

Rural-urban retrofitting. Architectural design in the process of sustainable intensification.

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Introduction of the concept Rural Architectural Intensification

In the time of global recession words like “reorganize” and “minimize” are now keywords for urban humanlandscape design. In Europe and in the world the main debate deals with the terms: regeneration, consumption, conversion, aggregation, sustainable growth and extension – not merely for single buildings and objects but also for entire systems and/or urban compartments. The way our society deal with the existing architecture not only will be crucial for our future from an economic or cultural point of view, but it will also lead us to understand that a challenging environment goal can be achieved only through the improvement of the existing, through the renewal of landscape and architectural heritage “spread” all over the territory. The Italian case is a classic example. Its territory has, among its distinctive features, the characteristic of being filled by a huge number of disused old villages: about 5.308 ghost villages, representing the 72% of all Italian municipalities, and corresponding to millions of built square meters, waiting to find a new meaning both from a landscape and from an architectural point of view.

IMAGE 01

The European Commission underlines in the Horizon 2020, Work Programme 2014 – 2015 [1] that European research and innovation should provide tools and methods for more sustainable, open, innovative and inclusive urban areas; a better understanding of the dynamics of urban societies and social changes and of the nexus of energy, environment, transport and land-use including the interplay with surrounding rural areas; an improved understanding of design and use of public space within cities also in the context of migration to improve social inclusion and development and reduce urban risks and crime; new ways to reduce pressures on natural resources and stimulate sustainable economic growth while improving the quality of life of European urban citizens; a forward-looking vision on the socio-ecological transition towards a new model of urban development reinforcing EU cities as hubs of innovation and centres of job creation.

Beside the terms above mentioned the paper aims is to introduce the concept of the term *Retrofit*. What exactly is a retrofit, and how does it differ from renovation or regeneration? There are a variety of terms used in the building sector and many of them overlap. The most common definitions of Retrofit is:

Retrofitting is the process of modifying something after it has been manufactured. For buildings, this means making changes to the systems inside the building or even the structure itself at some point after its initial construction and occupation. Typically this is done with the expectation of improving amenities for the building’s occupants and/or improving the performance of the building. The development of new technologies mean that building retrofits can allow for significant reductions in energy and water usage. [2]

Moreover, I would delve the term *retrofit* in the field of the regeneration of the rural landscape, with particular focus on architectural design, which can become the instrument for promoting the value, the memory and the environmental quality of the landscape as cultural heritage. The investigation want to pursue how to transform the contemporary city-landscape into use that are suitable for contemporary ways of living through the construction of a new paradigm that will shape an architectural project committed to sustainability.

IMAGE 02

The concept of Rural Architectural Intensification include three words:

Rural as high quality environment with richness of history, values, memory and identity;

Architecture as a process and construction product, which can create social, cultural, economic and technological innovation;

Intensification as a strategy for creates sustainable density of activities and spaces for citizens in which the natural environment and the rural-urban environment coexist harmoniously.

Moreover, the term rural has to face the modification of the economy system and needs also to be rethought in terms of definitions. In different disciplines we assist to a controversy related to the distinction and definition of the terms *agrarian*, *agricultural* and *rural*.

In Geography, for example, the three terms are defined as follow: the agrarian geography is concentrated on the line of intervention for the agricultural development; the agricultural geography is related to the morphological form of the earth and, finally, the rural geography is the most recent discipline that investigate the whole rural space as the extra-urban territory.

The term *rural* seems to take in account the technological and social evolution of the countryside [3]. The countryside has to deal with different issues: the city, the multi-activities, and the climate changes. Furthermore, the term *rural* considers all the different elements of this non-urban territory affected by a continuous transformation.

IMAGE 03

The role of Architecture in the process of rural intensification

The crisis in rural areas is essentially a global problem: depopulation and ageing of the population, abandonment and decay of small town centres, difficulty in keeping existing businesses, intensive agricultural practices to the detriment of biodiversity, pollution, a lack of infrastructures and services for tourism, as well as a shortage of job opportunities for the population, etc.

The rural-urban morphology cannot be surrendered to simplifications imposed by tourism's occupation, but towards hypothesis of landscape retrofitting of old villages and farm buildings. It is badly needed to identify Best Practices which can be assessed in a qualitative way through those architecture that transform the contemporary city-landscape into functions that are suitable for contemporary ways of living. The rural landscape has seen a tendency to overcome the urban growth culture and quantitative development that had left a strong mark, represented by the negative concept of the countryside – only diversified by the varying quantities of building and non-agriculture related activities, and thus a decline of the concept of nature.

