

**The railway environmental setting for the Turin-Lyon high capacity project:  
a proposal for the enhancement of the border region's historical-environmental  
assets**

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*"...The deepest meaning any place is its  
relationship with Human life and, even  
more, with the living world..."*

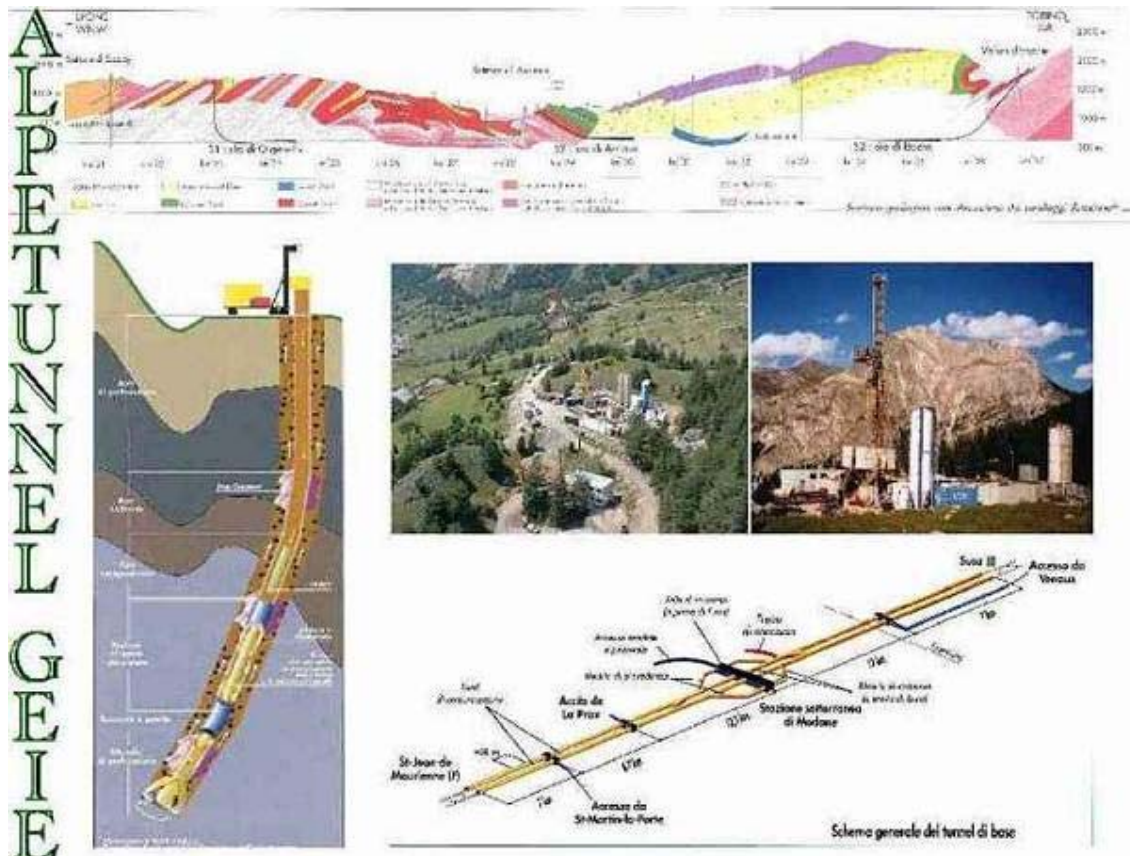
K. Lynch

In the European context the protection and enhancement of the environment, in relation to land planning policies, new infrastructure and transformation is becoming progressively more important.

The initial analysis is prompted by the fact that today, with the abolition of national frontiers, the ever-increasing need to expand and improve existing infrastructure and the creation of new ones.

The Inter-linking activities between border regions constitute one of the factors in the resurgence of local identities and crafts.

The collaboration between the Turin Polytechnic and Alpetunnel GEIE ( <http://www.alpetunnel.com/> ), the organisation charged with the review of the international section of the new Turin - Lyon transalpine railway route, has raised the possibility to analyse a case considered key in the European railway network.



Geological section and drilling site d'Etache; Solution A scheme of the base tunnel of 52 km.

Of particular importance, a long section in a tunnel is planned, main tunnel, which develops from Bussoleno to St Jean de Maurienne, through the Alps at the highest levels.

This journey segment, which goes through one of the most intriguing areas of the border region, full of natural and environmental values with traces of the Savoy history. The traveller, from a train that travels through a tunnel, cannot readily perceive this.

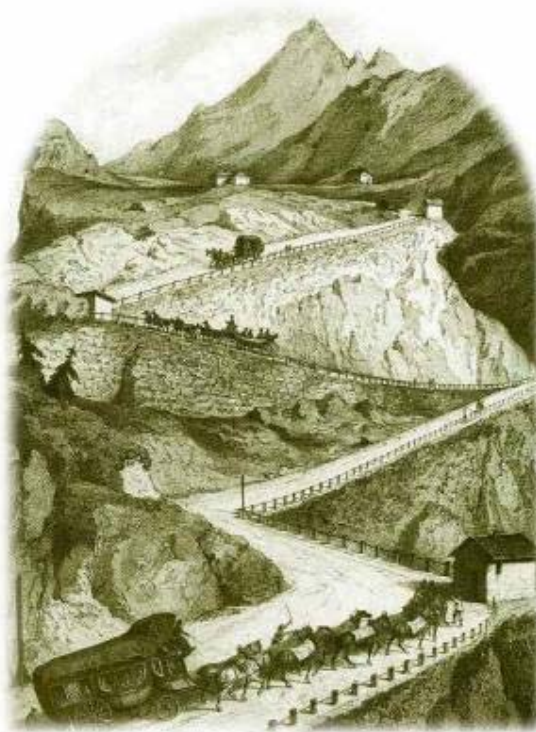
The set objective is to let the 21<sup>st</sup> century traveller absorb the external surroundings and their evolution in time. To portray the surrounds, its diverse relationships with the local community, to make it visible in order to, also attract interest and to promote new fruition to the region, developing new tourist attractions and eventual compensating projects.

