POLITECNICO DI TORINO

Honors thesis

COURSE IN PIANIFICAZIONE TERRITORIALE, URBANISTICA E PAESAGGISTICO-AMBIENTALE
CURRICULUM: PIANIFICARE LA CITTÀ E IL TERRITORIO

Abstract

DIGITAL PLANNING. TOWARDS A DYNAMIC SPATIAL PLANNING PROPOSAL FOR THE PIEDMONT REGION.

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The research project will develop an analysis on pro and cons of the digital urban planning (USC) concept. It starts from the broader relationship between science and society in the perspective of technological evolution. It furthermore explores the connection between data and territorial practices in order to integrate the innovative approach of USCs in a renewed process that grants the necessary dynamism to territorial planning.

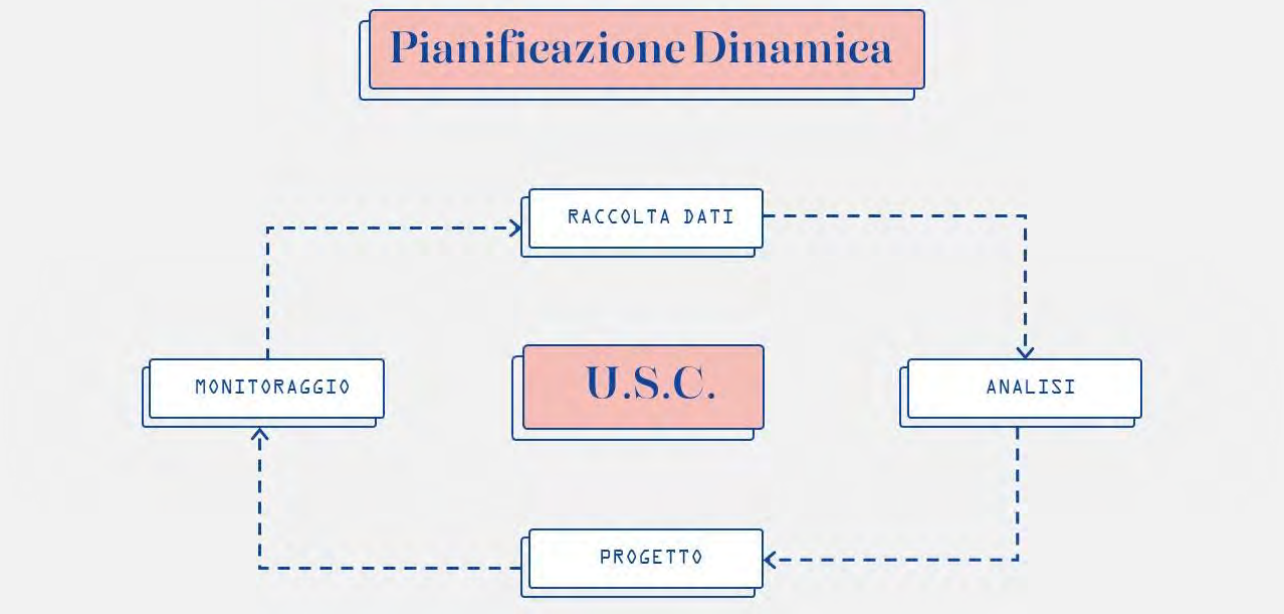
The first chapter explores the close relationship between society and the physical-digital world. Starting from the most recent sociological paradigms, the flow of information is declined in its most contemporary aspect, highlighting the potential of Big Data related to the urban and territorial environments. Then, a definition of GIS as a planning tool, Will be presented, introducing the so-called "Government of knowledge" with a precise reference to the legislation that regulates these tools and resources from the European level to the regional ones. Furthermore, a new paradigm for planning, based on a dynamic approach to the discipline, will be defined. Innovative analyses will be explored, such as the use of Social Media Geographic Information (SMGI), "involuntary participation" and the fundamental contributions of analyses concerning energy sustainability, mobility and ecosystem services. This first theoretical survey will be then declined in operational mode in the following chapters by introducing the USC model.

In the second chapter we will discuss the usefulness of the system for the planning instruments (PRGC). The contents of its first release will be described along with the rules and the tools necessary to operate it. Furthermore, the details related to the definition of the GIS model currently available will be analyzed in order to extrapolate the main features and problems, reporting some aspects not considered by the model so far. The overall model will be explored in its theoretical and practical part, specifying the improvements following the second release by the Region, with particular attention to the process of adaptation of PRGC to the PPR.

In the third chapter a case study will be addressed. Specifically, the project for the municipality of Cumiana (Italy), We will start by describing the drafting phases and highlighting the planning process that will lead to the definition of the plan. A part of the chapter is dedicated to the application of the USC to the case study, proposing a new model built from the criticisms and observations developed in the previous chapters.
The fourth chapter contains a series of interviews with professionals, representatives of the Piedmont Region and various figures from the academic and non-academic world.

In the fifth and last chapter, the conclusions of this thesis work are reported, which, in the light of the theoretical and practical analysis of the case study, highlights all the critical points encountered, highlighting possible improvements to the basic model. In the light of the development of the model that has matured during the realization of the thesis, an integrative model is proposed to the USC that takes into account the necessary changes in IT and regulatory aspects, thus going to correct not only the usability of the GIS model (which currently has errors and technical-informatics gaps) but also the purely regulatory aspects, thus being able to present a renewed model to the Region.

Finally, some governance methodologies are proposed, which can be brought to life thanks to the birth and implementation of the USC, for example, related to the monitoring of the plan, proposing a constant cadenced update of the data reported in the model aimed at the timely revision of the tool, thus defining a new paradigm in planning, the dynamic approach, which will focus on the development and application of the model.



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