an innovative approach to the knowledge and use of places intended in their more general cultural expression:

    Tourism as a necessity to guide the demand towards overcoming the distinction between a traveler and a tourist;

    Art as the high point of knowledge and research into the reality of the places, in their layering of historical and cultural, material and immaterial heritage;

> The place, as opposed to the term of territory, as a synthesis of specific identity values both in structural (geomorphological aspects and landscape) and superstructural (cultural and environmental resources) meanings.

Calabria needs to recover the lack of an image, and then the contemporary representation of communication, starting from the transformations that occurred in the last 60 years, it is able to compare itself with its connotations of identity linked more to the landscape and history. Aesthetic degradation, as the poor image of the region, have overlapped and often replaced the historical and cultural tradition which described it as a place with a strong narrative, iconographic and artistic vocation. In this sense it is necessary to find the ability to re-take its interrupted tradition, as art-historical topòs as well as literary, to be used for tourism purposes. The increasingly problem about large tourism circuits of globalization which, on the one hand has expanded quantitatively the demand, on the other tends to track down places able to tell even in an identity way through perennials paradigms such the discovery. The concept of identity is linked to that of sustainability as knowledge, respect and then appropriate use of local resources. The idea is to reconstruct an image of the region in which to place the development of tourism in different aspects and purposes. In particular, we can point out some research themes that can articulate a first argument on the Art of the places and Calabria and in addition to other possible ethnic-cultural aspects:

- *The iconography of travelers: the Grand Tour.* Calabria becomes the desire to discover a virgin land, an unknown heritage of a land where nature and archeology live a strong symbiosis: Craven, Sckinkel, Hachert, Lear, Chatelet, Vivant-Denon, De Custine, Wisburne, Gissing, are the most known interpreters. It is apparent that, in the European imagination of the time, and in their iconographic transcripts they show a region linked to a strong presence of nature in dialectic with the anthropic system;
- *The narrative*: Repaci L., G. Berto, M. La Cava, C. Pavese, F. Seminara. Through the works and the presence of writers in some specific places of Calabria, you go through the landscapes described and narrated by the literary point of view. In many cases they may give rise to real 'Literary parks'. They are the stage of the places lived by the writer or poet;
- *Places of Mysticism*: We identify artifacts and religious places. Among others: Gioacchino da Fiore; San Francesco da Paola, Santuario di Polsi, San Fantino, Tommaso Campanella, Cassiodoro;
- *Places of movies:* We will retrace all those places represented and reinterpreted through the cinematic sequences of directors, as PP Pasolini, G. Amelio, D. Calopresti, Munzi;
- *Profaned Lands:* Reading a number of texts and stories, L'inferno by G. Bocca, Terre profanate by D. Lane, you can see the places of the degradation (*Mafia*) that insists on the region along with places of the redemption, as the communities that manage the assets confiscated to the *'Ndrangheta;*
- *Places of classical archeology*: We identifies the main landscapes and positions of sites magno-Greeks that dot the coast of Calabria;
- *The great destruction*: They are the places of the disaster (earthquakes, floods) who scored cyclically the region, handing often majestic ruins as memory stories interrupted: the Certosa of Serra San Bruno, The convent of Soriano Calabro, the convent of Sant'Elia, the died cities of Pentedattilo, Roghudi and Cirella.

The metropolitan City of Reggio Calabria

The area of the Metropolitan City of Reggio Calabria is identified as an experimental context that finds in the landscape, in the morphology varied and complex, the value added for an identity iconography. The territory of the metropolitan city is characterized by four *landscape rooms*: the Piana di Gioia Tauro, The area of the Strait, the Ionic coast, the Aspromonte (Fig. 2).
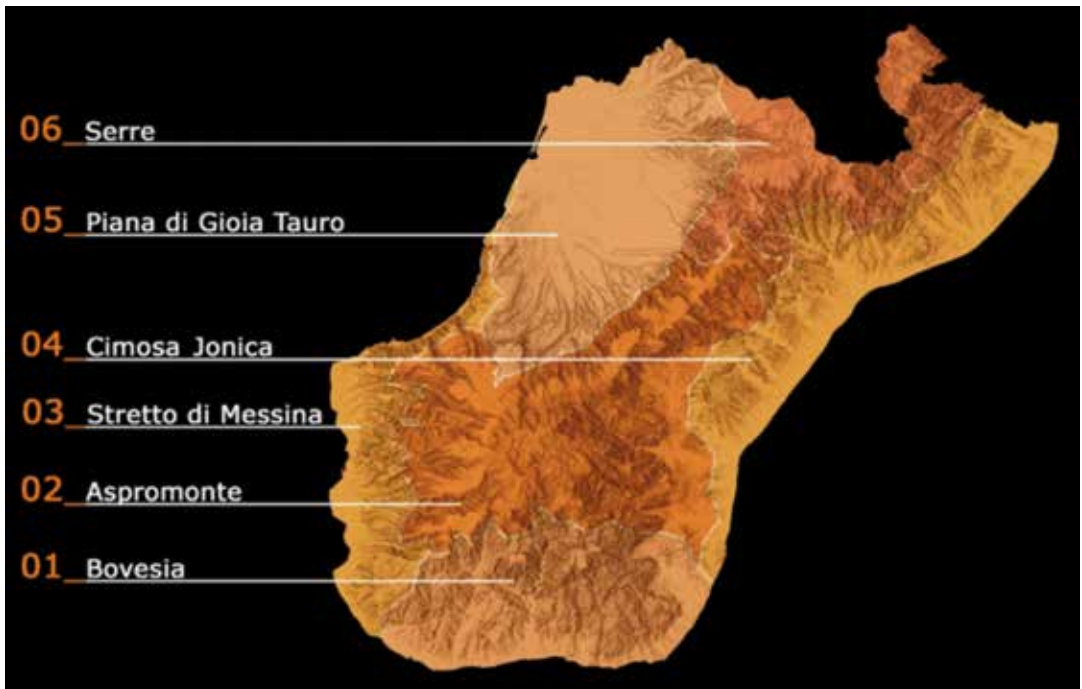

Fig. 2: Metropolitan City of Reggio Calabria: the landscape rooms

Four areas in which are counted, recorded and identified cultural resources, environmental goods, artistic and architectural artifacts. In them it is proposed the tourism as art of the places through the development of thematic itineraries able to enhance the local natural and human resources.
The unifying element is the reading of the landscape, the still predominant element for the identification of places.

The project develops, in the wake of nature, a true green corridor of the new Metropolitan City: from the olive trees of the Piana di Gioia Tauro, to the vineyards of the terraces on the Strait of Messina, the gardens of bergamot in the south of Reggio Calabria. A continuity that attempts to 're-make' a varied scenery consisting of rural fragments, archaeological ruins, waste of the contemporary degradation, natural signs such as rivers, new artificial figures

such as the infrastructural system (port of Gioia Tauro, A3 Highway), settlement system, along with the ability to renew the threads of a story in admixture with the literary, historical and iconographic aspects (Fig. 3).

Fig. 3: Metropolitan City of Reggio Calabria: the thematic itineraries

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Mining Landscapes in Sicily: Problems, Strategies and Perspectives

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✔ KEYWORDS: Industrial Landscape, Industrial Archeology, Mining Landscape, Sicily, Landscape Design

● ABSTRACT

Sicily has been characterised by a striking mining activity throughout the 19th and 20th centuries. It deeply changed the appearance of the internal areas of the Island, transforming natural and agricultural landscapes into industrial ones. When the extraction activities finally came to an end, the industrial landscape started to be regarded from another point of view, as a cultural and touristic value. However, mining landscape is today a wasted opportunity. Large parts of machines, railways and chimneys are disappearing due to carelessness and abandonment. Anyway, the crisis which is affecting Europe will eventually force us to look back at these territories as a possible resource to overcome it. The main goal of the research I'm conducting is understanding how this particular landscape might become a financial asset for Sicily. From this point of view, cultural heritage is not considered only as something to protect and save. Using design as an instrument to know and understand our territory, the research is investigating which role architecture and landscape may have into the transformation of these spaces. Therefore, landscape design is considered a way to transform wastelands and to protect and save them. The research is also focused on a case study. This is a large park in a former mine yard close to the Greek city of Morgantina and the UNESCO site of Villa Romana del Casale. Its proximity to the freeway, the esthetic quality of its landscape and its localisation in the very heart of the region makes it one of the best sites to test design hypotheses. It is all about investigating the possibility to create a network of cultural sites linking classical and industrial archeology.

Introduction

Much of the landscape of Sicilian inner areas was transformed throughout the 19th and 20th centuries as a result of the rapid growth of sulphur mining. Over two centuries of extraction changed its appearance in a substantial way, transforming rural landscapes into industrial ones. The main aims of this paper are to provide a description of the social, physical and economic factors that led to the making of the Sicilian mining landscapes and to explain how they might represent an economic resource. The mining district comprises the most authentic and historically components related to the mining activity dating from the end of 1700 to 1960, the period during which the industrial activities and social processes had their most significant effects. It represents a remarkable cultural landscape in terms of its continuity and homogeneity, extending for around 100 km in the middle of Sicily, through the three cities of Agrigento, Enna and Caltanissetta. It consists of physical and geographic components, including archeological industrial heritage, vestiges of ancient railways, stations, worker houses, pit heads, residual industrial buildings. All of these architectural and landscape elements are deeply related to geology and topography. Nowadays, the territorial district experiences a marginalisation

process and a progressive population loss due to the mining activities abandonment and to its distance from the main cities of the Island. Therefore, this paper discusses the possibility to use derelict sulphur mines as attractions for sustainable local development. An overview of the available literature outlines existing social, environmental and economic perspectives on the feasibility of this form of tourism development. Moreover, what is now happening in foreign countries as France, England, Germany and Spain encourages this dissertation. In particular, the research that is being conducted considers as its main case study a large mining park in the heart of Sicily, very close to the archeological areas of Villa Romana del Casale and Morgantina. Its importance is due to the existence of all of the machines necessary to sulphur mining and to its landscape as a result of the transformations caused by mining industry.

Nowadays, remains of abandoned industrial complexes and large production areas have been taking a leading role in territorial transformations. They might be remains to recycle or ruins to valorise. We are mostly dealing with an identity structure that can still represent a resource for integrated and sustainable projects. Procurement and use of raw materials techniques declare their belonging to landscape through settlement and architectural forms still able to shape new geographies (Vanore, 2013). In this case, architectural, urban and landscape design has to deal with an industrial cultural heritage and its practice might express a value for the future. Contemporary design is oriented towards solutions with a potential to create new cultural heritage. It has to rethink those spaces as parts of a landscape system. In that case, architecture takes a fundamental role in the conservation and protection of cultural heritage as an element that can still create new geographies and new landscapes.

The Making of Mining Landscape

Three different phases structure the making of the Industrial Landscape. We might identify a pre-industrial phase, an industrial and a post industrial one (Trinder, 1982). The first one coincides with the rural and agricultural landscape. The second one corresponds with the period in which industrial activities are in progress. It heavily changes the appearance of rural areas through material and immaterial components. Networks of railway lines, industrial buildings, factories, chimneys then occupy free agricultural spaces. Furthermore, temporary elements also contribute in featuring an Industrial Landscape. Pollution was and still is a remarkable sign. Smoke is an inevitable concomitant of mining and manufacturing activities. Pollution also caused the deposit of solid waste upon the ground. In some cases, it even created man-made mountains. Moreover, it is almost impossible to imagine an industrial picture without all of these elements. When the activities eventually come to an end, the post-industrial time starts. Although we keep calling it as an Industrial Landscape, there is a great difference between the two periods. The third phase constitutes a pale copy of the second one. However, most of the tracks and marks that had previously characterised industrial complexes still exist. They constitute an important heritage to save and protect. We might easily make use of this sequence to describe the processes that led to the making of mining landscapes. Indeed, mining activities can be considered a special category of industrial sites (Preite, 2008).

Mining Landscapes in Sicily

Mining landscapes in Sicily basically share the same process. The district rests on a cluster of hills and mountains, rising to 600 m and interspersed by deep valleys featuring the remains of sulphur mines. The area also features railways necessary to transport sulphur to the coast, and port areas from where it was shipped abroad (Rebecchini, 1991). The mines contributed substantially to the overall economic development of a specific area in Sicily between the 19th and the 20th century. However, when the industrial activities came to an end, these spaces were for long time abandoned. That event caused the destruction of a great part of the machines and the buildings. Mining areas became in a few time wastelands, erasing both the memory and the identity value of the community. Nevertheless, in 1991 a legal disposition recognised mining heritage as a cultural asset. It had contributed to save and protect some of these spaces, with the consequent foundation of several mining parks. Anyway, none of these initiatives has really contributed to the economic growth of the local communities. This fact might have two different causes. The former must be related to the clear diffidence towards considering these spaces as local development actors and as cultural assets. The latter is due to their management model (Perelli, 2011). They don't organise a network or a system. Each park has an own structure with its own organisation. This management model has determined, after a short enthusiasm, the exhaustion of the capacity to represent an economic resource. Actually, an interesting bill was presented to the Sicilian government in 2006. It proposed the constitution of a single mining district with a single organisational structure. This condition would allow structuring the system as the most significant mining parks widespread in Europe. Anyway, it has not been approved, and the law of 1991 still remains in force. Despite this, the financial crisis we are experiencing forces us to look at the mining sites as a fundamental resource for local development. Under this point of view, landscape and cultural heritage can directly affect the economic asset of a territory. It is then necessary to review the criteria through which such a heritage is used. Therefore, the research that I'm conducting starts from some questions. How can we establish a new cycle of life for abandoned mines considering them as a resource rather than an event to delete? How can we image a strategy able to create new landscapes and new business forms? Can we imagine a methodology to organise these spaces into an archipelago of sites? Can we imagine a system of mutual relations between them and the other territorial elements? Which role can landscape and architectural design play in this? In other words, we are dealing with some familiar issues: tourism, culture as post-industrial salve, regeneration and regionalism.

Mining Parks in Europe: an Example

We are conducting a comparative research to understand how other countries are dealing with similar conditions. The case of the Nord-Pas de Calais Basin is possibly the best example of a mining heritage tourist project, based on the "heritagization" (Conesa, 2007) of

the area. It occupies the French part of the northwest European coal seam. Its landscape has been shaped by three centuries of mining activities. The highest artificial mountains in Europe have been built with discarded products. The several spoil heaps scattered across the region constitute a featuring mark of its landscape. The end of mining activities involved the entire population in a great project of reuse and valorisation of mining archeology. In some cases, remains of industrial activities have been organised in park museums of science and technology. In other cases, creativity, culture and innovation have been used as instruments for urban and territorial regeneration. Some parks have been built in the places previously occupied by industrial areas, treated as traditional theme parks. Today, there are more than 15 parks where people can enjoy their leisure time. Their planning also needs to give protection and management in areas where researches on habitats and biodiversity are developed (Burzi, 2013). The negative perception of the former industrial areas has been completely reversed. The spoil heaps have become protected spaces. They constitute a green belt that represents the beginning of the construction of an ecological network across the nation. Moreover, the entire district was included into the Unesco World Heritage List in 2013. This is basically due to three justifications related to the fundamental contribute that it gave to the improvement of coal mining techniques, to its landscape as an eminent example of the mining development throughout the 19th and 20th centuries and to international repercussions that the social, technical and cultural events associated with it had. Furthermore, a regional branch of the Louvre was created in the city of Lens in 2012. Although many cities put proposals to host the new museum, Lens turned out to be the best site. The city offered a site of 20 hectares in a former mine yard, eventually closed in 1960. The decision to build the new museum in Lens is highly symbolic. It is a way to renew the region from the cultural point of view and a means to increase its tourism. The inhabitants of Lens gave their wholehearted support to the campaign. They understood the extraordinary opportunity that it represented. The French case demonstrates that the protection of ancient remains linked to processes of renewal and urban regeneration can give a substantial contribution in the creation of new business form. The region is today living an interesting period of urban and cultural renaissance.

A Mining Park in the Heart of Sicily

On the basis of such European examples and the latest trends of architectural and landscape contemporary design, the research is trying to identify possible strategies to activate new sustainable cycles of life for the mining sites in Sicily. A large park in the heart of the Island has been chosen as the testing ground for the theories and the issues we are dealing with. It is the mining park Flostistella - Grottacalda, near Enna. It is one of the largest complexes of Industrial Archeology in Southern Italy. It stands on a cluster of mountains incised by a deep valley. In 1991, a legal disposition formally established a mining park authority in order to protect the ruins of the industrial activities, and some restorations have been conducted. The site features all the machines necessary to sulphur mining from the end of 18th century to 1988, almost in

chronological phases. The headgear structures cover a long period of time, from the oldest ones in stonework to the last ones in steel. Similarly, we can find all of the equipments essential to sulphur refining such as the *calcheroni* or the *forni Gill* (Rebecchini, 1991). The choice of this site is related to some extent to the possibility to test a complex design strategy linking two different territorial systems. The former belongs to the system of mining sites in Sicily, the latter to a territorial micro system of parks including two archaeological sites of worldwide interest, the Greek ruins of Morgantina and Villa Romana del Casale. (Fig. 1)

Fig. 1: Grottacalda Sulphur Mine (1940). Railway and Headgear Structure. Ufficio Fotografico Montecatini. Available from: http://www.lombardiabeniculturali.it/fotografie/schede/IMM-3h030-0001006/. [Accessed: 09th April 2015].

The overall transformations that have shaped the industrial area over the years clearly explain the theories expressed by Trinder. At first, the industrial activity deeply changed agricultural landscapes. Fields and valleys were occupied by machines, and the rural landscape was transformed into an industrial one. Afterwards, the end of the mining activities determined a further evolution of that site. A program of State Forestry Corps started a plan of re-naturalisation and reforestation of the area. It is now heavily wooded, and the appearance of the industrial landscape has been totally changed. The vegetation mostly consists in *Pinus halepensis, Eucalyptus regnans, Cupresus sempervirens,* completely different species from the native flora of the Sicilian landscape. However, the layers forming the park - vegetation, industrial buildings, headgear structures, workers' houses – establish mutual relations between themselves and the other landscape elements.

The featuring aspect of the area is its orographic and topographic condition, which orients every settlement choice. (Fig. 2) It is deeply related to its subsoil, the other big issue of the area. Deep galleries draw interesting underground spaces, obtained by subtraction of material. The main symbolic building is placed in a higher position and overlooks the entire valley. It is perfectly located in an axial position with respect to the *calcheroni* below. All the remains of

Fig. 2: Grottacalda Sulphur Mine. Mining Landscape (1940). Ufficio Fotografico Montecatini. Available from: http://www.lombardiabeniculturali.it/fotografie/schede/IMM-3h030-0000964/. [Accessed: 09th April 2015].

industrial archeology are gathered in clearings surrounded by the trees. The area now appears like a normal park. The main challenge of the study is to use the proper tools of architecture and landscape design to investigate potential transformations for the area. It's exploring a system able to establish relations with small-scale elements - vegetation, architecture, orography, topography, soil - and with large scale ones - between the mining sites and the other resources of the area.

The possibility of re-using the derelict industrial and mining structures from a cultural point of view might favour the development of an economic opportunity to face the crisis that affected the Sicilian mining district after activities were abandoned. Cultural tourism would enable us to generate new socio-economic dynamics and, at the same time, to perform action strategies to conserve the heritage and the cultural identity (Conesa, 2007). The trend is to reconstruct sites, buildings and instruments in situ, protecting the natural and cultural environments and showing the elements in their context. This condition would convert mining heritage into an element able to generate employment, transforming that resilient landscapes into an opportunity to overcome the crisis. (Fig. 3)

Fig. 3: Grottacalda Sulphur Mine (1940). Ufficio Fotografico Montecatini. Available from: http://www.lombardia-beniculturali.it/fotografie/schede/IMM-3h030-0000962/. [Accessed: 09th April 2015].

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Opportunity for the West Peri-Urban Area Long the Medieval Walls of San Gimignano

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✔ KEYWORDS: landscape and urban regeneration, identity, cultural heritage, soft economy, historical and rural resources

🔖 ABSTRACT

The paper presents the experience of the project of urban and landscape recovery/valorisation of the peri-urban west area outside the walls of the medieval town of San Gimignano, UNESCO World Heritage Site in Tuscany; this is the winning project of the ideas international competition of launched by the same municipality1.

The paper highlights the method and the approach used for the contemporary project in a historical context with the aim to reorganize the local resources (historical, cultural and rural) promoting the touristic/cultural and rural/environmental chains to create, both directly and indirectly, economic advantages to the territory. The regeneration project is supported by the analysis of the main facilities and activities in the territory with the aim to improve the development of environmental resources and local economies. For this reason, the project provides soft economy activities and facilities for the local inhabitants and integrates the existing functions for tourists within the medieval walls.

The project provides for the recovery of existing buildings and realizes new public spaces open to the landscape by restoring the relationship between the historical city center and the surrounding rural land. The core of the project is a "doorway" that connects the medieval city and the peri-urban area with the future agricultural park.

The project identifies the opportunity and strategy to relaunch the economic development of the San Gimignano Municipality, recovering the traditions and signs of the past, the landscape, and the historical/cultural heritage to improve the living conditions of local inhabitants and increasing the touristic attractiveness of the place. The project is linked with the policies of the San Gimignamo Municipality for the promotion of a process able to guide towards a more sustainable tourism which start from the demands of civil and local society (so bottom-up and shared policies).

The project proposal, in accordance with the objects and scope of the "Urban and landscape regeneration of the peri-urban belt over the western walls" international ideas competition announced by the San Gimignano Municipality, redesigns as a whole the peri-urban area close to the walls and the old town.

A strong dishomogeneity characterizes the area with a combination of various uses, urban green spaces, and residential buildings, factories for craft work, disused and abandoned buildings and green areas. The area is destined to cover a strategic role in the planning of the future scenario for the town of San Gimignano thanks to new provincial connection road project which will bring a new outlook for the town.

The competition, in accordance with the approved territorial and urban plans, aims to restore

the relationship between town and surrounding countryside through the valorization of its peculiar agricultural landscape, the redesign of the morphological tissue and homogeneous regeneration of public and public open spaces and green areas.

Given the articulated composition of the peri-urban belt and to assist the competitors in the elaboration of design proposals, the Municipality divided the area in seven different design zones, defining for each a planning use class and urban loads.

The Municipality chose the international ideas competition as the best way to guarantee the quality and diversity of the projects, as a mean to facilitate the administration in choosing the new design proposal most compatible with the territory. Moreover, the publication stages (pre and post competition) help to spread a quality-driven design culture and to highlight exemplary projects.

Due to budgets cuts, the administration have lately made ample use of ideas competitions to compensate for the inability to hire renowned architectural firms.

Taking into account the requests set out in the competition announcement and the rich and complex character of the territory of the San Gimignano Municipality and its cultural heritage, a multidisciplinary team was formed with architects, planners and landscape architects. Right from the analysis phase the work benefited from the different know-how and approaches and managed to understand the evolution of the territory to elaborate a coherent but innovative design for the future of the peri-urban area.

The design proposal is based on a wide outlook able to integrate and interpret the main character and transformation in the context of the unity where rural and natural elements interact with settlement, economic, sociocultural and historical ones.

The interdisciplinary nature of the project allowed to read the main characters of the territory and how they interact with each other without losing the overall view, the actual strength of the design proposal.

Thus, the project was conceived through a methodological approach which was at the same time plurisystemic, interdisciplinary and multilevel. Working on the different levels, local and territorial, helped to identify the territory's founding and structural systems and the multiple connections that govern and modify it. The plurisystemic approach, meaning the reading through "systems" (Fig. 1), was the most helpful in devising a structure for the design choices since it allowed the team to learn the local structure and the interconnections between the elements in each system, both analytically and critically, so that they could propose compatible solutions (Trusiani, 2010).

To ensure a correct interpretation of the values and the peculiarities of the area as a whole, a number of interpretative structure schemes have been set out to depict a scenario consistent with the territorial and urban plans. As a mean of verification of the design solutions a systemic evaluation of opportunities and positive effects generated by the project was elaborated.

The quality of the hilly landscape and of the agriculture mosaic, the settlement of the urban center structured in a system of square and open spaces and the profile of the old town with the towers and the Castle are the key elements considered for design purposes.

