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***La gestione del territorio rurale tra opportunità e rischi:  
ecological networks e impatti ambientali***

*Session: Rural and periurban landscapes: ecological networks vs green infrastructures*

**Project methodology for the reversion of industrial sites located in periurban context – a case study in the “Città Futura” of Piombino**

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### **Abstract**

The aim of the project was to identify a design methodology for the conversion of disused industrial sites, proposing the application of this method to a real case study, the area called "Future City" located in the Municipality of Piombino (LI). Starting from an analysis of the previous urban planning forecasts, the work began initially to identify the weaknesses of these forecasts. Given the state of soil pollution, the main obstacle to the realization of an urban reconversion was the one linked to the high reclamation costs usually connected to industrial sites. The focus was therefore to identify alternative solutions to overcome this obstacle. Going beyond what are usually the solutions envisaged for these problems, we proceeded to identify an intervention based on two key ideas: minimizing the volume of waste to be removed and giving it to landfill and using techniques of phytoremediation for the reclamation (Kennedy & Kirkwood, 2015; Pulford & Watson, 2003; Schwitzguébel, 2017). After a careful evaluation of the main characteristics linked to an intervention of this type it was concluded that it represents a very valid method for the reduction of reclamation costs (Rubeo, 2012). The work included a careful study of plant species spontaneously grown on the spot despite the unfavourable characteristics of the land (pH=12-13), in order to identify the most suitable species to be reused within a renaturalization intervention. A preliminary project was therefore proposed relating to the urban development of the area, in such a way as to highlight the potential of the same in terms of benefits to the community, as well as in aesthetic and environmental terms: the reconversion of the area (clearly state of abandonment) in a place dedicated mainly to green spaces therefore represented the best solution, also in light of an economic-financial analysis (Del Giudice, 2010). Finally, the methodology identified lends itself well to being applied to all areas subtracted from industrial use for which reconversion is necessary for public use, without prejudice to the objective of reducing the overall costs of intervention and maximizing benefits.

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