

Kiik-Koba

Kiik-Koba was discovered and excavated by G.A. Bonch-Osmolovskii in 1924-1926. His reports on the site (1926, 1940) have been well summarized and critically reconsidered by later writers (Klein, 1965; Kolosov *et al.*, 1993; Chabai, 2004). The site is well known for its human remains (Oakley *et al.*, 1971), and there has been quite a lot of discussion about the significance of the archaeological material (Liubin, 1969; Stepanchuk, 1992, 1993, 1994). The faunal and floral remains discovered during Bonch-Osmolovskii's excavations are also discussed below (cf. Gammerman, 1934; Gromov, 1949).

Site situation and stratigraphy

Kiik-Koba is a cave on the eastern side of the river Zuya, where the river cuts through the second range of the Crimean mountains. The cave is 120 metres above the level of the river. The entrance faces to the south-east. The maximum height of the cave is 9 metres, the width at the entrance is 11 metres, and the depth is 9 metres. There is a slope below the cave, but the archaeological deposits are confined to the cave itself and the terrace immediately in front of it (Kolosov *et al.*, 1993, Fig. 11). The plan of the cave and the stratigraphic succession within it are shown in Chabai (2004, Fig. V-3, after Bonch-Osmolovskii). The excavator left a witness section on the western side of the cave, but it is apparently now devoid of deposits. The layer numbering as shown by Chabai is in Roman numerals; their characteristics as described by Bonch-Osmolovskii are as follows.

- I. Black dried sheep dung with ash and a few ceramic sherds. 5-30 cm.
- II. Brown compact clay present in places. 5-15 cm. A little archaeological material thought by Bonch-Osmolovskii to have been derived from the "upper hearth" layer beneath.
- III. Bright yellow loam with a considerable amount of limestone rubble. 5-30 cm. Archaeological material again thought by Bonch-Osmolovskii to have been derived from the "upper hearth" layer beneath.
- IV. Dark brown to black loam, the "upper hearth" layer or upper archaeological complex at the site. c. 15 cm thick.
- V. Bright yellow loam with limestone rubble, similar to layer III. 5-10 cm. The layer "between the hearths". The archaeological material found in this layer was treated together by Bonch-Osmolovskii with that found in the layer beneath. There were two clay lenses at the base which the excavator thought were due to water action.
- VI. Black loam, the "lower hearth" layer or lower archaeological complex. c. 20 cm thick. On bedrock nearly everywhere.
- VII. Yellow sterile lenses of clay or loam, present in places, up to 10 cm thick.
- VIII. Bedrock, weathered limestone, with a number of solution cavities.

It is clear from the section, and from the description given, that the total depth of deposits was not great, generally not more than 0.8 metres, at the most about 1 metre. As Chabai

emphasizes, a very slow rate of natural deposition is indicated, which stands in contrast to the very large amount of archaeological material present, indicating in his view numerous visits to the site by the prehistoric inhabitants over a long period of time.

Bonch-Osmolovskii estimated the area of occupation of the “lower hearth” layer at about 70 m² whereas the “upper hearth” layer occupied about 50 m². Liubin (1969, Fig. 1) drew attention to this contrast, pointing out that the upper occupation layer was cut off rather sharply on the eastern side. He suggested that this might have marked the line of a wind break or possibly even a more substantial structure. A barrier of some kind would have acted as a defence against the prevailing cold wind from the south east. Chabai (2005) has contested this interpretation, on the grounds that the upper layer in fact wedges out gradually to the east, and even if there had been a sharp line that in itself would be no more than a necessary, but not sufficient, argument in favour of an artificial construction. Liubin’s hypothesis is at odds with Chabai’s general interpretation of the build-up of deposits in the cave. If, as he suggests, the deposits in both the upper and the lower layers constitute a palimpsest, which came into being over a long period of time, it is not likely that a wind break would have been a constant and detectable feature of the occupation.

The upper layer is definitely characterized by a number of pits, some of them quite deep. Three were identified by Bonch-Osmolovskii as hearths, and there were two other larger steep sided ones which have usually been interpreted as storage pits. In the lower layer there is a large sub-rectangular pit of a different type. Its dimensions are estimated at 210 cm long, 80 cm wide, and 50-58 cm deep (Kolosov *et al.*, 1993, Fig. 11). This is interpreted as a burial pit, which was actually dug down somewhat into the decayed limestone of the cave floor. Unfortunately it was disturbed on the eastern side by one of the deep pits dug down from the upper occupation layer.

Archaeological characteristics

According to Bonch-Osmolovskii, there were about 13,000 stone artefacts in the lower complex at Kiik-Koba, including 1079 utilized flakes, 1246 tools, and 150 cores (Kolosov *et al.*, 1993). The artefacts are for the most part small in size, a fact which from the start observers were inclined to attribute to the distance of this site from suitable raw material sources. There was a high proportion of denticulate retouch, such that Klein was inclined to call this (after the French model) a Denticulate Mousterian, although he admitted that his use of French artefact categories in this context was “more of an academic exercise than a revelation of truth” (Klein, 1965). Bonch-Osmolovskii himself compared the assemblage to the Tayacian (as then thought to exist at La Micoque) and more recently Stepanchuk (1994) has suggested the name Eastern Taubachian, by comparison to the site of that name in eastern Germany. Industries of this type, insofar as they can be considered a valid entity, are generally regarded as being of Last Interglacial age.

