Typological Study of Bronze Age Slag from Lechkhumi, Georgia

N. Rezesidze
Georgian National Museum, 3, Purtseladze str., Tbilisi, 0105, Georgia

N. Sulava
Georgian National Museum, 3, Purtseladze str., Tbilisi, 0105, Georgia

B. Gilmour
School of Archaeology, University of Oxford, Oxford, Great Britain, 1 S Parks Rd, Oxford OX1 3TG, UK

R. Chagelishvili
Georgian National Museum, 3, Purtseladze str., Tbilisi, 0105, Georgia

Abstract

The Caucasian region occupies an important place in the study of history and development of ancient metallurgy, which appeared here in the 7th millennium BC. The topic of our research is the copper metallurgy sites of the Colchian bronze culture (second half of the 2nd millennium - first half of the 1st millennium BC) of Western Georgia, the territory of Mountainous Colchis (Modern Lechkhumi). In the last decade carried out archaeological and geological exploration and research works in the mountainous region of Colchis more than 25 previously unknown early metal smelting sites, associated hearths and metallurgical debris – slag, fragments of crucibles, tuyère and partially processed ore – were discovered. in 2016–2019, in Lechkhumi archaeometallurgical sites were excavated for the first time. Interdisciplinary investigations were carried out on metal smelting wastes recovered from stratified layers. X-ray fluorescence (XRF), atomic absorption (AAS) and petrographic analyses of ores and artefacts showed that primary processing (roasting) of ore and smelting of copper took place at the sites under study (Dogurashi I, II, III; Oqureshi I, II; Chikelashi; Lukhvano). As a result of the typological investigation of Late Bronze Age slag established that three types of slags are found in the obtained material - Coarse/cake slag, tap slag, plate slag and as well as sand/crushed slag. The results of typological and petrographic studies are correlated and show several types of slags and a few smelting phases. According to radiocarbon (14 C) dating, the sites of Dogurashi I and II and Lukhvano date back to the 13th –8th centuries BC.

Acknowledgement

This work was supported by the Shota Rustaveli National Science Foundation of Georgia (grant № YS-23-639).