

## Urban regeneration of the smaller towns and climate change

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### Abstract

Since August 1, 2018 human beings are indebted to the earth, they lived the resources they do not own, taking them to future generations.

The overexploitation of land resources results in phenomena such as deforestation, collapse of water resources, fresh water scarcity, biodiversity loss and carbon dioxide accumulation in the atmosphere and seas worldwide. They remember the great disasters occurred as a result in the last twenty years: the floods of the Cinque Terre in Genoa in 2011 and Hamburg in 2013, the snow cover of 2013 in New York, the Athens fires of 2007 and 2018. Drought, fires, hurricanes, water bombs are becoming more frequent hitting the town and procuring the loss of human lives.

It seems pretty clear that human influence has been the dominant cause of the global warming observed since the mid-twentieth century.

Climate and cities have a close relationship and the importance of the local level is crucial.

The statement of 2011 has mayors of Bonn said that "Local governments play a strategic role in addressing climate change for their responsibility in the plans and regulations can influence innovative processes and solutions for adaptation and mitigation".

The argument is much more pressing if we speak well of the city of rural areas and small urban centers in this historic moment undergo the phenomenon with the loss of a priceless cultural and natural value.

The smaller towns are often placed in areas of high natural quality, sites of Community importance or a special protection area, to protect and secure from the hydrogeological point of view. The needs of tourism, enhancement and recovery of the territory can interact positively with respect to the research of global sustainability experience.

There is a need to develop policies and tools associated with climate proof local emergency plans as well as to upgrade local infrastructure with the participation of civil society and private actors.

In this context the adoption of green infrastructures appears to be the right approach to guide the city to urban regeneration, having a great potential for resilience. Transforming our cities into smart cities is essential, putting them into a system integrating the various territorial and urban green capabilities through a Best Practices policy. The essential foundations are based on the use of public parks to be able to ensure good functionality hydrological and climate, it founded on the maintenance of biodiversity and the possibility to enjoy a beautiful and functional city and be able to promote human relations. It is fundamental to focus on internal areas and small centers such as settlement structures with morphological and dimensional stability over time.

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### Proceedings

of the International Conference on **Changing Cities IV:**  
*Spatial, Design, Landscape & Socio-economic Dimensions*  
Chania, Crete Island, Greece • June 24-29, 2019  
ISSN: 2654-0479  
ISBN: 978-960-99226-9-2

*Keywords: Biodiversity; urban Rigeneration; sostenibility; social inclusion; cultural identity.*

### 1. INTRODUCTION

The cohesion policy and the new European Urban Agenda adopted in 2016, better known as "the Amsterdam Pact" is the implementation in Europe of the principles, commitments and actions included in the ONU new Agenda Urbana. Both share a perspective of a balanced, sustainable and integrated cities.

*A vision focused on sustainable urban regeneration, understood as the renewal of housing stock, the company's assets, which promotes the contrast to resource erosion as water and soil in response to the effects caused by climate change by relating to each other urban policies, environmental and social.*

We can insert between the development objectives of these policies of internal areas that fit within them the peripheral urban areas, rural areas and smaller towns and more generally all those areas that are not considered within the metropolitan system.

The question related to the topic of internal areas is even now at the center of the themes of the European policies for developers and innovation. In Italy the document for the National Strategy of the Inner Areas defines more precisely the concept of Internal areas indicating all those areas significantly distant "remoteness" from the supply centers of essential services (education, health and mobility), rich in important natural and cultural resources and strongly diversified nature and as a result of secular anthropisation processes. [1]

A space in itself is defined by the major centers that appear to be central poles that attract most of the population by providing services to citizens.

The international and European today's scenario presents many "villages" and small urban centers being abandoned, that because of the rural exodus see a continuous migration of the inhabitants that "dream" the city thus losing the priceless cultural and natural value of villages historians who characterize the Italian peninsula that turn into "ghost country". These settlements, towns and villages, often the expression of a condition housing recognized in history as "rural" or otherwise typically "non-urban", with their around territorial reference, represent a large part of the Earth's surface not yet incorporated, at least not in a direct way, in the type of metropolitan urban systems.

The issues related to urban regeneration, with particular attention to biodiversity can be used therefore also for a recovery that gives new identities and new life.

