

COMPARISON BETWEEN “CLASSICAL” AND LASER SCANNING SURVEY FOR A GEMETRICAL AND MATERICAL READING OF ARCHITECTURE

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ABSTRACT

It appears clear that it's now unavoidable to discuss about the use of the new instruments such as laser scanners when we have to work in the Cultural Heritage field. Laser scanner is seen from someone as the instrument that; will substitute the more traditional topographical and photogrammetrical methods; instead it has to be considered such a still new field that has be investigate and that will bring a revolution not only in survey methods but even in representation concepts.

A first important distinction has to be done regarding the object that has to be surveyed: if for figurative arts the survey of a dense cloud of points, that has to be treated to obtain “more easily” a tridimensional model, seems to resolve some problems of acquisition and of representation of the object (think about the complexity in surveying any statue and moreover the difficulty in its restitution respect to typical elaboration in orthogonal projection), for the metrical and qualitative knowledge of architecture the laser scanner technique is still a space that may be explored.

Its recent application brings to have to define yet a casuistry where it shows to be more efficient respect to traditional methods and even to fix some “rules” in execution that lead to obtain results metrically comparable with those of topographical and photogrammetrical methodology regarding the final aim of survey.

For this reason some tests have been done to compare “classical” and laser scanning survey. Particularly an application was done on the Lardirago Castle (Pavia), which recent survey was done based both in classical and more innovative method, trying to meke evident advantages and disadvantages both in the acquisition of metrical data and in profiles and photoplans restitutions.