Copper is the first metal, obtained from ores through pyrometallurgical treatment. In Europe, metallurgy arose 7000 years ago on the territory of modern Bulgaria.

In this study we analyzed 64 samples from different copper archaeological finds from district near Varna, (including copper samples from Varna eneolithic necropolis), dated of 5\textsuperscript{th} - 4\textsuperscript{th} millennium BC.

The concentration of 15 elements (Ag, As, Au, Bi, Co, Cu, Fe, Ir, Ni, Pb, Sb, Se, Sn, Te and Zn) was determined using energy dispersive X-ray fluorescence analysis and instrumental neutron-activation analysis. In addition, inductively coupled plasma mass-spectrometry was used after electrochemical separation of lead via anode oxidation for isotope ratios determination.

On the basis of the results for lead isotope ratios and using the available data from the literature for lead ore deposits in the Balkan Peninsula, the geological origin of the investigated archaeological finds was evaluated.

Chemical composition was used as a trace elements pattern for distinguishing between the copper ore deposits with overlapping isotope fields in Bulgaria and Balkans.

The results from the present investigation of archaeological copper samples from Varna, dated to the 4\textsuperscript{th} – 5\textsuperscript{th} millennium BC, show that the need of copper had been covered by copper produced from many sources on the territory of modern Bulgaria, Greece, Turkey and Serbia. The prevailing part of the investigated samples originates from Bulgarian copper sources – Ai Bunar (27\%), followed to Burgas (21\%) and Rhodope-mountain (21\%), Panagurishte (11\%) and Malko Tarnovo (10\%). Previous investigations show similar origin. 25\% of the analyzed 76 copper artifacts were related to Ai Bunar and 10\% with Burgas region. This in confirmation to the primary role of the two ore sources for the production of the earliest pyrometallurgically obtained metal in Europe.