The growing market of sustainable tourism can be the driving force to recover buildings and landscapes avoiding the phenomenon and enhancing the historical memory, although these interventions rehabilitation sometimes do not involve the actual rehabilitation by new communities, but simply a use of tourist and commercial. The community that lives permanently these places is the hub and with the sine qua non of this research. Regain of these places requires a radically different way of life, alternative and innovative management policies, together with a different type of relationship with the landscape.

In this context, the countries regain a central role as a term of reference and generative matrix of the same notion of paes-aggio.

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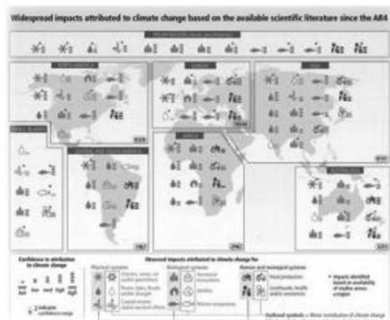
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In the meaning of urban landscape in Europe is the European Landscape Convention [2] defines the landscape in 2000 while in Italy for which applies a different system was implemented in 2006 and included in the Code of Cultural Heritage, in which, Title I of Part Three defining the landscape as the expression of identity of the territory, whose character derives from the natural, human and their interrelations, aims to protect the landscape and in as an expression of cultural values with the aim to safeguard them or recover them through knowledge, information and training, retraining and enjoyment of the landscape and, where possible, the realization of new coherent and integrated landscape values promoted by administrations.

The European Convention to some extent, leading back to a basic perceptual identity and the concept of landscape, recognizes the right to protect and live a landscape that considers pleasant, also based on the testimonies of his memory.

Restricting the theme of "urban regeneration" of smaller municipalities, sets new targets for research, which aims to investigate the issues of perceptual evaluation of anthropic contexts and wellness perception, with particular reference to the free spaces in which individuals and communities with different habits, belonging to different cultures and generations can come together and identify with. The goal is to promote and support the economic, social, environmental and cultural rights of small towns in protecting and enhancing the local level their natural capital as well as their rural value and cultural history that sets them through tradition and niche products. The smaller towns are often placed in areas of high natural quality, sites of Community importance and special protection areas, to protect or to secure from a hydrogeological point of view, moreover, it aims to show how the needs of tourism, the enhancement and recovery can interact positively with respect to the research of global sustainability experience.

## 2. CLIMATE CHANGE AND THE ROLE OF PUBLIC GREEN SPACES



Figures 1 - Impacts of climate change /  
Climate change impacts (Source: IPCC, 2014, p.60)

The inland areas, villages and smaller historical centers are often located in the physical-complex natural areas. Localized in purely natural places in between mountains, rivers and valleys then subjected to high levels of risk factors.

Natural disasters often fall on these places with extreme ferocity causing deaths and abandoned places.

The main factors that bind to these territories are the seismic risk, the phenomena of high hydrogeological risk and landslides associated with deforestation and lack of green spaces that can counteract the formation of the island of unbearable heat making public spaces and increasing. Consequently, the use of electrical devices for cooling.

Their isolation is often caused by a catastrophe that brought the local community to try to move to a safer place where to start.

To combat and combat climate change must necessarily oppose reducing the louder soil consume, empower and connect various ecological corridors in the territories.

The struggle to heat waves as well as the increasingly frequent floods can be countered with the inclusion of planting in urban areas and recreating parts of the territory now lost because of various disestamenti slope, then invest in the re-use of existing spaces and not an additional land consumption should be associated with the use of emission reduction policies. We need interventions to reduce the waterproofing of the soils, we must consider the widespread use of green roofs, the insertion of new trees, the naturalistic reset river belts and the identification and enhancement of urban and rural ecological corridors, understood as infrastructure sustainability with the aim to enhance the biodiversity of the land and put it in connection.

