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# To fish or not to fish? Fish processing at Iron Gates: an experimental approach

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It is well known that many Mesolithic and Early Neolithic sites have been recovered during the past century in the Iron Gates region (Eastern Serbia). The application of diverse analysis on human remains and artefacts raised many questions, but also offered new ideas about the transitional period in the middle and lower course of Danube. New methods and studies of the artefacts enabled the researchers to have a look at the everyday life of the hunter-gatherer fishermen groups who inhabited the area during Late Glacial and Early Holocene.

Communities in Iron Gates consumed fish and exploited the bank in the prehistory. This is visible in the results of isotope analysis done on the human individuals implying that they fed on aquatic resources, in some periods more than in others. Fish remains were also found in the settlements and based on the iconography present on the sculpted boulders and other artefacts, the bond between the people, river, and eco-system was compelling.

The idea of this communication is to present the possible fish working using chipped stone tools in the Iron Gates region during the Mesolithic-Neolithic transition. The traces are observed by various methods, having in mind how hard is to detect activity specific as fish processing. The analyses consisted of both low- and high-power approach combined with FTIR analysis.

The experimental approach has also been applied as a usual procedure in the use-wear analysis. A couple of experimental sets were done on the larger fish, like common carp (*Cyprinus carpio*) with an idea to reproduce use-wear traces on chipped stone replicas. Diverse activities as scale removal, hide working, organ removal and filleting were done. In the case of experimental tools, FTIR analysis was of additional help to test the tracing of chemical elements that could be connected to activities on diverse fish parts and organs.

Finally, the experimental results represented by macro traces and polish are being compared to the use-wear traces found on the archaeological sample. Traces of filleting, butchering and decapitation found on the bones were also compared to the ones found on Lepenski Vir, Vlasac and Padina site. This combined and specific study helped us understand the processing of fish in the prehistoric period in detail, from the tool selection to the hide tanning.

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