## POLYTECHNIC OF TORINO FACULTY OF ARCHITECTURE 1 Degree in Architecture <u>Honors theses</u>

## The Castle of Corigliano d'Otranto: analysis of the ruin and hypothesis of preservation.

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The analyzed castle is situated in the village of Corigliano d'Otranto (LE). The interest for this construction is born, on the one hand from the remark that any other structure, better synthetizes the two "noblest" moments of the architecture in Salento: one connected to the *aragonesi fortifications*, the other to the *barocco* one, both fused in a single artistic context; on the other hand, by, the carelessness and the searchings it has benn subject for years; searchings that caused a considerable decay of some of its parts.

By virtue of these considerations, the developped work started from a wide measurament campaign that has brought to the drewing up of on architectural remark on the basis of more significant plans, tables and sections on scale 1:10 and 1:20.We proceeded therefore, through on historical, typologycal and constructive inquiry, in order to individualize the several developing phases of the castle and attribute to then possible ruins, present today.

At the and of this research, we managed to find out three main evolutionary phases:

1° phafe: building of thr original nucleus in "angioino" time;

2° *phafe:* sixteenth-century expansion (1514) that absorbed the old fortress into a new one, with screen and circular towers with bricks at the top;

3° phafe: building of the Baroque facade and of the relative sleeve (1667).

Aftewards, we continued to individualize the decay present in the construction and this analysis has been effected from two points of view: the first one was about the decay of materials; the second one, about the static ruin.



Both decays have been represented on plants, facings and sections with conventional symbols (figg.1;2).



At the end of this phase, we can say that the decay of materials is much greater than the static ruin.

In order to understand if the ruin evident on the vaults has to be ascribed to its own situations, it has been carried out their static check, trough the Mery graphie method.

The presence in the castle of vaults called *"leccesi"*, typical of the salentine architecture, has brought to a careful study of the building system adopted for their accomplishment (fig. 3), in order to make an hypothesis for a static pattern to use in the check of these ones.



At the end of this study, we arrived to identify for the corner vault (a particular kind of "leccese" vault), a static model similar to that of a cross vault; this study caused to carry out the check of steadiness of these vaults, following a way of proceeding similar to that of a cross vault. At the end of these checks, we noticed that the analyzed vaults are all checked.

The successive phase of the study has been that of working out a plan to reuse the castle. This reuse has the aim to get a container that should receive some activities proper to keep, organize and promote all those cultural phenomena that orbit around the Greek culture in Otranto land. It is interesting to notice that Corigliano d'Otranto, with other borbering villages, is part of a land known as *"Grecia salentina"*, characterized by a considerable population speaking Greek, there settled in a for away time. The construction we have examined, by extending over an area of 3000 mq and because it has several levels, variously articulated, is well suitable to contain all the functions of the polyfunctional construction before identified. The guiding idea has been that of carrying out a container of several activities intented as a continuation of the town. This plan has been drawn up on the scale 1:100.

Defined in this way the new purpose of use, we passed to the check of the carrying structures with the new xercise loading; from these verifications we understoad that the analyzed structures are still checked.

At the end of the study, we laid out the guidying lines for the preservation of the analyzed manufactured article, by respecting the original static idea of the construction and of ils history.

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