ALTERNATIVES FOR RECONSTRUCTING EARLY MEDIEVAL POTTERY WORKSHOP ACTIVITY (BASED ON THE ANALYSIS OF 9TH CENTURY FINDS FROM ZALAVÁR, HUNGARY)

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In 2004 a project was established in order to reconstruct the production sequence (clay preparation, forming and firing) of the 9th century AD pottery discovered on the site Zalavár-Vársziget Emlékmű. The objective was to carry out a complex interdisciplinary research on the ceramics from Zalavár, using the means of "traditional" typo-chronological archaeology, archaeometrical analysis and experimental archaeology.

As a result of research two major pottery types can be distinguished: fine, polished tableware (group A) and coarse utilitarian pottery (group B). The investigations revealed a large technological gap among the two types, thus two different production sequences and structures of workshop activity should be assumed.

Group A is characterised by a fairly good quality. The most typical form is the bottle, though mugs, glasses or lids also occur. They constitute 3% of the whole ceramic assembly. Petrologic examination shows that the majority of the examined samples have serial fabric, unimodal grains size distribution and contain moderately or well sorted non-plastic inclusions. These facts suggest that these potteries were not tempered deliberately by the potter(s). Cathodoluminescence examinations revealed that calcite and dolomite are both present. Firing temperatures range between 650-850°C. The vessels had a uniform colour: a reddish-yellowish outer surface which covers a light grey core. This supposes a precise control of firing factors, and possibly the use of a two chambered pottery kiln.

Group B The majority of finds are cooking pots of various sizes. The quality of ceramics varies from the thin walled, well-turned pots containing only fine sand to the thick walled, roughly formed vessels heavily tempered with coarse additives. In these cases the hiatal fabric and granulometry suggest

tempering. According to petrography, cathodoluminescence spectroscopy and x-ray powder diffraction analyses tempering material was either dolomitic sand, or crushed crystalline limestone. One group of samples differs greatly: these sherds do not contain carbonatic material, but polycrystalline quartz and sandstone. This might suggest different raw material source. The coarse pottery was poorly fired (below 650°C) in neutral atmosphere. Their surface is spotted, varying from dark greyishbrown and reddish-brown to yellowish grey.