

## RAMAN AND XRD STUDIES OF BLACK PIGMENT FROM CUCUTENI CERAMICS

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### Abstract

The black pigment of 112 Cucuteni A and Cucuteni B pottery has been analyzed through Raman spectroscopy. The black pigment contains pyrolusite and jacobsite; quartz and anatase have only accidentally been observed. Black Carbon was also identified, but only in two samples. The spherical or oblate black corpuscles discovered at Fetești-La Schit (Suceava county) were analyzed by means of X-ray diffractometry and Raman spectroscopy. They consist of  $Mn \pm Fe$  oxihydroxides and quartz. No Mn carbonates or silicates have been identified. The mineralogical composition of the pigment applied to the pottery shards, as well as that of the raw pigment, together with the use of the same pigment over a long period of time (1100 years), suggest the exploitation of a large sedimentary mineral deposit, such as the Mn sedimentary ores from Nikopol (Ukraine).

**Keywords:** Cucuteni – Trypolye, ceramics, black pigment, jacobsite, pyrolusite, anatase, black Carbon, pyrochroite, hausmannite, manganite, Raman spectra.

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