



## ABSTRACT SUBMISSION

# The interdisciplinary study of ancient copper metallurgy in Mountainous Colchis (Georgia, South Caucasus)

*REZESIDZE N. <sup>1\*</sup>, SULAVA N. <sup>1</sup>, GILMOUR B. <sup>2</sup>, CHAGELISHVILI R. <sup>1</sup>*

<sup>1</sup> Georgian National Museum, Tbilisi, Georgia

<sup>2</sup> School of Archaeology, University of Oxford, Oxford, United Kingdom

\*Corresponding author

## Abstract

The discovery of metal played a crucial role in advancing complex societies and establishing statehood. The Caucasian region holds a significant position in the development of ancient metallurgy, with evidence dating back to the 7th millennium BC. This research focuses on mountainous Colchis (Georgia), which is characterized by an abundance of archaeometallurgical sites from the Colchian bronze culture (2nd -1st millennium BC). Archaeological surveys and geological explorations have revealed over 25 previously unknown late Bronze Age metal production sites and artifacts associated with metal smelting. Interdisciplinary studies of the metal smelting sites in mountainous Colchis have shown that Colchian metallurgists used local ore. Copper was smelted at these sites between the 13th and 8th centuries BC, benefiting from the warm climate, diverse forest types, and suitable plant species that created optimal conditions for copper smelting. The typological investigation of slag and technical ceramics reveals various types of slag, tuyères, and crucibles. The results of typological and petrographic studies are correlated, demonstrating several types of slags and multiple smelting phases. These findings provide evidence of various metal smelting stages at the study sites.

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## Keywords

Ancient metallurgy, Copper, Slag, Technical ceramics, Colchis

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