The medieval streets and the composition of the ancient spaces inside the historical city

center have inspired the spatial organization of the project. In the medieval town the perception of the countryside surrounding its walls is always filtered and shielded by directing one's gaze and visual to definite spots, usually corresponding to the historical gates, thus never achieving a complete overall view. The main relationship public spaces, where the political and economic life of the town is, are defined by fronts of buildings which underline the separation between the *urbis* and the countryside. The matrix of the public open spaces in the historical center is organized longitudinally along the two main axis which support the settlement and the intersecting minor paths in a "comb-like" configuration.
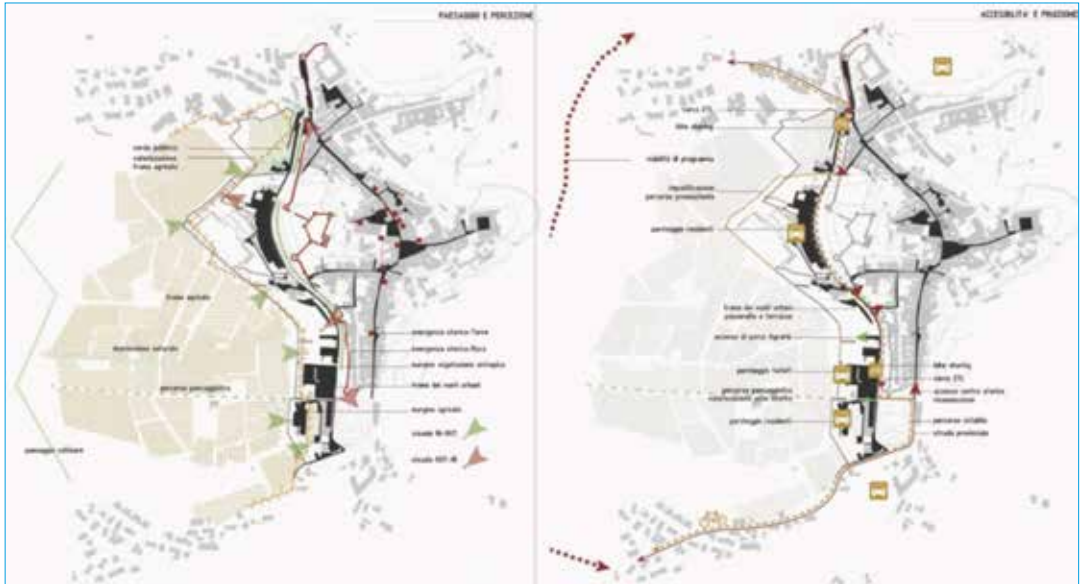
Fig. 1: Interpretation schemes for the reading of the "systems"

The main intersecting paths become, in the project proposal, the combining element between the consolidated old town and the surrounding rural land through the integration of irregular shaped relationship public spaces, reminding of the medieval tissue (Fig. 2).

Public spaces "opening" towards the landscape along the main road network outside the walls are meant to be places for social gathering and not just transit.

So the project respects both the great esthetic perception of the old town and the highly valued traditional rural landscape with its vineyards and olive groves situated in the valley, redefining the visual towards the landscape and the "Poggio".

For this purpose, the project proposes a **"doorway"** that connects the medieval city and the peri-urban area with the future agricultural park.

Another important aspect of the project, from a landscape point of view and for the perception of the visual assets as for its functional role, is the recovery of the historical road network. This has the task of integrating amongst them the different landscapes: the rural area, the peri-urban and the settled and historical landscapes.

Natural and economical materials with a low environment impact such as wood and local rock were used. The urban design follows the same creative input and, being modular and assemblable, can become different functional elements for different areas, at times screens and other times openings with which to guide the visual towards the landscape (Fig. 3).

For the purpose of enhancing and maintaining the peculiarities of the place, the project intends to recover the existing volumes and to open new spaces and activities in service of tourists but most of all of the local inhabitants.

The urban renewal intervention is supported by the analysis of the main services and activities present on the territory with the aim of raising the development profile of local natural and economic resources. The project contemplates the addition inside the walls of compatible functions to integrate the already existing ones, aimed exclusively at tourists, and to promote the development of an economy based on knowledge and innovation but also on identity, history, creativity and quality (Cianciullo, Realacci, 2005). This is intended as a soft economy operation, an economy able to integrate the technologies and web 2.0, the landscape quality, research and local products. Concerning street furniture, particular attention is given to interactive info points, to promote local activities and resources, which will help the users in discovering the territory in a quick and easy way.

Fig. 2: Concept of the project proposal

Soft economy can find the opportunities presented by the local traditions and transform them into development factors and enhance sustainable tourism as opposed to those globalized and conventional and activities present in the old town. These last were born to satisfy the number of tourists (twenty thousand coaches and two million cars for a total of about three million persons) who visit the UNESCO World Heritage Site yearly and who contribute to the loss of cultural identity and to the depletion of the local economy by limiting the development of a local production network on the territory able to support the economic activities beside the tourism sector.

The project and some of its functional, formal and strategic choices are in accordance with the policies lately introduced by the Public Administration to promote tourism and economic development and to improve the quality of life for the citizens of San Gimignano. In fact, the project proposals are also in line with the Osservatorio Turistico di Destinazione (The Tourist Destination Observatory – OTD), a model elaborated within the "NECSTouR" (Network of European regions for a sustainable and competitive tourism) context and is also promoted by the Dipartimento di Economia Politica e Statistica of the University of Siena and the Research Society Metodia.

The Observatory identified the strengths and weaknesses of the local tourism system with its potential for development and the limits posed by the objective of harmonizing the economic aspects with the social and environmental ones. The OTD focuses on promoting social dialogue and measuring phenomena connected to tourism and, through a series of indicators, monitors competitiveness and sustainability.

The Municipality also launched the project "SangimignAmo" to identify, together with the companies in the territory, new lines of development for the local economy. Its stated goals are to provide the city with a Charter of Values approved by the townsfolk and define a series of indicators on which every company can base its behavior to better work alongside others for the success of the town of San Gimignano.

Fig. 3: Masterplan and detail of the project

All these endeavors, the international ideas competitions, the Observatory and the "Sangimi-gnAmo" project, the policies and activities if well integrated and managed by the Municipality, can protect the medieval town of San Gimignano from those changes apt to violate the rural productive context and the social space and modify the right to the city and democracy (Settis, 2014).

The policies implemented by Public Administrations in the "città/museo" must tend to self-regulation and a balance between operators, tourists, entrepreneurs and the citizens of the host country so that none of these categories can take precedence over the others.

Notes

[1] The working group is composed by Elio Trusiani, Roberto Bianchi, Emanuela Biscotto, Silvia B. D'Astoli, Piera Pellegrino, Luca Sartor, Federico Tria, Paola Veneto.

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Ascoli Piceno, Palazzo dei Captanii del Popolo

CHAPTER **VII**

Resilient Adriatic Landscapes

Resilient Plans and Projects for the Adriatic Landscape

Rosalba D'Onofrio

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Today's cities are particularly exposed to different types of risks originating mainly from climate change, the lack of energy, decay processes, and decommissioning phenomena. At the moment, there are no global solutions to improve the vulnerability of our cities or contrast the external demands that cities are facing and will increasingly face in the coming decades. Faced with such challenges, it is necessary to identify and promote policies capable of increasing the resilience of our cities and territories.

If we use Walker's definition (2004) of resilience as "…the capacity of a system to absorb perturbations and reorganize itself under change in order to maintain the same function, structure, and identity", the landscape, which by nature is dynamic, flexible, and multi-scale, can become an effective key to read, interpret, and design the contemporary city.

In fact, the landscape:
- acts as litmus paper for the effects that human activities produce on the natural components of the planet (water, land, air, flora, and fauna), affecting their quantity, quality, and distribution as well as the cultural values of the territory. The landscape reveals "adjustments" to dynamic variables (social, economic, environmental, etc.) and losses, because sometimes external shocks have non-reversible effects on the natural and cultural components;
- precisely due to its nature, offers the possibility to reflect from the resilience point of view on those urban standards that, formulated by rationalist urban planning based on the principle of unlimited expansion of the city and mobility, are now inadequate. In recent decades, the division of human activities in space and time has changed. One person lives and works in the same space or lives and works every day in places separated by hundreds of kilometres.

Resilient urban landscapes, the effect of resilient policies, plans, and projects, will be those landscapes that reveal, on the basis of qualitative criteria, the good health of a territory in which the following are active.
- Policies, plans, and projects to allow the creation of multi-functional landscapes in which the well-being of people, sustainable mobility, the culture and identity of the territory, and the protection and strengthening of natural cycles are designed in an integrated way. Processes to recover degraded or contaminated areas and fragile situations in the territory.
- Policies, plans, and projects to contribute to improving life in cities. For example, the problem of the urban heat islands would be addressed by encouraging the formation of

ecological corridors that allow the urban habitat to be reinserted in its biotope on the territorial scale, overcoming the purely theoretical limits of administrative borders.

To favour the confirmation of this new model of the city and territory, the following are manifest today.

- The need to overcome conservation *tout court* because the landscape is in continual evolution and policies and plans regarding it should be orientated at integrating conservation, planning, and management.
- The need to propose new *urban and territorial* governance, integrating different scales of territorial and landscape government.
- The need for social participation in landscape management processes because resilience is a process that is not exclusively planning and design, but should enhance spontaneous actions.
- The need for institutional and social flexibility to adapt policies, projects, and actions to processes of socio-economic and landscape innovation (also with the activation of synergy between local public and private resources).

The School of Architecture at the University of Camerino and the Spin-off Terre.it in the Adriatic area are experimenting with this approach on different scales of analysis, assessment, and design.

The Research Activity

The objectives of the FAR university research QLand/QLife (Quality of the Landscape and Quality of Life in the Sustainable Adriatic City) relate to the possibility of making cities and territories able to select policies and actions that will allow the urban organism to adapt and respond to the effects of climate change. This is done with the support of a transdisciplinary approach and through the construction of a dynamic integrated model that will interpret the complexity of urban systems and serve in turn to build a decision-support system to choose resilient urban policies and projects. The contribution in this chapter by Roberta Cocci Grifoni and Sebastiano Ferranti concentrates precisely on this current research.

The theme of coastal landscape renewal starting from places of urban decommissioning that unite many of the Adriatic cities was the theme confronted in PRIN research from 2006-2008: "Hyper Adriatic—Public works and the Adriatic city. Directions for renewing the urban and territorial projects". These areas constitute a park available for strategic interventions to renew the coastal landscape, where designing for environmental continuity allows the narrow limits of urban zoning to be overcome. In this network system, the survey of the Adriatic area has brought to light the exceptional potential of partially or completely decommissioned areas that play the role of nodes around which the networks of urban, ecological, and territorial green areas are situated.

The following projects work on the large scale: the REM (Marche Ecological Network) experience; the Province of Teramo's strategic plan; the feasibility study of SS 16 Adriatica in the Marche, Abruzzi, and Molise territories; and the project to mitigate hydrogeological risks in the Macerata area, etc.

The themes dealt with in these plans, projects, and programs are:

- controlling land consumption;
- preventive environmental compensation;
- securing the territory from hydrogeological instabilities and flooding risks;

creating networks and systems of green spaces for the ecological functionality of the territory, but also to reorganize and improve the quality of settlement systems;

- the quality and consumption of primary resources, especially water;
- sustainable mobility and landscape enhancement underlying tourism development in the territory.

REM grew out of a need to remedy the fragmentation of natural environments distributed throughout the regional territory. It is characterized by an important inexhaustible urbanization process and settlement spread. In contrast, the institution of protected areas in protection and conservation reasoning has generated a process of insulating and progressively reducing these areas. Structured on "nodes" and "corridors", REM is strongly innovative when prefigured as an environmental network that influences urban areas and degraded contexts in order to return functionality and ecological connectivity to the entire territory. REM is to be adopted within local and supra-local territorial planning tools (Fig. 1).
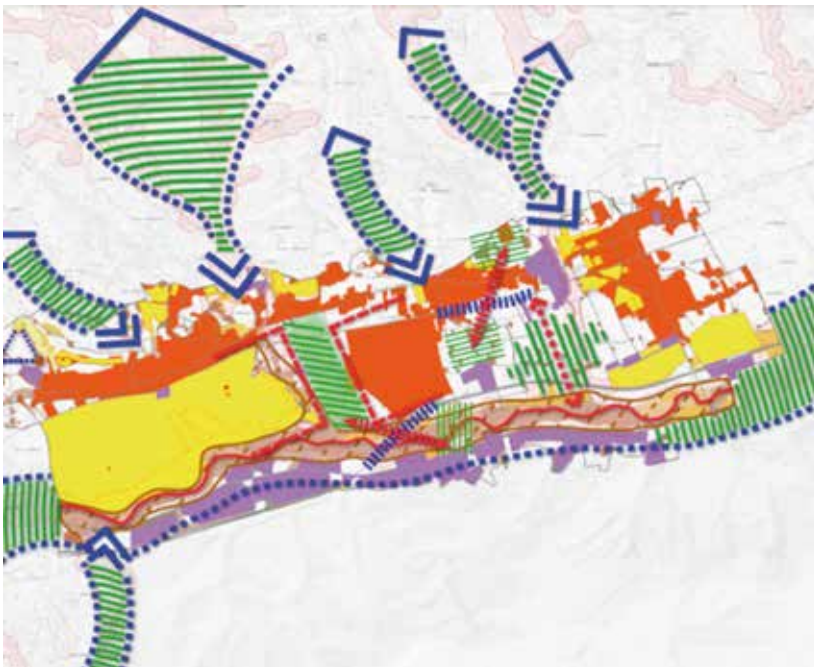
Fig. 1: REM Project Areas: Tronto river valley. Strategic orientations.

In the Province of Teramo's "Strategic plan for environmental sustainability and land consumption containment", an assessment of the state of the territory identified a series of criticalities in the Adriatic settlement system such as: settlement dispersion; connections among different settlement systems with the loss of their identity and recognizability; the fragmentation of productive areas and their low functional and infrastructural qualification, and in some cases their decommissioning; the low urban quality of the main urban centres and especially the central areas; the fragmentation of the most productive agricultural areas; and the lack of landscape enhancement. With respect to these emergencies, the strategic plan establishes: enhancement of the agricultural areas and containment of land consumption; the principle of preventive environmental compensation of green areas and securing the territory, such as measures to compensate for new transformation provisions; River Contracts and Landscape Contracts (as negotiated planning instruments to concertedly identify objectives of territorial development that are sustainable through the involvement of territorial economic, social, and institutional actors); and reference to good practices and directions for landscape/environmental renewal.

The landscape, as a term for comparison and control of the project for the road infrastructure, is one of the weighty themes of the "Feasibility study to upgrade the SS 16 Adriatica in the territories of Marche, Abruzzi, Molise, and Apulia down to Foggia". This activity to "compare and control" occurred through a critical interpretation of the relationship between the new road path and the system of landscape and environmental values of the territories crossed along the Adriatic coast.

The theme of landscape enhancement of the "water resources" and securing the Adriatic territories from hydrological risk by regenerating the landscape is the theme developed in the following two projects:

- The Integrated Territorial Project of the FESR 2007-2014 Asse 5, "Reflections on Water".
- This project is based on the theme of water and starts from territorial use to organize and implement area projects, network projects, and strategic projects.
- The "Project to mitigate hydrogeological risk in the Macerata territory" grew out of the need expressed by some municipalities and mountain communities to evaluate and verify the "state of health" of the waterways of the high valleys of the Potenza, Esino, Chienti, and Tenna Rivers in order to attain a planning proposal whose general objective is to recompose the general balance of the rivers (and related tributaries) that fall within their territories. The planning proposals regard both geological/engineering interventions and the restoration of biological continuity of the waterway in the case of fragmentation due to transverse works as well as the landscape/environmental enhancement of the waterways examined (route prediction, rest areas, environmental network, river parks, etc.) (Fig. 2).

The other scale of landscape design to affirm a new model of the city and territory capable of governing change is the local scale. On the local scale there are the experiences in the Adriatic area of the Pineto General Regulatory Plan (GRP), the Abbadia di Fiastra management plan, the enhancement of the rural Monteprandone territory, and the management plan of the Sentina Regional Reserve.
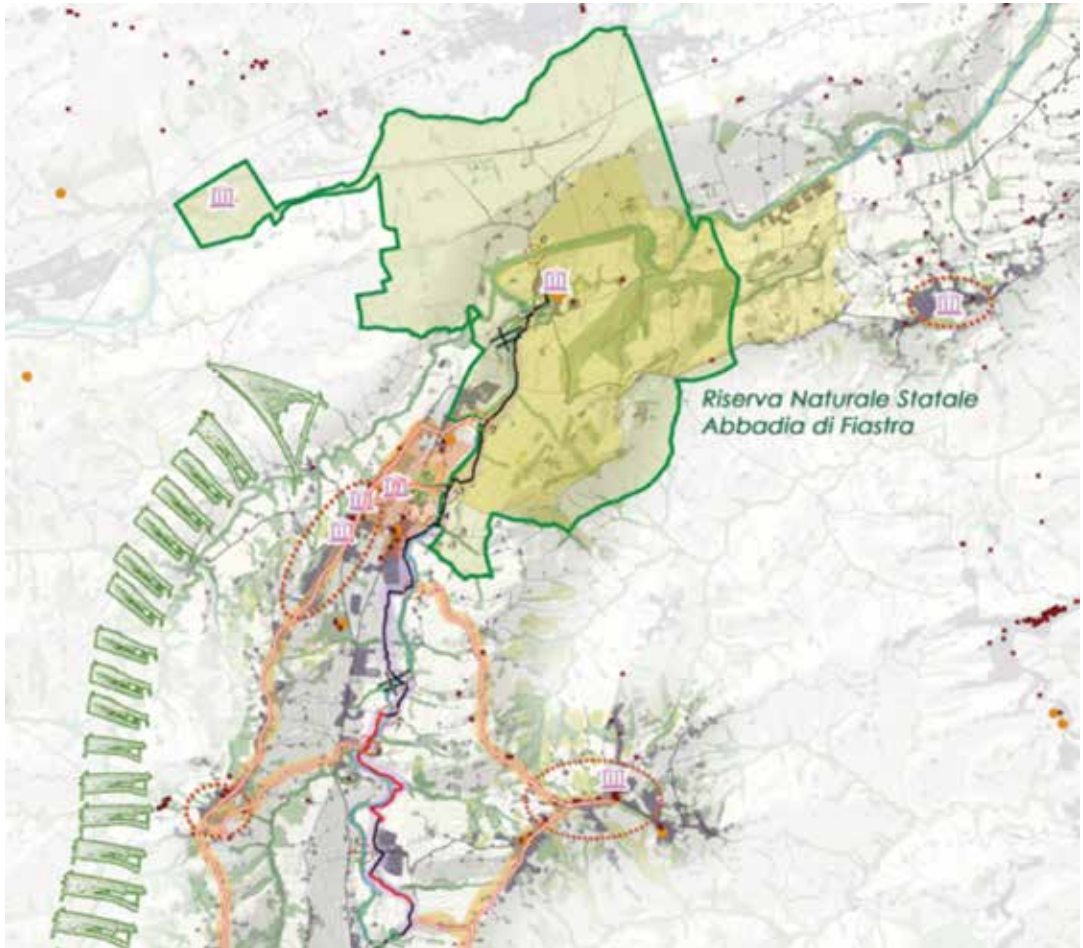
Fig. 2: Project to mitigate hydrogeological risks in the Macerata area (Marche Region). Projects for landscape/environmental use and enhancement of the Fiastra River.

The following themes are confronted in this work:
- the vulnerability of river and coastal environments due to climate change;
- the limit of settlement expansion and the search for new synergies between the city and country (agricultural parks, peri-urban agricultural areas, "agricivics", social gardens);
- improving environmental comfort within cities;
- extending the green peri-urban areas (green belts, re-naturalizing residual areas);
- hydraulic control of ecological recovery and renewal interventions and the hydraulic invariance of new settlements;
- contrasting soil impermeabilization;
- landscape and environmental compensation;
- landscape enhancement to promote the territory.

In the case of Pineto, whose experience is recounted in Chiara Camaioni's contribution in Chapter 5, the current drafting of the new GRP represents an opportunity to incorporate planning of the urban/territorial matrix with aspects connected to managing environmental risks, with reference to hydraulic and hydrogeological risks and danger. The challenge will be in using these territorial criticalities to confirm a coastal landscape project that recovers the historical landscape matrix of these lands.

In the management plan for the Abbadia di Fiastra Reserve and the project to enhance the rural landscape of the City of Monteprandone, attention is placed on the importance of agricultural areas to promote new development of the Adriatic territory. It focuses on actions to renew the landscape/environment, promote agricultural activities and related products, offers, and accommodation, to be initiated with the involvement of subjects operating in the territory.

In the case of the Abbadia di Fiastra Reserve, the management plan has specific meanings and goals connected to the uniqueness of the area and the dynamics that are recognized in the territory. In particular, it refers to:

- the central role that the Reserve has acquired in recent decades as a "heart of nature" for the surrounding towns;
- the need to promote sustainable development of tourism use and at the same time conserve and protect the natural resources and habitats present;
- the need to adapt the protection of natural resources (hydrographical network and the related vegetation cover), the compatible development of agricultural activities and production, the management of tourism use in the territory;
- promotion of the functional renewal of some areas present near the abbey complex and the identification of new peripheral areas to develop new forms and means of use;

The project to enhance the rural territory of Monteprandone confronted the theme of settlement spread in the presence of areas with a particular environmental attraction (Fig. 3). Analysis and assessment of the rural hill and plain areas were produced, leading to the definition of measures:

- to enhance the rural hill landscape through an Agricultural Park and routes to use the territory and landscape of the plain and hills;
- for environmental and landscape compensation and mitigation of the impacts of the transformation works (settlements and roads) established by the new GRP in the plain and hill areas;
- to improve the quality of the urban area of Centobuchi.

All these contributions have been proposed within the new GRP norms.

The management plan for the Sentina Natural Reserve instead represents a new way to confront the theme of protected areas in urban contexts, not limited to merely restrictive tasks, but rather to orient and coordinate actions and interventions related to natural/environmental, landscape, urban, equipment, and use aspects.

With regard to these considerations, the plan proposes to:
- reconstruct the coastal ecosystem characterized by the sea/beach/dune/backdune;
- favour the formation, strengthening, and continuity of the ecological network;
- favour the sustainable development of agricultural and related activities;
- organize and diversify the tourism offer as the opportunity for the socio-economic development of the Reserve and surrounding areas;
- contribute to defining and renewing the urban settlements surrounding the Reserve territory.

Fig. 3: Enhancement of the rural territory of Monteprandone.

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Quality of the Landscape and Quality of Life in the Sustainable Adriatic City

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The city and the broadest idea of the territory have undergone a change in recent decades. Rather than being viewed as usable physical resources and controllable spaces that can be planned, a new interpretation of the urban system has arisen that recognizes the inadequacy of linear planning amid an ever-stronger need for numerous intelligible responses. The city as a single element has been replaced by the city as a system, thus overcoming the Aristotelian (form/substance) model and Cartesian paradigm of a city that can be simplified/decomposed in order to create an idea of a system as a complex unit. By definition, the system is composed of elements and the relationships, connections, and interactions among them. This means that the rules of composition are not simply additive (as in the simple case of a set); rather, due to the multiple interconnections, such rules should be relational so that the limits and conditions of the environment surrounding the system are also considered. City and territorial studies therefore require a systematic approach capable of expressing units and multiplicities, differences, totalities, organization, and complexity all at the same time. From an operational point of view, it is necessary to bring different areas of knowledge together to operate directly among the various disciplines dealing with the urban dimension. This theoretical short circuit necessarily implies an even more difficult operational short circuit. It is difficult in the sense that it requires professionals that have always been widely separated—urban planners, ecologists, designers, architects, physicists, engineers, legal experts, sociologists, entrepreneurs, economists, etc.—to interact effectively. The need for a trans-disciplinary approach, overcoming the confines between the different areas of scientific knowledge in urban sustainability, means overcoming the persistent, strong disconnect between scientific knowledge and other types of knowledge held by city users (citizens, professionals, public officials).

