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

The "Pietra da Cantoni" in central Piedmont's architectures (11th-12th century)

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The study aims at focusing on the meaning of the Pietra da Cantoni as a preferred choice of the stonecutters for the architectures of XI and XII centuries in central Piedmont[1].

This subject regarding the material outcomes has never been approached in a systematic way until today, whilst on the contrary the Romanesque architectures have been analyzed on many occasions.

The research draws inspiration from *Le chiese romaniche delle campagne astigiane* (1984) edited by L. Pittarello (in many ways still unequalled and topical publication); it acquires its methodology and supplements it with a petrografic subject.

A mere monographic analysis upon completion of the cards, however, would be inappropriate, because it would not allow to fully understand the significance of the presence of the Pietra da Cantoni in these architectures; a multidisciplinary approach which has developed in parallel themes (petrographic analysis, old quarries, roads in the Middle Ages, examination of Romanesque buildings in the central Piedmont and the history in centuries X-XII) was therefore adopted.

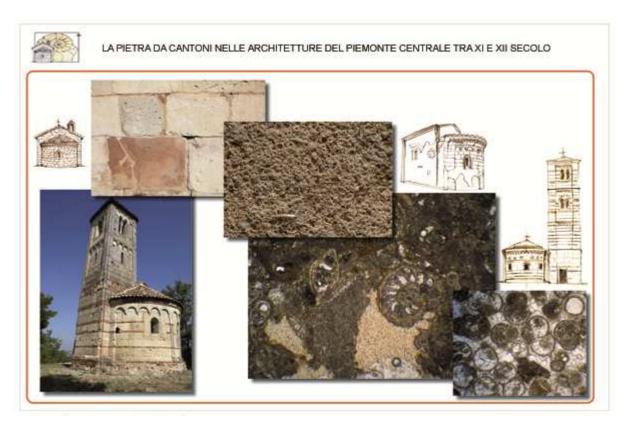
The petrographic analysis was carried out by experimenting successfully a comparative method based on the use of *photomacrographic* technology: shootings made during all inspections have been classified, transferred to computer, evaluated, compared and each one subdivided into homogeneous groups, by assuming for each one a correspondence to a type of stone.

The perfunctory results thus obtained were then verified scientifically by reading the thin section on the samples chosen *ad hoc*.

The document-Pietra da Cantoni has been interpreted in a much more wider context compared to what the studies propose on this subject.

The plot that has resulted has intersected several critical issues in the historical-territorial context by offering the chance to make continuous inspections and adjustments along the way.

As for the architectures only, so far the emphasis had been placed on Versa valley, the hub of the astigiano Romanesque style, but Pittarello had already partially extended the analysis by making it clear that the present institutional border was inadequate. The stone as a material, however, has so far been exploited in the low Monferrato, but mainly for applications in traditional architectures (*casot, infernot*), for the activities of quarries from which "cantoni" and "pianelle" were obtained (until the mid-nineteenth century) and for industrial use, such as cement marl.



By our study, however, it was found that these uses of the stone are not its most important applications; it has thus been reached the conclusion that in this context one can no longer split the stone from Romanesque architecture, so that the architecture is created from the stone, but it is also the stone that generates the architecture.

For all that said, the border necessarily transcends the present institutional one: the area of interest is defined by the buildings that use the same stones having a common feature, a shared method in the use of material probably well established in local tradition.

In this way, more than ever, we can speak of a Monferrato school[2]. The borders of the new area thus correspond to those ones of central Piedmont[3].

In its places of origin the *Pietra da Cantoni* is still considered a poor material improperly called tuff.

The architectural researchers involved in analysis of sculptural equipment and structures use the generic definition of sandstone to identify the stone, because of absence of precise information about it.

It has been possible to clarify that the stones used in the twelfth century are eight at least and four of them fall into the general term of *Pietra da Cantoni*.

The beginning of the analyzed period may coincide with the inauguration of the Cathedral of Santa Maria in Asti in 1095, which curiously coincides with the birth of the town (perhaps by controlling the streets, the arrival of the stone in the city was made easier from now on), but the end of the period is identified with he conflict between Asti and the Marquis of Monferrato, in particular with the battle of Montiglio (1191) which made the spread of the stone more complicated in the following period, by directing it towards an employment in the civil architecture.

The practical applications of the study are summarized in two items: we suggest a method to recognize the historical periods of a building site and a catalogue of types of stone that could help the identification of the material used in the building site before restoration.

notes:

[1] G. FIORASO, P. BOANO, *Note illustrative della Carta Geologica d'Italia alla scala 1:50.000. Foglio 157 – Trino*, a cura di F. DELA PIERRE, F. PIANA, G. FIORASO, P. BOANO, E. BICCHI, M.G. FORNO, D. VIOLANTI, Nichelino (TO), 2003, pp. 47-48. [2] A. K. PORTER, *Lombard Architecture*, vol. I, New Haven, 1917, pp. 147-149. [3] C. ALETTO, *Chiese extraurbane della diocesi di Casale Monferrato – Repertorio storico-bibliografico degli edifici di culto*, Alessandria, 2006.

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