Geophysical Research Abstracts Vol. 20, EGU2018-17649, 2018 EGU General Assembly 2018 © Author(s) 2018. CC Attribution 4.0 license.



## Provenance study of stones used in the façade of the church of Santa Maria della Piazza (Ancona, Central Italy)

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The Basilica of Santa Maria della Piazza is a fine example of Italian Romanesque. It is located close to the old harbor of Ancona and was erected on the ruins of an Early Christian basilica dated back to the 4th century.

The current façade, carried out in 1210 by Master Filippo, is a really attractive masterpiece in the Marche's Region [1, 2]. Partially damaged by earthquakes, the church was restored different times. The façade, divided into three parts, shows a rich iconography and a splayed portal of Apulian inspiration.

The four series of arches are made of carved and re-employed stones. A big portal, richly decorated, opens in the center of façade. On either sides of the portal is the load-bearing structure that supports the outer arcade of the Church. The façade was renovated first in the Romanesque and then in the Gothic period, during which the central door assumes growing importance because of its historical symbolism [3]. The Church was restored several times, also in the recent past, but the façade was never modified.

An archaeometric study of the façade was carried out with the aim of identifying and characterizing the employed stones, in order to have more information on construction materials. Fifty-one micro-samples were submitted to petrographic and mineralogical investigations to create a complete database of the stone materials and their location in the facade.

This study shows that the main rocks used in Santa Maria della Piazza church are limestones of local origin (Maiolica and Scaglia Rossa) together with limestones (Pietra d'Istria, Pietra d'Aurisina, Breccia Corallina, Occhio di Pavone) and marbles (Carrara, Proconnesio, Iassense, Pavonazzetto, Taso) coming from different areas. The stone materials showed several and different forms of decay: thick grey deposits and black crusts covered the whole façade and a restoration project had been urgently carried out to remove them.

- [1] L. Serra, Restauri e scoperte in Santa Maria della Piazza, Bollettino d'Arte, Roma, 1929.
- [2] M. Massa, Capitelli e portale del protoromanico, in Scultura nelle Marche. P. Zampetti, Firenze, 1993.
- [3] M.L. Canti Polichetti, San Ciriaco La cattedrale di Ancona, Ancona 2003.