

The monumental area of Porta Praetoria (*Praetorian Gate*) in Aosta. A cognitive experience aiming to its conservation

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Porta Praetoria (25 b.C.) is an emblematic example of a roman town gate having a double function both difensive and representative. It is one of the most significant and best preserved monuments of North Italy dating back to the age of Emperor Augustus. The monumental area is constituted by two parallel curtains divided into three arches, the biggest in the middle and two smaller at each side; the curtains are connected by two perpendicular buildings, which originally were the difensive towers. *Porta Praetoria* is situated in the historical center of the town and is one of the most important poles of the pedestrian axes (the ancient *Decumanus Maximus*) that starts from Augustus Arch and leads to Republic Place. The external front of the Gate, being the principal entrance of the town, should present striking characteristics of impressiveness as we can still note in the remains of the rich marble decoration, particularly with reference to the refined cornice engraved in a white marble. The monument still keeps almost intact its ancient measures, even if its proportions are different, owing to an elevation of the ground level which is now about 2,70 m. over the original one. The reasons are two: the numerous floods of Stream Buthier and the sediment of different materials. Besides the present image is very conditioned by many transformations suffered during the centuries (particularly the houses burdened against the wall of *Porta Praetoria* in the middle age) and by the restorations of the nineteenth century (due to E. Bérard, 1880-'81) and of the twentieth century, particularly the one due to Ernesto Schiaparelli in the 1926, characterized by massive supports and finishes in concrete and river pebbles.

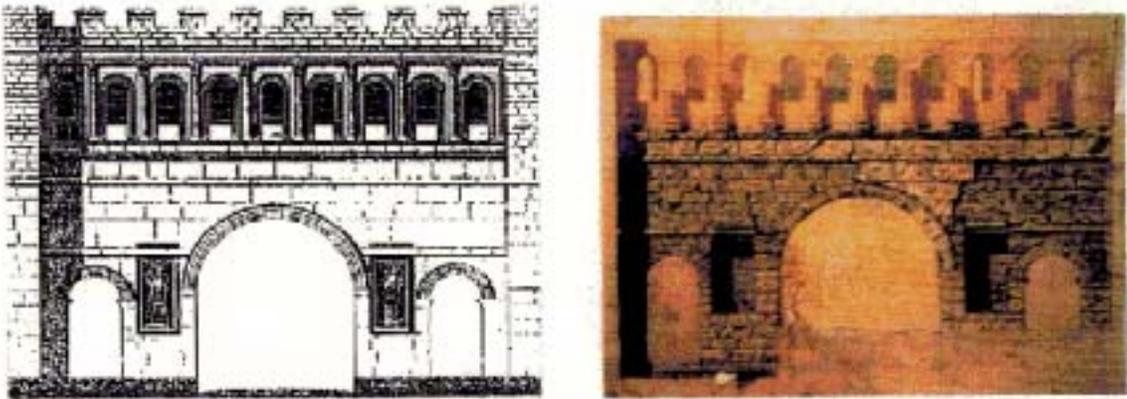


(fig.1) External front of *Porta Praetoria* before and after the restorations of 1881 and after the one of 1926 (B.R.E.L., Aosta)

Therefore the aim of the thesis was to do a critical examination - based both on an historical research and on a detailed analysis of the monument - of the historical and building events that determined the present image of *Porta Praetoria* and conditioned its conservation.

The fundamental book, which was the starting point and the principal comparison parameter of the research was *Le Antichità di Aosta* (Antiquities in Aosta) by Carlo Promis, published in 1862, enclosing tree drawings of the monument (detailed reliefs and reconstructive hypotheses).

The examination of unpublished documents held in the Archives of the Archeological Department of the Superintendence of Cultural and Environmental Properties of the Aosta Valley Region has then permitted to reconstruct the intervention of Alfredo d'Andrade. This intervention was till now underestimated by the history sources, but on the contrary it has a great value and includes even a project for a very important restoration, which was never realized because of economic problems.



(fig.2) Project of restoration by Alfredo d'Andrade in comparison with the reconstructive hypothesis by Carlo Promis (Archeological Museum, Aosta)

The examination on the building (i.e. a methodical analysis on materials and constructive tecnic, location of historical stratifications which can still be seen and analysis of decadence phenomena) was supported by a direct metrical and photogrammetrical relief, made in collaboration with the Laboratory of Photogrammetics of Turin Polytechnic. This permitted to rectify the hypothesis, upheld by all written sources, that the Gate structure was completely made by big blocks of stone conglomerate (latin name: *puddinga*) which can be seen in the front of the monument.

On the contrary the macroscopic analysis brought to hypothesize that the structure was an *emplecton* structure, that is to say a nucleus of pebbles mixed with mortar only covered by stone blocks. It was possible to confirm this hypotesis thanks to the Superintendence of Cultural and Environmental Properties of the Aosta Valley Region that arranged a successful sampling on the wall.

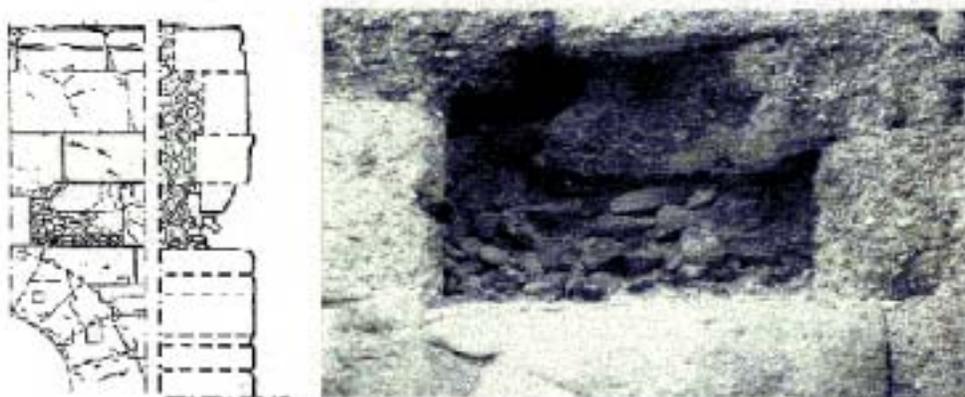


Fig 3. Detail of the inside face of *Porta Praetoria* which underlines the nucleus of pebbles mixed with mortar and plan showing the sampling on the wall

In the conclusion the mentioned results were considered as critical "reading keys" of the monument degradation and as starting points for proposals of conservation and exploitation hypotheses of the monument itself.

As a matter of fact the problem of a repair of the monument is strictly urgent. Even if at present there is no kind of worry from the static point of view, the general condition of its conservation seems rather critical both on the side of its degradation and on the one of continuous risks of falling down of materials (particularly near the blocks made of stone conglomerate) and needs a quick and resolute work owing to security reasons.

First of all this work should be directed to strengthen stone materials (pertaining to restorers, chemists, petrographers) but it should not forget a global project of monument protection which must eliminate all the causes of degradation phenomena (that is to say atmospheric agents and pollution) pertaining to architects, urbanists, archeologists in conformity with the multidisciplinary characteristics of the restoration.

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