Overcoming a deterministic vision of the complex city system necessarily means accepting the very unintentional, and therefore unpredictable, characteristics of the system. This is supported by the uncertainty principle, according to which "the exactness with which classical concepts can sensibly be applied to the description of nature is limited" (W. Heisenberg, 1994). This principle, one of the fundamental principles of quantum mechanics, responds to and explains random phenomena (H. Poincaré, 1908) on the atomic and larger scales. Randomness and unpredictability can also be found in other fields, for example the random fluid motion in which the city is immersed and lives. Such randomness is an intrinsic quantity of

the system itself and does not depend on the type or quantity of information made available to it. In general, the predominant characteristic of a complex system is also its high sensitivity to the small demands/perturbations that can be seen at every point of its present and future states. Taking the city system as an example, the degree of uncertainty that can be reached is extremely high, even when linked to nearly negligible phenomena. The city can thus be described as a dynamically complex system: a set of interrelated components whose processes cannot be managed or controlled with deterministic instruments. The city system therefore lacks predictability. The city should no longer be interpreted as just a physical phenomenon, but also and especially as a functional phenomenon. This enhances a formal interpretation the city through its components as well as the relationships between the components, passing through the life and development of the city itself.

The complexity of modern urban areas therefore means choosing an approach that can propose new ways of interpreting and analyzing elements such as environmental cycles and networks related to many aspects: the city's infrastructures, settlements, and energy; urban growth limits related to the carrying capacity; environmental comfort in relation to the quality of life in the urban area; the open thermodynamic system of the city in non-equilibrium; and climate change and related consequences on the local scale. To this effect, it is particularly useful to experiment with integrated dynamic models alongside operational planning instruments. This can be done by characterizing the weather and climate of the city and its different parts, analyzing the city's geometrical factors, and evaluating land permeability, its use, and the perceived thermal comfort (Sargolini et al., 2012). In addition to making the correct planning process more effective and avoid repeating negative impacts linked to extreme climate events, such models more systematically integrate environmental, technological, and socio-economic components within a course of improvement based on data and resources available on the local level.

An effective approach is to identify the best compromise between requirements that cannot all be maximized contemporaneously. The best solution is the solution deemed by the decision-maker to be closest to the ideal solution for that spatial/temporal context while all the different objectives set forth arrive to a satisfactory level. In fact, simultaneously maximizing all the objectives of urban sustainability will never be possible, since maximizing one objective leads to reducing the others. Multiple alternatives must therefore be compared in order to identify the best compromise (a dynamic equilibrium) among needs that cannot all be maximized at the same time, such as functionality, visual/perceptive quality, landscape quality, energy efficiency, environmental quality, energy savings, construction/maintenance/management costs, outdoor thermal comfort, etc.

The City as an Open Thermodynamic System

Starting from the complexity of the urban settlement, the city can be analyzed as an open thermodynamic system that exchanges mass and energy through its boundaries. Each perturbation towards higher organizational systems leads to an increase in the energy flux, which

triggers synergic processes with a continuous increase in consumption that tends to desta-bilize and render the system more vulnerable, in perfect agreement with the theory of dissipative systems. However, such systems are capable of reorganizing and reacting to external requests, thus maintaining their organization as long as such perturbations are not too strong. Analyzing the perturbations and consequent transformations of the city and territory should allow the fluxes to be correctly managed in order to limit the increase in information (entropy) and slow degradation towards a state that produces minimal information, understood as a thermodynamic function. This dynamic planning approach, almost always shared along theoretical lines, has not been sufficiently reflected in practice. While managing the complexity of the approach adopted allows the uniqueness of the various subsystems to be protected, it has rarely allowed the connections and relationships between the subsystems to be analyzed in order to assess the consequent requests/perturbations that generate the change.

The city can thus be understood as an ordered thermodynamic system which, to maintain or increase its degree of order—the entropy, S, or the capability for organization—it should necessarily import energy from and expel waste energy to the outside environment. It is precisely this thermodynamic process that characterizes each inhabited centre during its phase of urban growth. The urbanization process cannot be identified with a decrease in entropy of the thermodynamic city. On the contrary, abandoned cities exhibit processes that are transformed in nature, spontaneously evolving towards stable equilibriums, guiding the system to a lower energy state (high entropy or disorder). Examples of this are landslides or structural collapse, which can be interpreted as episodes of spontaneous evolution towards more stable states. The potential energy of the system ($E_p = mgh$, a function of the height) before the landslide is transformed into kinetic energy ($E_k = 1/2mv^2$, a function of the square of velocity squared) while the mass is moving, and completely converted into thermal energy (heat) at the end of the event. The equations of thermal balance (thermodynamic principles) for the urban area are also important. They allow new functional relationships to be defined for the geometrical, formal, and energy variables of the city system.

The city is considered to be an open thermodynamic system continually exchanging heat with the environment at a uniform, constant temperature equal to T. The Gibb's free energy at constant temperature is valid and defined by $G = H - TS$, where G is the free energy or free enthalpy, T is the absolute temperature, S is the entropy, and H is the enthalpy, i.e., the amount of energy the system exchanges with the environment. This relation shows that the free energy in an isolated system cannot increase; likewise, an increase in entropy in an urban system means that the availability of energy necessarily decreases.

Starting from these definitions, the design of urban places can be considered as "thermodynamic mediation" between the constructed object, the body, and space (environment); between movement and peace; between meteorology and physiology (P. Rahm, 2009). One of the key aspects of this approach is precisely design based on meteorological conditions, weather and climate forcings, and thermodynamic demands to obtain architecture that is no longer conceived in a "structural" sense, but which is "climatologically oriented". The surrounding climate, environmental, and morphological conditions define the design interven-

tion. It is necessary to design with the climate and within the context. Architecture has always had to face particularities characterized by seasonal variation (temperature, humidity, wind, solar radiation), meaning that construction and solutions must be capable of adapting to such variations. Architectural buildings should respond to the microclimate conditions of the site, i.e., to characteristics of the individual places and in relation to make-up of the urban settlement and the landscape. It follows that the architectural project is not only a question of materials and technologies, because without correctly interpreting the thermodynamics of the space, it would be impossible to design comfortable places that are really capable of impacting environmental changes and the quality of life. Environmental parameters, form, materials, and technology in the architectural process are all part of a single design phase and are therefore intrinsically interrelated.

The City as Perception of Environmental Comfort

The climate is changing and resilience to climate change is becoming fundamental for global and local politics. Combating this involves research into synergies between actions to mitigate climate changes and adaptations where possible. One of the most noted effects of urbanization on the local climate is the urban heat island (UHI). This is a microclimate phenomenon where urban areas exhibit higher temperatures compared to the surrounding peripheral and rural zones. When represented by isotherms (constant temperature curves), the UHI appears as an island in the sea of surrounding suburban areas characterized by lower temperatures. Temperature differences between the two areas frequently reach 5–6°C at night.

First of all, it is important to analyze the main characteristics, causes, and effects of the UHI, paying particular attention to urban temperatures, variations of the local microclimate, and aspects of energy such as energy needs, the use of electricity for air conditioning, and power peaks. Previous research has shown a correlation between anthropogenic heat and the urban geometry, form, and land use in determining the UHI. The causes of the phenomenon are mainly related to effects of the urban geometry on the logarithmic profile of wind, the different materials used in buildings, and the presence or lack of greenery. In particular, the main factor determining urban overheating is linked to the reflection and absorption of solar energy. This is defined as the *albedo*, the ratio of reflected to incident solar radiation.

The main consequence of the increase in city temperature is the variation of the urban microclimate, which is strongly linked to city users' thermal perception and their physical well-being. The most effective analytical definition of thermal-hygrometric comfort used today is the one proposed by P. O. Fanger (1970). The model is based on a quantitative application of the equations of thermal equilibrium and statistical analysis of the results of a wide sampling survey conducted on individuals exposed to controlled environmental conditions in a confined environment. Fanger's theory is based on a need to correlate physical parameters to the subjective feelings of the people exposed. The index thus obtained is used internationally and is called the predicted mean vote (PMV, Fig. 1)), which is linked to the predicted percentage of

dissatisfied people (PPD) and ranges from -3 to 3 (coldest to warmest). This scale provided the basis for taking surveys of large samples of people regarding how they felt under varying activity levels, clothing levels, and interior environmental conditions.

Fig. 1: Predicted mean Vote (PMV)

Another way of assessing thermal comfort is through an adaptive method that highlights the importance of psychology and the value of time in modifying the perception of comfort in open spaces; the context and the thermal history of each subject can modify the expectations and thermal preferences of the occupants. This adaptive model is based on the consideration that people exposed to a thermal charge naturally tend to adapt to the variable conditions of the environment. According to this approach, there are no reference variables, but just optimum values that subjects adapt to as climate conditions change. It is evident how the conditions of external perception can also influence the perception of comfort thanks to the use of a complex urban system. Using traditional indicators of environmental sustainability in an aggregate way rather than individually allows the mutual dynamic relationships and adaptability of the objectives designated in the urban system to be identified. It is importan to identify a multi-objective parameterization optimization that considers the connections, mutual dynamic relationships, and adaptability between different "attributes" of the urban form, usually represented by the standard morphological, geometrical, energetic, and thermal comfort indicator. A multi-criteria assessment instrument can be considered in order to obtain new indications about traditional urban sustainability indicators based on the verticality of investigative threads. The construction of such a parameterization model will allow the different hypothetical development scenarios identified for the urban form to be tested for sustainability, making way for the selection of those parameters that best interpret the decision-making and governance strategies and the policies of change indicated as objectives for each hypothetical development scenario. With this new methodology, we will consider the connections, mutual dynamic relationships, and adaptability between different attributes of the urban form.

In search of new methodology: the parametric optimisation

Constructing such a parameterization model allows the structural connections in the urban and territorial system to be understood and connected with other parameters (thermal

perception, natural ventilation, thermal dispersion, evapotranspiration, etc.) and to automatically identify the strong connections and dynamic relationships within a set of given elements (urban requirements). Such an identification process can also make use of a neural approach, whose results can be linked with those obtained in a multi-objective parametric optimization analysis. It is interesting to present the results of parametric simulations using a multi-objective optimization tool (i.e., ModeFrontier, Deb, K, 2002). ModeFrontier is an integration platform used to optimize and arrange various parameters (Fig 2).
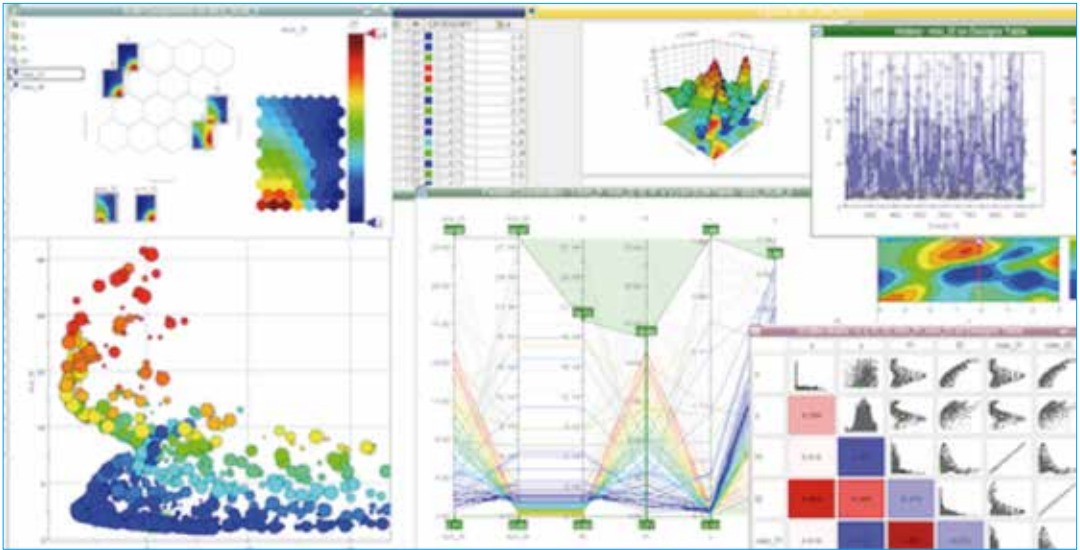
Fig. 2: Multi-objective optimization

As a first example, Fig. 3 shows results obtained from a multi-objective analysis that aims to correlate data related to urban density (H/L, where H is the building height and L is the length of the faces), perceived thermal comfort (PPD), and the energy expelled from the urban system (compacity, $S/V^{2/3}$, where V is the building volume and S is the building surface area, Salat, 2006) in representative weather/climate scenarios. Ancona city, in the middle of Italy is chosen as representative of an example of Adriatic city. In Ancona, the average building height is about 4–5 floors.

Most of the buildings are rather old; a few modern buildings are being built. The H/W ratio of buildings in Ancona affects shading patterns and solar radiation. Therefore, this H/W ratio creates both positive and negative effects on the microclimate. Ancona's climate can be categorized as Mediterranean.

The graph (Pareto frontier) allows one to identify different solutions that consider multiple combinations of the parameters analyzed (different values for form, perception of comfort and energy consumption) while optimizing the designated objectives (minimizing energy consumption, good thermal comfort). An array of possible choices is thus identified on the Pareto frontier (efficient frontier).
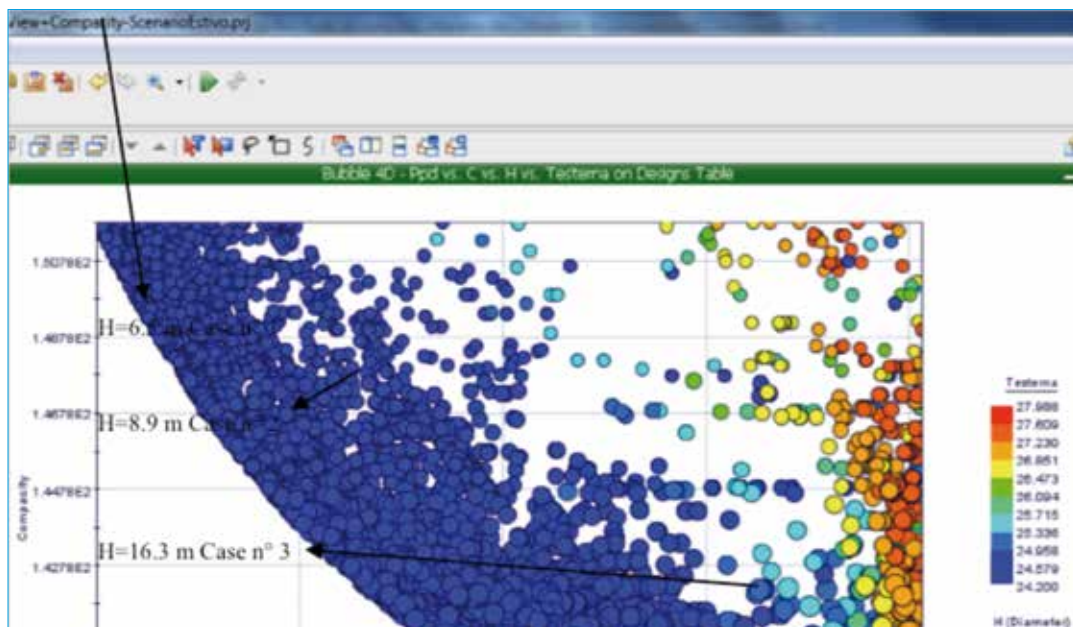
Fig. 3: Multi-objective optimization. The graph identifies the set of Pareto-optimal points that define an efficient frontier.

The result (Fig. 4) is therefore a set of magnitudes for the summer scenario, The values shown are representative of different planning situations and environments, rendering such a new technique flexible from both the planning and the territorial points of view.

Fig. 4: The three selected solutions (the cases n°1, n°2 and n°3) on pareto frontier for summer scenario.

This analysis can be viewed as the first step in this new methodology; it has served as a proof-of-concept in providing effective support for the parametric analysis of building design by using meteorological parameters and urban morphology indicators. It shows promising potential for describing geometrical design information with scalar values in meteorological scenarios. However, further development efforts are needed.

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(Roberta Cocci Grifoni)

Numerous urban planners have studied the Adriatic City in order to highlight fundamental characteristics such as its linear development, average size, multi-polarity, network development, and sprawl.

The current research program *Quality of the Landscape and Quality of Life in the Sustainable Adriatic City* (Principal Investigator and host School: Prof. Massimo Sargolini - School of Architecture and Design of the University of Camerino) aims to investigate the relationship between the landscape and the quality of life within the scope of the large themes of sustainability.

In particular, using a transdisciplinary approach, the research focuses on the analysis of relationships between the different physical and environmental, morphological, historical, and socio-economic components of the city. The primary aim is to provide synthetic, scientifically based information about the sustainability of various development scenarios and therefore about the possibility of supporting the conscious choice from among the possible transformations.

The goal is to "measure" the sustainability of the urban environment, using the European Landscape Convention as a filter for a multi-criteria assessment tool that updates and surpasses the traditional indicators of urban sustainability, such as LEED (USA, 2007), BREEAM Communities (UK, 2009), CASBEE for Urban Development (Japan, 2007).

The traditional verticality of themes (mobility, buildings, energy efficiency, air and water quality, environmental quality, etc.) makes the relative indicators incapable of representing urban complexity and therefore of supporting the decisions necessary to define strategic planning tools.

The aim of using the landscape as a "complex indicator" is pursued by defining three areas of transdisciplinary investigation: *Distinctive and pleasant*, *Efficient and nice*, and *Clean and healthy*, which respectively investigate the following themes as a function of the specified objectives (a, b).

• The role of parks, open spaces, and green spaces (linear and point-like) in the city and the surrounding context in their relationship with the environmental infrastructures of the surrounding territory, slow paths, architectural and archaeological resources, centralities, and places that collectively identify the city;

    a.   Improving activities related to living, working, residence, meeting, social relationships, and leisure;

• The overall organization of the city and its energy needs on different building scales in relation to urban and economic planning in the city and its territorial context

    b. Improving the quality of buildings and related open spaces;

    c. Reducing energy consumption and using energy from renewable sources;

• The safety and quality of the main components in the urban environment (air, water, land) on different levels of city organization;

    d.   Reduction of all types of pollution;

    e.   Increasing the level of safety of the urban environment.

The activities carried out first analyzed consolidated indicators selected from a wide range of different sources. Some of the main indicators include:

• LIVABILITY INDICATORS, PRIN Research 2004 "Qualità urbana e percezione della salute" University of Genova (PRIN);

• URBAN SUSTAINABILITY INDICATORS "Plan Especial de Indicadores de Sostenibilidad Ambiental de Sevilla", Barcelona Urban Ecology Agency (AUEB), 2008 (AEUB);

• CAT-MED INDICATORS Sustainable urban models. 2011 MED PROGRAMME. 2007-2013 (CAT-MED);

• SUSTAIN INDICATORS Interreg IV C. 2012 (SUSTAIN);

• PROPOLIS INDICATORS (Planning and Research of Policies for Land Use and Transport for Increasing Urban Sustainability) European (5th RTD Framework Programme) 2000-2003 (PROPOLIS);

• ARPA INDICATORS, EMILIA ROMAGNA: Proposal of indicators for drafting a "Rapporto di sostenibilità degli ecosistemi urbani" – Piacenza Urban Ecosystem – Towards a sustainability report. 2009 (ARPA);

• LAGRANGE PROJECT INDICATORS, ISI-CRT Foundation. Implementing a web-based system to monitor complex urban transformations through indicators. 2014 (ISI-CTR);

• URGE INDICATORS "Urban Green Environment" European Commission, DG Research, Key action: "Le città del domani e il patrimonio culturale". March 2001 – February 2004 (URGE);

• SAD INDICATORS. School of Architecture and Design at the University of Camerino (SAD).

This literature search led to an initial list of 166 indicators, which were analyzed in reference to:

-their use in the literature;

-specific objectives;

-units of measurement;

-analytical or qualitative formulation;

-spatial reference.

Starting with the collection of data and available studies regarding the pilot area, the research made in this area investigated aspects connected to the indicator metrics, which, together with computational expectations, include precise geographical references. From the perspective of physical space occupied by the city, the usual administrative references were considered when constructing the statistical data, but a grid analysis technique was introduced to underline the possibility of constructing metrics that can be compared to a number of high-level indicators. The most appropriate size for the grid was deemed to be 500x500 m (a partition). This ensured that the analysis perimeter of a single partition included a tract of urban fabric that was larger than a single block and, at the same time, sufficiently limited so that the possibility of adequately characterizing the different aspects would not be lost. The 500x500 m grid is a submultiple of the European Geostat kilometric grid used to study the density and distribution of populations throughout the continent, with data available for 2006 and 2011. This setup allowed analysis techniques based on georeferenced information to be used to correlate information regarding the population distribution with the rest of the content on the level of the individual partition. This includes, for example, permeability, the presence of green space, and fragmentation. The same techniques can also be generalized to rural areas.

The indicators acquired from the literature were analyzed in order to organize them according to the analytical and geographical aspects that the various researchers used in defining the indicators. The following results were obtained.

A total of 113 indicators were expressed through physical or scalar magnitudes: 30 AEUB, 13 CAT-MED, 15 PRIN, 41 ISI-CRT, 6 SUSTAIN, 3 URGE, 2 ARPA, 3 Efficient Cities. The remaining 54 indicators included mainly qualitative judgements: 51 PRIN, 2 ISI-CRT, 1 SUSTAIN.

Of the first 113, 41 indicators were deemed suitable for expressing concepts based on the 500x500 m grid. They are connected to well-defined metrics with results that can be expressed as scalar magnitudes. Most of these (26) were codified by the AUEB and following this, 11 derive from PRIN research. The AUEB indicators are characterized by a very clear geographical logic and well-defined metrics that consider the characteristics and spatial distribution of the variables investigated, and they include all the physical space under consideration. The PRIN indicators refer to concepts of presence, density, and accessibility.

The simplest analytical indicators in this group are based exclusively on the surface, linear, or point-like physical characteristics of the territory considered. For example, in defining land quality, the permeability parameter is evaluated by assigning different values to different uses, with a value of 0 for impermeability and 1 for maximum permeability. The numerical result of this assessment is provided as an average weighted by the surfaces over the entire surface considered. The evaluation can be repeated for each grid partition.

The calculation methods increase in complexity when the distribution of resources per inhabitant is analyzed. If one goes from a general statistic valid over the entire municipal level to analysis used for urban planning, it is necessary to introduce point-like information regarding the distribution of the population in the territory, correlated with the distribution of the resources considered. For example, still considering the area of landscape content, the availability of green area per inhabitant is usually evaluated. The indicator (m^2/inhabitant) is usually used for the entire city territory, but it loses no meaning if applied to a smaller partition. However, it is necessary to understand how the inhabitants are distributed over each grid partition.

One further logical and computational step is introduced when, in addition to graphical content, elements regarding proximity and therefore accessibility are introduced. For example, the accessibility of citizens to green space, as defined by the AUEB, first requires the identification and classification of green spaces, and then their relation to the distribution of inhabitants according to well-defined geographical reasoning:
- green space greater than or equal to 1000 m2 less than 300 m away;
- green space greater than or equal to 3.5 ha less than 750 m away;
- green space greater than or equal to 10 ha less than 4 km away.

The result is a percentage of inhabitants with access to the three resources determined by the total population living in the area.

Geographical reasoning in the analysis of accessibility can be more or less accurate. For example, one can simply consider an isotropic Euclidean space and therefore measure the minimum distance as a straight line between inhabitant and resource, or one can consider the physical space of the city and the relative barriers using the network of available paths with the respective friction encountered along the path.

The 66 indicators that have a scalar magnitude but which are not geographically meaningful on the grid scale can be divided into groups by similar characteristics.

The groups include indicators that:
- express presence or absence connected to the concept of the site or place, with limits not sufficiently defined on the geographical level (PRIN);
- express statistical surveys based on 100,000 inhabitants and which therefore cannot be spatially located (ISI-CTR);
- refer to situations regarding the individual building, for example, the ratio of surface area to volume of the building envelope or the percentage of surface area facing a given direction (AUEB);

• describe phenomena with precise reference to the regional scale (for example, sprawl, SCI surface area, SPA surface area);
• are socio-economic indicators taken from the Italian National Institute of Statistics municipal censuses or at most detailed aggregates of census sections (CAT-MED, ARPA, SUS-TAIN, ISI-CTR);
• are indicators of water or energy consumption, or CO_2 emissions deriving from municipal censuses.

