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ANALISI DEI FRAMMENTI DI SECTILIA VITREI DALLA VILLA ROMANA DI AIANO-TORRACCIA DI CHIUSI (SI) E STUDIO DELLA TECNICA D'ESECUZIONE

Abstract

The consistent amount of sectilia fragments from the late Roman Villa of Aiano (4th-5th century AD) provides important insights on the study of the diffusion of opus sectile during the Late Roman period.
The extent of the corpus of glass slabs, in particular, immediately suggests interesting perspectives on both the archaeological and technological issues. Thanks to a cooperation between archaeologist, conservators, IT and scientists, an in-depth study of the repertory is in progress to provide important information about the technologies and the raw materials used to produce a number of selected samples.
High-resolution images have been obtained via Reflectance Transformation Imaging (RTI) to better understand all the different phases characterizing the manufacture of the more complex slabs. Due to their flexibility and low analytical costs, portable and non-invasive analytical techniques provided a fast and quite accurate definition of the chemical and mineralogical properties of each sample and the first classification of a large number of slabs in compositional clusters. Portable X-Ray Fluorescence (p-XRF) and Fiber Optics Reflectance Spectroscopy (FORS) allowed a first definition of the chemical variability within the repertory and provided indications about both manufacturing and coloring techniques.

Keywords: opus sectile, glass, RTI, XRF, FORS, XRD

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