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## BOOK OF ABSTRACTS



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## **Diagnostic investigation for the study of the fresco titled “Madonna con il bambino”, in Cosenza, southern Italy: a case study.**

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This study had been focused on the diagnostic analysis of the fresco "Madonna con il bambino" dated back to the late nineteenth century and located in the cave hosting the sanctuary of "San Michele Arcangelo" in San Donato Ninea (Cosenza), Calabria, southern Italy.

A multi-technique investigation on constituting materials was carried out before the restoration procedures [1-2] in 2011. Raw materials, execution techniques and possible previous restorations evidences have been identified [3]. Pigments and raw materials used for the application of the ground and the painting layers were studied using optical investigations (optical and stereo microscopy), electronic microscopy, equipped with energy dispersive spectroscopy qualitative microanalysis (SEM-EDS) and infrared spectroscopy (FT-IR) [4].

Furthermore, the characterization of historical and stylistic background of these paintings, and the evaluation of the decay phenomena affecting them, provided a scientific aid and guide to identify the most suitable and durable restoration process for the mural paint.

The collected data were used for the choice of cleaning and consolidation procedures of the whole artwork, demonstrating the importance of a preliminary diagnostic study before a restoration.

[1] Ruffolo S.A., La Russa M.F., Barca D., Casoli A., Comite V., Nava G., Crisci G. M., De Francesco A.M., Miriello D., *Periodico di Mineralogia, Special Issue (79)*, 2010, 71-79.

[2] La Russa M.F., Belfiore C.M., Comite V., Barca D., Bonazza A., Ruffolo S.A., Crisci G.M., Pezzino A., *Applied Physics A (114)*, 2014, 733–740.

[3] Matteini M. and Moies A. - *La Chimica nel Restauro. I materiali dell'arte pittorica*. Nardini, Firenze, 2002a, 23-49.

[4]. Matteini M. and Moies A. - *Scienza e restauro. Metodi indagine*. Nardini, Firenze, 2002b, 11-19