



POLITECNICO
DI TORINO

Honors thesis

COURSE OF DEGREE IN ARCHITECTURE FOR THE
RESTORATION AND PRESERVATION OF
ARCHITECTURAL AND ENVIRONMENTAL HERITAGE

Abstract

**The Cistercian Abbey of Santa Maria di Staffarda:
analysis of the built and natural stone of the cloister.**

Tutor

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by

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The permanence of matter and its stratigraphic traces constitute a text of great value because they are the authentic document of the architectural palimpsest. The objective of this thesis is to apply the methodology stratigraphic for the analysis of built the cloister of Santa Maria di Staffarda; in order to fill the gaps of knowledge that result from lack of documents, in some life cycles of the article, and to recognize the equal dignity to all the historical phases lived by the factory. Every useful step to the development of our investigation it was accompanied by an awareness that the stratigraphic analysis is an open method, namely, the results of this type of analysis are continuously updateable. Moreover, this analysis is a non-destructive and non-invasive method, and this allows further generations to reread the architectural palimpsest and improve and update the results previously obtained. Desirable for the future is that the stratigraphic analysis becomes a shared method, both as regards its principles and both as regards the consultation of the results. In fact, the achievement of any result, if reserved for a few, it has no utility. However, a shared result can affect and improve a way of doing, in our case: how to preserve the past. Archaeology of architecture or the built finds its full development by cooperating and interacting with other disciplines, to take advantage of different skills that they can complete, in an organic whole, reading the artifact for future conservation work. The course dealt with the thesis to arrive at an overall reading of the eastern front of the cloister of Staffarda, it predicted:

1. The study of literature sources and archival;
2. The creation of photo-rectifications: to support the recognition of stratigraphic units through a photographic survey and related checking metrics;
3. Approval of the stratigraphic units on the eastern front and their cataloging and analysis with the help of a database;

