

CLAYEY RAW MATERIALS DATABASE AS A TOOL FOR INDIVIDUATION AND KNOWLEDGE OF ANCIENT CERAMIC PRODUCTIONS IN SOUTHERN ITALY AND SICILY

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Provenance of archaeological ceramics is a “key question” that often requires a petro-chemical approach. Southern Italy and Sicily (*Magna Graecia*) have represented a cultural and social-economic point of reference for the whole of the western Mediterranean, since prehistoric time. Their complex history, which has seen different cultures and civilizations through times, is also reflected in pottery production. The first Italian pottery production groups are here documented from the end of the VII millennium b.C. This area represented both a collecting and a reworking point of the Aegean models from XIII century b.C. In each territorial context it is crucial from the archaeological point of view, the discrimination of local productions from imports as well as their diffusion range. The Serra d’Alto ware production in middle Neolithic and the black-gloss pottery, constitute two well established case-studies confirming the above statement.

Today, the geological literature, concerning the compositional characterization of potential clayey raw materials, is poor in the studied area. Most of previous existing data weren’t collected by a proper archaeometric approach, and they are also inhomogeneous in terms of analytical procedure.

Following these considerations, research groups involving the Universities of Bari, Calabria, Catania, Messina and Palermo focused their efforts in a programme aimed to build up a wide database concerning mineralogy, petrography and chemistry of clayey deposits that have been used as raw materials for the ceramic production from prehistoric to medieval ages.

Selection criteria were based on geologic knowledge of each territorial context, considering both the specific clay used in past time manufactures and the closeness to archaeological production sites as well. More than one thousand samples were collected and considered representative of ceramic raw materials traditionally used in Apulia, Calabria and Sicily. The number of samples has been planned in order to evaluate also the compositional variability within the studied clay formations cropping out in a wide area. The samples were analysed by XRD, XRF and polarized light microscopy (sandy fraction). Moreover, a consistent number of materials have been subjected to experimental firings in order to appreciate some “technological” parameters associated to the firing process (colour, linear shrinkage, plasticity index, ...). The final goal is to offer a proper archaeometric reference data set to the scientific community in order to investigate the circulation of ceramic classes and/or production models in Southern Italy, not depending from chronological or typological restrictions.