THE ELEMENTAL COMPOSITION OF LATE HELLADIC TO ARCHAIC CERAMICS FROM SAMOS

DAI Standort Abteilung Athen

METADATEN

Projektverantwortlicher Dr. phil. Jan-Marc Henke
Adresse Fidiou 1, GR-10678 Athen
Email Jan-Marc.Henke@dainst.de
Team Wolf-Dietrich Niemeier
Partner Ephorie für Altertümer Samos - Ikaria, National Center for Scientific Research 'Demokritos' (NCSR 'Demokritos'), Institute of Materials Science, Laboratory of Archaeometry
Förderer Schwarz Foundation
Projekt-ID 5818

ÜBERBLICK

In archaeological research the existence of a pottery workshop of Archaic Samian decorated fine ware is controversial discussed, especially after the recent results from Miletus, which point to a special primacy of Milesian workshops. Up to now, there have been only insufficient chemical analyses of Samian pottery. Since the majority of the vessels in question are unique objects of high-quality that cannot be sampled with the invasive NAA method, the non-invasive pXRF method was chosen.
In March 2023 an assemblage of 313 ceramic fragments and vessels from the Heraion Sanctuary in Samos was analyzed for their elemental composition using portable energy-dispersive XRF (pXRF). The major part of the ceramics was located in the storerooms of the Heraion excavation while 61 objects were analyzed in the Archaeological Museum of Vathy and one Fikellura Amphora in the Archaeological Museum of Pythagorion.

The pXRF measurements were carried out using a NITON XL3t GOLDD+ handheld system. For the present study the preset ‘soil’ method was used, which had been already successfully tested for ceramic analyses. The life time of each measurement, which was carried out in air, was 120 seconds, measuring in three energy ranges. Without using vacuum or helium flow, concentrations of elements with atomic numbers > 16 (sulphur) are reliably determined. During the measurement the system was placed in a stand looking upwards and the samples were placed on top. The measurement area had an estimated diameter of c. 6 millimeters and a photograph of each area was recorded with the integrated camera. The analytical method was completely non-destructive and non-invasive. It has to be considered though that XRF is a highly surface sensitive method, so that surface areas were selected, which appeared to be...
The study uncovered an elemental cluster of 250 of the sampled objects that can be addressed as Samian and clearly distinguishes itself from the elemental composition of the ceramics of other East Aegean production centres. This cluster can be subdivided into further subclusters that can be arranged chronologically.
PARTNER & FÖRDERER

PARTNER

Ephorie für Altertümer Samos - Ikaria

National Center for Scientific Research 'Demokritos' (NCSR 'Demokritos'), Institute of Materials Science, Laboratory of Archaeometry

FÖRDERER

Schwarz Foundation

TEAM

DAI MITARBEITENDE

Wir verwenden Cookies ausschließlich zur internen Analyse der Zugriffe auf unsere Website. Die Daten werden nicht weitergegeben oder zu sonstigen Zwecken genutzt. Weitere Informationen finden Sie in der Datenschutzerklärung

✔️

❌

Einstellungen bearbeiten
EXTERNE MITGLIEDER

Anno Hein

Wir verwenden Cookies ausschließlich zur internen Analyse der Zugriffe auf unsere Website. Die Daten werden nicht weitergegeben oder zu sonstigen Zwecken genutzt. Weitere Informationen finden Sie in der Datenschutzerklärung.