Chapter 22
Functional Reuse and Intensification of Rural–Urban Context:
Rural Architectural Urbanism

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ABSTRACT

In regional and urban planning such as in design actions they are usually involved different themes and disciplines; especially when the goal is to improve, restore and re-functionalize existing minor settlements in rural-urban context. For this reason it is necessary to define integrated methodologies able to face inter-scalar issues and interdisciplinary themes. Authors propose a framework for a decision support system based on the treatment of geographical data and on the integration of the data sets that have dissimilar origin, diverse formats (they may be not only digital) and different meaning value. This complete data set refers to various disciplines and it is possible to deduce specific knowledge throughout analytical passages and assessment steps. In the paper authors describe: a methodological approach to support planning activities; the technical support to seek a (dynamic) balance between urban density and rural fragmentation; a Best Practices database to support scenarios in rural-urban context. Authors first expose the application field, then the logical framework of the whole process, then describe some related spatial analysis applications and finally they introduce comprehensive case study of the whole procedure.

INTRODUCTION

Territorial issues and problems involve different disciplines and scales; the managing of such problems require a well defined logical framework (Kaiser et al. 1995; Meentemeyer, 1989; Steiner, 2000). Considering the iterative nature of planning processes and the complex nature of city and territory, it is extremely difficult to describe the non-linear relations among the multitude of entities that must be organized.

The future of city and territory, that are going to converge in the big dimension of the city-region, of the megalopolis, of the urbanized farmland, is no more definable with classical terms. Its proper complexity needs a higher level of abstraction and higher precision. The relation among the physical aspects of city and territory, such as among the city plans and the individual choices, is more and more problematic to be understood (Secchi, 2000).

In itself, the complexity implies the inability to fully describe the behavior of a given system using a single model or a finite set of models: it is necessary multidisciplinary, dynamic, flexible and adaptive tools and it is crucial the role of integrated assessments as a tool to support the planning and decision-making process. In this perspective, it is possible to use tools to develop Multicriteria Decision Support System (MCDSS) (Roy, 1996; Saaty, 1986; Zeleny, 1982).

Integrated assessments become definite as "complex assessments" characterized by inter-multidisciplinary, participation, transparency and coherence. So, planning and design process can be considered as a process closely interrelated to the evaluation process, through which it is possible make a multi-dimensional assessment of the resources needed to properly define the strategic lines of action. This approach extends the evaluation process, which becomes transdisciplinary (in respect of the complexity of the topic) and participatory (in respect of the local community) as describe in the European Project RURBAN (EU, 2010).

Authors from University of Pavia participated with the research theme: "Regeneration and renewal of rural landscape. Building strategies in the surroundings of new urban centers") that aimed to define a methodology to face the problem of improving and intensifying insediative activities in minor centers located in rural-urban context. The main aim of the present research is to define a methodology appropriate for different users: decision makers, stakeholders and public bureaus (Blaschke 2006; Carboz, 1998; De Lotto et al., 2014, Frampton, 1991; Jomgman, 2002; Murgante & Danese, 2011; Thompson & Sorving, 2000).

Other objectives are: to outline a feasibility study, on a territorial scale, starting with the settlement features of the farm buildings and the potential in terms of a connected ecological network; to draw up preliminary designs for re-using the farm buildings, organized by use (production, culture, social, and hotel) and by case studies to be found on the land. These objectives represent a clear and measurable outcome of the research that is in line with the cultural objectives of EXPO 2015 (AA.VV. Centro Studi PIM, 2009) and that allows the research to create methodologies and tools that must be in line with the authorities and operators for regeneration of the landscape.

Authors defined a specific procedure, Rural Architectural Urbanism (RAU), starting from the intervention on small settlement to reach a global territorial improvement. Rural framework is considered as a real heritage and it involves a multidisciplinary approach (Spaziante & Murano 2009; Fuentes 2013; Van der Vaart, 2005). The historical value of rural-urban context is a basic character that must be preserved. It is the result of a comprehensive evolution born also from punctual interventions. The approach is systemic and singular interventions, even if hyper-ecofriendly, are not the solution authors reach (Clementi, 2007).

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