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Locally-produced roman pottery from Napoca

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Napoca was founded by Emperor Traian as a rural settlement (106-108 A.D.). It was raised to the rank of a *municipium* under Hadrian (117/118 A.D.), and a *colonia* under Marcus Aurelius (161-180 A.D.). Throughout the Roman period (106-275 A.D.), Napoca was a first-rank city of the province of Dacia, inhabited by both, colonists from Noricum and Pannonia and by the autochthonous, Dacian population. The old Roman remains were excavated during the last sixty years. Among other items, two categories of ceramic ware were found: imported and local pottery. In the case of the first, luxurious pottery items were imported from the western provinces of the empire, such as *terra sigillata*, thin-walled pottery, vessels decorated *en barbotine* technique or glazed ones. The local potters produced luxurious ceramics imitating the imported one. The common ware, used for cooking, for tableware, or for preserving and transporting food etc. was also produced locally. The distinction between the imported and locally produced ware can be made based on typology, ceramic paste and technological features.

A number of 28 samples of locally produced ceramic pottery were investigated by polarized light microscopy and X-Ray diffraction (XRD). Macroscopically, the pots have a red colour, with an homogeneous appearance within the ceramic body. Based on composition and fabric (fineness and texture) three main categories were identified: fine, semifine and coarse.

The fine ceramics consists of a clayish matrix, tiny and rare crystalloclasts of quartz, micas, and some feldspars, up to 0.1 mm. Carbonate grains and Fe-oxides also occur. Characteristic for the fine ceramics are the bioclasts (foraminifera). Based on the thermal changes of the matrix and some clasts, in particular the bioclasts, two main categories were found: a pottery fired between 850 and 950°C, and pottery fired at higher temperature, between 950 and 1050°C, respectively.

The clayish matrix of the semifine ceramics includes small crystalloclasts of quartz, feldspars, micas, as well as carbonates, Fe-oxides and foraminifera bioclasts. The ceramics is similar to the fine one but the amount of quartz is much higher. The fabric is in general oriented, with the arrangement of particles in straight or slightly curved parallel rows. The inferred firing temperatures range from 900 to 1000°C.

More than 15% of the coarse ceramics body consists of clasts larger than 0.05 mm; fragments larger than 1-2 mm are common. Various clasts, in particular high amounts of quartz and metamorphic quartzites are embedded in the clayish matrix. Characteristic for the coarse ceramic are the ceramoclasts (potshards) and the hematitic soil aggregates. Micas, feldspars, carbonates and Fe-oxides are also present, the bioclasts are found occasionally. The coarse ceramics was most likely fired between 900 and 950°C. The firing atmosphere was not constant and a zoned structure of the ceramic wall is common.

For the ceramics, a local source was used, i.e. a Badenian calcareous clay, cropping out north of Napoca, along the Someş River slopes. The semifine and coarse ceramics were made of similar, but more silty clays. Additionally, for the coarse ware the potter used quartzitic sands of the Someş river alluvial sediments as tempering material. The mineralogical and petrographic characteristics of the locally produced pottery might allow to identify the products of Napoca among pottery made in other centers, and also to establish the area of their spread in Dacia.

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