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Linear infrastructure in complex landscapes. An interpretative model for the management of cultural landscape dynamics

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Abstract

The multidisciplinary perspective which underpins this study has started to be outlined when approaching the research of some experts, among which are the studies by Almo Farina, (2004, 2006), Valerio Romani, (1994), as well as the acknowledgment of some recommendations for future landscape research works provided by a number of experts during the international workshop "Multifunctional Landscapes. Interdisciplinary Approaches to Landscape Research and Management" (Tress B., Tress G., Déchamps H., d'Hauteserre A., Naveh Z., et al, 2000). In the same year, the approval of the European Landscape Convention (Florence, 20th October 2000) has enriched the international debate on landscape, with consequences also on the Italian cultural debate and legal framework. Some research questions have arisen from such a theoretical investigation, in particular in relation to what are considered cultural landscapes. Do contemporary cultural landscapes exist or do only historic cultural landscapes exist? Is it possible to provide an interpretative reading of cultural landscapes through an elaboration of their structure? Does the planning process have a role in developing cultural landscape dynamics? Which human drivers and planning rules can generate/ regenerate their dynamics?
A shared vision deems the improvement of linear infrastructures decisive for the development of territories, but at the same time such projects determine simplification actions on landscape complexity. Linear infrastructures can be considered an exemplificative, limit case of the relationships between local and global dynamics. They are networks which derive from choices and rationalities of an upper level, nevertheless they physically cross local territories. In these contexts the challenge with contemporary cultural landscapes takes place. Then, other research questions emerge: is it possible to identify cultural landscape dynamics within linear infrastructure projects? Is it possible to support/ activate cultural landscape dynamics within linear infrastructure projects?
In general cultural landscapes are considered "historic" peculiar contexts and few reflections have been carried out about a possible presence and development of contemporary cultural landscapes. This research underlines the importance to

focus the attention on the validity of their structure as this could be an important model for the development of contemporary territories. Cultural landscapes are strictly related to sustainable development as they represent a concretization of its principles: their structure is based on the optimization of the relation use (all that actions with advantages for the human settlement system) / resources (natural and cultural goods and values available in a context). Therefore they represent the strongest and durable interaction between the natural system and the social system.
From an analysis of the historic cultural landscapes and from an overview of the developing drivers of contemporary landscapes, the research works out an elaboration of contemporary cultural landscapes in order to understand their potential structure and function. Under this framework, it provides a method to support, design, activate cultural landscape dynamics in future projects by driving a number of processes during the planning phase (Cultural Landscape Dynamics Interpretative Model). The cultural landscape dynamics interpretative model is a result of combined criteria which come out from the elaboration of contemporary cultural landscapes structure, from spatial planning best practices, landscape ecology tools and from the analysis of two historic cultural landscapes. It is divided into two parts: an interpretative grid, which collects together a number of focused criteria and a table of indicators. In order to test its validity, the model has been applied to three contemporary linear infrastructure projects planned within the last 50 years. Besides improving its structure, the outcomes permit to carry out some reflections on how contemporary landscapes are developing, by stressing whether or not an effective improvement towards more durable landscape structures is occurring and if this is happening, emphasizing which aspects can be ameliorated.

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