According to Bonch-Osmolovskii, there were about 5000 stone artefacts in the upper complex at Kiik-Koba, including about 700 tools and 20 cores (Kolosov *et al.*,

1993; Stepanchuk, 1992, 1993). Stepanchuk was able to study 334 of these tools kept at the Museum of Anthropology and Ethnography in St Petersburg. He determined that the average maximum dimension of the tools was 3.3 cm, hence this is once more a microlithic industry. The cores were frequently fragmented and exhausted. Of the 334 tools as a whole, according to Stepanchuk, sidescrapers accounted for 28.4%, points for 38.3%, notches and denticulates for 9.9%, and bifacial tools for 8.7%. He has continued to maintain that this industry (together with that from Prolom I) is sufficiently distinct for it to be regarded as a separate cultural entity, the Kiik-Kobian. This point of view is contested by Chabai (2005) who regards the Crimean Micoquian in a broad sense as consisting of three facies, named after the sites at Ak-Kaya, Starosel'e, and Kiik-Koba (upper) respectively. It may be noted that Bonch-Osmolovskii himself compared the upper assemblage from Kiik-Koba with such central European sites as Klausennische and Okiennik. Chabai has portrayed 26 Crimean Micoquian sites (as broadly defined) in terms of their places in a triangular diagram the three sides of which correspond to proportions of simple, convergent, and bifacial tools (Chabai, 2005, Fig. V-12). While sharing some commonalities, the three facies separate out fairly well in a statistical sense. Ak-Kaya at one end of the spectrum has the highest %s for bifacial tools and simple scrapers, but the lowest % for convergent tools. It also has many large tools. At the opposite end, Kiik-Koba has the lowest %s for the first two categories, but the highest for convergent tools. As we have seen, it is also small in size. The Starosel'e facies is intermediate between the two. The reasons for these differences are to be sought not only in terms of raw materials and reduction strategies but also in terms of different types of settlements in different environments.

Fauna and flora

The faunal results from Bonch-Osmolovskii's excavations were summarized by Klein (1965, page 44). In doing so, he referred also to Gromov's report (1948), particularly in regard to the presence of *Rangifer tarandus* in layer 4, which was apparently not reported by Bonch-Osmolovskii. The seemingly cold climate in this layer, as evidenced by the presence of reindeer, was used by Liubin (1969) as an indirect argument in favour of the construction of a wind break at that time.

Both Kolosov *et al.* (1993) and Liubin (1969) refer to pollen analytical results for the site obtained by M.N. Klapchuk. No reference is given, but the results (in terms of %s of species present) were summarized by Kolosov *et al.* (1993) as in the table below.

In addition, A.F. Gammerman and I.V. Palibin identified 122 pieces of charcoal from the lower and upper layers (Gammerman, 1934, as summarized by Klein, 1965, page 44). These species do not coincide with the ones identified by Klapchuk, but, as Klein remarks, it is difficult to draw general climatic conclusions from a sample like this because of its "obviously selected nature". There are no absolute dates for the site, but he regarded it in general as being "probably early Wurm".

Species (%)	Lower Layer	Upper Layer
NAP	94	87.5
AP	6	12.5
NAP		
Chenopodiaceae	26	23.2
Poaceae	16	14.7
Compositae	10	-
Ephedra	1	0.3
AP		
Pinus	69	21.7
Betula	14	56.7
Alnus	3	-
Corylus	3	8.2
Quercus	-	4.4

Hominid remains

The remains of two Neanderthal skeletons were discovered at the site, a male adult referred to as Kiik-Koba 1, and an infant referred to as Kiik-Koba 2 ((Oakley *et al.*, 1971). The adult remains were found at the base of the sequence in the sub-rectangular pit already mentioned. As Klein says, Bonch-Osmolovskii (1926) was at first inclined to consider the adult bones to be associated with layer VI, but in his later report (1940) he changed his mind and assigned them to layer IV. “His major reason for having done so seems to have been his conviction that level 6 was not culturally advanced enough for such a burial” (Klein, 1965, page 45). Klein rejected this line of reasoning and considered that Bonch-Osmolovskii’s first report was correct. All later writers have adopted the same viewpoint. The infant remains were found about 30 cm distant from the adult burial pit, although in this case there were no definite signs of a pit. The majority opinion is that this burial, if it was a burial, belonged in layer IV (Chabai, 2004). The likely age of the child was about 12 months, so far as can be judged from the fragmentary post-cranial remains (Oakley *et al.*, 1971). The adult burial, as already mentioned, was disturbed by one of the large pits dug down from layer IV, hence the only in situ remains were the bones of the right patella, the right tibia and fibula, and the bones of both feet (Kolosov *et al.*, 1993, fig. 11; Chabai, 2004, Fig. V-4D). 18 hand bones and one tooth were found in a disturbed position (Oakley *et al.*, 1971).

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28 February 2007.