

NEOLITHIC POTTERY FROM ALBA IULIA – “LUMEA NOUA” AND LIMBA ARCHAEOLOGICAL SITES IN TRANSYLVANIA (ROMANIA): COMPOSITION AND TECHNOLOGICAL ASPECTS

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Contrary to other European regions, there are still many unknown aspects about the origin and production techniques of the prehistoric pottery discovered on the Romanian territory.

The present study is a part of a systematic archaeometric investigation on the Neolithic artefacts discovered at Alba Iulia - *Lumea Noua* and *Limba* archaeological sites in Transylvania (Romania).

The research focuses on the characterization of the pottery fragments belonging to *Lumea Noua* and *Vinca* cultures in order to achieve information about the provenance and manufacturing technique used for their production. A multianalytical approach was adopted; chemical, mineralogical, microstructural and petrographic features of the ceramic bodies were determined by X-ray fluorescence (XRF), X-ray diffraction (XRD) and optical microscopy. Chemical composition of the slips and painting materials was identified by SEM-EDS analysis.

The petrographic examination of the thin-sections allowed the individuation of two different types of paste, the primary distinction being related with the presence or absence of various types of bioclaste.

Textural features, observed through optical microscope and the results of XRD analyses suggested that the firing temperatures for the studied potsherds fall in the interval 600–900°C.

On the basis of the results of the archaeometric investigations it was possible to “reconstruct” the stages used for the ancient pottery production.