The 53 indicators that include qualitative judgements and which therefore cannot be represented through physical magnitudes are for the most part defined by PRIN research (50 of 53). These can be divided into groups with similar characteristics and therefore include indicators that:
• express the presence or absence connected to the site or place, with limits not sufficiently defined on the geographical level (for example, the presence of areas of landscape/environmental use or the presence of cores that can influence the living quality of the area, PRIN);
• refer to expert qualitative judgements on the conditions of the buildings, accessibility, privacy, historical/architectural heritage, recognizability of the skyline, colours, presence of detractors, urban furniture, presence and accessibility of public functions, efficiency of public transport, presence and quality of car parks, drainage adequacy, public lighting conditions, etc.

From the analysis, some interesting points emerge.

• The tendency to express indicators related to objective parameters with scalar results or physical quantities seems to be clearly prevalent (113 vs. 53).
• The use of a regular grid to analyze some large-scale phenomena is well rooted and the point-like definition of the indicators from the geographical point of view allows for their easy use with the support of GIS technologies (Figure 1). The same grid allows the indicator results to be communicated simply (Figure 2).
• Many indicators are defined on the level of the site or place without a better-specified spatial definition. This is a profitable territorial reference to resolve the indeterminacy of the block, since it is also a geographical reference that is well suited to accessibility analysis in that it can be sketched as a point-like element inserted in the main connection network.
• The accessibility to resources becomes the main element of the evaluation. Accessibility is a complex concept to evaluate from the computational point of view because it requires the management of information that cannot be processed with reference to traditional cartographic support, but rather implies network computational analysis. Databases that were historically available to the public for such analysis are very rare. Only the current spread of open data is making them realistic and interesting to such approaches.
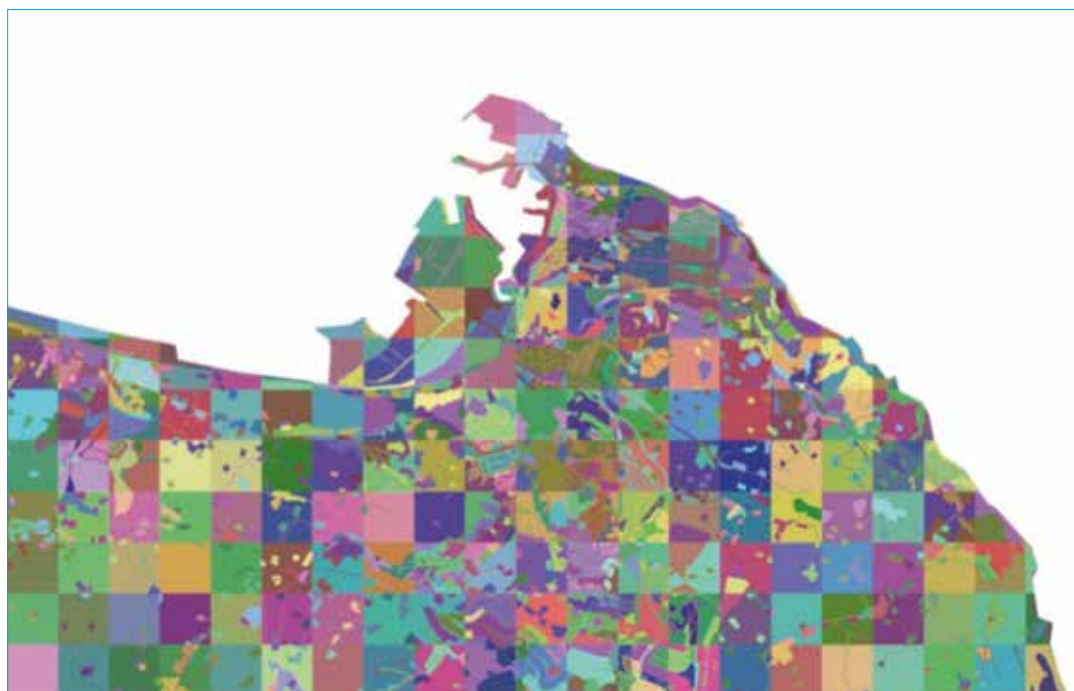
Fig. 1: Analysis grid superimposed on Urban Atlas data in the centre of Ancona. Elab. Terre.it Spin-Off of Unicam L. di Prospero, A. Renzi

Fig. 1 shows visually how the size of the grid relates to the fabrics of the city of Ancona classified in the Urban Atlas, whose data were published by the European Environment Agency. (The Urban Atlas provides pan-European comparable land use and land cover data for large urban zones with more than 100,000 inhabitants.)

In Fig. 2, the partitions used to calculate the indicators are visualized graphically in a territorial representation that allows the different parts of the city of Ancona to be recognized. The indicator level is represented through symbols that vary in shape, colour, and size.

Subsequent steps forecast in the research activity address the evaluation of the selected indicators and their correlation on an analytical and topological basis in order to construct a multi-criteria decision support model that relates development forecasts to the objectives of sustainability. It therefore restricts the field of possible solutions to the optimal ones in a state of dynamic equilibrium to be controlled continually through monitoring activities.

A fundamental contribution to building the model will be determined by consolidated analysis methods used in physics and thermodynamics in particular together with parametric optimization techniques.

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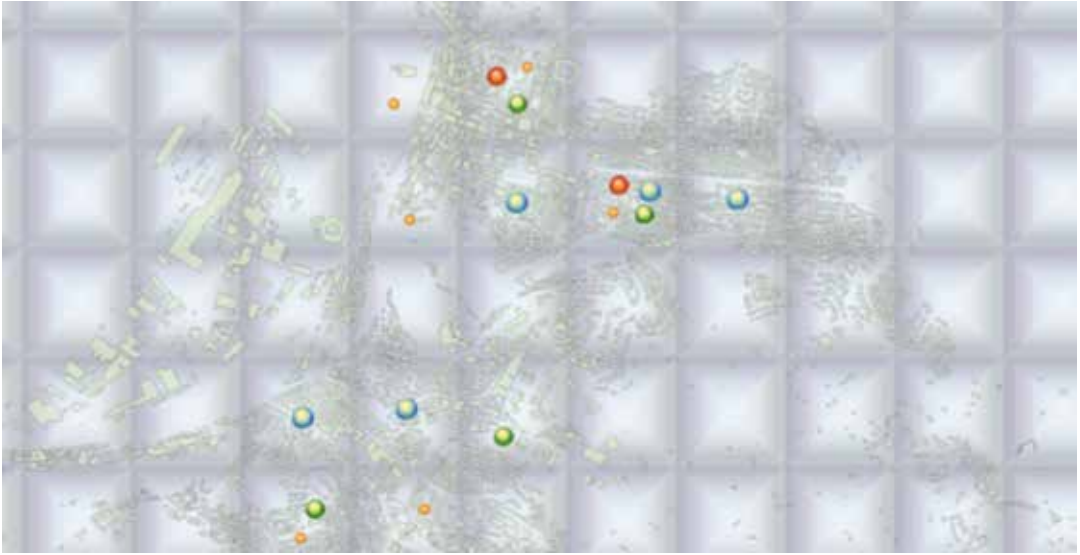
Fig. 2: City of Ancona, graphical representation technique on the indicator level.

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(Piersebastiano Ferranti)

Towards Active Policies for the Landscape. Renewing Regione Marche Landscape Plan

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❧ ABSTRACT

Marche Region, as other Italian regions, is reviewing its Landscape Plan. In this article I will argue that the most important expected outcome of the review process is the construction of active policies for landscape meant as actions capable of producing landscape quality, either directly or indirectly.

To support this argument, at the beginning I will propose an interpretation of the first Marche Regional Environmental Landscape Plan (PPAR); then I will try to describe the demand for change that it is bound to satisfy; finally, I will try to show that new active policies for landscape, while not representing the whole innovation required, can turn out to be the most relevant outcome in the renewal process.

Renewing what? An interpretation of Marche Landscape Plan

When in 1985 Italian regions are required to design their Landscape Plans in accordance with Law 431, paradoxically they have to build the object they are to rule, as the concept of landscape had not been defined by the law. It may be recalled that the historian and geographer Lucio Gambi, while supporting most of Minister Galasso's proposals, kept a the critical stance on this point: "A law is not a dictionary entry or an encyclopaedia article: but [...] it must explicate which meaning is regarded as the most correct and therefore is assigned to its object. Law 431 establishes landscape protection areas but it does not explain what meaning of landscape it conveys ". (Gambi, 1986, p)

Faced with a choice like the one raised by Gambi, if a concept of ecological, aesthetic or historical landscape was to be embraced, Marche Region adopted a system view of landscape. A system view is, at least apparently, little problematic and actually able to hold together different meanings of landscape. People in charge of designing its landscape plan wrote: "Law 431/85 deeply integrates this approach [the" idealistic and Crocian approach of Law 1497/39 ndr] binding by law whole categories of territorial structures understood as assets to be protected regardless of a definition of 'natural beauty'. This setting introduces a concept of landscape as a 'system' of territorial assets worthy of protection in itself " (Regione Marche, 1987)

A system view of the landscape entails relevant assumptions at least on the relationship between the system and the environment in which it is found, on the relationship between the components of the system and the system as a unit, on the rules that determine the interactions between components, on the balance of the system (i.e. on the states of imbalance) (Palermo, 1992).

Marche Landscape Plan can be reinterpreted in the light of these problematic elements.(Fig. I)
If one reads PPAR texts and rules, it is clear that the Landscape of the Marche system, if
not perturbed by stimuli from the external environment (from the social and political one,
in short by social subjects and their projects as well by great disasters, events and physical
changes) is envisioned as a system maintaining its balance thanks to the co-evolution of the
subsystems that comprise it (geological and geomorphological, botanical and vegetation, cul-
tural historical subsystems).
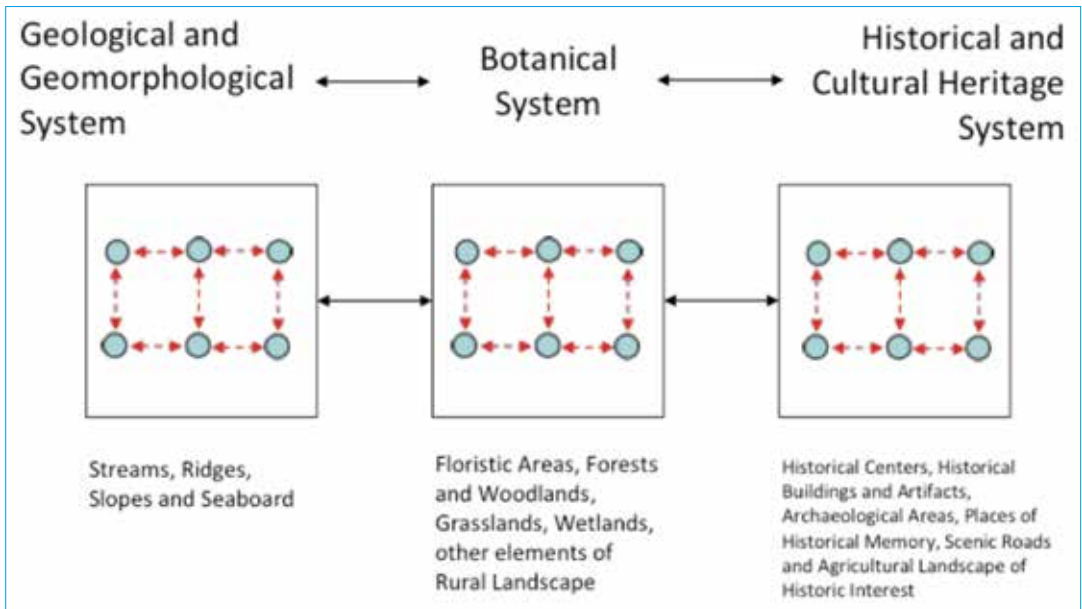
Fig. I: A graphical representation of the conceptual model of Marche Regional Environmental Landscape Plan
(PPAR)

Association rules ensuring balance between subsystems appear to be stable because set by
physical geography and history: they do not cause problems and the plan does not deepen
both their variation in space and time. It may be argued ,without any further adequate discus-
sion, that because of this hypothesis, concepts that are nonetheless adopted by the plan such
as *Sistema Territoriale* and *Unità di Paesaggio*, inclined to recognize the local landscapes, are in a
difficult position in its argumentative and ruling structure.

To maintain the equilibrium state, landscape must be protected and basically "closed" by
means of the landscape plan with regard to inputs and disturbances arising from the external
environment. If the association rules do not cause problems, in order to ensure the successful
co-evolution of landscape, the plan defines protection policies mainly applying to elementary
components of subsystems (the so-called "Landscape Categories "). In fact, if the balance of
the landscape system is guaranteed by the balance between subsystems, thanks to a consis-
tent move, the plan assumes that the balance of the subsystems is guaranteed in turn by the
balance of elementary components. The tool which has been identified to protect its "catego-

ries" (in addition to the Compatibility assessment of landscape changes, then replaced by the Environmental Impact Assessment) is the definition of protection areas, buffers surrounding the protected objects which can be finally set in the urban plans: an interesting move that allows to connect landscape planning with urban planning, giving rise to different local strategies for adjusting local plans to PPAR (Corrado and Minnetti, 2005)

And it is worth noting how the reduction process shifts the focus from landscape as a system to landscape split into its individual components. While, for example, preliminary studies of the plan fully utilize studies on "sharecropping landscape" (Mangani, Anselmi 1979) with its dense network of relationships between physical configurations of landscape and history, social relations and economy that can be easily identified thanks to such landscape discussion, in practice more attention is paid to its components rather than to the somehow conceptualized "Marche landscape".

Although acquiring a systemic connotation in Marche region, such separation and reduction to elemental components is a widespread process which is, nonetheless, more general, perhaps due to the need to involve different specialists on landscape discussions, for example within the procedures introduced by assessment practices: "Although landscape is appreciated in a holistic way, due to intersection of its many dimensions, analysis must break it down, so it can be processed the scientific methods of the various disciplines to obtain non-generic indicators" (Cassatella and Peano, p. 6). However, a reduction process now seems inadequate to landscape as it has been observed for the city: "the need to recover, today, a systemic perspective of the city requires (...) a criterion for evaluating its performance as a system" (Calafati, 2014).

Requests for change

A number of years after its approval, Marche Landscape Plan is to answer such requests for change that put to the test its own systemic approach. Changes in legislation, in collective consciousness, emerging problems, new subjectivities and new social actors help to generate questions which can be analytically divided into two groups. The first set of questions is, so to speak, technical, internal to landscape and concerns the need for new descriptions and new regulative tools. Sometimes, such requests, which are addressed to the landscape plan, arise from new technical and scientific knowledge which must be integrated into a more detailed description of landscape, for example those relating to the ecological network (Sargolini, 2006).

Other times they are derived from the observation of changes in Marche landscape that seem to require both new descriptions and new control tools: land consumption, the instability situation which partially covers the region or problems caused by climate change. In general, this first set of questions has to do with the idea that everything is landscape, as claimed by the European Convention and brings attention to ordinary landscapes and landscapes of everyday life, as well as to high value areas.

The second set of requests comes from the environment in respect of which PPAR landscape-system tended to close up and is therefore, in a broad sense, external and social type. This set of

questions is heterogeneous but it very often concerns landscape governance. For example, the call for greater prominence of local societies arising from the request for participation and involvement in the decision making process or from self-organization and protest, sometimes goes alongside with the need for greater cogency of control by the central government departments (sometimes in dissent against municipalities and the region) with a peculiar articulation of demand for greater legitimacy of local actors and bottom-up planning combined with greater top-down control. In turn, the request for protection joins the need for landscape enhancement, especially in the internal areas. In general, this second set of questions demands a stronger rapprochement between landscapes and local communities who live there.

Compared to these two sets of questions, the systemic view without any landscape subjects, which is typical of PPAR, has both strengths and weaknesses.

From the protection point of view, PPAR, which is inspired by a holistic and basically comprehensive approach, appears able to face new demands. The identified systems can be differently conceptualized (e.g. the botanical-vegetation system can easily evolve into a more advanced ecological and environmental system); the list of systems is not finished, others may be added (for example, a subsystem emphasizing contemporary transformations) as well as landscape categories may be added. Other innovative elements, especially related to the enhancement and to the desire to produce quality landscapes, require a twist of PPAR systemic approach and its revision: a greater focus on local landscapes with the attempt to explain the variation of association rules among systems and above all greater attention to Marche landscape as a whole with a focus on production of new landscapes by active policies.(Fig. 2)
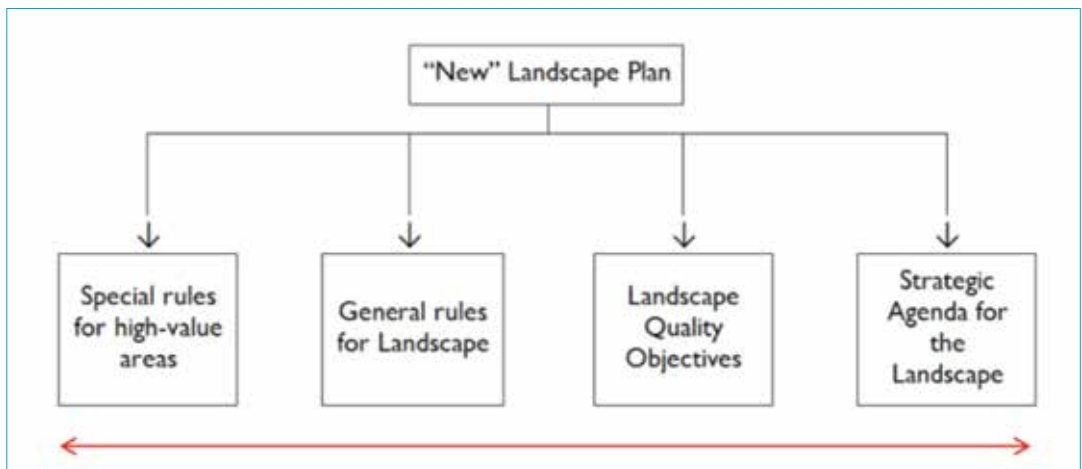
Fig. 2: A graphical representation of the structure of the renewed Landscape Plan

The solution that now seems feasible is to articulate continuity and innovation elements by adjusting the technical composition of the landscape plan to address strategy and agenda building issues (Bucci, 2014). While the idea of a closed-system landscape, which is reduced to its components, still seems effective for protection and regulation purposes, moving toward

landscape enhancement and active policy approach, landscape should be contemplated as a whole, as an open system and articulated in local landscapes.

Active policies for landscape

While there are a lot of legal instruments to protect and preserve the quality of a landscape, much less has been experienced for producing new landscape quality, especially when the goal of spreading quality is meant to be reached through *policies* rather than carrying out specific projects for individual places.
One can imagine that an active policy, inclined to produce quality landscape, especially in everyday life landscapes, can act on the tangible dimensions, which constitute landscape, or on its intangible dimensions that is to say on its symbolic values. Then it may be acknowledged that it may take the form of direct intervention on landscape or of actions operating on the conditions that make a good landscape possible (e.g. actions which, based on landscape underutilized potential, promote development actions and then the permanence of vital and not too aged local communities in rural landscapes and inland areas).(Fig. 3)
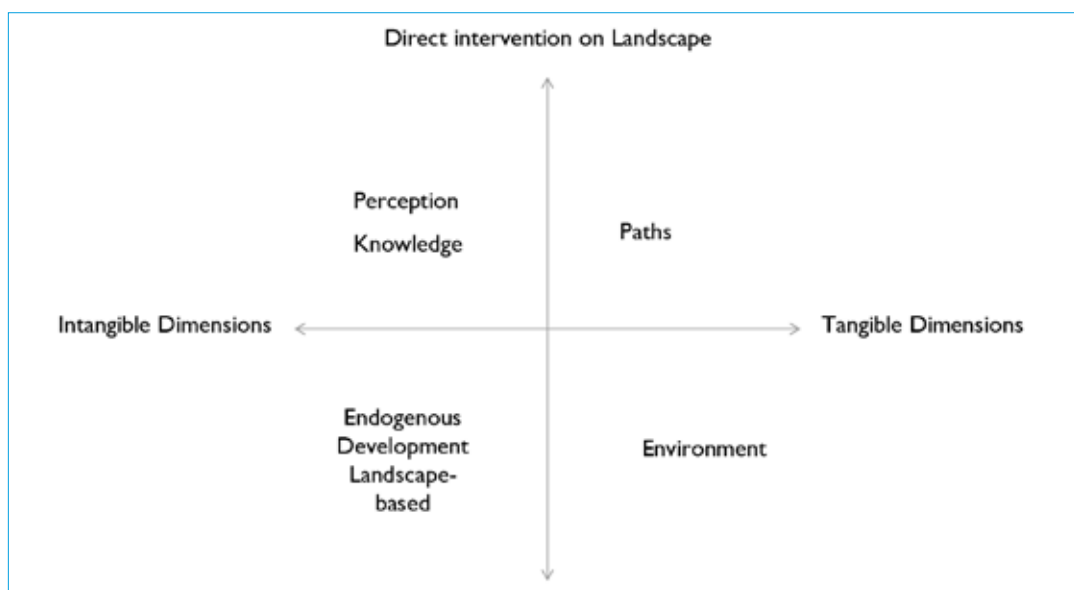
Fig. 3: Policy areas of a Strategic Agenda for Landscape

Such a cross identifies four policy areas and perhaps it is not by chance that the strategic agenda for landscape, a component of the plan which is completely new, active policy-driven and which should include projects, concrete actions, is at least temporarily built around the themes that it identifies and apparently generated from each other. In addition, a strategic Agenda should not necessarily be developed with projects expressly meant for landscaping

purposes and to be funded. An interesting challenge would be to enhance landscape values of sectoral policies showing governing capacity of indirect and unexpected effects and ability to address interrelationships, to create a strategy considering landscape as a by-product of a set of collective actions.

Projects of a strategic agenda may be of different nature so that a strategic agenda for landscape could take shape by combining pieces like tiles of a mosaic: sectoral policies or regional projects affecting the entire territory, local experiments, finally actions and pilot projects intended as replicable best practices in other contexts, with necessary modifications.

Two experiments may be briefly recalled, two pilot actions that probably would find their ideal setting in a strategic agenda for landscape.

The first of the two experiments is a fund for landscape oriented cinematography which has been established for a three-year period starting from 2013. The second one is a pilot tested during an INTERREG IVC project with the goal of activating endogenous development based on landscape and on the tacit knowledge of local society.

Cinematography produces cultural and economic impacts on locations where films are shot. This involves direct impacts (expenditure incurred on specific territories by the crew running the movie) and indirect effects, such as job opportunities created for skilled segments of the population (such as cinema operators or other professionals). Undoubtedly, the promotion effects on a place have a positive impact on tourism but also entail the identification of local societies with their own territory. In 2013, Marche Region and Marche Film Commission decided to go a step further and created a three year financial fund with the aim of offering financial aid to "several genre and length films (features, shorts) to be nationally and internationally distributed (hall, broadcast, home video and other) and therefore aiming at much broader forms of visibility than those reached by the usual audio-visual promotion tools (institutional, tourism, environmental documentary, etc.)" (Olivucci, 2014). The fund called *Marche Landscape Cine Fund* seeks to draw the attention of both the visitors and the local population on Marche landscapes, producing knowledge and identification on one hand and local development on the other. The project is being implemented.

The second experiment in terms of active policies has been carried out thanks to the project called HISTCAPE. The objective of the pilot action conducted in Arcevia was to define and test a methodology for action on landscape that could also produce cohesion and development effects by giving a constructive role to the tacit knowledge of local actors.

The work which has been done in Arcevia, through the active participation of its citizens, seems to support the hypothesis that, if participation practices are fostered and a constructive role is entrusted to the tacit knowledge of local actors, actions can be triggered (and perhaps, in perspective, more structured policies), starting from landscape, from its potential and its resources, which can finally produce effects of endogenous development in a place-based strategy. Compared to what can be reported here, Arcevia experiment is described and analyzed in more detail in a publication (Zenobi, 2014) that should clarify how to decline this approach to other areas and in other policy contexts (such as those oriented to the promotion of Community Led Local Development).

