Geophysical Research Abstracts Vol. 18, EGU2016-15448-1, 2016 EGU General Assembly 2016 © Author(s) 2016. CC Attribution 3.0 License.



A multi-analytical approach for the chemical composition investigation of Byzantine and Mediaeval glazed pottery

Lighea Pappalardo (1,2), Claudia Caliri (2,3), Hellen Cristine Santos (2), Roberto Catalano (2), Maria Teresa Giannotta (1), Marco Leo Imperiale (4), Francesca Rizzo (2,3), Francesco Paolo Romano (1,2)

(1) Istituto per i Beni Archeologici e Monumentali/CNR, Via Biblioteca 4, 95124 Catania, Italy, (2) LNS-INFN, Via Santa Sofia 62, 95123, Catania, (3) Dipartimento di Fisica e Astronomia, Università di Catania, Via Santa Sofia 64, 95123, Catania, Italy, (4) UniSalento, Lecce, Italy

Glazed pottery from the mediaeval site at "Cantiere Mitello" in Otranto (Italy) have been investigated by means of several portable and non invasive techniques: X-ray Fluorescence (XRF), Micro-X-Ray Fluorescence (micro-XRF) scanning and alpha Particle Induced X-ray Emission (alpha-PIXE).

The results have been compared with some later sherds of Byzantine glazed pottery from the site of "Giuggianello" in Otranto (Italy).

Results show that glazes present an high amount of Pb. Byzantine are also richer in Al compared to the first group. The color is generally given by Fe-Cu-Mn oxides.

In general the mediaeval glazes can be considered to be in accordance with the Roman tradition.

The presence of a consistent amount of SnO (3%) in a sample belonging to the first group, could suggest the use of tin as opacifier agent even at an early period.