The action is developed in the dual aspect:

- the infrastructure that becomes strongly related with the environment, the territory and the local society
- the traveller becomes an actor in the environment

The importance of the Alps region and of its communication routes, historically theatre of many happenings, has been the starting point for an analysis of the

relationship between the territory and the railway infrastructure. This relationship assumes an important role, both for the traveller in the train who will visually relate with the environment in its proximity, and for the local communities in whose environment the infrastructure is introduced.



The Moncenisio panorama (mid 19<sup>th</sup> Century)

The physical aspect of the territory, its values and its significance constitute the pivotal point of the dissertation work.

To return to the wider community a territory means, not only to find one's roots, and re-value what the past has left us, but to acknowledge the present to better plan the future, taking into account that the alpine region is a territory with complex and diverse identities.

The work does not pretend to be exhaustive, but would like to offer a panorama of what the re-occurring elements of the border region have been, trying to read through the history, the economy, the infrastructure, the evolution of the cultural and environmental relationships.

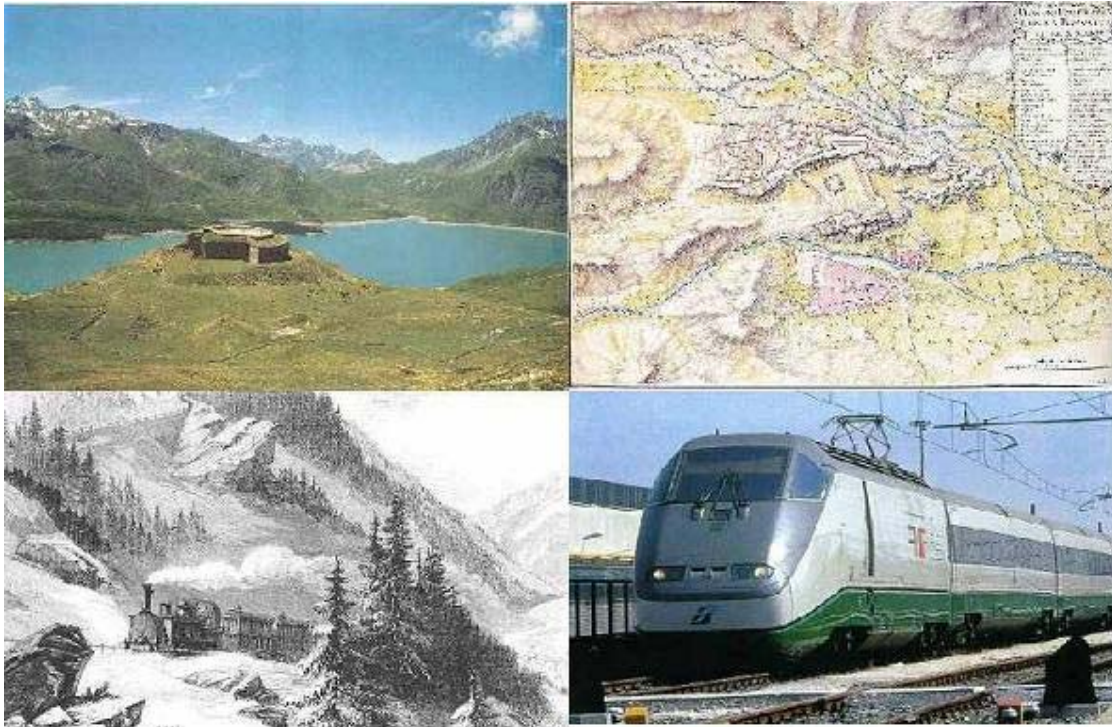
The documentation collated in the dissertation is composed of two sections:

**1 – THE HISTORY OF THE BORDER TERRITORY**

**2 – THE HISTORY OF THE RAILWAY INFRASTRUCTURE**

The first one supplies an overview of the historical, political and military events in the region, looking in particular at the subject of frontier defence, the military fortifications and of the communication routes (Monginevro, Moncenisio, via Francigena).

The second part deals with the subject of the iron revolution and railway evolution; in particular: the Moncenisio route (Fell Railway) and the Frejus Tunnel, the train in its various configurations, the locomotive, the carriage and the station. With the arrival of the new technologies and the recent approval (29 January 2001) of the high intensity Turin/Lyon route, the attention moves towards the high-speed routes by analysing the Alpetunnel GEIE project. By giving an example of a possible contribution to the enhancement of the cultural wealth of the border region.



Clockwise: Forte Roncia in the Moncenisio, Forte deall Brunetta at Susa, Pinifarina designed ETR 500, a small Fell train climbing from Lansleburg to the Moncenisio Pass.

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