

Laser scanner surveys and the study of the geometry and structure of the dome in the Basilica della Madonna dell'Umiltà in Pistoia

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Abstract The Basilica di Santa Maria dell'Umiltà is one of the most important monuments of the city of Pistoia, and among the most significant legacies of Italian Renaissance architecture. The building of the temple was decided upon in order to celebrate the occurrence of a miraculous event which took place on 17 July 1490 in the small parish church of Santa Maria Forisportae, the place of the present Basilica.

The conditions of marked deterioration have attracted the attention of the Ministry for Cultural Heritage, the Bishop's See of Pistoia and the Pistoia and Pescia Savings Bank Foundation, who by the drawing up of a protocol agreement on 5 March 2008 have allowed the first restoration interventions, planned and carried out by the Superintendence for Architectural and Landscape Heritage of Florence, Pistoia and Prato of Florence.

It is into this context that we are placing our contribution stipulated between the Superintendence and our Department.

Keywords Surveying, laser scanning, architecture, structural analysis, cultural heritage

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