

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

Architecture for river land. Design of a residential settlement in the Vallée du Grésivaudan

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This bachelor thesis is titled “Architecture for river land. Design of a residential settlement in the Vallée du Grésivaudan”. This work is under the research field “geographic city” which is directed by Carlo Ravagnati with Marcella Graffione, the research aims at looking at the relationships between Forms of settlements and geomorphology. The thesis is focusing on a specific part of the research project which is applied to Isère Valley in France.

The bachelor has carried particular investigation on Vallée du Grésivaudan and Vallée du Drac: “Great Grenoble”. These river lands converge at the margin of Grenoble, and are part of the seven sector of Grenoble Region which is under a strategic Urban Plan. This plan (Schéma de Cohérence Territoriale, SCoT), is an overall Plan targeting medium term strategies for this land.

The initial overall studies give shape and structure to the settlement, defining the missing drawing for the Région Urbaine Grenobloise. This drawing is able to define an overall image of urban growth through the relationship between geographical features and settlement rules.

The thesis specifically work with a project for a dwelling area.

The project uses cartography as tool able to highlight and implement geographical feature of places on the architectural scale.

The study area is located in the north side of Bernin municipality, it is by a cone of dejection of the Chartreuse slope. This empty area is depicted within the SCoT as a transformation area.

The two settlement logics (see Figure 1 is showing the property settlement structure and the structure of the original site) are confirmed and become a “matrix” of the project.

Using the contours, the geomorphologic structure suggested the architecture forms that “turn as stone” the original site; the movement of the mountain become a logic, while highlighted settlement structure has establish the way buildings are placed to the ground and to the original ancient roads.



fig. 1



fig. 2



fig. 3

The residential block is based on an architectural design element: the wall. It works on two different scales aiming at two strategic scale: urban-scale and building scale of the building. It will work as relationship between architecture and place. At an urban scale, the wall is based on the geomorphology as contour. At the building scale the wall is a distribution feature as can be seen from the plants (Figure 4). The wall show with the project the logic of relationship with to the ground. The reiteration of the wall along the highest slopes turn the contours into overlaid planes (see Figure 2 which highlight the relationship between walls, geomorphology and land plots). Wall's partition become the supporting "framework" of the block as the mountain is constructed on its stones.

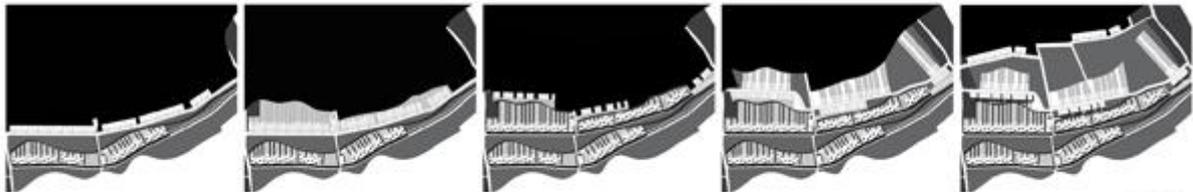


fig. 4

At the architectural scale the wall distribute to the housing and it is the facades towards the Valley of the Isère.

Three types of buildings cross the different floors of the "architectural mountain".

Two types are arranged along the medium high streets slope; the highest buildings are lined up towards the Mountain facing lower buildings types. The patio house are placed along the terraces.



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