# Pottery raw material sources at the multi-period archaeological site of Jagodnjak – Krčevine, Croatia

**Neral, Natali; Kudelić, Andreja; Maričić, Ana; Mileusnić, Marta**

*Source / Izvornik:* **International Symposium on Archaeometry 2020/2022, Lisbon, 16th – 20th May 2022, Book of abstracts, 2022, 189 - 189**

**Conference presentation / Izlaganje na skupu**

*Permanent link / Trajna poveznica:* https://urn.nsk.hr/urn:nbn:hr:169:054079

International Symposium on Archaeometry

Lisbon, 16th – 20th May 2022

# Pottery raw material sources at the multi-period archaeological site of Jagodnjak – Krčevine, Croatia

Neral, N.[1], Kudelić, A.[1], Maričić, A.[2], Mileusnić, M.[2]

*[1]Institute of archaeology, Jurjevska street 15, 10000 Zagreb, CROATIA*
*[2]University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, 10000 Zagreb, CROATIA*

**Keywords**: pottery; archaeometry; raw material; provenance studies; Croatia

The tradition of studying archaeological pottery in Croatia is deeply rooted in the cultural-historical approach, especially when it comes to prehistoric pottery. However, turning the approach by studying ceramics throughout its life cycle, from the selection of raw material, through the various stages of production, to distribution and use, can provide valuable research contributions to a topic that has not yet been fully explored. Therefore, a five-year project focusing on the study of prehistoric pottery traditions in Croatia was launched in 2021. A large-scale systematic archaeometric research programme will be combined with macroscopic physical forms of investigation of previously excavated pottery.

The paper presents the preliminary results of a case study focused on the multi-period (Neolithic, Bronze Age, Iron Age, Roman, Mediaeval) archaeological site of Jagodnjak – Krčevine. Ceramic petrography, X-ray diffraction analysis and field sampling is used to identify the characteristics of archaeological ceramics and to determine the provenance, availability, and types of raw material used for the production of ceramics in the different periods of the past. In order to obtain an optimal data set related to the provenance of raw materials, a field survey was conducted. Field sampling was established according to zones with different distances from the archaeological site and in accordance with the characteristics of the lowland landscape. Comparison between XRD data of clayey material and pottery, and data obtained by optical microscopy suggests the location of the raw material source.

Preliminary results of the archaeometric analysis indicated that raw material was probably collected in the vicinity of the settlement, during all periods of the past recorded at the site. However, certain preferences were observed, concerning not only the tempering material used, but also the choice of raw material sources and clay processing, that match different communities. Such diversity in the choice of raw materials indicates not only technological but also different patterns of landscape use over time.

**S5-P07.1526**

## DAY 2 – May 17th, 2022 – Tuesday

| | | |
|---|---|---|
| **Session chair: M. Isabel Prudêncio** | | |
| **09:00 – 09:30** | **Invicted lecture S8-O01.486** | **Heritage Science at the Budapest Neutron Centre**<br>Kasztovszky, Zs. |
| **09:30 – 09:50** | **S8-O02.200** | **Neutron tomography - a tool to virtually unwrap folded lead amulets**<br>Mannes, D., Wilster Hansen, B., Kutzke, H., Ødeby, K., Langsholt Holmqvist, K. |
| **09:50 – 10:10** | **S8-O03.222** | **Non-destructive and position selective elemental analysis method using negative muon**<br>Ninomiya, K., Kubo, M.K., Miyake, Y., Shinohara, A., Saito, T. |
| **10:10 – 10:30** | **S8-O04.237** | **Lipari Obsidian and Neolithic communities: new chronological elements through fission track dating**<br>Bonizzoni, L., Balestrieri, M. L., Coltelli, M., Guglielmetti, A., Manni, M., Martinelli M. C., Oddone, M. |
| **10:30 – 11:00** | **Poster Session (S5 + S8) / Coffee-break** | |
| **Session chair: Zsolt Kasztovszky** | | |
| **11:00 – 11:20** | **S8-O05.193** | **Complex analytic researches of a Medieval enamelled Bronze pendant from Rus'**<br>Zaytseva, I., Stolyarova, E., Kovalenko, E., Podurets, K. |
| **11:20 – 11:40** | **S8-O06.794** | **Non-destructive depth profile mapping tool at the New AGLAE facility**<br>Pacheco, C., Pichon, L., Holé, C., Lemasson, Q., Moignard, B., Chapoulie, R. |
| **11:40 – 12:00** | **S8-O07.873** | **Ceramic body of tiles characterization by means of Ion beam analytical techniques**<br>Corregidor, V., Dias, M.I., Prudêncio, M.I., Alves, L.C. |
| **12:00 – 12:20** | **S8-O08.330** | **Applying neutron techniques to the earliest Large Hollow-cast bronze statues from Ancient Egypt**<br>Perucchetti, L., Fedrigo, A., O'Flynn, D., Craddock, P.T., Taylor, J., Shearman, F., Hook, D.R. |
| **12:20 – 12:40** | **S8-O09.3004** | **'To be or not to be Della Robbia, that is the question': methods of analysis in art history and archaeometry in the study of 16th century Italian sculptures**<br>Flor, P., Dias, M. I., Rodrigues, A. L., Prudêncio, M. I. |
| **12:40 – 14:00** | **Lunch** | |
| **Session chair: M. Isabel Dias** | | |
| **14:00 – 14:20** | **S5-O01.126** | **Continuity and change in indigenous ceramic recipes in the Lesser Antilles across the Historical Divide**<br>Stienaers, A., Degryse, P., Hofman, C. |