

INVENTION OR MIGRATION ? THE SIUREN I AURIGNACIAN

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This communication will present results of two field seasons at the site of Siuren I, led by a joint team from Ukraine and Belgium. The site is located in South-West Crimea, along the left bank of the Belbek river, 15 km from Bakhchisarai. It is composed of two big shelters referred to as Siuren I and Siuren II. The second shelter yielded mainly Late Upper Palaeolithic materials and is not discussed here. The first one was excavated by Merejkowski at the end of the XIXth century and between 1926 and 1929 by Bonch-Osmolowski. In 1957, Velikova published a synthesis of the data available from these excavations, including stratigraphy, lithics and fauna.

The interest in conducting new excavations at this site is based on the data from the previous excavations. Those works had shown that the site was the oldest Upper Palaeolithic site in Crimea and - at that moment - the only one with an Aurignacian occupation. Bonch-Osmolovski recognized three stages of Aurignacian : from the top to the bottom, the upper Aurignacian that would be called now Gravettian, the middle Aurignacian was a classical one in terms of western definition, and the lower layer was an Aurignacian that included also Middle Palaeolithic type artefacts. The lower layer was the richest and gave around 20 Mousterian points and side-scrapers, as well as a few other types of Mousterian tools. Upper Palaeolithic tools types in this level included core-like end-scrapers and burins, a lot of retouched bladelets and other typical Upper Palaeolithic tools. The middle layer yielded only two Mousterian side-scrapers; the Aurignacian diagnostic pieces were more classical: carinated end-scrapers and burins, busked burins, but fewer retouched bladelets. The upper layer included typical backed blades and

bladelets. As no other lower Aurignacian sites were known at that time between Western Europe and Crimea, it was clear that the Siuren I assemblages from the lower and middle layers demonstrated a local evolution from the Middle to the Upper Palaeolithic.

The stratigraphic position of the different assemblages and their typological characteristics were not clear, however, and no chronological information was available. It is interesting to note that often these materials have been considered as late Aurignacian, for instance by Anikovich. According to him, the assemblages of the lower layer with Aurignacian artefacts and a few, but very characteristic, Middle Palaeolithic pieces, and of the middle layer, are not older than the late glacial maximum, because of the presence of cold fauna.

New excavations allowed us to control the stratigraphical sequence, to date the two main Aurignacian layers, and to analyze the lithic and faunal materials. New dates show that a real Aurignacian is present at Siuren I, even if it seems to be quite recent, around 28-29000 BP.

The old excavations covered a large part of the shelter. The best place to start new works was along the sides of a tunnel dug in 1927 under large fallen blocks. Some of the layers described during the old excavations were recovered and sampled for new dates. Several cultural horizons were identified. It was clear then that the layers corresponded to lenses of artifacts and charcoal, and that the problem of the association of Upper and Middle Palaeolithic artifacts was still open.

In 1995, the blocks above the tunnel were removed and a new surface was prepared for the excavations.

The stratigraphy shows a succession of lithological units, including several horizons of rockfall and sterile sediments. Three cultural layers were observed and investigated. The uppermost one (A) was found above the blocks, probably not in primary context and has yielded non-consistent reworked materials (lithics, ceramics, but no fauna). A few isolated pieces were found in lithological units 8 and 9.

The middle and lower layers, F and G, concerned our investigations this past Summer. F has given most of the archaeological materials. Layer G yielded few lithics and faunal remains. Since there is not yet a geological analysis of the sequence, information about the formation processes of these layers are not well known. Subdivisions were made on the field for these layers. They are probably not discrete cultural horizons: refittings are possible between pieces coming from different horizons and some of these subdivisions result from the reworking of parts of living floors by water action possibly (the excavations are located under the dripline of the shelter).

The fauna, often very fragmented, is mainly composed of herbivore remains.

* Saiga is the main game and different parts of the skeleton are found on the site, indicating that the butchering was probably done at the site itself.

