

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

Bra: Town Hall. Survey, chronology of the main building works and analysis of the most important cases of deterioration

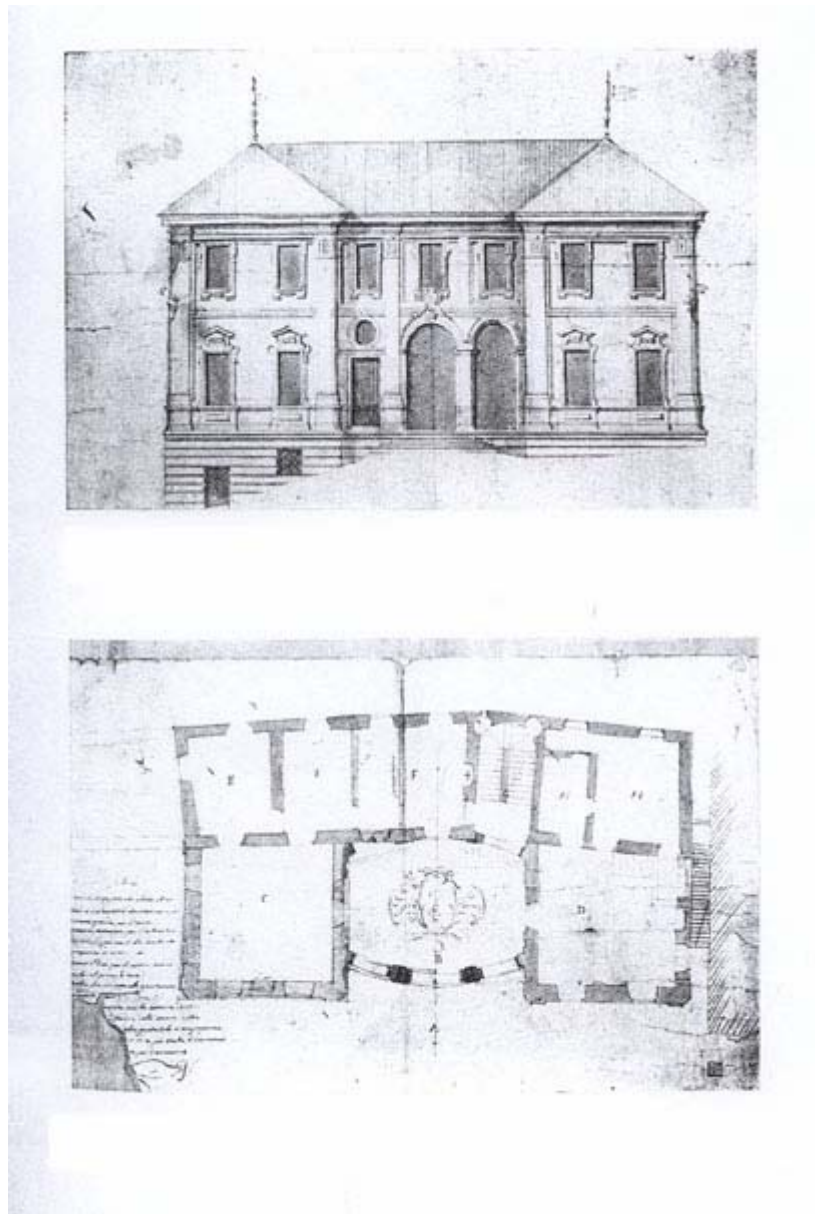
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The study of the Bra Town Hall has taken into consideration both the analysis of the building developments and the surveying of the structural problems that such transformations have generated. In 1229 the *Domus Communis* already existed and it overlooked the *platea*; the building constituted the closing element of the village, located adjacent to the town walls, near the town gate, the *Marcheylium*.

Architectonic vicissitudes connected the house of the Community with the house of the *Podestà* or *Pretorio* to such an extent that they became a single building. This was constructed with columns at ground level and an arcade with mullioned windows in masonry on the first floor. In 1650, for the necessity of an archive, a first extension to the west, towards via Barbacana, was executed on the site obtained by the demolition of the town walls, knocked down after Emanuele Filiberto captured the town in 1552. Having such archive become too small, in 1730 an important enlargement was carried out to the south, on the main square, based on a plan by the architect Bernardo Antonio Vittone, which gave the Town Hall Palace today's appearance. The simple linear body was transformed into a double body, and its tripartite facade presents a central curvilinear part. The architect's skill lay in his ability to form an entrance hall approaching an ellipse, taking advantage of the irregularities of the pre-existent structure.



Arch. B. A. Vittone's plan Bra Town Hall in 1730

The most substantial internal construction was equipping the Town Hall with a reception room in 1927. In order to do it, it was necessary to demolish a part of the main spine wall on all floors, which caused the elimination of the vaulted floors supported by the wall and their rebuilding with double T iron beams. This operation originated various cracks on the floor of the reception room, in correspondence with the demolished wall. The vertical fissure system of the Town Hall is concentrated on the prospect of via Barbacana, in the oldest part of the building.



Photo of the oldest part of Town Hall overlooked via Barbacana

Some cracks, cutting the masonry from the cornice, are visible; their course, slimming down from top to bottom, indicates that the cracks are caused by the subsiding of the foundations. Since here the earth is not coherent, because it was brought on purpose to fill up the chasm of the “Rocca”, the above-mentioned lesions are due to settlement from filling material. Their vertical direction shows that the cause is imputable also to the rotation due to the push of the vaulted floors on the supporting walls. The cracks formed where the pushing found the weakest points in the walls, therefore less thick or empty inside, which hints at the presence of a small window in the space between the two greater fissures, as testified by Boetto's lithograph, and the results of the thermographic analysis would confirm it.



Thermographic image underlines a discontinuity due to unlike material and the form would make to hypothesize the tamponade of opening

Such flimsiness is due to the adoption of vaulted floors in substitution of wooden floors, which probably took place during the eighteenth-century extension works, though without increasing the masonry section. The thermographic analysis executed in the meeting points of the walls, where the extension works were carried out, shows obvious signs of constructive discontinuities related to bad scarfing. This could be attributable to the fact that such works, dated 1650 and 1730, were effected leaning on the pre-existing walls.

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