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UNSCAPE EN Route Seminar - Poster Presentation

ANNEX 1

Poster Presentation

A Transverse Vision of the Landscape Project

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A session of UNISCAPE – En Route "Resilient Landscapes for Cities of the Future" was dedicated to a poster presentation of intervention experiences in European countries related to the content developed in the preceding chapters.

A transverse, synoptic vision of the proposed interventions once again reiterates the need to intervene on landscapes with methods and tools that can address their complex, evolutionary dimension, even trying to identify innovative solutions that still have not been codified.

The posters presented exhibit some lines of action that roughly synthesize the common characteristics in the project proposals presented.

Local Community Participation

Albeit with a different emphasis, participation emerges as an increasingly necessary, indispensable component to ensure a project's success. This confirms the strength of the relationship between inhabitants and the living environment, as recognized and formalized by the European Landscape Convention. The objective of protecting and reinforcing the natural and cultural heritage, intended as substantial value in European landscapes, cannot be reached without actively involving communities. It is necessary to combine specialized investigation with the survey of what for inhabitants constitutes a value, an identifying trace, a sign of local memory. The participatory aspect of a project is based above all on listening and data collection within a territory. On the one hand, this working phase allows planning to be directed more effectively during the project definition phase. On the other hand, it generates awareness regarding interventions. The experiences presented below highlight how this work can be arranged and developed differently over time, involving individual citizens, stakeholders, external visitors, and local governing authorities.

Within the evolution of communicating the landscape project, this theme seems sensitive to important methodological advances. The new digital tools available today allow traditional processes to collect data or knowledge of the local area to be expanded. Their use not only simplifies the understanding of many elements that are potentially useful to the project, but it also involves individual citizens in the most effective, active way. In this field, experiences based on the use of images are very useful; they allow wide participation in the work and contain an important degree of immediacy. It seems particularly stimulating to open oneself to this perspective of work precisely to understand the complexity of the landscapes, to reveal the multiple relationships that exist between landscapes and the inhabitants, to favour

the spontaneous creation of forms of belonging and care for their own living environments by the local communities.

These forms of work anyway entail the need to follow methods and rigorous procedures in managing and analyzing the data obtained. This is even more necessary the more significant the amount, complexity, and heterogeneity of the information. And it is particularly true depending on the use of the acquired data. In fact, the process is aimed at implementing methods and tools for landscape planning and design. In this sense, the experiences illustrated show how strategic the role assumed by the local governing entities is, both in activating more participatory means in the knowledge and communication of the landscape project and in translating such initiatives, which can sometimes grow out of extemporaneous situations, into projects useful for territorial development that are verifiable and sustainable even in the long term. The cases presented therefore invite technicians and local administrators to identify new tools that can favour communication of the landscape "as perceived by the populations" and stimulate them to find new forms that can unite expert knowledge with collective awareness in a more democratic view of building the landscape.

The Strategic Role of Cultural and Environmental Resources

The definition of "everyday landscapes" is now well established since its formalization in the European Landscape Convention. It forces us to measure ourselves against that complexity of forms, materials, uses, and meanings, which, over time, has become sediment and superimposed in many parts of our European territories. The effects of these processes, while widely recognizable in our daily trajectories, are difficult to categorize, precisely due to the many material and immaterial components that determine the form and characteristics of these spaces. Rather, some criticalities or risk factors in the life of these landscapes can be seen to combine in different ways. The experiences presented identify some strategies for renewed design.

These are measured with the general aim of guaranteeing sustainable development for the territories. Many parts of contemporary territories are characterized by a rapid, intensive use of the resources present and by subsequent abandonment. This often leads to a lack of recognizable identifying expressions or to phenomena of estrangement, isolation, and alienation for the inhabitants. In many cases, these landscapes are characterized by transformation interventions that are not anchored in the local specifics; the system of environmental and historical/cultural resources, the ecological and landscape relationships are often ignored if not completely compromised. This complexity, degradation, and amorphism of some parts of contemporary landscapes can be counteracted through projects based on elements capable of generating a renewed quality of the inhabited space.

The experiences presented introduce the need to return a strategic role to historical/cultural and ecological resources so they are identified as resources to activate local integrated development processes. One goal of this strategy is to enhance the landscape reality of the territories in order to protect both the individual environmental and cultural resources and

the particularities of each landscape as a guarantee of their survival in the face of homogenization processes. It also favours the activation of new local economies that sustain development models based on endogenous resources.

This is one of the most important challenges regarding the landscape, that is, verifying through really feasible experiences its capacity to support a transition from the current development model to new forms of sustainable development based on the integrated enhancement of local resources.

In this sense, a place is found for new experiences in cultural, nature, and wine-and-food tourism, as echoed in some of the experiences presented below. They testify the possibility that an intervention strategy based on enhancing local landscape peculiarities can likewise lead to the protection and enhancement of the territories themselves.

Attention for the natural and cultural heritage, in its capacity to construct a continuous, pervasive network in the territory, is not only a spectacular episode in the story of the landscape; it can even lead to the construction of a new territorial structure. This follows from the enhancement and reorganization of extra-urban landscapes with the identification of new forms of connection between rural and urban areas, strengthening contact between urban green and natural areas in the territory; improving the environmental presence in the urban area starting from the use of residual areas, abandoned open spaces, decommissioned agricultural or industrial areas; developing good practices capable of refreshing and guaranteeing relationships between the natural and historical/cultural components, increasing their integration with the communities in a view of protection aimed at local development.

To implement these actions, some experiences presented propose the environmental network, more commonly indicated as "green infrastructure". This is an articulated, connected system including the ecological and landscape paradigm. It is capable of dealing with relationships between different spaces (urban, suburban, rural, and natural places) and, with them, also the themes of territorial restoration.

The Definition of Local Identities

Defining the identifying characteristics of a place is a very complex task that requires many aspects of the landscape paradigm in the area to be considered at the same time, along with the complexity of the actors present. Despite this, the identity of a place is often a fascinating image, especially for lay people, since it contains a strong charge of expressiveness and belongingness, and thus evokes a precise unconscious idea. Therefore, in this panorama of project experiences for local landscapes, even this line of reflection finds a place. It is intended as the capacity of inhabitants to recognize their own landscape and those characteristics that render it recognizable, that is, that identify it. However, this definition is not static, but rather evolves just like the landscapes. In the experiences presented, the identification aspect of the landscape is highlighted precisely in its non-permanent, transitory character. The identity of a place changes along with the relationships between the place and those using, living in, and

perceiving it. Some territorial requalification projects, as well as urban regeneration, should also take into account the question of redefining a new local identity. While the two are intimately connected, this is often presented as a more complex and longer process than defining the territorial project itself. For example, the identification of new models of sustainable development based on enhancing local products entails redefining the place's identity. That is, in other situations, interventions to convert decommissioned areas force an assessment of new relationships between users and reconverted spaces. These processes, which constitute the character of local landscapes, often occur very slowly. However, sometimes, even due to wars or catastrophes, the identifying character of the landscape can be suddenly or dramatically cancelled or undermined. This causes the local community to feel disoriented and need a new reference. In this particular aspect, a reflection on the perceptual aesthetic dimension of the landscapes finds space, even in the urban area. Some of the experiences presented highlight how the landscape frameworks or largely recognizable visual elements constitute a really recognizable system of reference in the mind of the inhabitant or visitor, enough to contribute to defining identifying relationships in the context. These projects therefore lead to a reflection on the question of identification with respect to its transformation in time.

Poster 1 - The Calabrian Landscapes as Innovative Laboratory for the Integrated Enhancement of Local Resources

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✔ KEYWORDS: landscape, local resources, integrated enhancement, quality of life, tourism.

🕮 ABSTRACT

Landscape and cultural heritage are key resources for territories and local communities as well as for their economy and tourism to undertake sustainable development paths. Such paths are sustainable if they originate in communities that are involved in imagining and designing development models able to protect and enhance those environmental and cultural resources and tangible and intangible values that have found a wonderful synthesis in the landscape and are directly related not only to the image and identity of the places, but also to the residents' quality of life and to the development of certain economic sectors, such as tourism (Pultrone, 2012).

In the European, national and regional documents on sustainable development, tourism and landscape, the quality of the territory as a whole is considered as the most important resource for the socio-economic development of cities and territories. The European Landscape Convention itself states that the protection of the landscape is not inconsistent with economic development but will support sustainable development and social involvement.

In particular, the characteristics of the Calabrian landscape are important unifying elements for the whole regional territory. Mountain and hill areas with a limited anthropic pressure have a huge landscape value due to the presence of natural resources of excellence, in spite of certain weaknesses related to depopulation and marginalization, which have resulted in degradation and lack of maintenance of the same natural resources (Teti, 2013). Moreover, the varied coastal landscapes are peculiar and unique in certain stretches, while they reveal high landscape degradation in others as a result of the high anthropic pressure deriving from the lack of adequate planning.

The Regional Landscape Framework (QTR/P), provided for by the regional planning law and adopted in 2013, gave an incisive direction to the processes of rehabilitation and sustainable development of the territory. It refers to the Regional Planning Guidelines and states the active role of the landscape as well as the need for its protection. Therefore, the regional cultural, environmental and landscape resources are brought into play to achieve development while assuring protection and considering the landscape as a resource with a view to generating positive impacts in an "economy of quality".

The responsibility the Region Calabria has taken on towards the landscape is clearly shown by the following actions it has undertaken: being one of the founding members of the European Network of local and regional authorities for the implementation of the Landscape Convention; promoting the Calabrian Landscape Charter; signing the Memorandum of Understanding for landscape protection between the Region Calabria and the Ministry for Cultural Heritage (2010), which binds the State and Regions to integrate landscape into their physical- and town-planning policies and into those with a direct or indirect impact on it. Such a memorandum is expected to be implemented through the Territorial Landscape Plans which allow preserving and protecting landscape values within the physical- and town-planning schemes resulting from the approval of the Territorial Framework and of the Municipal Structural Plans. Finally, a further action undertaken by

the Region Calabria is the approval of Calabria Landscape Policy Document (2013), which is focussed on the integration of protection and development, conservation and enhancement, asset and context.

Plans and virtuous relationships between landscape, natural and historical resources, tourism and knowledge of places should be developed also in the light of some ongoing experiences of Integrated Local Development Projects (PISL) – operational tools to implement the territorial strategy of the Calabria Regional Operational Programme ERDF 2007-2013 – and through the opportunities and prospects offered by the 2014-2020 programming period, which envisage a place-based approach with tools, such as Integrated Territorial Investments (ITI) and Community Led Local Development (CLLD) projects. However, it should always be kept in mind that the effectiveness of a project mostly depends on its capacity to integrate and fulfill the real needs of target communities, above all if they shared it in the phase of elaboration.
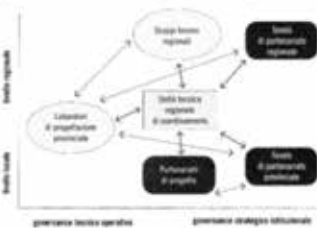
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RESILIENT LANDSCAPES FOR CITIES OF THE FUTURE
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FIG. 1 Calabria is located in the southern end of the Italian peninsula and juts out into the Mediterranean Sea. Most of the Calabrian territory is classified as hill (741.858 hectares), followed by the areas classified as mountain (630.823 hectares) and as plain (135.374 hectares).

FIG. 2-6 Views of different Calabrian landscapes showing the variety of resources of historical, cultural, environmental value (photos by G. Pultrone)

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FIG. 7-8 The proposals of Integrated Local Development Projects (PISL) on villages of excellence ("Borghi di eccellenza") and tourist systems ("Sistemi turistici"), Regione Calabria, I PISL.

FIG. 9 Governance system of Integrated Local Development Projects (PISL)

Session: Topic 4 - The landscape as a laboratory for good living: the fruitful relationship between agriculture, tourism, natural and historical/artistic resources, and knowledge of places
THE CALABRIAN LANDSCAPES AS INNOVATIVE LABORATORY FOR THE INTEGRATED ENHANCEMENT OF LOCAL RESOURCES
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Poster 2 - Integration of the Historic Urban Landscape with Contemporary Architecture

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✔ KEYWORDS: historic landscape, globalization, integration, contemporary architecture

◑❍ ABSTRACT

The theme is dedicated to the preservation of the historic urban landscapes in the era of globalization with the rapid growth of large cities and megalopolises. During the research there were studied several world-wide cities, such as Moscow, Warsaw, Frankfurt am Main with their historic urban landscapes integrated with contemporary architecture, and also the problems of identity of these cities were analyzed. Based on the study of information and on the documents of conservation of historic city centers, the opportunity to preserve the historic urban landscape is offered with new regulatory standards of development and of use of land in the most valuable historical urban areas.

Each city as a work of art has its unique architectural and artistic image created by the historic urban landscape. The growth of population, the increasing number of vehicles, the felling of green areas and the construction of skyscrapers all these factors in the age of globalization lead to misrepresentation and loss of identity of the historical images of the cities.

The problem of preservation of architectural heritage, despite its relevance, often falls outside the scope of interest of modern architects-practitioners, which project buildings with the maximum number of usable area on small expensive areas of land in the historic city centers. Most architects, who plan urban development, know extremely superficial the history of the planning city, haven't got the slightest idea of the urban values of these cities and urban planning ideas that were developed in these cities before (Likhachov D., 2001).

The historic images of cities became noticeably change after the 2nd World War. Palace of Culture and Science in Warsaw was built in 1952-1955 under the project of soviet architect Lev Rudnev and his staff. The Poles chose the project of 120-meter building, but claims of the construction team were significantly greater, that allowed them to construct a building much higher. At the time of construction of the building its height with a spire was equal 230.68 meters. The shape of the palace reminds socialist realism high-rise buildings in Moscow and it still evokes extreme emotions - from admiration to disassembly requirements of this "symbol of Soviet domination."

Since the early 2000s, the construction of skyscrapers began construction in the historic center of Warsaw. And the highest "Stalin" high-rise building has already become invisible against the background of glass towers of style "international architecture". This style is characteristic of the buildings and complexes built in the 1960s in USA, has found mass application in contemporary architecture. Modern landscape of the German city Frankfurt can easily be mistaken for a New York Down Town, twelve skyscrapers located here (minimum height of one hundred and fifty meters) and one building is under construction - 185 Tower about 205 meters.

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INTEGRATION OF THE HISTORIC URBAN LANDSCAPE WITH CONTEMPORARY ARCHITECTURE

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Session*: Topic 4 - The landscape as a laboratory for good living: the fruitful relationship between agriculture, tourism, natural and historical/artistic resources, and knowledge of places.

Is it Moscow?

Is it New York?

The Palace of Culture and Science in Warsaw, 1955.

Is it New York?

It is Warsaw

Hotel Ukraina, Moscow, 1957.

Is it New York?!

It is Frankfurt.

It is Moscow.

Yes, it is New York.

"A buffer zone is a well-defined zone outside the protected area whose role is to shield the cultural values of the protected zone from the impact of activities in its surroundings. This impact can be physical, visual or social." - The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas. Adopted by the 17th ICOMOS General Assembly on 28 November 2011.

Project of Ohta Center
Saint Petersburg, Russia, 2006.

Contemporary architecture can not only improve the historical landscape of the city, but rather make it worse. The Moscow Kremlin, the object of protection of UNESCO, together with the construction of a new modern complex "Moscow-City" has got gloomy background buildings. The British have a notion of skyline. Skyline - it is outline against the sky, a line of convergence of the sky and the mountains, the sky and houses; rather, line drawn around the corner or around the houses in the sky. But this is also the line of the city against the sky. Constructing in modern cities, it is imperative to take into account its «skyline», which opens from different perspectives (Likhachov D., 2001).

Today, there are no clear rules, principles and methods of design in historical environment, preservation of the historic landscape and its integration with contemporary architectural objects. However, it was created the notion of a «buffer zone» (VP, 2011). The width of the buffer zone in each case depends on the scale of construction of new architectural objects. And without an accurate urban planning analysis it is difficult to determine the impact on the historic landscape of new objects after their implementation. One of the most important steps towards the solution of similar problems and challenges of the new building in the historic center is the development of projects of zones of protection of historic urban landscape, architectural and cultural heritage. These projects are generally designed to address the problem of integration of this valuable heritage in the modern fabric of the city and contemporary architecture in the historic urban environment, define a strategy for further development of the historic city center. Different methods can be used for the adaptation of the monuments to the modern city life and introducing them to the economic cycle:

- privatization of monuments with imposition of an obligation on private owners;
- development of architectural and cultural heritage;
- development of cultural and educational tourism and creation on the basis of heritage sites tourism
- products and brands;
- sale the "aura" of the historical and cultural heritage, when the attractiveness of historic cities and
- individual historic districts used to increase the value of new properties
- the development of creative clusters on the basis of cultural heritage.

Preservation of historic urban landscape and with it historical, cultural and architectural heritage is the driving force in the development of cities, through which creates a comfortable living environment for the life of citizens.

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POSTER 3 - Making Your Landscape Yours. Empowerment of Inhabitants for Living Resilient Territories

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✔ KEYWORDS: Visual research methods, living labs, inhabitants, cultural citizenship, creative commons.

🐙 ABSTRACT

Increasing awareness of the role of the inhabitants in the creation and maintenance of the landscape is the starting point to implement innovative strategies in the use of material resources and intangible assets to manage natural stocks, cultural habits, implicit knowledge, existing qualifications. To strengthen the value chain without jeopardizing or destroying the given natural, social and cultural capital is firstly necessary understand what people consider values of their territorial memory and how people want to care for it, especially where the sense of landscape has become rather confused. The current condition to live in a world of images, where image establishes and promotes the reality offers potentials that can be exploited to promote the diffusion of more evocative or non-textual participatory strategies to capture and explore shared landscape values. Visual research methods (Photo-elicitation, Photo voice) can be useful in implementing mechanisms of cooperation, mediation and compromise between the parties (residents, newcomers, visitors, researchers) starting from specific, measurable, achievable, realistic and timebound objectives. Photos and images, in fact, give a spatial dimension to raised issues and contain an enormous amount of data which can be analyzed important insights on social phenomena accompanying the development of a shared position among all stakeholders regarding the most relevant issues affecting the future territorial and landscape development. From being simply considered users of territorial services, inhabitants should more becoming key actors in the landscape services conception and production, becoming co-designers and co-producers. Digital innovation systems, based on citizen-driven approaches such as Living Labs, represent co-design methods able to tap the creative potential of local territories.

Values and characteristics of modernity that privilege short-term yields and short-term satisfactions, can lead to a 'corrosion of neighbourhoods' and a loss of identification with the landscape and community. Collective art-making is a powerful means of cultivating meaningful belonging, participation, and mutual responsibility (Duxbury & Jeannotte, 2011).
The Photovoice(Wang & Burris, 1997) methodology as participatory action research (PAR) has been used to engage people using the power of photographs to explore issues related to everyday life places. The value of the process for the participants is the shift of the traditional researcher/researched power relationship. Although Photovoice, as a participatory method, is a time-consuming activity, generally participants, that are local residents, including youth, business owners and all those who live, go to school, and/or work in an area, are excited to share their findings with each other to elicit observations, ideas, and opinions. Used since 1997, the long-term impact of the methodology is still being researched, Photovoice allows to putting questions and giving solutions to the issues raised directly at spatial level, examining, moreover, sensory, affective and aesthetic characterizations of space. For this, although the

participants, sometimes, could have limited knowledge of all the possibilities for improvement their everyday landscapes, they can identify a set of 'creative commons' that help build social capital and empower individuals.

Without the participation of its inhabitants a place will never be able to become resilient. The choice each individual and community makes, and the reasons behind those choices, is reflected in the resources consumed. Creating knowledge based on place-based needs, activities driven by providers and activities driven by enablers should be merged and synthesized into urban planning.

User-driven approach, supported by ITC (information and communication technology) tools, can give added value to ICT products and services developed in function of the special qualities of the people and territories involved. This is the strategy of the urban living lab concept, explored in 2010 at the Massachusetts Institute of Technology as methodology for sensing, prototyping, validating and refining complex solutions in multiple and evolving real life contexts.

The last research projects are reflecting critically on the applicability and transferability of the Living lab concept to urban planning, especially to understand to what extent can the Urban Living Lab concept can improve the co-creation of knowledge in coming up with more inclusive solutions for sustainable cities. The multiple roles that residents play in regional and urban living labs have not yet been fully understood and need to be scrutinized in future studies. Citizens have a natural motivation to participate in shaping their environments, and this motivation should be utilized through the development of new methods of co-creation and participation in a community development 'designed with' instead of 'designed for' (Juujärvi & Pesso, 2013).

Participation has become a buzzword in current discourses and practices and as such, it has effectively been institutionalised but it, often, has become another box to tick to get approval and funding (AAA, 2007). Places have a certain identity and people living there have related to specific views on the local assets and qualities. To transform suggestions into coordinated action ordinary citizens should to be allowed to act where they live considering the intersection between community engagement, applied activities and strategies of community capacity-building.

When you act on your door step it helps you to find a local anchoring even opened to other influences and cross other dynamics from elsewhere. Only the micro-politics succeed in being creative and revolutionary. Although the "micro" of micro-political is not synonymous with small, there is no better place to start than the local context in which you live and work every day.

The project started in one single location can contain within it the capacity to multiply and disseminate itself becoming a model for users who have multiplied it in their own courtyards and shared spaces, prompting attention to details, to singularities, to the capacity of creativity and innovation that operates at the level of everyday life with minimal means that, paradoxically, allow for more social, cultural, and subjective diversity (AAA, 2007). These micro-social and micro-cultural practices are related to lifestyles and individual gestures but community

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Resilient landscapes for cities of the future

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Making your landscape yours
Empowerment of inhabitants for living resilient territories

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Topic 3 The landscape as a community project: the role of inhabitants in the construction/restoration of territorial values

FROM 'DESIGN FOR' TO 'DESIGN WITH'

Yunnan Rivers Project (CHINA)
AIMS: (1) ecotourism development (2) conservation of biodiversity and cultural heritage (3) sustainable alternative income source to local communities.
PLACES: remote mountain regions
PEOPLE: more than 200 people from dozens of villages who speak only local languages and cannot read or write
DURATION: Since 2001 to 2007
OUTCOMES: Over 50,000 photographs with 15,000 accompanying stories to help guide the Conservancy's conservation efforts and the decision of the policy makers will in planning the region's future.

Creekside District Master Planning (USA)
AIMS: Ask to community members (1) how well does the Creekside District (or the immediately surrounding area) function now? (2) how you would like to see the District develop in the future, what improvements can be made?
PLACES: 55-acre site largely comprised of retail and light manufacturing or industrial businesses, offices, and a small number of residents (105 residents in 54 occupied housing units)
PEOPLE: local residents, including youth, and business owners
DURATION: Since 2011 to 2013
OUTCOMES: The findings amplify the relationship between the physical environment (much of what the Creekside Master Plan will entail) and social outcomes and between Creekside District and its surrounding. Planning merely within the Creekside District boundary cannot adequately address the issues identified by the participants

Alberta Rural Development Network (CANADA)
AIMS: (1) reveals how much leadership skills in the young adult participants goes on even in smaller communities (2) brought people together to meet as a community
PLACES: rural areas of Alberta
PEOPLE: 12 young adults from rural communities
DURATION: 10 weeks
OUTCOMES: Galleries of rural life - industry and equipment, life on the road, family, domestic animals, philosophy and faith, wildlife, plants and landscapes - photos and shared stories, were put on display for an audience of more than 250 people.

Urban Agricultural Park (PORTUGAL)
AIMS: Explore residents' motivations in planting informal and community gardens on a municipally approved "urban agricultural park"
PLACES: neighbourhood Alta de Lisboa
PEOPLE: 12 garden activists
DURATION: annual
OUTCOMES: Portraits of new civic spaces and identities, around gardening and institutional conflicts, like the precariousness of clandestine gardeners tending vacant lots, and the need for public green space accessible to all.

