

## **Gubs Rockshelter 1**

According to preliminary information (Liubin et al., KSIA, 1973) sites in this area were first located by P.U. Autlev in 1961. There are 11 caves and rock shelters in the karst canyon of the Gubs river, which flows into the river Laba, about 40-45 km south east of Maikop, in the broader region which is known as the Prikubanye. The sites form a chain on the northern side of the Borisov gorge, hidden from the wind, with a southward facing exposure, in the vicinity of several springs, and good flint sources. Autlev excavated Monasheskaya and Gubs rock shelter 1 in 1962-63, at the same time as A.A. Formozov excavated Gubs rock shelter 7. The first two sites were visited by a team of archaeologists and geographers, including V.P. Liubin and V.M. Muratov, in 1964, and the published report relies essentially on their observations.

### **Excavations of 1962-63**

Gubs rock shelter 1 is at a height of 90-100 metres above the river in an upper tier of karst shelters, where the sheer precipice of the canyon wall joins the steep lower slopes. The cave is oriented to the SSE (plan in Liubin et al., Fig. 1A). At the present time it forms a wide shallow niche 18 metres in length, only partly overhung by the cave roof. The distance from the drip line to the rock wall is no more than 6-7 metres, but in front there is a platform measuring 5 metres from front to back. The total size of the available living space at present amounts to about 198-216 square metres (11-12 x 18 m) and in the past it will presumably have been free of the large fallen blocks which now obstruct the western part of the site.

The position of Autlev's trench ('1') is indicated on the plan. It is 6.8 metres long and 2 metres wide (13.6 square metres in all). In 1964 the visiting team cleaned back the southern wall of the trench and the stratigraphy was re-drawn by V.M. Muratov. This forms the section illustrated in the published report (Liubin et al., Fig. 1B). On the drawing the eastern side is on the left and the western side is on the right. The slope downwards is reflected in the figures for height shown in the horizontal line transecting the cave on the plan in Fig. 1A (measurements varying from -900 to -194). The overall thickness of the deposits amounts to 1.7-1.75 metres. Muratov distinguished 8 lithological horizons, the numbers of which are indicated on the section. Their characteristics are summarised in a table on pages 57-58 of the published report, which also includes information about the material excavated by Autlev.

### Gubs Rockshelter 1 stratigraphy (1962-63)

The layers as defined by Muratov are as follows.

- (1) Humus horizon. 5-9 cm.
- (2) Light yellowish sand, up to 80% fine grained, with a gravel and small-sized rubble component (mean diameter of stones 1-3 cm). There are at least three intercalated lenses of calcareous material (2a). Boundaries of layer well defined. 60-70 cm.

- (3) Blackish brown sand, analogous to layer 1, but darker. Boundaries clear, with pockets. Referred to by Autlev and Formozov as an ash lens, redefined by Muratov as a buried humified horizon. 3-15 cm.
- (4) Brick red sand, in places sandy loam, fine grained but with gravel and rubble inclusions. Identified by Muratov as a burnt layer. The rubble is sharp edged (mean diameter of stones 2-5 cm) with some slabs (mean diameter up to 15 cm). Uneven boundaries. 2-15 cm.

It is pointed out in the text that both (3) and (4) are essentially intercalated deposits within the matrix of layer (2), and this can be clearly seen in the drawn section, especially in the central and eastern part beneath layer (4). It was considered in 1973 that the nature of layers 3 and 4 would merit further investigation.

Layers 2-4 contain Upper Palaeolithic archaeological material. A little fauna was recovered and identified by N.K. Vereshchagin: horse, souslik, and mole rat. In the central and western parts of the section, the Upper Palaeolithic deposits rested directly on the Middle Palaeolithic ones beneath, but (as shown in the section) this was not so in the eastern part, where there was a substantial rock fall horizon between them.

