Glass for barbarians & glass of barbarians

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The site of Komariv at the Dniester River in Western Ukraine was first discovered in 1950, by research fellows of the Institute of Ukrainian Studies in Lviv. Fieldwork campaigns in 1950s, 1960s, and in 1974 at Komariv revealed substantial evidence of local glassworking and the production of blown vessels, which defined the site as the only large-scale glass craft centre from the late 3rd – early 5th c. CE, attested so far beyond the borders of the Late Roman Empire, in the territory of the multi-ethnic Sântana de Mureș – Chernyakhiv culture. Following the first publications in the 1960s, Komariv became well-known to the specialists of archaeology of the eastern European *Barbaricum*. Recent decades saw a revived interest towards the site and its glass, as indicated by a series of analytical studies performed on finds from the early fieldwork, as well as by a new excavation programme. Unfortunately, most of the glass finds from the 1950–1970s excavations lack any archaeological contextual information, and therefore important questions of chronology and technology of glass working at Komariv cannot be reliably addressed based on their study alone. Furthermore, other major aspects of research, such as socio-cultural identity of the Komariv glassworkers, their sources of raw material supply, glass recycling, and distribution of finished products of the site's workshop(s) within the wider context of Chernyakhiv culture are still awaiting conclusive evidence and interpretations.

***Figure 1**: Unworked glass chunks from Komariv (Ukraine), first half of the 5th c. CE. .*

The presentation outlines the latest results of a research project carried out since 2012, which combines geophysical prospection, excavations of new areas of the site, typo-morphological study of the glass finds, and preliminary chemical analyses of selected samples. The geophysical and archaeological surveys indicate that the site likely comprised two separate areas – industrial and residential parts, with an adjoining burial ground. Recent fieldwork in 2021 added important new evidence about glassworking during the later settlement phase of Komariv. A certain quantity of raw glass chunks – naturally coloured (**Figure 1**) and cobalt-blue coloured, production waste, including moils, as well

as fragments of vessels of diagnostic types (**Figure 2**) were found in a dugout structure, reliably dated to the Hun period, i.e. the first half – middle of the 5th c. CE.

This paper attempts to summarise the data of chemical glass compositions attested at Komariv, using available published results and preliminary unpublished results obtained on a new analytical set. The overview suggests that a diversity of glass makeups was available at the site – Sb-decoloured, Roman (Syro-Palestinian) blue-green, HIMT glass, and mixed Mn-Sb composition. A group of Mn-containing samples very similar to Série 3.2, as well as some comparable but not identical with Série 3.2 glasses are of particular interest. Future research is hoped to shed light on potential links between chemical compositions and certain groups of finds, i.e. chunks, cullet, production debris, vessel types, and to contribute to the needed chronological refinement of this intricate pattern of glass supply and consumption.

***Figure 2**: Conical beaker (form Eggers 195) from Komariv (Ukraine), first half of the 5th c. CE.*

Safety in Numbers: Glass, Compositional Analysis and the Mathematical Network

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Recent decades have witnessed a spectacular increase in our understanding of glass production, distribution, and consumption in antiquity. This has been largely brought about by compositional analysis, which has presented us with a neat way to display our data with the aid of a growing variety of powerful techniques: glass is organised in well-known compositional groups, the chronology and provenance of which are increasingly well defined. The problem with this is that compositional affinities are elegant, straight, and seemingly final, and therefore comforting, when compared with the links that tie glass samples to their archaeological networks, which are ugly, messy, and open-ended. Although an increasing number of papers present ever richer archaeological data to contextualise our analytical results, this is limited to their immediate archaeological context and a few notes on typology, while the broader picture of the period is hardly taken into consideration. Aspects closely related to glass production (e.g. the interrupted supply of antimony from the 4th century onwards or the change-over from natron to plant ash in the 9th century) are often mentioned, but those that pertain to non-glassy materials, such as overall ceramic distribution trends, are very rarely so.

In these conditions, Microsoft Excel is rapidly becoming the new context. Apart from other implications, this is leading to a form of scientific reversion of terms when it comes to the analysis of glass trade in Late Antiquity. Glass is being