

POLITECNICO DI TORINO
SECOND SCHOOL OF ARCHITECTURE
Master of Science in Architecture for Sustainability
Honors theses

La vallée du Grèsivaudan

A geographical perspective's study of the city's architecture

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The study of the Vallée du Gresivaudan is contextualized within the research work of the *Architecture of river territories*, applied to different geographical areas by prof. G. Motta and prof. C. Ravagnati with arch. M. Graffione.

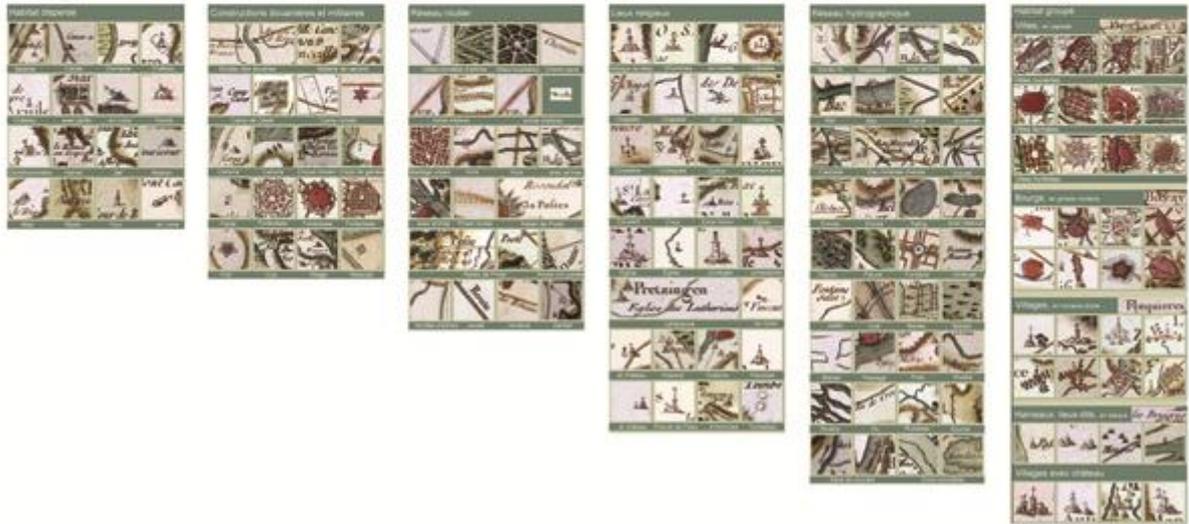
The purpose of the study is to investigate the site of the valley through the geographical description of the area, analyzing the signs that have established guidelines for human settlements in the centuries and which are indelible traits on the design of the city. Therefore, the study consists of two phases: the first part is theoretical in which some studies of urban analysis, that investigate the relations that arise between the urban and the geographical forms, are analyzed; the second one in which the settlements of the valley are classified.

In the first phase some analysis techniques, studied by several authors in recent decades, have been identified and they are divided into:

- the classification of territorial types according to studies by S. Muratori;
- the theory of the permanence by A. Rossi;
- the theory of terrestrial paths by G. Caniggia;
- the relationship between the city and the territory by A. Renna;
- the relationship between nature and architecture studied by G. Motta with A. Pizzigoni (nature and artifice), P. Viganò with B. Secchi (the territory and the architecture of the soil) and R. de Rubertis (the evolution of the valley).

For the study of the origin of the settlements in the valley it was necessary to lean on the *Carte de France* designed in the middle of XVIII century by *G. D. Cassini*. In the map it is possible to identify the points of 'anchorage' of which the first historical centers were developed.

