



**Politecnico
di Torino**

Honors Thesis

Master of Science in Architecture Construction City

Abstract

**Memory of the Valmorea Railway.
An elevated cycle path at Mulini di Gurone, Va.**

Tutor/Correlator

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The thesis undertakes a cognitive and design path towards an evocative area in the province of Varese: the locality of Mulini di Gurone, a historical settlement located along the Olona river, today the site of various socio-cultural activities, which, due to the construction of a dam and a lamination basin, has been protected by a circular embankment.

The analysis is developed through an account of the territory with the aim of proposing its valorisation through an architectural project supporting the development of soft mobility.

The objective of the research concerns both the functional and structural architectural restoration of the tollgate number 10 of the former Valmorea railway, located in the locality of Mulini di Gurone outside the embankment, and the design of a bicycle-pedestrian infrastructure capable of solving the accessibility of the area compromised by the dam.

The configuration of the territory in question was examined in the first chapter. It is dedicated to the historical, territorial and evolutionary account of the Olona Valley territory. The analysis was carried out through the description of the founding and characterising elements of the Valley and focused more on the in-depth study of the recovery operations of the historical Valmorea railway, since the birth of the railway infrastructure determined many of the settlement and socioeconomic dynamics of the Olona Valley itself.



The project carried out in this thesis is configured as the result of a reading of the traces of the territory and their history. The second chapter, therefore, presents the project proposal which, in the whole of its themes, finds the synergetic union between old and new, configuring itself as a trace of the

memory of the disused railway.

In the first part of the chapter, attention is given to the analysis of the "TI CICLO VIA" project, whose programme envisages the extension of the existing Valle Olona cycle/pedestrian path to the Swiss border. The project developed in this thesis is proposed as a variant of the 'TI CICLO VIA' project.

The second part of the chapter describes the project starting from three different problems the problem of bicycle and pedestrian accessibility, which is solved with the design of an elevated footbridge, since the project is developed inside the lamination basin that would be unusable in the event of the activation of the Gurone Dam the problem of the memory of the Valmorea railway, which the project tackles both through the architectural, functional and structural restoration

of tollgate number 10, and through the sequential reproduction of the façades of the railway stations along the route; finally, the problem of the architecture of the cycle track, the aim of which is to make access to the Gurone mills area, coming from the Valle Olona cycle track, a spectacular experience. This route will thus allow for an elevated connection from the embankment of the dam to the protective embankment of the Mulini di Gurone, thus providing a new perspective on the Valley.

The last chapter of the thesis analyses and studies the structural problem and the choices it determines. Using the SAP 2000 calculation programme, the lattice girders supporting the footbridge deck were dimensioned.



The architecture of the new infrastructure will have both the task of recalling the forms of the railway, re-establishing its memory, and the role of a public space for transit and parking in direct connection with the "ring" (the embankment) of the Mills. In this way, the intention is to enhance a place where the

great landscape and cultural interest is the result of a centuries-old interaction between man and the environment.

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