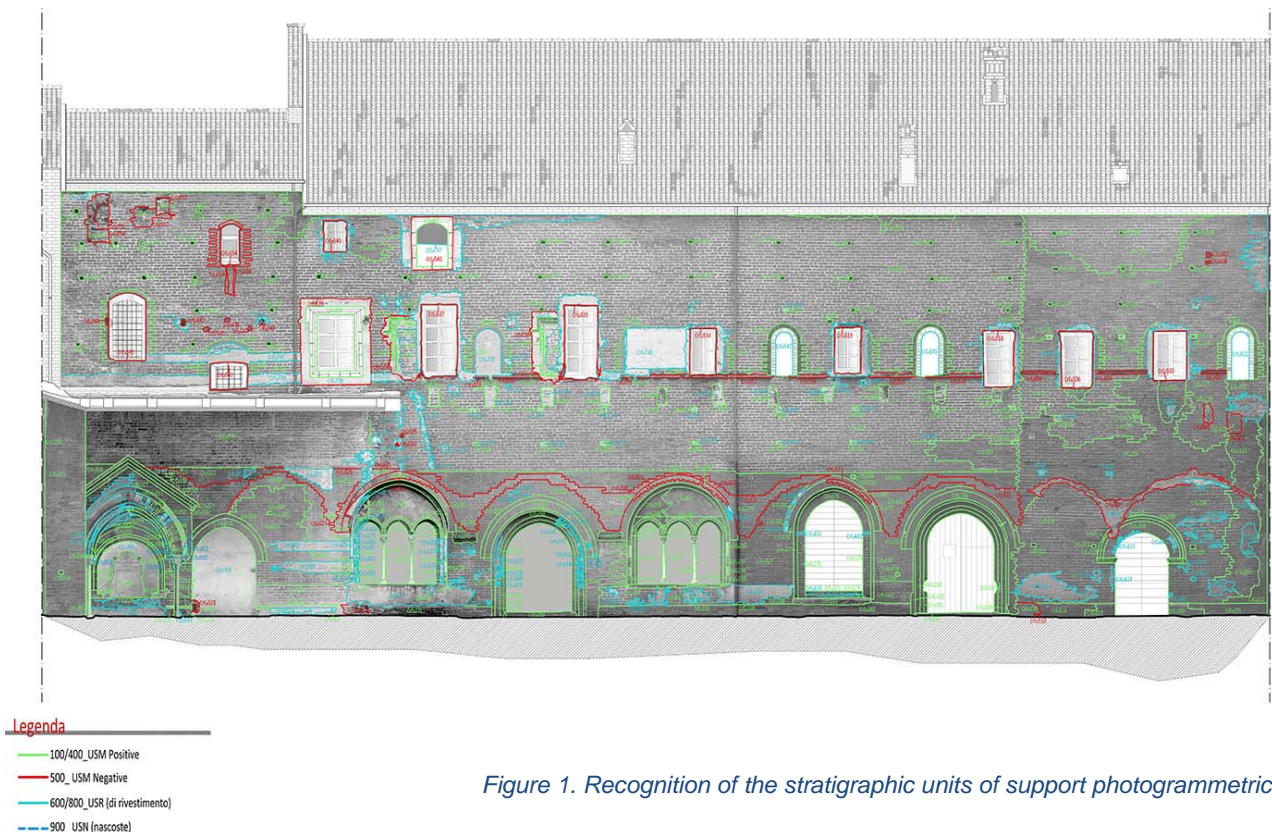


Figure 1. Recognition of the stratigraphic units of support photogrammetric

4. The definition of absolute and relative chronology through the interpretation of the acquired element.

In the course of argument and to increase, further cognitive process Cistercian Abbey, over stratigraphic analysis, it was decided to conduct a petrographic analysis, an additional, open method of knowledge, non-invasive and non-destructive, on the large number of elements in natural stone preserved inside the cloister of Staffarda. As it will be mentioned several times in the course of this thesis, even the stones contain traces of history sometimes very important. Every stone that is an architectural element such as can be recognized and traced to a specific quarry or area of origin; then if you think that, every quarry had a specific period of activity and area of distribution the recognition results may be classified, depending on the context, as material "original", reuse or substitution. The petrographic analysis has covered the following points:

1. Observation on site with loupe by gemologist and implementation of macro photography of comparison of all the elements in natural stone;

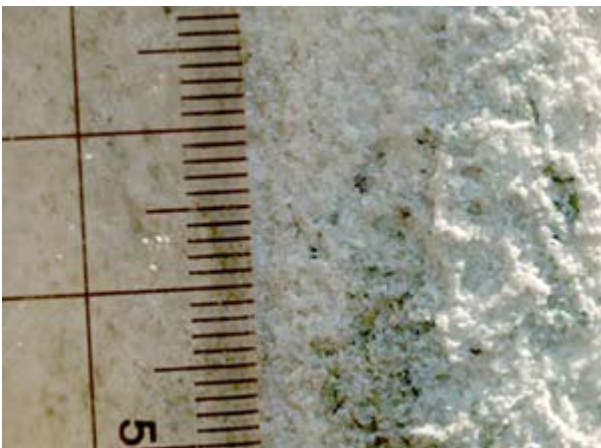
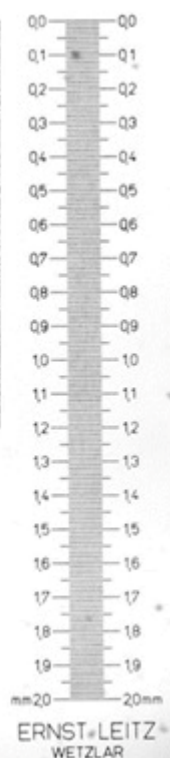
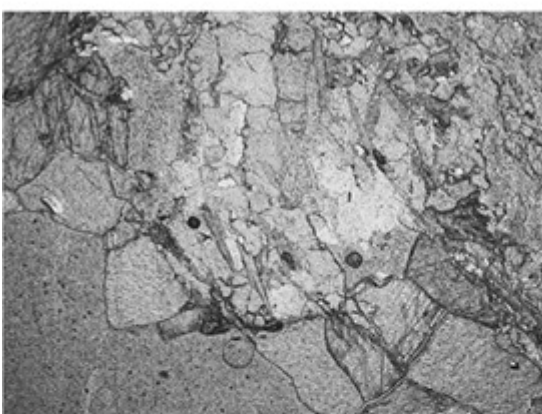


Figure 2. Macro photography of Luca Finco. Marble Cipollino the Western Alps. The notches of dimensional graphic reference represent millimeters.

2. Survey of the essential measures of the shafts of the columns of the cloister: wide at the base, in the middle and at the capital;



3. Thin sections of three samples;

Figure 3. Sample 1 (Marble Cipollino), sect. thin nicol //. The notches of dimensional graphic reference representing hundredths of millimeters.

4. Observation of the samples under a microscope in polarized light;
5. Description of the types of marbles;
6. Mapping of marbles on rectifications photographic;
7. Interpretation of results.

The path taken showed that the stratigraphic and petrographic analysis, which require different skills and paths, intertwining and communicating between them give back the historical development, architectural and material of the cloister of Staffarda.

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