

Archeometric Investigation of the "Dioscuri" sculptural group found in the Locri area, Calabria (Italy)

S.A. Ruffolo (1), M.F. La Russa (1), N. Rovella (1), D. Barca (1), A. Arcudi (2), G. Martellotti (3), S. Bonomi (4), and G.M. Crisci (1)

(1) University of Calabria, Department of Earth Science, Rende, Italy, (2) Restorer, Reggio Calabria, Italy, (3) Restorer, Presidente of CBC Conservazione Beni Culturali, Rome, Italy, (4) Soprintendente per i Beni Archeologici della Calabria, Reggio Calabria, Italy

Numerous marble artefacts were among the extraordinary findings excavated at the Calabria area of Locri (Reggio Calabria, Italy). The provenance of marbles is mostly unclear, predominantly Mediterranean marbles have been used for their manufactory.

In this work it has been analyzed the "Dioscuri" sculptural group which represents one of the first findings of the Magna Graecia, Calabria, Southern Italy. They have been discovered by Dr. Paolo Orsi during the excavations held at the end of the XIXth century. According to historical sources, they were placed on the pediment of an Ionian Temple, and probably made in Locri between 450 and 425 BC.

The study is focused on the marble characterization and the identification of the degradation forms by using different analytical methods. Petrographic analysis made it possible to determine textural characteristics, evaluate their state of conservation, and formulate some hypotheses about their provenance. Isotopic ratios measurement, evaluation of maximum grain size (MGS) and determination of Mn amount by LA ICP/MS tests have been carried out.

The historical hypothesis about the marble provenance has been confirmed by analyses that suggest a Greek origin (Paros) of the raw material. Moreover, the assessment of the material degradation represents a useful tool to choose a suitable restoration procedure.