

POLYTECHNIC OF TORINO
FACULTY OF ARCHITECTURE
Degree in Architecture
Honors theses

Consolidation and utilisation for Roddi castle

by Giacomo Alessandria

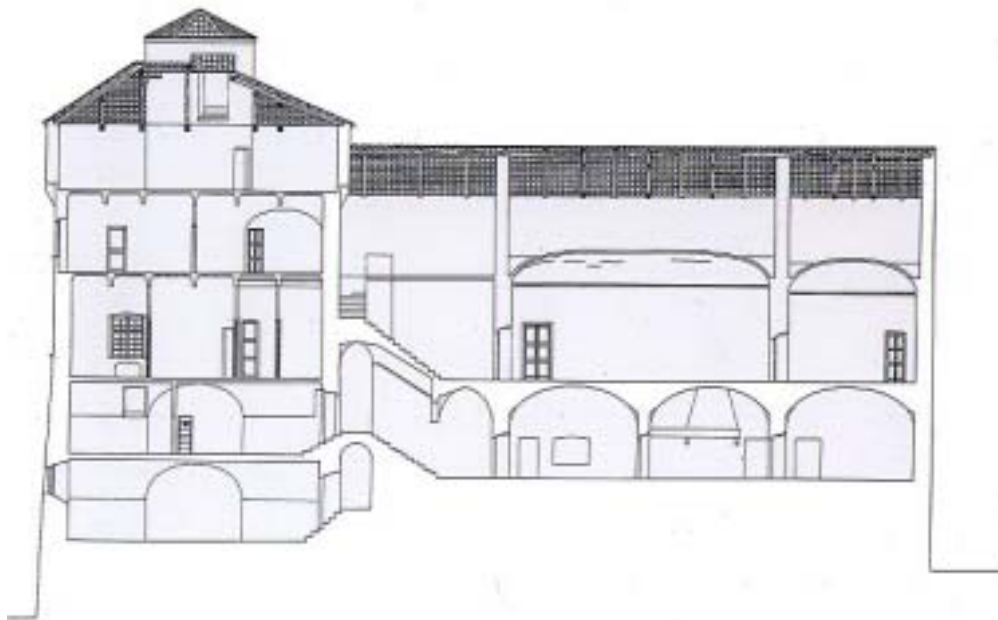
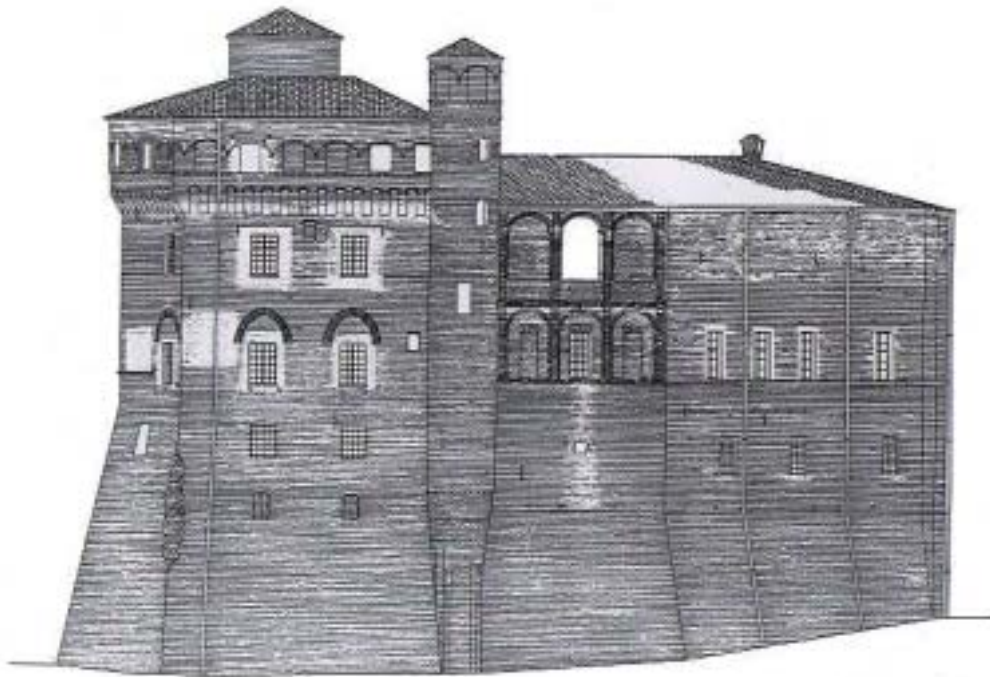
Tutor: Rosalba Ientile

Co-tutor: Giacomo Donato

The dissertation is composed by a report collected in volume and planes. The castle examined is situated in the commune of Roddi, in Cuneo district. The report gives detailed information about the location of the castle and about its strategical position towards the territory of the town of Alba and the Langhe.