SmartCity LL (FRANCE)
AIMS: (1) development of specific techniques and tools for contribution to urban planning, for mediation of cultural heritage, (2) the creation of a participatory dynamic on the territory (3) the conception of new products and services answering to new uses.
PLACES: Cité Internationale Universitaire de Paris (35 hectares, 10,000 students and researchers hosted in 40 houses)
PEOPLE: artists, developers, designers, experts, users and stakeholders to a re-reading and re-definition of urban space and of its practices
DURATION: Since 2007
OUTCOMES: experiment and co-produce around 30 innovative urban services (1) for visits, discovering and knowledge (2) for browsing and display for general public (3) for reuse of cultural public data (4) for personalization (families, children, groups, multilingualism, e-accessibility, e-inclusion)

Suurpelto Urban Living Lab (FINLAND)
AIMS: Combining inputs from various stakeholders (such as building companies, land owners, and city representatives) to build an ecological city that is close to everything: homes, workplaces, culture, and paid net services would all be within walking distance.
PLACES: Suurpelto a new urban area located between major traffic routes in the city of Espoo in southern Finland
PEOPLE: 15,000 people (universities and small-scale innovation enterprises)
DURATION: Since 2060 (the first inhabitants moved in during the fall of 2010)
OUTCOMES: (1) create knowledge based on place-based needs (2) implement and the implementation of a research strategy based on "realistic evaluation" (3) merge and synthetize in collaboration activities driven by providers (i.e. the educational institutions) and activities driven by enablers (i.e. the City of Espoo)

CASUAL project Urban Living Lab (AUSTRIA and SWEDEN)
AIMS: (1) placing people back at the centre of sustainable urban planning (2) highlight people and their everyday lives.
PLACES: In the Wiesen Ost in Vienna and Årstafältet in Stockholm
PEOPLE: citizens and consumers as urban development actors in the governance of urban areas
DURATION: Since 2013
OUTCOMES: Focus on the intersections between the built environment and technical elements where individual preferences influence sustainability (e.g. choice of transport modes and related mobility patterns, housing preferences and lifestyles)

AS COMMONS LANDSCAPE IS INSEPARABLE FROM COMMUNITIES AND PRACTICES

A city will never be able to become resilient without the participation of its inhabitants, because choke each individual and community makes, and the reasons behind those choices, is reflected in the resources consumed. But an institutionalised participation becomes only another box to tick to get approval and funding. We need cultural citizenship as set of capacities that provide the necessary support for civic participation and the activation of citizen rights. Collective art-making is a powerful means of cultivating meaningful belonging, participation, and mutual responsibility.

development can only be sustainable if members of a diverse resident population are able to come together to experience each other's cultures in a variety of ways and settings. Dynamic relations, between people and place make landscape as commons, inseparable from communities and their practices, in addition to their perceptions.

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POSTER 4 - How Can We Renew and Make Villages More Attractive Thanks to a New Aesthetical Image? The Case Of Monteclana, in The Municipality of Nave (Brescia, Italy)

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✔ KEYWORDS: historical center, urban landscape, survey about historical building, participation process

🖢 ABSTRACT

This essay presents the work carried out by the University of Brescia which got involved with the Municipality of Nave (Brescia) in 2014 to deal with the particular situation of Monteclana.
Its position on the border of the town, outside the main route, the lack of buildings maintenance, the lack of public services and elements with appeal don't allow for any other prospects apart from the progressive abandonment and the decrease of possibilities to bring it back to an attractive place to live and work in.
In Italy this destiny is very common among many villages and local administrations struggle to contest it. The only planning tools available can't regenerate these areas on their own. Moreover local administration has little room to manoeuvre because of the scarcity of public funds and difficulties in activating procedures with private subjects to stimulate any changes. Starting from the administration's targets – to enhance the aesthetic image of Monteclana and to subsidize the participation of citizens in ordinary building maintenance – the University of Brescia has carried out a survey aimed at giving an account of the status quo of the buildings, bringing to light the whole complex effects of private intervention on buildings in the last thirty years. The survey analyses the method followed in each intervention and the level of the impact, due to the moderately free way used to operate on our historical heritage. Furthermore, the University of Brescia has proposed an operating solution to improve the aesthetic image of Monteclana. On the basis of an image, respectful of its preexistence, recognizable and shared with the citizens, the urban planning tools for the historical centre have been completed by guide lines concerning the external structures. Streamlined procedures have been established to involve more citizens in investing in the maintenance of their property.

Survey about intervention on building

What is the effect on the current image of Contrada Monteclana due to the intervention on private building realized in the last 20 years?
The traditional analysis based on both the historical cadastral maps, useful in recognizing the period of each part of the buildings, and on site surveys, useful in classifying the building typology and integrity, have been completed by an analysis of building permits from 1980 up to now. Thanks to the information collected, for each building the following elements have been pointed out:
- if and when the building was the object of an intervention;
- the type of intervention (ordinary and extraordinary maintenance, restoration, completion, change of destination, etc.)
- which parts, structural or not, of the building have been modified.

The number of intervention have increased from 1980 up to now and some buildings have hade more than one intervention (especially for ordinary maintenance and this means that a special attention has been paid to the aesthetic of the buildings). The most common intervention has concerned the internal rooms distribution, with the consequent changes in the form and position of the windows (to respect the window/floor surface ratio). While the most common intervention on the structure have aimed to make roofs safe and, in a few cases, to make the attic suitable to live in (according to the local Urban Plan that doesn't discourage this type of intervention). The intervention that change the volume, altering the form and the typology of the building, were carried out after 1990 (enlargement of the buildings to make new cover spaces or an increase in the height of the roof).

Few interventions have concerned the building system: the improvement of the bathroom, especially in the Eighties, and the improvement of the building performance to save energy in later 2000. From 1996, the administration has adopted a new urban Plan with a list of suggested solutions for architectural elements for historical center buildings that have influenced the choices carried out by the owners in recent intervention.

The condition of the existing building patrimony

The architectural heritage has been detected and catalogued by a filing. We recorded 80 buildings and we found the consistency, the construction characteristics, conservation status. In particular, after a historical reconstruction through historical maps, we evaluated the relationship between buildings and their context. We observed the use of outdoor spaces (court-yards and parking lots). Finally, we observed the artistic construction details or degrading elements. The overall design has helped to propose a series of specific actions for each building.

Our proposal: "Do you want to change the look of your home?"

To subsidize the ordinary maintenance of the façades, local administration has worked on the creation of a consistent image to increase the value of the whole Contrada. This image has been proposed to each owner to stimulate their participation in the project. The idea is to convince each owner to become an player in the construction of a well-finished, harmonious and pleasant, urban context that, finally, increases the value of their properties too.

The procedure is based on a streamlined authorization procedure and economic subsidies.

A deep analysis of the up-to day façades colours has been carried out by taking samples of the current colours. These have been compared to the traditional colours. Three different lists of colours have been defined from which the administration and the citizens can choose in relationship to the general image they want to create (participation process). Finally, some solutions for economic subsidies have been studied for the owners who will participate in the project and informative flyers has been produced. This document, completed in all its parts, acts as both a request to participate and a permit.

UNISCAPE En-Route International Seminar
RESILIENT LANDSCAPES FOR CITIES OF THE FUTURE
School of Architecture and Design University of Camerino, Ascoli Piceno, Italy 13-14 April 2015

How can we renew and make villages more attractive thanks to a new aesthetical image? The case of Monteclana, in the Municipality of Nave (Brescia, Italy)

Poster 5: Between Urban and Rural: New Landscapes for the Economic Recovery of a Declining Area

(Proposal for PISI Intermunicipal Structure Plan for associated municipalities of the Tronto valley)

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✔ KEYWORDS: declining area, green network, rural landscape, intermunicipal plan

The planning challenge we are examining concerns the chance to enable a program for the conversion of an area strongly worn out by the socio-economic crisis of recent years, through the application of an experimental planning model that uses the 'landscape' as an engine for development.

It does not seem an instantly feasible solicitation to reverse a declining economic situation, closely linked to the industrial production, even for the strong roots of work that have come from political and public investment since the (gold) years of the Cassa per il Mezzogiorno. It's a planning challenge that is worth investigating for formal and functional innovation that can generate in urban landscapes, for the curiosity that gives rise to local people and for the attention that involves administrators.

The case study is about the lower valley of the Tronto in which small towns between Ascoli and the seaside, industrially active in the previous decades and functional poles of a broader territorial, show their production decay with situations of abandonment of work and life places, as well as a deep economic and social uneasiness.

The perspective's aim is to entrust to a project of a natural network the reconfiguration of work spaces and redevelopment of urban places, involving the local communities in their implementation, operation and management. It relies on values that these territories kept hidden for decades, such as agricultural resources (vineyards, olive groves, vegetable gardens), natural resources (rivers) and artificial ones (channels, mill canals) and by spreading the recovery and development especially in areas near the living and working places, and turning them into an integrated system of urban landscape made of territorial agricultural parks, urban gardens, greenways, green wedges in new districts, in industrial areas, along the infrastructure.

A green network that differs according to the different characters of the human landscapes that intercepts, and leans to the characteristic elements and places of each country: the aristocratic rural villas, the mills, the tower houses, the villages and towns, the monasteries and sanctuaries, by directing different economies related to tourism, culture and local specialties. This chance is seen as a 'sample case' to be submitted to the validation of a recent legislative proposal that the Marche Region has brought under discussion for adoption, concerning the renewal of the Law on the Government of the Territory. The choice of the lower valley of the Tronto as a place for tests, wants to promote the economic and social development of a

urban system through <<*criteria of technical, organizational and institutional innovation*>> giving impetus to <<*policies and good uses of local, landscape and environment resources*>>, identifying a number of tools and project actions which start from the recognition of the landscape value as the established society common good, as it had happened in the past.

The innovative and tested urban planning instrument is the PISI Intermunicipal Structure Plan that had recognized the territorial scope in associates municipalities and defines a set of strategies and objectives on the main topic, that is the strategic role and the value of the landscape between cities and countryside able to reactivate a virtuous development with positive impacts on the society and on the economies of the area. Then, through the choice of environmental sustainability and ecosystem protection goals, you will work on the construction of a series of measures designed to show the strengths and weaknesses which act on such issues and on the proposal of actions that can improve the quality of the landscape and mitigate the vulnerabilities of the territory. Acting in the same way, the planning choices for infrastructures and sustainable mobility, the general choices for the settlements and the choices for the productive areas, will have to identify on the territory its thematic projects, as well as defining the objectives of landscape insertion, of protection, of qualification and re-functionalization that can enable consistent project actions with the new strategic role of the area.

The planning innovation of PiSI, that is not a conformable plan of rights or the sum of the needs of individual municipalities, asks for a renewed political vision of local administrators through the identification of general criteria and guidelines for an inter-municipal equalization and any territorial compensation in favor of the effective realization of the transformation project.

What derives from this is not just a landscape design, but a community project that gives the landscape a task to establish visions of the future for the local populations and new perspectives of governance administrators.

Annex 2

**Flyer
Position Paper**

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UNISCAPE En-Route Seminario Internazionale

PAESAGGI RESILIENTI PER LE CITTÀ DEL FUTURO

Scuola di Architettura e Design
Università degli Studi di Camerino
Ascoli Piceno, Italia
13-14 Aprile 2015

UNISCAPE En-Route International Seminar

RESILIENT LANDSCAPES FOR CITIES OF THE FUTURE

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University of Camerino
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13-14 April 2015

Seminari UNISCAPE En-Route

Seguendo le raccomandazioni della Convenzione Europea del Paesaggio, l'obiettivo dei seminari *UNISCAPE En-Route* è di aiutare a costruire nel tempo una conoscenza condivisa tra i membri della rete UNISCAPE, per quindi rafforzare la rete nelle sue azioni, sia a livello locale che a livello europeo. Affrontando entrambi i tipi di pubblico - membri di UNISCAPE e altri membri delle diverse accademie da un lato, le parti interessate ei decisori locali dall'altro - la rete ha l'obiettivo di divenire il seme di nuove dinamiche paesaggistiche a base locale. Ogni seminario è l'occasione per riflettere sui valori, i problemi e le modalità di intervento specifiche per il paesaggio dei luoghi in cui ogni convegno si svolge, al fine di progettare un futuro possibile. Esso vuole essere un incubatore di conoscenza in riferimento ad un determinato paesaggio reale, in cui la condivisione di esperienze aiuta a stimolare nuove o esistenti iniziative che promuovono il pensiero innovativo sulle dinamiche del paesaggio, sia localmente che globalmente.

I seminari offriranno occasioni per:
* affrontare la ricerca accademica e il progetto con un approccio calibrato sulla realtà del paesaggio del luogo di ciascuna istituzione ospitante. La comunità UNISCAPE e gli altri partecipanti coinvolti nella promozione della Convenzione Europea del Paesaggio sono invitati a discutere i temi di ricerca sul paesaggio con una visione europea, in risposta alle questioni sollevate da un sito specifico, e tradurre approcci teorici in un approccio site-specific, di ricerca e approfondimento progettuale. I seminari saranno quindi un'occasione di scambio e approfondimento per i partecipanti sui problemi comuni di rilevanza per i paesaggi europei, e quindi promuovere "l'assistenza reciproca e lo scambio di informazioni" (Capitolo III - Art. 8).
* promuovere la Convenzione Europea del Paesaggio, mettendo insieme sia

Seminars UNISCAPE En-Route

Following the recommendations of the European Landscape Convention, the aim of the *UNISCAPE En-Route* seminars is to help build over time a common knowledge and understanding among UNISCAPE network members and thus strengthen the network in its actions both at local and at the European level. By addressing both types of audiences – members of UNISCAPE and other academic participants on the one hand, local stakeholders and decision makers on the other – they hope to be the seed for new landscape-based local dynamics. Each seminar is an opportunity to reflect on the values, issues and modes of intervention specific to the present state of the landscape-types present in the "anchor site" of the host institution and project their future. It intends to be an incubator of knowledge in reference to a given concrete landscape, where the sharing of experiences helps to stimulate new or existing initiatives that promote innovative thinking about landscape dynamics both locally and globally.

The seminars will offer the opportunity:
* to confront academic research and project thinking to the landscape reality of the anchor site of each institution. The UNISCAPE community and the other participants involved in promoting the European Landscape Convention are invited to discuss thematically related landscape research with a European scope to the questions raised by a specific site, and translate theoretical approaches into a site-specific, project-driven research approach. The seminars will thus be the occasion for participants for in-depth exchange on common issues of significance for European landscapes, and thus promote **"mutual assistance and exchange of information"** (Chapter III - Art. 8).
* to promote the European Landscape Convention by addressing both a

il punto di vista dell'accademia, a livello europeo, sia gli attori locali e i decisori (istituzioni, politici, abitanti, sociali e attori economici). Questo darà la possibilità agli attori locali del paesaggio di confrontarsi con un più ampio contesto europeo, e per gli accademici di presentare la loro ricerca ad un pubblico nuovo, in uno specifico contesto paesaggistico.

Così, raggiungendo attori locali e decisori, e combinando le attività più accademiche con altri eventi tematicamente correlati (visite in loco, film, mostre, etc.), i seminari offriranno una concreta opportunità di "sensibilizzazione" (Capitolo II - Art. 6).

Il Seminario *Paesaggi resilienti per le città del futuro*, organizzato dalla Scuola di Architettura e Design "Eduardo Vittoria" dell'Università di Camerino, vuole proporre il paesaggio quale indicatore dello stato di buona salute di un territorio, della qualità della vita dei suoi abitanti, della sostenibilità dello sviluppo. In questo appuntamento di *UNISCAPE En-Route* ci si propone di utilizzare la città adriatica quale terreno di osservazione dei fattori di crisi della città contemporanea e del suo paesaggio, per allargare lo sguardo alle diverse realtà europee attraverso una "call for papers".

Secondo gli obiettivi individuati da UNISCAPE, il confronto tra le diverse esperienze europee oggetto dei papers dovrà svilupparsi con riferimento ai seguenti principali focus:
* Paesaggio come progetto
* Educazione/Formazione
* Ricerca
* Osservatori del Paesaggio.

Tutti i papers and i risultati delle discussioni che si terranno nel corso del seminario verranno pubblicati in:
UNISCAPE En-Route: I Quaderni, una nuova serie dedicata di pubblicazioni online di UNISCAPE.
La serie è parte de *I Quaderni di Careggi*, pubblicazione online di UNISCAPE con ISSN 2281-3195.

Al fine di facilitare il dialogo con gli attori locali, il seminario sarà in Italiano e Inglese.

Paesaggi resilienti per le città del futuro

Le città del 21° secolo non possono sfuggire alcune importanti sfide che vanno dal superamento dei rischi originati dai cambiamenti climatici (strettamente connessi ai disequilibri ecologici in corso di progressivo avanzamento), alla ricerca di sistemi di funzionamento della macchina urbana meno energivori di quelli attuali; dal miglioramento della qualità e della quantità degli spazi aperti, alla restituzione alla città di aree residuali (aree dismesse, ritagli urbani, ecc.).

Non sono state individuate soluzioni globali per migliorare la vulnerabilità delle nostre città e per contrastare le sollecitazioni esterne che le città stanno affrontando e che affronteranno sempre di più nei prossimi decenni. Di fronte a questi profondi cambiamenti, la visione urbana razionalista non è più attuale. Essa si basa su una suddivisione monofunzionale delle attività umane che ha portato alla definizione di piani e progetti poco efficaci nella gestione dei fenomeni urbani e territoriali, poco adattativi di fronte agli shock esterni causati dalle repentine mutazioni climatiche, ecologiche ed economiche. Oggi si impongono approcci alla città e al territorio che producano "paesaggi resilienti", effetto di politiche, di piani e progetti caratterizzati dall'imprinting della flessibilità (strumenti autoregolativi, dinamici e in continua evoluzione), della retroattività (strumenti multiscalari, incrementali e cumulativi), della sostenibilità ecologica (strumenti adattabili, qualitativi e riciclabili, compensativi).

I paesaggi urbani resilienti saranno gli indicatori dello stato di buona salute del territorio, effetto di politiche, di piani e progetti incentrati sulla salvaguardia e sul potenziamento dei cicli naturali, sulla vivibilità delle città, sulla mobilità sostenibile, sulla cultura e sull'identità territoriale, sulla sicurezza e sulla salute delle persone.

In questo appuntamento di *UNISCAPE En-Route*, ci si propone di utilizzare la città adriatica, quale significativo terreno di osservazione e di confronto dei fattori di crisi della città contemporanea e del suo paesaggio. Lo sguardo sulla città adriatica ci permetterà di prospettare possibili strategie d'uscita dal modello della città razionalista, alla ricerca di nuove forme di sviluppo urbano

European-wide academic community and local stakeholders and decision makers (institutions, politicians, inhabitants, social and economic actors). This will give the opportunity for local landscape actors to open up the questions they are facing at home to a wider European context, and for academics to present their research to a new audience within a specific landscape context. Thus, by reaching out towards local landscape actors and combining the more academic activities with other thematically related events (site visits, film, exhibits, etc.), the seminars will offer a concrete opportunity for **"awareness-raising"** (Chapter II -Art. 6).

The Seminar *Resilient Landscapes for Cities of the Future* organized by the School of Architecture and Design "Eduardo Vittoria" of the University of Camerino, proposes the landscape as an indicator of the state of health of an area, the quality of life of its inhabitants, and the sustainability of development. In this edition of *UNISCAPE En-Route Seminars* the focus will be on the Adriatic city, where the factors of the crisis of the contemporary city and its landscape will be observed, and the vision opened to different European countries through a "call for papers".

According to the targets identified by UNISCAPE, the comparison between the different European experiences presented within the papers will be developed with reference to the following main focus:
* Landscape as project
* Education / Training
* Research
* Landscape Observatories

The papers and discussions taking place during the seminar will be published in:
UNISCAPE En-Route: I Quaderni, a new UNISCAPE's online publication series.

This series is part of I Quaderni di Careggi, UNISCAPE's online publication ISSN 2281-3195.

In order to facilitate the dialogue with the local actors, the seminar will be in Italian and English.

Resilient landscapes for cities of the future

Cities of the 21st century must face several major challenges, which range from overcoming risks due to climate change (closely connected to progressively developing ecological imbalances) to the search for better energy conservation in the urban machine; from improvement in the quality and quantity of open spaces to returning residual areas (neglected areas, urban remnants, etc.) to the city.

Thus far, there has been a lack of global solutions to improve the vulnerability of our cities or counteract external stresses that cities face now and will face even more in the coming decades. Faced with these profound changes, the rationalistic urban vision is no longer current. It is based on the mono-functional division of human activities and has led to the definition of plans and projects that are neither very effective in managing urban and territorial phenomena nor very adaptable in terms of external shocks caused by sudden climate, ecological, and economic changes. Today approaches that produce resilient landscapes are imposed on the city and territory through policies, plans, and projects characterized by imprinting flexibility (self-regulating, dynamic instruments in continual evolution), retroactivity (multi-scale, incremental, cumulative instruments), and ecological sustainability (adaptable, qualitative and recyclable, compensatory instruments).

Resilient urban landscapes will be indicators of the good health of the territory, the effect of policies, plans, and projects centred on the protection and development of natural cycles, the liveability of cities, sustainable mobility, territorial culture and identity, safety, and the health of people.

In this edition of *UNISCAPE En-Route*, we use the Adriatic City as an important terrain to observe and confront factors of the crisis in the modern city and its landscape. Studying the Adriatic City allows possible exit strategies from the model of the rationalistic city to be proposed in search of new forms of more

più sostenibili, vale a dire finalizzate al miglioramento della qualità della vita delle popolazioni europee.

La dimensione principalmente "longitudinale" del sistema insediativo adriatico, dovuto essenzialmente alla concentrazione delle principali attività economiche (turismo, industria, agricoltura specializzata) sulla costa, in aderenza all'andamento delle principali infrastrutture (tutte in direzione nord-sud), ha generato, negli ultimi cinquanta anni, una serie di conflitti che emergono oggi in tutta la loro criticità.

Sono osservabili da una parte, rilevanti criticità ambientali e paesaggistiche (il processo di artificializzazione costituisce una barriera, ecologica ed estetico-percettiva tra mare e aree interne); dall'altra, la perdita dei legami storici e di carattere socioeconomico che determinavano, un tempo, la continuità (anche funzionale) tra costa ed entroterra.

Il tema dell'artificializzazione della costa pone sempre più spesso ingenti problemi di sicurezza degli abitati di fronte ai catastrofici effetti dei cambiamenti climatici; la dismissione industriale e la "bolla speculativa" immobiliare rappresentano i principali effetti dell'attuale crisi economica che stiamo vivendo.

Di fonte alla perdita d'identità dei paesaggi antropizzati e naturali, nei territori dell'adriatico si stanno sviluppando politiche d'intervento e sperimentazioni progettuali che si pongono l'obiettivo di rispondere a precise logiche di valorizzazione delle identità paesaggistiche, antropiche, culturali e produttive di ogni realtà territoriale, attraverso l'attivazione di processi di sviluppo che non presentino retroazioni negative nei confronti degli elementi costitutivi di tali identità.

Prendendo le mosse dal caso studio adriatico, questo seminario internazionale vuole confrontare politiche, piani e progetti delle città e dei territori europei per l'affermazione di un nuovo modello di sviluppo che produca paesaggi resilienti, attraverso:

- il superamento della mera conservazione del paesaggio "tout court", considerandone i suoi processi di evoluzione e l'esigenza di raccordare le politiche per la conservazione dei beni e delle risorse naturali e culturali con i piani e progetti di trasformazione territoriale;

- la partecipazione sociale ai processi di gestione del paesaggio, perché la resilienza è un processo che non si può totalmente pianificare e progettare, ma può essere perseguita finalizzando le azioni spontanee;

- il consolidamento di una nuova governance urbana e territoriale, volta ad integrare le diverse scale di governo del territorio e del paesaggio;

- la flessibilità istituzionale e sociale per adeguare politiche, progetti e azioni ai processi di innovazione socio-economica e paesaggistica (anche con l'attivazione di sinergie tra le risorse pubblico-private locali).