The concept of transformative adaptation was recently introduced in the guidelines and European guidelines on adaptation to climate change, supporting the need to create a system that inserts itself the physical structure of the city, the lifestyles and work, modes of transport and services fruition, providing multifunctional integrated solutions with the objectives of development and regeneration of the city. So adapt by converting necessity into an opportunity for transformation of the physical fabric of the city and social. The European Environment Agency says that "The best way to meet these challenges is to take a broader systemic approach, which addresses the causes of vulnerability to climate change. This includes better urban planning, with more green areas that may retain excess rainwater or cool the cores built of the city in summer, or by preventing the construction of houses in flood-prone areas. This approach can make cities sustainable places much more attractive and resilient to climate change." [3]

## 3. CULTURAL HERITAGE AND TRADITIONS

A very interesting definition of cultural heritage is defined by Alberto Predieri "*the landscape is not just about the 'beauty natural' or even those that are inserted by man in the territory, not only nature, but the shape of the territory, or the environment, created by the human community that has settled there, with continuous interaction of nature and of man.* [4]

The residents of the area people are at the heart of the conservation and development performing daily maintenance and prevention actions on the territory.

We must therefore invest initially on local communities to replenish primary and allowing them direct access to local resources resources to develop a direct participation in management activities.

The cultural identity of peoples is a valuable asset and we must work so that the local population does not go disappearing, it is known that in inland areas the most present is old age group without any demographic back and creating more pressure on the demand for services health and a greater dispersion of settlements that will remain uninhabited then with the risk of degradation of housing. The experiments further at European level have been developed precisely from the point of view of building recovery enhancing sustainably key recovering system such buildings from a first view of energy efficiency.

The goal is to keep young people on the directing territory in the management of cultural and historical heritage present, activate them in the daily system of local systems.

Among the key resources that losing is absolutely cited the craft, the so-called local know-how, it is necessary to support projects designed to preserve the specific craft skills for the "production of goods based on the culture," it is often sought after by small niche markets but also from more developed chains.



Figure 2 - Church of St. Michael the Archangel / Carpineto Romano (Italy)



Figure 3 - Assets traditional craft / Carpineto Romano (Italy)

#### 4. LOCAL HERITAGE AND LANDSCAPE

In a territorial system as complex minor historical centers represent excellence in the landscape, where there is this excellence you still recognize areas of special interest with relevant everyday landscapes to preserve and enhance so you can store locally produced materials. The principle would be to identify these landscapes of everyday life on the ground and then put them on the network to create an enhancement system on a regional scale.

In Italy on this principle, and under strong pressure of the precepts of the European Urban Agenda document are developed in recovery projects that integrate these features in the area are as the rural-urban terms, the integrated enhancement of coastal landscapes and the Project slow enjoyment of the regional landscape.

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In the concept of slow enjoyment it is inevitable to mention the fact that in Europe, even in correlation with convection European landscape, these large land areas are located in areas defined as Sites of Community Importance (SCI) and Zones to protect special (SPA) crossed by more or less important mountain ranges, rivers, caves, archaeological sites with adjoining landscaped cultural routes.

The projects are aimed at maintaining and increasing the surfaces of these priority habitats repopulating the land from the vegetation point of view of improving the level of biodiversity and microhabitats also useful fauna of reptiles and birds.

The procedures required should be considered as objectives the reduction of flood risk and adaptation to climate change as well as increasing the capacity of the ecosystems to store CO<sub>2</sub> and in turn be able to provide other ecosystem services.

These territories are crossed entirely by cultural, historical and religious tours internationally recognized as the Via Francigena, the important routes from the cultural point of view that connect various cities and small villages with different landscape attitudes, there are other tracks that are slowly losing why not counted and not recognized by mountain communities and Alpine clubs, you can certainly ritracciarli and retrieve them by placing them in the national and international catalog of climbing routes to make them recognizable back to the local community and even make them usable by the large community of fans.

The importance of the natural path to retrace and valued is crucial talking regeneration of inland areas, this peculiarity to bring to the surface the story of a particular place rediscovering its natural precepts is certainly the turning point to propose a type of sustainable tourism and to reconnect man to nature with a strong emotional drive time to comply with such an environment and carefully kept by us and passed on from generation to generation. [5]

The "green way" is one of the most eligible candidates interventions to enhance key landscaping different urban spaces, we often find ourselves close to the historical cores of cities with many historical emergencies that intercept commercial trade routes citizens happy historical memory and local cultural in urban areas. The strategies to be proposed should cover interventions that improve the quality of life of citizens who can work to significantly reduce the inserting pollution in a natural-historical context. [6]



Figure 4 - SIC site Cervi Island / Elafonissos (Greece)



Figure 5 - Ponza Island / Lazio (Italy)

#### 5. ACCESSIBILITY, SOCIAL INCLUSION AND WELL-BEING

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It is therefore clear that for these areas is necessary to define a "minimum level of accessibility" fondamentale as a priority to revitalize, maintain and innovate the system of local infrastructure.