Arised from the process of fortification that took place between the 10th and the 11th century, the building is the result of subsequent stratifications, and especially of important works of enlargement and transformation executed in the 14th and in the 16th century.

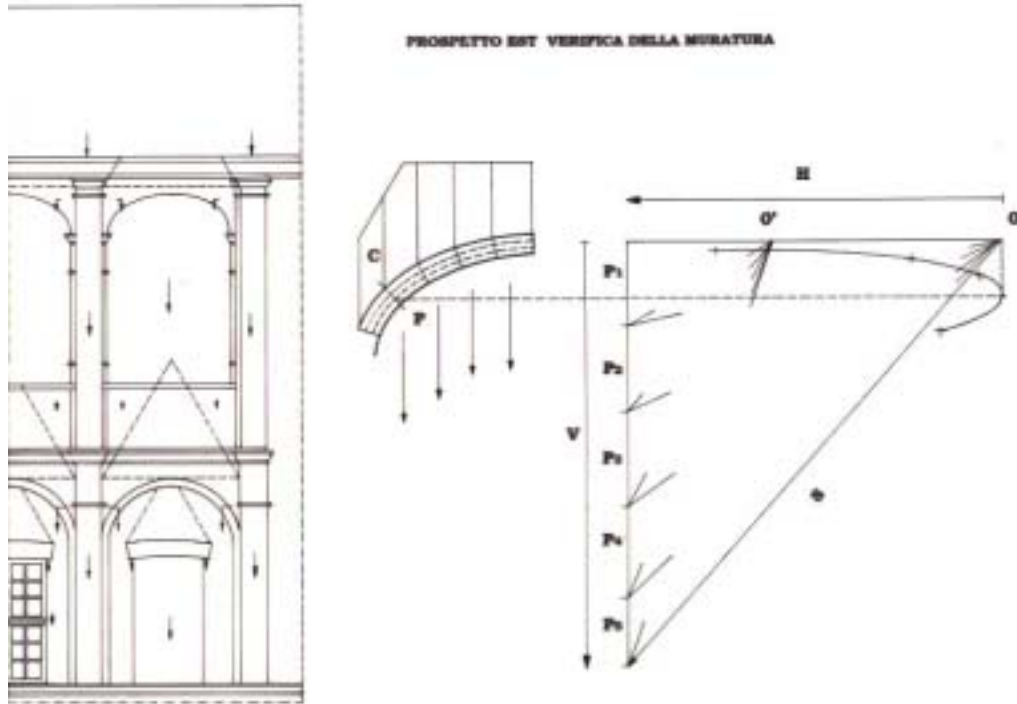
The work I carried out on the site allowed the realization of the plotting of the castle; special attention has been given to the survey of the degradation, pointing out its location and determining the entity both on the report and on the plans. After locating the degradation, I have done the static verifications of the vertical and horizontal structures of the building.



With the help of graphic and analytical methodologies, I have verified the stability of the barrel vaults and of the cross vaults located in the 17th century section of the castle.

After that I have verified the wooden lacunar ceilings situated in the oldest part of the building.

In the same way I have done the verifications of the vertical structures of the eastern side; in this section there are damages due to the middle ground subsiding. One of the most important objective of the consolidation is in fact to stop the phenomenon of slipping of this ground section using micro-piles. To find the best anchorage place for them I've used graphic and analytical methods collected and presented in plans. After the analysis of this heavy trouble, I've described, for each room, the best intervention that is necessary to practise according to the type of degradation and in the respect of the peculiarities of the building.



The report ends with the utilization proposal, that consists in the recovery of the building for the creation of a centre for the study of the truffle. This hypothesis is based on the real need of the territory of Alba to have a permanent availability of functional spaces to use for the study and the safeguard of the local traditions and richness, of which the truffle is surely the fulcrum. Through plans and description of the project, I have explained, for each room the provided destination for the new use of the castle. The vaults and the wooden ceilings have been verified with the new working loads. The result is that the vaults can afford the new loads, the lacunar ceilings instead do not guarantee an adequate security level and so they needed of radical interventions. The utilization proposal put forward is desirable not only for the safeguard of the territorial culture, but also to give the territory a gravitational point of initiatives for its deepest knowledge.