



POLITECNICO
DI TORINO

Honors thesis

COURSE OF TERRITORIAL, URBAN, ENVIRONMENTAL
LANDSCAPE PLANNING

Abstract

**Economic evaluation of vineyard landscape
Langhe-Roero and Monferrato**

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by

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The landscape has taken on a renewed meaning toward defining aesthetic cultural and regulatory scenario interpreted of the last century. The European Landscape Convention (Florence, 2000) revolutionizes the concept of landscape, extending it to the whole territory, perceived by people, whose character is derived from the action of natural and/or human factors, as well as the mutual relations.

Considered the territory a complex entity, it is fundamental to employ an integrated approach for managing sensitive territorial systems, such as the vineyard landscape of Piedmont Langhe-Roero and Monferrato and its natural, anthropogenic and perceptive characters joined the 22 June 2014 of the UNESCO World Heritage List (WHL).

This thesis aims to develop system of indicators, economic and conservation, for the definition of future scenarios in the vineyard landscape transformation. After a careful phase of data collection and elaboration, the economic indicators system returns an index, known as the Economic Landscape Value (LEV), to measure the economic attractiveness of vineyard landscape. Also the synthetic index is used in a dynamic model of transformation in a cluster system of municipalities, belonging to vineyard landscape, where the synthetic index acts as element attractor.

Estimating Landscape Economic Value (LEV) took place on two fronts: firstly for 101 municipalities, in order to identify the most attractive within the site, and then for clusters of municipalities, facilitating the identification of the most attractive components and the comparison between core and buffer zones.

The attractiveness is also synonymous with "mobility" of people who choose a certain landscape over another, such as to influence the evolution of a territorial system. In fact the higher LEV values referred to a single cluster are indicative of a number of features for that area is more attractive and able to generate streams. The economic parameters summarized by LEV compete together at boundary conditions relating to mobility to determine over time the materialisation of this attractiveness to streams.

The simulation with a Lotka-Volterra mathematical model of cooperative type has allowed us to compare and contrast the attractiveness, using as *input* the values LEV_{km^2} normalized between the core zones, the number of inhabitants, the distance and the maximum distance between the core zones and finally a threshold value. The dynamic model returns as *output* trends over time the attractiveness in terms of percentage of population mobilized.

Another aspect that also contributes to the definition of landscape value is the conservation, because it helps to not damage the attractiveness. The indicator system of conservation, developed thanks to a GIS-based methodology, offers an overview about the factors that positively and negatively affect the conservation and sustainability of the vineyard landscape: the production of thematic maps for each indicator of conservation, converge in a final map about the conservation of vineyard landscape.

This thesis aims to highlight the economic assessment as fundamental methodology to define territorial development scenarios and the systems of indicators, economic and conservation, constitute guidelines in decision making process, in response to the few experiences concerning in the evaluation and monitoring of landscape.

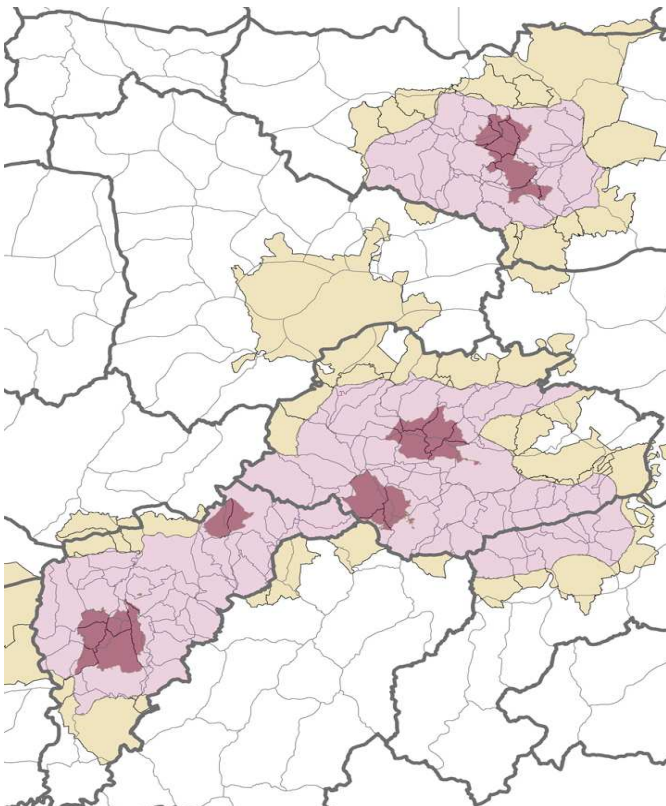


Fig.1: Perimeter of UNESCO site in relation with Landscape Ambits and Units of PPR.

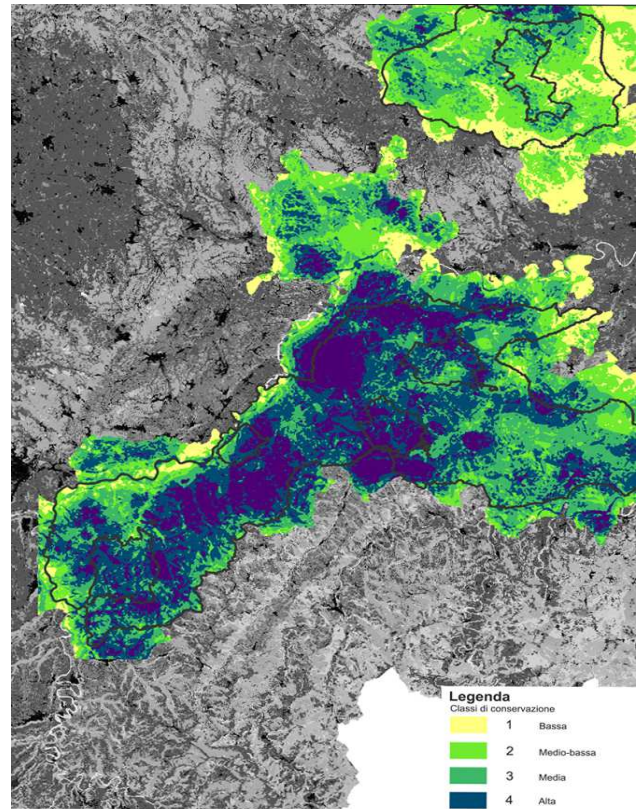


Fig.2: Map of conservation of vineyard landscape.

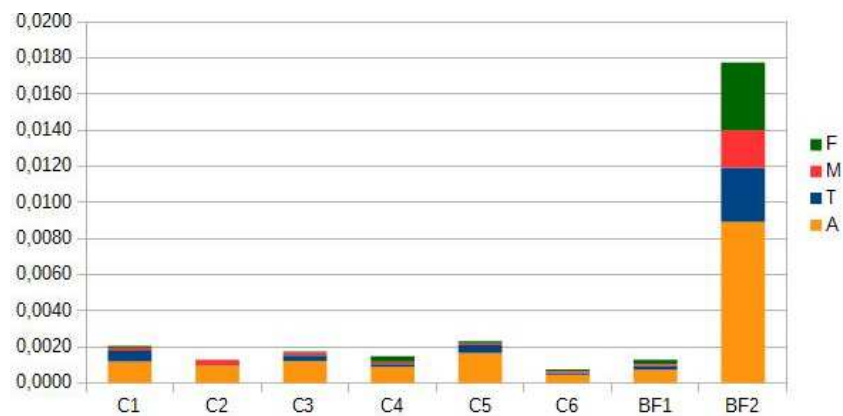


Fig.3: Representation of LEV/km² values of cluster system.

Per ulteriori informazioni:

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