Topics/sessioni parallele

I Topics del Seminario sono i seguenti:

1 -

Il Paesaggio per disegnare una nuova forma della città: progetti per affrontare i cambiamenti climatici riorganizzando i sistemi urbani

La città contemporanea con i suoi processi rapidi di crescita e di abbandono, troppo veloci per essere assorbiti dalle sedimentazioni storiche e dalle coerenze fisiche e sociali, si configura come l'esplosione di un mosaico di frammenti distinti, ciascuno con una propria forma (nuclei storici, quartieri frutto della pianificazione urbanistica, grandi infrastrutture), o prive di una forma e di una funzione definite (nebulose, detriti, sprawl, aree centrali e periferiche in abbandono, derelicts lands). La perdita del disegno urbano, ambientalmente e socialmente consapevole, oggi fa i conti con gli effetti dei cambiamenti climatici che diventano più aggressivi laddove il consumo delle risorse è stato più impetuoso e più disordinato.

I paesaggi contemporanei registrano drammaticamente gli esiti spaziali di tali dinamiche e le ripercussioni che questi mutamenti hanno sulla vita delle città e dei suoi abitanti. La vulnerabilità della città letta attraverso la lente del paesaggio, dovrà essere affrontata progettando risposte sociali, economiche e ambientali innovative che le permettano di resistere e di porre le basi per nuovi paesaggi. Si tratta dunque di configurare e connettere frammenti di città, senza nostalgiche visioni unitarie, senza la paura di sovrascrivere per riordinare, rileggendo e reinterpretando il legame con il contesto, ricreando nuovi luoghi.

2 -

sustainable urban development aimed at improving the quality of life for people in Europe.

The principal longitudinal development of the Adriatic settlement system, essentially due to the concentration of the main economic activities (tourism, industry, specialized agriculture) following the main infrastructures along the coast (all in a north-south direction), has generated a series of conflicts in the last fifty years that emerge today in all their criticality.

Important environmental and landscape criticalities can be observed (the process of artificialization constitutes an ecological and aesthetic/perceptual barrier between the sea and inland areas) along with the loss of historic and socioeconomic links that once determined continuity (also functional) between the coast and inland areas.

Ever more often the theme of coastal artificialization places huge problems in the safety of dwellings against the catastrophic effects of climate change; industrial decommissioning and the housing bubble represent the main effects of the current economic crisis.

Due to the loss of identity in built and natural landscapes in Adriatic territories, intervention policies and experimental projects are being developed that place the objective of responding to precise logic of improving the landscape, anthropic, cultural, and productive identity of each territorial reality through the activation of development processes that do not present negative effects related to the constituent elements of such identities.

Starting from the Adriatic case study, this international seminar will confront the policies, plans, and projects of European cities and territories in order to affirm a new development model that produces resilient landscapes via:

- overcoming the mere conservation of the landscape, considering its evolutionary processes and the need to connect policies for the conservation of goods and natural and cultural resources with plans and projects for territorial transformation;

- social participation in landscape management processes, since resilience is a process that cannot be completely planned and designed, but must be pursued by directing voluntary actions;

- the consolidation of new urban and territorial governance, aimed at integrating the different scales of territorial and landscape government;

- institutional and social flexibility to adapt policies, projects, and actions to innovative socioeconomic and landscape processes (also by activating synergies between local public and private resources).

Topics/parallel sessions

The Topics of the seminar are the following:

1 -

The landscape in designing a new form of the city: projects to address climate change through the reorganization of the urban systems

The modern city, with its rapid growth and abandonment, which are too fast to be absorbed by historical settlements and physical/social coherence, represents the explosion of a mosaic of distinct fragments, each either with their own form (historic centres, planned communities, large infrastructures) or lacking a form and definite function (nebulae, rubble, sprawl, abandoned central and peripheral areas, derelict lands). Today the loss of environmentally and socially conscious urban design also has to deal with the effects of climate change, which is becoming more aggressive where resource consumption has been the most furious and disordered.

Modern landscapes measure dramatically the spatial success of such dynamics and the repercussions that these changes have on the life of cities and their inhabitants. The vulnerability of the city as read through the landscape should be confronted by designing innovative social, economic, and environmental responses that allow them to endure and form the basis for new landscapes. This means configuring and connecting fragments of the city together without nostalgic unitary visions or the fear of overwriting in order to reorganize the pieces, rereading and reinterpreting their connection to the context, recreating new places.

2 -

Il Paesaggio per superare la crisi: favorendo la crescita sociale ed economica delle comunità locali, agendo sulle risorse naturali e culturali non ancora opportunamente valorizzate

Quando si discute di paesaggio, di piani e progetti per la sua tutela e valorizzazione, spesso sfugge il valore che esso ha nella produzione della ricchezza di un territorio. In un periodo di recessione, come quello che stiamo vivendo in Europa, questa riflessione è urgente. Intorno all'economia del paesaggio si sta focalizzando l'attenzione di numerosi studiosi e operatori del territorio, in considerazione del fatto che il vantaggio competitivo delle imprese e di un territorio risiede nella capacità di saper organizzare le risorse di valore, rare ed inimitabili presenti. L'eredità culturale sedimentatasi nel tempo e il paesaggio, incidono direttamente e indirettamente sulla creazione del valore e sul vantaggio economico delle imprese. L'interconnessione tra le filiere industriali e quella turistico-culturale, rurale-ambientale può quindi costituire una opportunità e una strategia per rilanciare lo sviluppo economico dei territori europei, recuperando le tradizioni e i segni del passato, il paesaggio e il patrimonio storico culturale.

L'obiettivo è quello di valorizzare ulteriormente e eventualmente riposizionare le attività produttive che hanno fatto la ricchezza del territorio europeo.

3-
Il paesaggio come un progetto comunitario: il ruolo degli abitanti nella costruzione / restauro di valori territoriali

È molto stretto il legame tra qualità del paesaggio e livello di realizzazione di una comunità nei rapporti con l'area geografica di riferimento. Sono infatti diverse le azioni, tra loro fortemente interrelate, che concorrono a formare il paesaggio come: "il prendersi cura dei luoghi", la trasmissione dei suoi valori identitari alle nuove generazioni, le diverse modalità di usare le risorse primarie.

In società che hanno perduto i riferimenti e gli orientamenti tradizionali e simbolici in concomitanza con la rapidissima trasformazione e omologazione del territorio, la ricostituzione dei fili interrotti della memoria locale e territoriale non può non passare attraverso la trasmissione di consapevolezza e di saperi che attengono al paesaggio e che riguardano la condivisione da parte di una comunità di un progetto di territorio. Un processo innestato sulla valutazione che la comunità potrà fare delle risorse paesaggistiche presenti potrà orientare ogni evento progettuale per l'area.

Le scelte di progetto si definiscono dunque con riferimento alle possibilità e ai limiti consentiti dal luogo, ma anche in rapporto al comune sentire delle popolazioni interessate. Gli abitanti diventano soggetti coinvolti nel processo decisionale, attori dell'attuazione stessa e componenti vive del paesaggio che ne scaturisce.

4-
Il paesaggio come laboratorio del buon vivere: il fecondo rapporto tra agricoltura, turismo, risorse naturali e storico artistiche, saperi dei luoghi.

Negli ultimi anni, molte politiche hanno promosso una visione integrata tra agricoltura, turismo, ambiente, eredità culturali, produzioni alimentari di qualità. Spesso si è ricorso al paesaggio quale icona per promuovere le peculiarità dei territori europei e quale espressione di un nuovo umanesimo dell'abitare, del public enjoyment, del produrre, del consumare e del raccontare all'esterno le esperienze e le sapienze di un luogo.

Nel farsi promotore delle specificità del territorio, così come suggerito dalla Convenzione Europea del Paesaggio (ELC), il paesaggio diventa fattore essenziale per valutare la qualità della vita ed il benessere degli individui e della società. Il Paesaggio diventa inoltre un laboratorio per sperimentare le ricadute e gli effetti dei comportamenti e delle politiche che riguardano l'ambiente, le aree rurali, i beni patrimoniali e la qualità del cibo sulla vita delle persone.

Peraltro, la qualità della vita è il punto di contatto tra l'attrattività di un luogo per motivo di permanenza temporanea di tipo turistico e l'uso di un ambito urbano o territoriale per vivere stabilmente. In questo periodo di profondi cambiamenti economici, si assiste ad un ampio dibattito sulle modalità di valutazione del benessere di una comunità. Altri indici, tra loro diversamente combinati, stanno subentrando al PIL (Prodotto interno lordo). In tale scenario un paesaggio di qualità può contribuire al miglioramento delle condizioni di vita delle popolazioni locali e all'aumento dell'attrattività turistica di un luogo.

The landscape in overcoming the economic crisis: favouring the social and economic growth of local communities, acting on natural and cultural resources that have not yet been appropriately enhanced

When discussing the landscape and plans and projects for its protection and enhancement, the value it has in the production of territorial wealth is often overlooked. Such reflection is urgent in a recession like the current one. Numerous scholars and operators in the territory are focusing attention on the economy of the landscape, based on the fact that the competitive advantage of a business and a territory lies in the capacity of knowing how to organize the valuable, rare, and inimitable resources present. The landscape and the cultural legacy that settles over time directly and indirectly affect the creation of value and the economic advantage of a business. The connection between the industrial and touristic/cultural, rural/environmental chains therefore constitutes an opportunity and strategy to relaunch the economic development of European territories, recovering the traditions and signs of the past, the landscape, and the historical/cultural heritage.

The objective is to further enhance and eventually reposition production activities that have made the European territory prosperous.

3-
The landscape as a community project: the role of inhabitants in the construction/restoration of territorial values

The connection between landscape quality and the level of community awareness in relation to the geographical area of reference is very close. There are, in fact, different strongly interrelated actions that come together to form the landscape such as caring for places, the transmission of their identifying values to younger generations, and the different ways of using primary resources.

In societies that have lost the traditional and symbolic references and orientations in conjunction with the rapid change and homogenization of the territory, reconstructing the interrupted threads of local and territorial memory cannot help but pass through the transmission of awareness and knowledge that pertain to the landscape and that regard the sharing of a territorial project by a community. A process engaged in an evaluation that the community can make regarding the landscape resources present can orient each planning event for the area.

The project choices are therefore defined in reference to the possibilities and limits allowed by the place, but also in relation to the common feeling of the interested populations. The inhabitants become subjects involved in the decision-making process, actors in the implementation, and living components of the resulting landscape.

4-
The landscape as a laboratory for good living: the fruitful relationship between agriculture, tourism, natural and historical/artistic resources, and knowledge of places

In recent years, many policies have promoted a vision that integrates agriculture, tourism, the environment, cultural legacy, and quality food production. Reference is often made to the landscape as an icon for promoting the uniqueness of European territories and as the expression of a new humanism in living, public enjoyment, production, consumption, and externally recounting the experiences and knowledge of a place.

In promoting the details of the territory as suggested by the European Landscape Convention (ELC), the landscape becomes an essential factor in evaluating the quality of life and the well-being of individuals and society. The landscape also becomes a laboratory for experimenting with the effects on people of behaviours and policies regarding the environment, rural areas, cultural heritage goods, and food quality.

Furthermore, the quality of life is the point of contact between the attractiveness of a place for reasons of temporary touristic stays and the use of an urban or territorial area for long-term living. In this time of profound economic change, a wide debate on the ways of evaluating a community's well-being is underway. Other indices combined in different ways are replacing the GDP (gross domestic product). In such cases, a quality landscape can contribute to improving the living conditions of local populations and increasing the touristic attractiveness of a place.

Invio di abstract

Siamo interessati a ricevere abstractac (in formato.rtf) in Inglese di non più di 300 parole entro il 20 febbraio 2015 da inviare agli indirizzi email:
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Gli autori selezionati saranno invitati a illustrare il loro contributo al Seminario o a produrre un poster per la mostra.
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Le indicazioni per la stesura del full paper saranno fornite successivamente via email agli autori.
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* Topic/sessione scelta
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Scadenze

Call for abstract: 15 Gennaio 2015
Scadenza per l'invio degli abstract: 20 Febbraio 2015
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Selected authors will be invited to present their contribution in the Seminar or to submit a poster for the exhibition poster session.
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Instructions for the preparation of full papers will be provided to authors via email as soon as possible.
Structure of the text:

* Title of the Seminar
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Important deadlines

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Programma preliminare

Lunedì 13 Aprile 2015

9:00
Registrazione

9:30-10:10
Saluti e Apertura dei lavori

10:10- 11:00
Parole Chiave Interventi: *Il concetto di resilienza nelle politiche locali e in quelle globali*

11:00- 11:20 - *Coffee break*

11:20-12:40
Parole Chiave Interventi: *Paesaggi resilienti per le città del futuro - Differenti chiavi di lettura per interpretare il cambiamento*

12:40 -13:00
Apertura mostra: Paesaggi resilienti

13:00-14:30 - *Light Lunch*

14:30-16:00
Sessioni Parallele 1 - 2
1- Il Paesaggio per disegnare una nuova forma della città: progetti per affrontare i cambiamenti climatici riorganizzando i sistemi urbani
2- Il Paesaggio per superare la crisi: favorendo la crescita sociale ed economica delle comunità locali, agendo sulle risorse naturali e culturali non ancora opportunamente valorizzate

16:00 - 17:30
Sessioni Parallele 3 -4
3- Il paesaggio come un progetto comunitario: il ruolo degli abitanti nella costruzione / restauro di valori territoriali
4- Il paesaggio come laboratorio del buon vivere: il fecondo rapporto tra agricoltura, turismo, risorse naturali e storico artistiche, saperi dei luoghi

18:00
Presentazione di libri

***

Preliminary programme

Monday April 13, 2015

9:00
Registration

9:30-10:10
Welcome and Opening

10:10–11:00
Keynote Speeches: *The concept of resilience in local and global policies*

11:00–11:20 *Coffee break*

11:20–12:40
Keynote Speeches: *Resilient Landscapes for Cities of the Future - Different keys to interpreting change*

12:40 –13:00
Exhibit opening: *Resilient landscapes*

13:00–14:30 *Light Lunch*

14:30–16:00
Parallel sessions 1–2
1- The landscape in designing a new form of the city: projects to address climate change through the reorganization of the urban systems
2- The landscape in overcoming the economic crisis: favouring the social and economic growth of local communities, acting on natural and cultural resources that have not yet been appropriately enhanced

16:00 - 17:30
Parallel sessions 3–4
3- The landscape as a community project: the role of inhabitants in the construction/restoration of territorial values
4- The landscape as a laboratory for good living: the fruitful relationship between agriculture, tourism, natural and historical/artistic resources, and knowledge of places

18:00
Book presentation

***

Martedì 14 Aprile 2015

9:00-10:30
Sessione Plenaria
I discussant illustrano i risultati delle Sessioni Parallele

.
10: 30- 10:50 - _Coffee break_
.

10.50 – 12:30
Tavola Rotonda

12:30-13:00
Conclusioni

.
13:00 - _Light Lunch_
.

14: 30
Visita guidata alla Città di Ascoli Piceno

Tuesday April 14, 2015

9:00–10:30
Plenary session
Discussants present the results of the parallel sessions

.
10: 30–10:50 _Coffee break_
.

10.50–12:30
Final Round-Table

12:30-13:00
Conclusions

.
13:00 _Light Lunch_
.

14:30
Guided tour of Ascoli Piceno

Afterword

Resilient Landscapes For Cities Of The Future

Massimo Sargolini

☞ Ordinary Professor in urban planning, he coordinates the Level-II Master in "Landscapes of Inland Areas: Local development and sustainable management of services" at the School of Architecture and Design at the University of Camerino. He is a member of the IUCN's world commission on protected areas. He does research in the field of territorial and landscape planning.

In the latter quarter of the 1900s, "caring for the planet" became the transverse rallying cry for different political visions and religious confessions. One need only consider the numerous international documents underwritten by different nations and governments, or the different religious writings centred on this theme.

In the first case, it is useful to recall a document from 1991, "Caring for the Earth" drawn up by IUCN - The World Conservation Union, UNEP - United Nations Environment, and WWF - World Wide Fund for Nature. It contains a vision that will make history and which, in the long term, provides arguments for: 1) building a sustainable society; 2) improving the quality of human life; 3) conserving the Earth's vitality and diversity; 4) keeping within the Earth's carrying capacity; and 5) providing a national framework to integrate development and conservation. It identifies sustainable actions in the fields of energy, industry and commerce, settlements, agriculture, forests, and water. "Caring for the Earth" begins with initial reflections on sustainable development that coincide with the UN Conference on the Human Environment held in Stockholm in 1972. The opportunity to take action was already recognized at that time, keeping in mind not only the objectives of peace and the socio-economic development of the world—for which "the protection and improvement of the environment is a question of capital importance"—but it also held as an "imperative objective" of humanity to "defend and improve the environment for current and future generations". In 1980, the IUCN drafted the "World Conservation Strategy" in which the following objectives were established: 1) maintenance of essential ecological processes; 2) protection and conservation of the genetic diversity of animals and plants; and 3) the sustainable use of ecosystems. The document contains the precursors of the concept of resilience of cities in relation to changes, a concept that, more recently, has spread in response to climate changes.

From the religious point of view, at least two different positions can be cited, one from the Orthodox Church, with the Ecumenical Patriarch Bartholomew, and another from the Catholic Church, with different papal encyclicals. In the first case, attention was placed on the ethical and spiritual roots of environmental problems, inviting us to look not only for technical solutions, but also in a change in human behaviour. In the second case, the recent Laudato sì, an encyclical letter subtitled On Care for our Common Home written by Pope Francis, recalls

other papal writings. Pacem in terris by Pope John XXIII, the speech to the FAO on 16 November 1970 by Pope John Paul II, and the speech to the Deutscher Bundestag on 6 August 2008 by Pope Benedict XVI sounded out the broad range of themes that can have direct or indirect effects on the Earth's system of general balances. In this sense, Laudato sì goes far beyond the previous exhortations, as it is configured as a true scientific treatise. It addresses problems of pollution and climate change, the scarcity of water, the loss of biodiversity, the deterioration of the quality of human life and social degradation, and finally, planetary iniquity. Even more recently and more directly, the Italian Episcopal Conference published a manifesto on care for our common home called "Planning Cities for People", which acknowledges the concerns in Laudato sì and calls to gather all those who hold territorial decision-making power to build "beautiful cities" that use resources sustainably, respect the environment, and offer inclusion to peripheral areas.

Therefore, different authoritative sources ask us to "take care of the Earth again". This seems difficult to achieve, however, if we do not start from the city, which, despite presenting worsening conditions, continues to attract people.

Europe is one of the most urbanized continents in the world, and our cities will determine future economic, social, and territorial development. We can therefore say that the future of Europe depends primarily on the future of our cities. They are a precious resource; they are places to connect, they provide services for society, and are key places for the challenges of inclusive intelligent and sustainable growth.

Today city metabolism is mainly "linear" in the sense that the city receives input (materials, energy, water, food) from its external environment and produces waste from production and consumption (heat, pollution, etc.). These cities represent a serious threat for living environments if new organizations to significantly modify the metabolism are not studied (Maria Antonia Giannino, Ferdinando Orabona). New means of governance capable of adapting to evolving situations aimed at resilience are needed.

As Sylvie Salles writes in this volume, resilience increasingly seems to be a magic word. It is an old idea that repeats like a mantra and which needs to be articulated to offer real, factual governance indications. Poor resilience is often caused by excessive rigidity in the built environment and the overall urban structure. The environmental components evolve continuously and should therefore be able to rely on the system's flexibility, considering the social and economic changes as well.

The work presented in the sessions brought to light the great potential of the landscape vision in processes of analysis, interpretation, and urban and territorial design. A landscape-based approach can regulate the coexistence of the different social, economic, and ecological components that characterize the contemporary city and orient urban metabolism towards flexibility, thus developing resilience. The landscape provides the right frame to control the effects of interactions between different uses and functions of the land and is the ideal filter to make decisions that ensure the system's flexibility. Within this conclusive relationship, I begin with some key points of the European Landscape Convention (ELC) and address the contributions from the different scholars, verifying the degree to which the ELC is metabolized in

experiences of territorial governance and highlighting the different forms of the landscape-resilience rapport.

"…to recognize landscapes in law as…an expression of the diversity of their shared cultural and natural heritage…" (ELC)

The landscape is the way in which we perceive our living environment and it is thus the keystone in orienting new planning interpretations. Its recognition in law begins with the deep sense that the artist, as a mediator of a mere vision, can help to understand. Paraphrasing Oscar Wilde, Tullio Pericoli reminds us in this volume that we know the colours, the form of nature, and the landscape because painters have made us see it. From Turner to the Impressionists, artists have shown us the world in which we live. Our vision involves our inner feelings and our minds. Seeing therefore means not only receiving an image through the retina, but also filtering this image with the knowledge and memories we have internalized throughout our lives. Therefore the judgement that comes from the vision is very complex and something we are never aware of. Even more clearly, using Kenneth Clark's metaphor from his book Landscape into Art, the artist Guido Guidi reminds us that the first crossing of the Alps was made by Hannibal, who saw that splendid scenery with the sole objective of overcoming it, and therefore without seizing it culturally. Thus, the first "real" vision of the Alps only came after its representations by artists (starting with Leonardo da Vinci), who transformed a landscape vision into a cultural event. Cultural recognition is the first step towards landscape recognition. Human meditation leads to the recognition of the landscape in law that connects its interpretation to all "interested peoples". Some of the case studies presented within this volume highlight the fruitful interaction between cultural and natural differences that deconstruct the landscape. There are many examples of this, ranging from ecological networks and green infrastructures to open-air museums and cultural itineraries. Interesting experiments have also been developed in some small cities where smart communities are springing up, communities that are capable of creating strategies that affect urban metabolism and generate local development in connection with the cultural and natural heritage (Maria Antonia Giannino, Ferdinando Orabona). The concept of resilience is also interpreted as the possibility of recovering the "memory of places", redesigning the innovative approach of "tourism as art of the places". In this sense, the case study presented by Ottavio Amaro, which centres on the Region of Calabria, highlights the need to recover and communicate the image that has become the default over time, following the transformations that have occurred in the last sixty years. The recognition of a place's values through an ecomuseum (the case of San Pietro Island off the south-west coast of Sardegna) aims to replace the local economy, which is based on mass tourism, with a more sustainable approach. The ecomuseum considers the opportunity for all local actors to consciously take part in the process of transforming and developing their economic, social, and cultural landscape (Maddalena Franzosi). In this sense, landscape recognition occurs by breaking down and recomposing its different natural and cultural parts.

The ELC addresses the need to place the entire territory at the base of landscape recognition, including even degraded and ordinary spaces. Some presentations also addressed experiences that have tried to overcome the distinction between the monumental historical centre and the areas containing objects of architectural and environmental quality. Particular attention is dedicated to everyday, ordinary landscapes, especially when they are degraded (Tana Nicoleta Lascu). As fruit of the human-nature rapport, these become landscapes in law and represent the fundamental criticalities that can be used to redesign urban and territorial areas. This approach was proposed by Guido Guidi; it makes ordinary landscapes become extraordinary. Many other contributions also considered these everyday spaces. In some cases they are germinal cities. In others they are starting points for urban and territorial rebirth in consideration of the vital energy that resides there (François Mancebo).

"…the landscape is an important part of the quality of life for people everywhere…" (ELC)

Since 2013, ISTAT has used the BES (Equitable and Sustainable Wellbeing) to measure and evaluate the "good life", a synthetic multi-criteria indicator composed of 134 items. As well, some years ago, AUDIS (Italian Association of Urban Brownfields) produced the Quality Charter. From the document, it is clear that the aim to improve the quality of life affects all territories: high-quality, ordinary, and degraded.