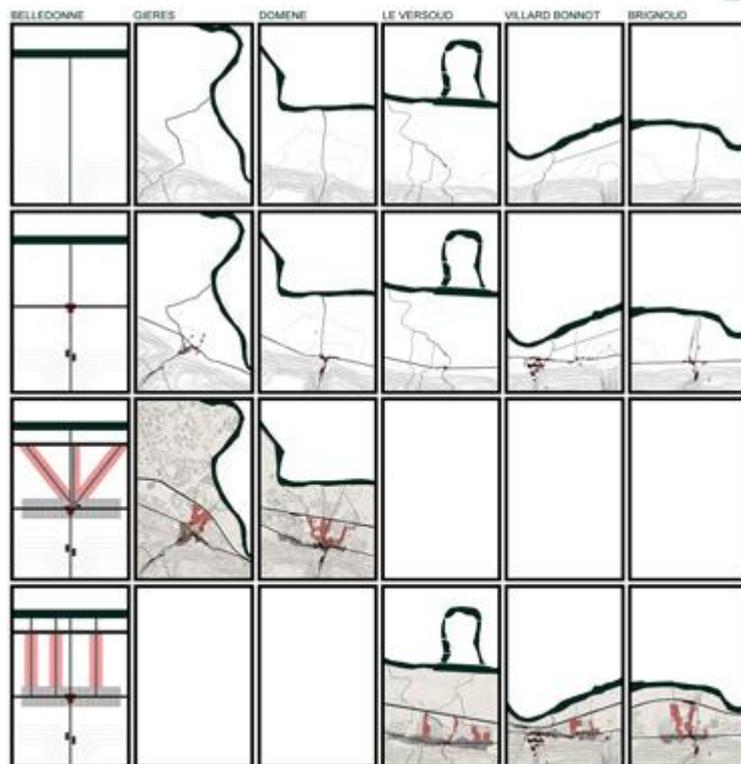
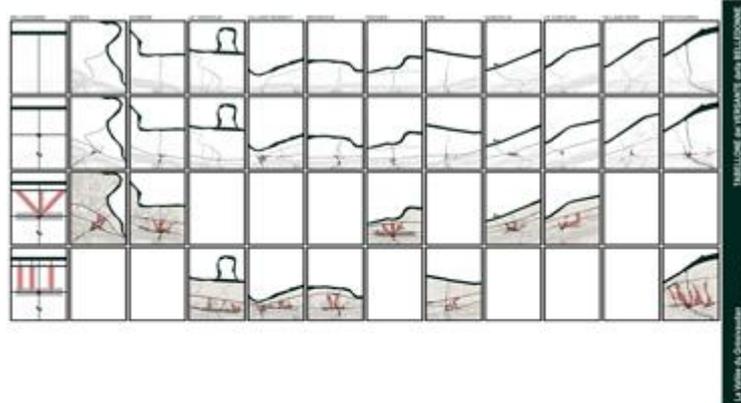
This map presents a series of legends organized for fields (e.g. roads, hydrographs, settlements, etc.); each of them corresponds to a research topic for the construction of the idea of valley's project and in the case of the thesis the settlement one on Belledonne and Chartreuse's slopes has deepened through the classification on the basis of the table's method of Muratori.



G. D. Cassini (1747), *Carte de France*, detail of the valley of Grèsivaudan and some legends (from the left: singular settlements, customs and military buildings, streets, religious buildings, hydrography, settlements)

The Belledonne's slope

This table consists of 4 lines, structured in this way: the first two are shown the natural site and the historic settlement with the spontaneous origin of a crossroads between the historical way and the river; in the next two expansion of urban centers distinct according to the linear or star-like development. In the first case it is recognized that the nucleus is spread on the historical road to give rise to perpendicular axes directed towards the river; differently the stellar one presents development's axes taking origin from the square of the cross-roads towards the valley floor.



Belledonne's table; below the table, zoom of some settlements

The Chartreuse's slope

This table consists of 5 lines: the first presents the geographical site; the two following the historic settlement in which we recognize two modes: the linear construction on the halfway road or on the ridge one; the last two that are influenced by historical development, represent the expansion of urban centers. In the first case the development of the settlements on the halfway road gives rise to a system of comb roads according to the design of the contour lines; in the second ones, on the ridge road, they form a system whose the street on the slope becomes the axis on which the city develops and it is constructed by a system of roads parallel on which the residences are setting.



Chartreuse's table; below the table, zoom of some settlements

The classification tends to divide the settlements according to two models of development for each side, but it corresponds only to a simplification in which the complexity of morphological problems are not considered: in fact, each site is characterized by a characteristic principle, called *locus* (Rossi).

The final result can be defined as an analysis of considerations and reflections and also a series of open questions on the *Vallée du Grésivaudan*, investigating on the relationship that develops between the construction of the idea of the city and the design of the geography of natural elements. The work does not want to find a solution but rather to define some questions about the next step: the project of the valley

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