* Red deer is the second game in importance, but its anatomical representation is different: hind- and fore-legs are most commonly found, with a few teeth. It is probable that the butchering was

done near the killing site and that the mandibles were brought for purposes other than consumption -- like making of pendants.

* The presence of other animals, such as elk, horse, wild boar and bovines, seems to be the result of a more opportunist hunt.

* The presence of fox (*Vulpes vulpes*) and hare (*Lepus*) should be considered as intrusions. The activity of fox may also be responsible of the presence of birds and rodents remains.

In general the percentages of species in the new collection do not correspond to what has been published by Vekilova. It is worth noting that the fauna of this collection cannot be considered as "cold" (there is no reindeer or arctic fox), but has to be considered as temperate.

Concerning the lithic assemblages, a great diversity of raw materials have been observed, with mainly fine grained flint of very good quality, but also other materials of bad quality. Often the good flint is represented by plaquettes with two cortical sides.

Materials found in layer A are not consistent, and correspond to disturbed horizons. Materials found for layers C, D and E are also disturbed but contained three convergent pieces which are the only evidence for an archaic component in the site during our excavations. Their stratigraphical position is not clear, however, because they were found during cleaning of the trench profiles.

The two main layers (F and G) yielded debitage and tools characteristic of the Aurignacian tradition. Most of the cores are small, prismatic, with uni- or bipolar orientation for the

production of flakes or bladelets. There are also cores made on thick flakes or plaquettes; in this case, the bladelets are taken off the lateral edge of the blank. In general, there are many more flakes than blades. True blades are rare, they are often irregular and broken, but the production of bladelets was very significant. In general, the size of the blanks and therefore also the tools, is small. Debitage and tools as a rule, have almost no cortex, indicating that the primary reduction was not done at the site.

End-scrapers and burins predominate among tools, and are made on blades or often on thick flakes. Simple or double end-scrapers on blades or flakes have been found, but also carinated types. Burins include types on truncation, dihedral or angle burins for the ones made on laminar blanks, or carinated for the ones made on thick blanks. There are no busked burins. Finally, there are some retouched flakes and blades.

An important part of the tool kit is composed of retouched bladelets, most of them of Dufour type, but one Font Yves point has been recovered, and some others are true backed bladelets, sometimes truncated. Most of them are twisted.

The differences between the assemblages of layers F and G are not yet clear, as only 2 sq. m. of layer G have been excavated. In general, the blanks seem to be larger in the lower layer (G) (the same is true for the bones too), and the bladelets are not so often twisted. In the same layer, preforms of cores have also been found, probably evidence of testing the raw material.

A few bone artifacts were recovered, with use impacts or traces of human activity.

There are, among others :

- a small shouldered sagaie
- a long perforator made on a big herbivore rib (about 16 cm long)
- and some fragments of long bones which have blunt and/or retouched edges, but no typological standardization.

We have four carbon 14 dates on the materials sampled in 1994 during the cleaning of the sides of the trench. Two were done on charcoal and failed, giving dates of 10,000 BP for the first one and 250 BP for the second one, because of contamination by modern roots. The two others were done on bones and gave results of :

29,950 ± 700 BP for layer F

28,450 ± 600 BP for layer G

These results do not correspond to a stratigraphical inversion. In fact, they are identical from a statistical point of view.

The Aurignacian found at Siuren I is characterized by burins and end-scrapers, sometimes carinated and made on thick blanks, with very numerous retouched bladelets, mostly of the Dufour type. This Aurignacian is recent and no other evidence is known in Crimea for the presence of an early phase of this culture. Those occupations were probably a late extension of this culture through Eastern Europe, as it is also documented at the Kostienki sites in the Don valley on the Russian plain. The fact that this Aurignacian is recent in Crimea implies that this Upper Palaeolithic tradition has taken no part in the development of other laminar industries

found in the same area and relevant to the Middle Palaeolithic, nor that any Middle Palaeolithic industry is at the origin of the Siuren I assemblages as was claimed by numerous authors.