The awareness of the fact that the categories “rural” and “urban” appear meaningless, where it is a question of marking out the boundary that do not have a well-defined specific function and that are increasingly characterised by mixed complexity – economic, functional, social and cultural – leads to reviewing the strategic guidelines of managing the landscape and draws increased attention to the qualitative aspects of the lands development and the human-environment relationship.

IMAGE 04

I would underline the importance of the role of the architecture in the process of intensification of the rural context for the landscape construction that involves the shape of the space. Rural Architectural Intensification means that every architectural intervention in the territory - from a small pedestrian bridge to the regeneration of the river banks, from the public space design to the project of a roof garden or park - have to restore the relationship between landscape and architecture as the history has taught. Through the Rural-Architectonical Intensification, is possible to create sustainable density of activities and spaces in which the natural environment and the rural-urban landscape coexist harmoniously.

Then think of the existing richness: in Europe's rural areas, not just its cities, the artistic and architectural heritage is often of a very high cultural level and this just brings the subject of architecture into the centre of this debate. In a region's various implementation strategies there must be an aspect of independence, of a close relationship and a necessary connection, not just at the level of regional marketing but above all in the construction quality of these measures and of their economic and environmental sustainability.

Enhancing rural architecture, small towns, farmsteads and ancient relics is one of the main components for the regeneration of the countryside. It is a strategy with a positive outcome, even only if it has been supported simultaneously by the possibility of creating more business (also working from this architectural heritage), but which nevertheless is planned taking into account the improvement of the perceived aesthetic structure of the countryside. Therefore, in this development process for business in the region, there also has to be an increase in environmental quality and in the infrastructures, which allow people to use the environment, etc.

IMAGE 05

The development of small and medium-sized enterprises also forms a possible opening strategy, but in this case as well, only if it allows the possibility at the same time of reusing the existing building heritage or at least respects its presence as a unique value for a region. In the meantime, small and medium-sized enterprises should be supported by specific services, such as access to information and communication technologies, and they must also have new types of sustainable infrastructures for the environment which allow businesses to establish themselves in a region and to promote new initiatives. The protection of biodiversity, as well as new models of organic and bio-dynamic farming, can translate into opportunities to diversify the range of services towards other economic sectors as well, such as tourism.

Conclusion

For over a decade, various projects for the intensification of rural areas have been launched over Italy and Europe. These are multifunctional measures that aim to develop businesses, especially those linked to tourism and cultural activities, or linked to the improvement of areas of society, which have often deteriorated. At the same time, these measures aim to protect and enhance the natural environment.

In fact, the original idea was to stimulate a whole series of various intervention models in rural areas. As a whole, these models would add to the development of rural regions. They would build a management system for goods and services based on innovative forms of multifunctional businesses. This would ensure adequate flows of income for those involved in these initiatives and would therefore help to guarantee the success of the work carried out on the goods, which the region has to offer.

In Italy, for example, the same Rural Development Plans which every region has prepared, as well as the National Rural Development Plan, confirm the need to intensify multi-sectorial, multi-axis projects with regard to the protection of the environment, the development of local business skills, tourism and cultural activities, as well as services for the local population.

IMAGE 06

This need for multi-model and multi-sectorial intensification would seem a given fact for anyone who, in theory and practice, plans, designs and carries out concrete actions in a rural region. The idea of micro-projects organised by macro-projects, which theoretically should help the single management, is often found in local implementation plans and programmes.

The reality is very different and often when something does occur, it happens with such erratic and fragmented reasoning that it only creates partial success, which is too limited to represent real, concrete development for the region. In most cases, there is not even any intent during the planning phase to prepare any multi-model and multi-sectorial intensification measures. It just works through impermeable districts, while in the region as a whole even a road from one municipality to another will interrupt the building of a cycle path.

In fact, even the aforementioned Rural Plans, developed through a series of objectives and strategies belonging to different patterns, do not specify that these connections are necessary, these intertwining objectives and strategies which need to be put into effect. There still seems to be little awareness of this issue and with it the possibility that the implemented measures have a resilient effect on the region.

Conversely, as a researcher and designer I think that it is a decisive issue when:

- The measures do not reach sufficient concomitant, multi-sectorial development and they are not able to simultaneously be strategies for the protection of architectural heritage, the natural environment, the population and for tourists;

- There is no real recovery and they do not create the conditions in the region that could stimulate economic, social and cultural growth.

Only the combination of architecture and measures seems able to provide results in terms of quality: this intertwining of measures and also therefore of the regional policies which are studied and put into effect at every level and on every regional scale.

The relationship which links and connects all the components involved in development processes cannot be separated, just as a small town or a small architecture is inseparable from its own history, from its surrounding natural and man-made elements, its forests, fields, industries, and infrastructures which outline its surrounding landscape.

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