In presenting the QlandQlife research, Roberta Cocci Grifoni and Piersebastiano Ferranti highlighted the close connection between landscape quality and quality of life, examining the different indices that, starting from the landscape vision, can help to determine better living conditions for inhabitants. The area of study is the Adriatic City, in its ordinariness and replicability to other European areas. The research aims to attain a synthetic vision of the transverse, interdisciplinary conditions in the city in order to identify decision-support tools that can assess governance choices and orient them towards sustainability in order to increase the flexibility of the urban system and allow it to develop responses to the changes underway. In the process to improve the quality of life, there are two objectives that come together and mutually feed each other:

- stimulating the prediction and control of the impacts of land-use changes on biodiversity and implementing measures and local, sustainable planning. This follows a methodology aimed at breaking down and recomposing the extended and general problems into small, widespread local actions that can come together on the overall question unifying the different approaches;
- managing ecosystem services that can play a fundamental strategic role in providing benefits to resident communities. With regards to the Millennium Ecosystem Assessment (2005), these deal with: 1) support services, e.g., soil formation, photosynthesis, nutrient cycling, primary production; 2) catering services: e.g., food, water, timber, fuel, wood, and fibre; 3) regulation services: e.g., climate stabilization, flood regulation, hydrological basins, barriers to the spread of diseases, waste recycling, water quality; and 4) cultural services: e.g., aesthetic, recreational, spiritual, educational.

Of interest to this are innovative tools for the remuneration of ecosystem services, which Giuliana Quattrone addressed in her presentation. In the experience presented for Reggio Calabria as the area of study, we saw the importance assigned to inhabitants' awareness of local values and resources, with particular attention to green infrastructures, natural sites, and biodiversity in general. As well, we saw the need to turn negative trends around by increasing the adaptive capacity of the city, which becomes increasingly flexible and resilient.

Ecosystem services denote a close relationship with the conditions of community welfare, starting with the deep interaction between ecological, social, and cultural processes. In this sense, particular emphasis is placed on greenways as components of the ecosystem services. They are interpreted as planning actions capable of improving not only animal and plant habitats, but also urban and territorial resilience and therefore the quality of life of inhabitants. In addition to the Marche Region's REM and other Italian experiences that have broadly accepted the ecological network (the Umbria Region's RER, for example), the greenway experiences in Greece presented by Alexander Kantartzis are capable of improving bio-connectivity as well as social cohesion. They also serve as the basis for a system to enhance the quality of life by strengthening area and linear green spaces. In the case study of Igoumenitsa, the greenways are bordered by green walls and a green roof that absorb excess water, noise, and heat, also helping to mitigate overheating due to solar radiation, thus leading to energy savings. For some time, the European Greenways Association has identified the strong points of greenways. These relate both to improving communications and non-motorised itineraries for pedestrians, cyclists, horses, and mobility-impaired people, and to promoting ways of life and transport to reduce city congestion and pollution and promote rural development, active tourism and local employment. They encourage a more human and closer relationship among citizens, protect open spaces, and promote livability within urban areas, thus becoming opportunities for recreation, exercise, and alternative transportation, but also a reason to conserve biodiversity.

Green infrastructures—a concept encompassing all initiatives that use greenery to re-establish contact between citizens and nature (greenway, green walls, green roofs, etc.) and thus improve general environmental conditions—form the structure of slow cities, and are presented to public opinion as a reaction to speed. As Maria Antonio Giannino and Ferdinando Arabona remind us, these cities have a common element in the slow culture, promoting slowness in response to acceleration, which reduces the quality of life. The philosophy of the slow city also offers new perspectives for local development, placing common goods at the centre of attention. Therefore, the development strategy of slow cities begins with the recognition and enhancement of local identities, verifying the need for possible means to reconstruct said identities. It thus answers a central question of today, that is, finding an identity for anchorage in a standardized global society.

Green infrastructures therefore represent a way to transition into a green economy that recognizes the cultural heritage as a source of attraction, which I address in the next section. Contemporary landscapes measure the effects of these dynamics and repercussions that these changes have on the quality of life of the people. In some cases, such as the case study of

the Cuprensis Ager, lying along the Central Adriatic coast between the Tesino and Aso Rivers, the presence of an important natural asset has made it easier to develop a general landscape restoration plan.

"… to integrate landscape…into economic policies…" (ELC)

The landscape can make the system flexible and favour the resilience of the city also from the economic point of view (Luca Cetara). Even if the role of the landscape in creating economic policies has never been defined well enough, relationships between the landscape and economic policies are discussed in a lot of literature on the topic. Perhaps the predecessor of them all is Emilio Sereni's History of the Italian Agricultural Landscape, which is based on the multiple links that reciprocally connect landscape changes and economic changes. The study presented by Davide Marino, Aurora Cavallo, Benedetta Di Donato, Lorenzo Nofroni, and Serena Savelli, which moves in the same direction, was developed much more recently. To identify a model to interpret traditional Italian agricultural landscapes, it begins with the relationship between ecological and socio-cultural components of ecosystems. Analogously, the reflections by Marina Tornatora in this volume centre on the changes of agrarian landscapes due to evolving socio-economic dynamics and thus due to related agricultural production techniques. The important fact emerging from this is that the step towards monoculture has also altered the ecological balance between agriculture and the environment, with the loss of biodiversity and the cancellation of many elements that characterize the Italian agricultural landscape. The southern latifundia and the cultivations of the Apennine mountains disappeared, and the network of paths, water pipes, terraces, temporary shelters, signs, and lines on which the territorial design was based were abandoned. In the case study of the Spanish Landscape Observatory in Olot, which was presented by Soazig Darnay, landscape unities become the tool to respond to local social and economic needs. In the Penedès region, an area near Barcelona, the wine landscapes are connected to wine tourism, and therefore to a wine economy in some cases (see Subiratus) have promoted the primary forms of agricultural activities. The relationship between landscape and economic policies can also be seen in Sicily, in the case study of the mines presented by Giorgio D'Anna in this volume. Intense mining activity in the nineteenth and twentieth centuries changed the characteristics of the island, transforming agricultural landscapes into industrial landscapes. The new landscape vision of these places is connected to the forms induced by industrial archaeology, which are not too separate from those produced by the industrial development of the area following the agricultural phase. Considering the close relationships between landscapes and economies mentioned above, we must consider questions regarding the landscape within the frame of the economic crisis affecting contemporary society. In this vision, the landscape appears as a resource not only for future generations, but also for the present (Roberto Gambino), and drawing attention to improving landscape quality can favour economic rebirth. In this sense, the defence of local identity is the starting point to fight "crisis" landscapes. This occurs both when green econo-

mies, intended in their widest and most inclusive sense, are favoured and when paths are iden-
tified to transform economic growth into improving the social conditions of a community. The
landscape can influence the attractiveness of an area in terms of both investment and moving
populations. And all of this can improve the performance of a place beyond its identity.

The philosophy of the slow city offers new paths for development based on the centrality
of common goods. The "Can Cabanyes" experience presented by Xavier Romero Hidalgo,
Emanuele Penna, and Nicole del Re concentrates on a residual industrial area in Barcelona
that was restored as part of a general Rete Natura 2000 project. The experience favoured the
landscape regeneration of the city of Granollers. The green belt, implemented through local
and regional policies, regenerated degraded landscapes, contributing to increasing the social
value and therefore the economic value of the area. Reinforcing the economic value of the
area through green infrastructures was also realized in the case study on the Mersey Com-
munity Forest and St Helens Urban Fringe Action Plan presented by Pierantoni and Renzi,
with effects that go from mitigating flood risks to controlling heat islands, from improving air
quality to the use of domestic water use. In the vast experience of the United Kingdom, every
water- or land-regeneration program begins with green infrastructures.

The paradigm of ecosystem services mentioned above is also fundamental to the economic
review of some areas. As Giuliana Quattrone reminds us, many nations have developed pro-
grams to assess and pay for ecosystem services (PES). Naturally, it is necessary to be aware
of the natural capital and to assume the responsibility to maintain the natural value over time.
By applying the PES and its integration with urban-planning tools, it is possible to improve
territorial governance in line with the goals of environmental sustainability.

"…to integrate the landscape in…agricultural policies…" (ELC)

The problem of the city is closely connected to problems regarding the rest of the surround-
ing territory due to the increasing problem of continuity between the city and country. As
well, it is these previously rural areas that often have to host people expelled from the city
in search of a better quality of life and renewed contact with nature. It is clear that the bal-
ance between urban and rural is also essential in maintaining territorial defence in order to
guarantee the safety of both areas that tend towards abandonment and ecological imbalances
(starting with hydrogeological aspects).

The cities of the future begin precisely with this "urban country". Here, the combination of
different compositional effects exhibiting formal and linguistic contradictions are also the
sites of the most important energy in local entrepreneurship, and thus capable of managing
innovation and favouring evolution. These chaotic, disordered areas are often the economic
engines of much vaster and more recognizable areas. For this reason, they can neither be
overlooked nor favour the repetition of settlement processes that do not consider new
natural and semi-natural areas (François Mancebo). Particular attention is dedicated to the
urban-rural continuum for a better quality of life, and Francois Mancebo said that the solution

fostering an urban transition to sustainability is not only to oppose urban sprawl, but also to guide it. The question is, how can resilient and sustainable cities be designed keeping in mind this rural-urban continuum?

Very often the separate management of urban areas and urbanized country is the real weakness of the governance system for these mixed areas. To create cities and territorial contexts that are environmentally sustainable and therefore capable of "surviving", it is necessary to adopt a global approach, as the different components of the natural ecosystem are closely connected to components of the social, economic, cultural, and political system. Addressing the Charter of Leipzig (2007), Stefano Aragona highlights the need for new policies and strategies to regulate the rapport between urban and rural areas for the good of settled communities, as also specified by the strategies for smart cities.

All of this is also in consideration of the fact that the new multifunctional dimension of agriculture is transforming the rural landscape and the concept of rurality. Integrations therefore tend to develop between agriculture for quality production, agriculture to protect biodiversity and landscapes, and agriculture to create welfare-oriented services. As Marina Tornatora writes in reference to the multifunctional agriculture in the Plain of Gioia Tauro in Calabria, these themes define a new project of the landscape in which the campaign space is perceived as a common good. The agricultural field is a space enjoyed by all. It is multifunctional, in which the figure of the farmer acts along with many other players in a scene that belongs to everyone. In this new dimension, the landscape can become a rewarding factor for agriculture, reversing the dialectical relationship between urban space, suburban areas, and agricultural land. Rural areas therefore increasingly present elements of attractiveness, drawing new subjects to the country. These are not people playing a full-time agricultural role; rather, they often belong to different social classes that venture into rural areas, with contact that is temporary or permanent as required by the multiple agricultural functions. According to the experience presented by Jonna Majgaard Krarup, many rural businesses in Denmark are run by people whose main income is from other sources. All of this should be considered when planning actions in these areas are instituted.

Attractive features are potential drivers in forming new rural areas and therefore creating economic growth and socio-environmental quality. There are increasingly numerous and important measures and provisions that European policies are dedicating to new opportunities for rural development. For a long time, the rural world was associated with stability, pleasant landscapes, and traditions, and often with conservationism and poverty, in stark contrast to the dynamics of globalism. In a period that can be defined as post-rural, in the sense that it is overcoming the idea agriculture as a mere commodity-production activity, increasing importance is being assigned to that network of actors that cross the urban-rural divide, with particular attention to the role of external people in the development of new forms of rurality. The case study of Chianti presented by Massimo Battaglia, Chiara Certomà and Marco Frey is a testimony of this extraordinary opportunity, which also leads to attracting foreign capital. In this experience, the development of strategies for rural areas involves both public and private actors, internal and external players, along with the need to create new networks.

Michela Tolli confirms that the EU is increasingly interested in agricultural landscapes that risk disappearance due to progressively growing forms of sprawl. In the case study of Cerveteri, where two different historical moments in the growth of sprawl were analyzed in a diachronic vision, it is clear that increase in built areas and the consumption of rural areas for residential settlements is always notably higher than the increase in housing needs. Moreover, precisely in this experience, the impacts of sprawl are being studied with a multi-criteria analysis. The result is that sprawl negatively affects agricultural landscapes above all, and almost no natural areas. This is the first step in constructing decision-making processes capable of assessing how some planning and design choices for rural areas can affect the maintenance or interruption of environmental continuity.

Therefore, the new means of producing agricultural products go beyond clearly rural areas. Urban landscapes can also be enhanced by residual or new agricultural areas. Such is the case of Rice Park, an urban agriculture project born out of the motivation of local communities. It pertains to 600 ha of cultivated land within the metropolitan area of Milan (Gioia Gibelli). The main challenge for this area was to maintain rural usage, a choice determined by facing climate changes. Urban agriculture favours the correct balance of the city's density, creating spaces that can be used for different social, cultural, and ecological functions. It also plays an important role in reinforcing urban resilience, collaborating in the food-production system, generating work, and favouring the attraction of new people, helping the city to adapt to climate change, and reducing its ecological footprint. It is clear that in cities like Milan, with high pollutant concentrations within the city and surrounding areas, open spaces and rural landscapes play a very important role and, as Gibelli reminds us, the production of food is only one of its many functions. Agricultural landscapes also play an important role in maintaining local identity and culture, providing activities for mental and physical health, improving social cohesion, and supplanting important essential services in the multiethnic city. This is even truer the more new rural organizations are concentrated near spaces compromised by established, widespread urbanization processes. Agro-environmental policies also enter in the experience in the metropolitan area of Bari presented by Francesca Calace in the framework of Apulia's Landscape Plan, which was recently adapted to the Code of the Cultural and Landscape Heritage. To encourage interaction between the medieval city, peri-urban area, and agricultural park (case study of San Gimignano, which Piera Pellegrino, Emanuela Biscotto, and Silvia B. D'Astoli discussed), the project to connect the historical centre and the agricultural area following axes that recall medieval paths is also supported by an explicit soft-economy project that connects the various components.

"…implement landscape policies aimed at landscape protection, management, and planning…" (ELC)

We have already confirmed that thinking about the city of the future is possible if we use an old, but still very current, concept. This can be summarized with the term resilience, which encompasses adaptation to socio-economic and ecological evolution. It is a broad concept that foresees complex visions that traditional urban-planning is incapable of managing. Unfor-

tunately, we have often lost sight of real urban transformation processes due to a general tendency to simplify, generalizing questions about the structure and form of the contemporary city, creating a failure in the complex weave of socio-cultural and economic relationships that now characterize life in metropolises and the design of the city (Michele Talia). The objective of urban resilience forces us to take a complex approach dealing with many paths of innovation: mobility and transport, buildings, government, economy and people, environment, energy, living, education healthcare, and the structural capacity of cities to be green. It is therefore necessary to learn from daily micro-changes, which are sometimes point-like and appear minimal, but which dictate the urban agenda and create continuous opportunities to practice new forms of applied knowledge and self-organization. Projections in time are also limited by nearer deadlines, with the aim of realizing the need for reversibility in the actions implemented and to produce "adaptive" plans that can respond to the continuously changing needs of settled communities. The easy reconversion of a space, and therefore is impermanence and flexibility of use, favours a decreasing abandonment of unused areas, in which many forms of urban degradation are also rooted.

In the case studies presented, we have also seen that some enhancement strategies can contribute to overcoming the economic recession if inserted within the overall framework (point-like and general) of territorial regulation, understanding that most policies influencing urban landscapes and therefore the quality of life are developed on different levels of decision-making (European and local). In Italy, there is a persistent separation of objectives between the national level (conservation) and the regional level (development); however, some pioneering experiments are promoting new roles and new responsibilities on the local level. In particular, the new challenges imposed by climate change require us to adopt transformation processes that favour the small territorial scale and trigger those micro-changes that are capable of activating deep regeneration processes in cities and territories. In the 2007 Danish planning experience presented by Jonna Majgaard Krarup, the responsibilities regarding nature and the environment were transferred from the regional to the national and local levels, arguing that they could better deal with the interactions between the urban and rural areas. In turn, measures to adapt to climate change should consider the different levels of planning. This is currently being tested in Italy in extra-urban areas, with the first positive results towards the national strategy of internal areas promoted by the Ministry for Development and Social Cohesion. Attention is focused on those environments of extra-urban life (where 50% of the world's population continues to live) that are often trivially imagined as simple areas resulting from old rural and forest/pasture settlement modes. Instead, as is increasingly clear, new social classes are settling in this area, classes that range from immigrants to some upper-middle cultural classes choosing to live in the country for closer contact with nature. In these environments, if well constructed, new institutional organizations of services and general infrastructure can take root even socially under progressive renovation. This means including these spaces with a series of local, point-like actions to redesign health and educational services, transport, and contacts between resources and communities that can trigger structural changes that are finally sustainable and can really be implemented if they are well constructed,

participatory, and shared. Following this model and learning from what is being done for the internal areas, it will be necessary to approach the urban project to create resilient cities, thus establishing the reversibility of changes, designing alternative means of use, and plans that know how to adapt to changes in real time.

The term monitoring, which we have used so many times in planning and managing environmental and landscape resources, would finally have the right sense in territorial governance. This would mean observing the dynamics in course following the introduction of management tools to update the territorial regulatory tools along the way. In this sense, monitoring interacts with decision-support systems, which are becoming increasingly useful in territories undergoing change. Experimentation has already been widely developed and Rosalba D'Onofrio cited some examples in the introduction to Chapter 7. I would add an interesting experience regarding the decision-support system that formed the basis for an important international cooperation program, ACCESS2Mountain1, which dealt with the theme of accessing the geographical area of the Carpathians and the Eastern Alps starting with the landscape vision.

The experience in revising the Marche Regional Environmental Landscape Plan presented by Vincenzo Zenobi in this volume is emblematic. It is through the landscape structure, corroborated by the ecological structure (Regional Ecological Network), and in a desired participatory process, that references and orientations are provided to redesign an Adriatic city that is undergoing rapid change and significantly vulnerable to the climate changes underway. In this sense, the agenda for the landscape can be delineated through different approaches that break down and recompose like a mosaic, and which affect sectoral policies, regional projects, point-like local experiments, and pilot projects intended as replicable best practices.

The landscape is the right frame to analyze, interpret, and make planning and project decisions, allowing for a view of the combination of effects of human actions on nature. The control of hydrogeological dynamics, which has often put settled areas at risk and taken lives, should be evaluated and interpreted closely with processes of landscape regeneration, as is evident in the Pineto (TE) General Regulatory Plan presented by Chiara Camaioni.

To favour this approach, however, it is necessary to implement new territorial governance. The intense debate about new forms of territorial governance that different regions are having should be valid support to respond to the changes underway and to the different demands that have been widely described: from shrinkage, to the effects of current immigration, to the devastation due to extreme climate events.

The complexity of contemporary dynamics therefore moves much of the attention from the individual buildings to urban and territorial organization, starting with a new spatial dislocation of human activities and rethinking the forms and uses of the city. This change in designing a new city or in readapting an existing city lies in the push for a design approach that knows how to balance the need for "form" with the regulation of transformation processes that have a place in space and time and which require the definition of "performance rules" that are no longer quantitative or aimed exclusively at limiting uses or at protection (Rosalba D'Onofrio). The case studies presented in Chapter 5 deal with the role of landscape interpretation (landscape plans and projects) in configuring new, more sustainable and resilient settlement mod-

els in which the landscape vision contributes to rereading and reinterpreting the connections between the natural environment, cities, and the identity of places. The landscape becomes a fundamental design reference capable of interpreting both changes over time and the indeterminacy of contemporary urban conditions.

Some of the contributions addressed multi-scale aspect of the landscape approach in defining territorial planning tools and in reorganizing settlements. Such is the case with the presentations by Jonna Majgaard Krarup, which dealt with the categories of adaptation measures coordinated across different planning levels in the Danish Planning System, and by Francesca Calace and Carlo Angelastro, which instead developed the theme of reorganizing settlement systems starting from the landscape and the environment.

According to Francesca Muzzillo, it is precisely the villages that become the framework of reference for territorial planning and management actions to connect the cultural resources of the past with the needs of the present. In this way, expectations of the local community and the quality of the landscape are included. It is the idea of the "living heritage" that really forms the basis for the traditional way of living in an area.

However, if all human settlements are located on an ecological substrate that evolves very slowly and out of sync with the short times with which some governance priorities should be addressed (Sylvie Sallies), the small scale (i.e., the urban project) is unable to take a global view of the ecosystem. Urban planning therefore needs to work on multiple local and regional levels and intertwine all of these actions into an interactive network.

If the spatial scale is important, the critical question for an elastic urban system is the time scale. This does not only mean the time for practices and uses; rather it means favouring the self-regeneration of the urban-rural system over time with its intrinsic potential.

"…establish procedures for the participation of the general public…in the definition and implementation of the landscape policies…" (ELC)

Landscape quality is directly related to resilience. It considers ecological and social balances and needs participatory processes that consider the perception of the landscape, aspirations, the collective imagination, and local expectations. Key themes in creating resilient landscapes deal with the development of decision-making models and the integration between the community and the planned actions (Angioletta Voghera).

Therefore, the close relationship between policies for nature and policies for the landscape, like those between conservation and innovation, finds a connection and is echoed in the push by the "interested population" for participation. When this was expressed by the ELC in October 2000, the 4th UNECE Ministerial Conference "Environment for Europe" had already been held in Aarhus on 25 June 1998. It concluded with the signing of a convention regarding access to information, public participation in decision-making processes, and access to justice in environmental matters. As Barbara Fenni writes, in this way, participation in landscape, territorial, and environmental policies ceased to be just good practice and instead became a

necessary, limiting phase in each decision-making process. It is a procedure that, if activated from the beginning, can produce good solutions and reduce possible conflicts. The act of participating, however, should be evaluated with respect to three aspects:

• the degree of inclusion, considering who is involved and what role is played by the various participants;

• the costs and benefits of participation, in an effort to understand: i) if subjects with clear interests have participated; ii) if those who participated benefited from the activity; and iii) if participation was blocked by some of the actors;

the impact of the participation on formulating decisions and drafting plans and programs. Integrating the regulation of community behaviours with policies and planning processes means linking communities to planned, procedural evolutionary policies. Decision-making models capable of starting from bottom-up actions to maximize the benefits of co-management models with important synergies between the public and private spheres produce flexibility, retroactiveness, and sustainability (Angioletta Voghera).

In the case study of the Mersey Forest in the United Kingdom (Pierantoni, Renzi), it was seen how the role of owners and the entire community are essential for successful management. The people living in the Mersey Forest draw the most advantage from the success, but they are also those who, more than others, favour its success. At the end, the forest growing in this area is used and loved by the local population, and it is thus also a more sustainable resource. As well, through the participation of the local population, the excessive flow of visitors, which risk exceeding the carrying capacity of some heritage areas, can be controlled, and cultural assets under pressure can be protected. Such is the case with the village of Saint-Guihelm-le-Désert, which was awarded the Grand Site de France label in 2002 (Alessandro Ciambrone). However, the costs and benefits deriving from the application of policies to improve the landscape are not assessed in the same way by residents and tourists. The development of a constructive dialogue between the different actors can generate a close link with the places and a deeper understanding of the territorial identity (Massimo Battaglia).

Continuing in the European framework, a participatory approach was tested to define indicators for the quality of urban landscapes in Bucharest. The following aspects were assessed: diversity, economic value, fragmentation, empathy and appropriation, silence, continuity of the natural system, the capacity to be recognizable and to interact with the inhabitants and their level of satisfaction, and public and private activities for conservation (Tana Nicoleta Lascu).

Important social, conscious participation experiences are being developed in various Italian landscape management programs to coordinate spontaneous actions with institutionalized processes and policies. These include, for example, the small village of Torraca, located into the Cilento area near the coastal town of Sapri and the Tuscan medieval village of Borro (Fosca Tortorelli). As well, in the experience in Reggio Calabria presented by Giuliana Quattrone, the basis was laid for a common area to come together to identify the real needs of the communities and establish the best paths for governance. Participation reduced the risk of errors and allowed effective, long-lasting solutions to be identified for the different problems. Instead, community participation in forming Rice Park in Milan was specific in the sense that

an agricultural park is different from an urban park, but it is still within a large city. All of this conditioned the means of implementing participatory activities.

New recognition tools are therefore necessary to mobilize non-traditional actors and to come together to test different forms of landscape organization in relation to the changing ways in which the public city operates. In this sense, reference can also be made to pioneering experiences in open-source urban planning and new forms of democracy that use the Internet, in addition to open-data platforms that offer citizens the possibility to re-imagine space and therefore to reinterpret the landscapes they belong to.

Notes

[1] International program of cooperation for South-East Europe (2011–2014), which many European nations participated in. The project defined a model of sustainable mobility for fragile and delicate landscapes in the Carpathians and Eastern Alps. The UNICAM working group (scientific coordinator: Massimo Sargolini) developed the decision-support system.

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