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Ceramics from Samshvilde (Georgia): A pilot archaeometric study

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ABSTRACT

This archaeometric study deals with seven samples of prehistoric pottery and, for the first time in Georgian studies, thirteen samples of glazed medieval pottery. All specimens were collected at Samshvilde, the most remarkable archaeological complex in southern Georgia and believed to represent locally-manufactured products. Two additional samples of raw materials composed of clay, silt, and sand were collected near the site and used to compare composition. Several analytical techniques were applied: Optical Microscopy (OM), Scanning Electron Microscopy (SEM), Electron Probe Microanalysis (EPMA), X-ray Diffraction (XRD) and X-ray Fluorescence (XRF). The results allowed to build a complex scenario in terms of exploitation of raw materials and technological choices. The raw materials indicate a volcanic environment and correspond to the geological settings of the territory of Samshvilde. The glazed ceramics were characterised as alkali, low alkali – low lead, lead, high lead and tin-opacified mixed-alkaline lead glazes. The compositional comparisons extend from east to west and place these ceramics in the wider framework of Islamic ceramics.

1. Introduction

Surrounded by other Caucasian regions (Turkey, Armenia, Azerbaijan and Russia), Georgia holds a key position for understanding the commercial dynamics within and among these territories and in relation to Near East civilizations.

The few archaeometric studies available mainly concern the lithic industry and metallurgy. Obsidian tools were the object of recent archaeological (Badalyan and Chataigner, 2004; Berikashvili and Coupal, 2018; Grigolia and Berikashvili, 2018; Sagona, 2018) and archaeometric research (Le Bourdonnec et al., 2012; Chataigner and Gratuze, 2014a; 2014b;; Biagi and Gratuze, 2016; Biagi et al., 2017; La Russa et al., 2019). Conversely, the archaeometric literature on metallic objects is less consistent and mostly older (Kavtaradze, 1999; Schillinger, 1997; Hauptmann and Klein, 2009; Stöllner and Gambashidze, 2014; Erb-Satullo, 2018).

As far as Georgian ceramics are concerned, only prehistoric finds have been investigated to date. Trojsi et al. (2002) and Kibaroğlu et al. (2009) conducted mineralogical and petrographic analyses on a collection of sixteen Early Bronze Age ceramic samples from the settlements of Koda, Kiketi, Medamgreis Gora, Satkhe and Kvatskhelebi (Fig. 1 nos. 1–5). Kibaroğlu et al. (2009) performed petrographic and geochemical analysis on twenty Middle Bronze, Late Bronze/Early Iron Age ceramic samples from the archaeological sites of Udabno I (Fig. 1 no. 6) and Didi Gora (Fig. 1 no. 7) and on thirty-one clay samples in both the Sagaredjo district (Tetrobiani, Petrepauli, Patardzeuli and Karchana; Fig. 1 nos. 8–11) and the Alazani basin (Ichalto, Vardiskubani, Pona and Bodbizchevi; Fig. 1 nos. 12–15). In both cases, the sample sets were determined to be of local origin.

Excluding research by Shaar et al. (2017) on the "Levantine Iron Age geomagnetic anomaly" in Georgian pottery, the papers quoted above are the only two archaeometric studies on Georgian ceramics.

Given the small progress made in the field of Georgian ceramics, the present research was mostly exploratory. To design relevant research on Georgian ceramics, basic typological knowledge of local ceramic products is required; therefore, the archaeological site of Samshvilde was selected because of its potential as evidenced by the diachronic and heterogeneous character of its ceramic collection. The archaeometric study was aimed at characterising the main types of prehistoric and Medieval ceramics. This selection may be controversial; however, it is appropriate and functional because it focuses on the only two types of ceramics recognized as locally-made products. This research is,

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