The key proposal is determined in the design of a sustainable integrated mobility that can ensure a better quality of life, a security than the chain of production of local products and in tourism management.

An improved accessibility would provide a link to the main nodes in the network with the urban and metropolitan areas going to mitigate the current state of isolation of such places.

Among the priorities in charge you can certainly point to the recovery of minor ferroviare infrastructure and a focal point of great importance is the recovery of the national cycleways system, you will also need to expand the connections by road by electrical means to the main connecting poles with 'goal of reducing travel time to access services.

In addition to the right to mobility it is necessary to work in parallel with the creation of necessary services to the citizens in order to ensure their right to education and health care where it can intervene also improved through the process of computerization and digitalization of administrative and educational activities associated to forms of cooperation, including volunteers, to meet the local community needs.

The establishment of a network of services and its expansion would allow a reactivation of the city system could attract a new community settled in search of a "good life" without having to deprive of the right to work and to health. [7]

The issue of citizenship is to be the base of the recovery and development system in addition to offering an improvement that every place can have on the person who is the lifestyle or in terms of air quality, human interactions, nature or quality wine and cuisine.

## 6. GROWTH AND ECONOMIC DEVELOPMENT

A significant part of the internal areas suffered in Italy and many other European countries, since the fifties of last century, a process of marginalization that, first of all, manifested through intense phenomena of de-human activity: a) reduction of the population under the critical threshold and aging population; b) reduction in employment and the utilization of territorial capital. [...]

Second, this process was manifested in progressive local quantitative and qualitative reduction in the supply of public, private and community services, the services, that is, that define the contemporary European society, the quality of citizenship.[8]

For a raise of the internal areas through the development of villages and minor historical centers as well as a demographic growth process is interesting the process of aggregation of the various municipalities that in addition to associated management functions and services must provide a policy development plan with socio-economic development plans and short-acting, medium and long term with the aim to attract resources and investments on the territory.

The development process can then be triggered on a local latent factor of importance in this production actually do a showcase to the territory. The exploitation of internal resources in a spirit of

development and innovation with the goal of sustainability and land protection is the primary point to work from.

You need to develop a new youth employment, promoting widespread forms of hospitality not necessarily tied to the marina conesto, but consider it as an investment, an increase of the social fabric. You could develop new possibilities of economic recovery especially in the agro-food industry by encouraging the establishment of cooperatives for the production by young people or develop forms of hospitality to foreigners interested in the ability to enter new business reality and to develop innovative techniques to a connection external markets.

Agriculture, tourism and commerce should communicate to promote the protection of local resources by opening their knowledge for a valuable market spread. So this is a short chain and for new international sales channels via the e-Commerce for local products, tradition and technology that combine to growth.



Figure 6 - Historical Center Carpineto Romano / Lazio (Italy)



Figure 7 - Typical product, Norma chestnut / Lazio (Italy) Source: <http://www.proloconorma.it>

## 8. CONCLUSIONS

The objective of the instructions in this document aims to show that the natural system attached to the cultural system is the foundation for the reconstruction of the smaller countries for their economic livelihood and their reconstruction as a new settlement communities. The principle of reconstruction, development and innovation focuses on building a sustainable energy network for the control and management of climate change especially for the hydrogeological disestamento control territorio. Si wanted to emphasize that a new way of living, a new approach design of sustainable mobility and alternative focused on natural and cultural routes to be recognized as an added value to be able to push new community to settle these smaller towns.

The recovery of the traditions, the passing on innovative methods of sustainable agriculture using local and traditional plant species also appears to be a new approach for the insertion of new professionals who flanked to scientific observers, university centers, will give a new impetus to the formation of young people who decide to settle in the territory. The cultural identity, to feel part of a territory steeped in history and culture enables citizens to be part of the whole territory, aware of being part of a natural system to respect and value with responsibility for not only being a part of a

market budget tourist but of a system emphasizing a place that guarantees good living in a sustainable way.

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