- (5) Yellowish brown sand, in places sandy loam, occupies up to 40% of the deposit, but is heavily packed with rubble in the upper part, where there is a poorly marked transition to the rock fall horizon. 20-30 cm.
- (6) Similar to 5 but lighter in colour with less rubble. Boundaries not very clear. 5-25 cm.
- (7) Similar to 5 but with a finer matrix, except in the upper part which (as in 5) is heavily packed with rubble. Boundaries clearly marked. 20-30 cm.
- (8) Greenish grey eluvial horizon. Limestone base. 5-15 cm.

Layers 5-7 contain Middle Palaeolithic archaeological material. Some fauna was recovered and at least approximately identified by N.I. Burchak-Abramovich and I.M. Gromova: a passerine bird, and a hamster-like rodent about the size of a water vole. In the text, the presence of exfoliated rubble concentrations at the top of layers 5 and 7 was emphasised. They were interpreted as indicative of the predominance of frost induced rather than chemical weathering processes at the site at this time. The faunal and floral evidence is held to support the idea that a dry and cool climate prevailed in what was predominantly a steppe landscape.

#### Palynological evidence

A pollen sample sufficient for analysis was recovered not from the soil itself, but from some cavities in long bones taken from the Middle Palaeolithic layers, while they were being examined in Maikop. The results are tabulated on page 58 of the report by Liubin et al. (1973). The total number of specimens counted is 682, of which 6 could not be identified. AP accounts for 6% of the total, NAP is 94%. The

numbers tabulated are actual grain counts for AP, and %s for NAP. Comments in the text on the tabulated results are as follows.

The composition and abundance of NAP shows that the catchment area was quite large. This is indicated by the frequency of Compositae (many of which grow on disturbed ground) and Chenopodiaceae (some of which grow in similar conditions and on salt marshes by rivers). The AP contains both coniferous and deciduous species, and indicators of pioneer growth (by which is probably meant birch, colonising rocky ground). In general, it is clear that the area was more open and less wooded than it is now. The presence of birch is taken as an indicator that the boundary of the sub-Alpine zone was lower than at present, and consequently the boundaries of all zones will have been lower as well. But the presence of deciduous trees (such as hornbeam and beech) shows that the lower boundary of the true coniferous belt (with *Pinus* and *Abies*) still lay above the position of the site. In sum, the authors conclude that the boundaries of the vegetation zones in general will have been about 600-700 metres lower than at present, and on that basis they calculate that there will have been a lowering of summer temperatures by about 3.5-4.5° C.

### Archaeological material

The Upper Palaeolithic excavated material amounts to 2170 pieces, including 46 cores and 131 tools. It was not further analysed in the published article. The Middle Palaeolithic excavated material amounts to 682 pieces. 33 bladelets of Upper Palaeolithic appearance were excluded from the calculations, since it was felt that they were probably intrusive from above (a circumstance that could easily arise given the relationship between layers 4 and 5). The Middle Palaeolithic layers were considered to be quite heavily occupied, since (it was calculated) there were 48 pieces per one square metre of excavated area. There were relatively few cores, which suggested that they were probably worked outside the confines of the rock shelter. The average size of the artefacts is small, usually in the range 3-5 cm. There were 485 flakes and blades. 80 tools were listed according to the Bordean system on page 61 of Liubin et al. (1973). These include 15 unretouched Levallois flakes and blades, 29 sidescrapers, 5 endscrapers, and 12 denticulates. IR = 44.6. Generally speaking, it was felt that the assemblage was comparable to Bordes's Typical Mousterian, but since this assemblage was very similar to that from Monasheskaya, it was proposed to create a separate Gubs culture to embrace them both. In view of the presence of some non-intrusive Upper Palaeolithic elements, it was surmised that this was a Late Mousterian, but this is entirely a typological judgement.

### **Excavations of 1975**

Excavations at the site were carried out for a second time by Kh. A. Amirkhanov, in collaboration with Autlev, in 1975 (Amirkhanov, 1986). Amirkhanov concentrated his efforts on the Upper Palaeolithic, but his stratigraphic observations relate to the site as a whole. His composite plan indicates the position of both old and new excavations, the newly opened squares being directly adjacent to those of 1962-63 (Amirkhanov, Fig. 5). The obliquely hatched area (labelled '1') indicates the presence of a medieval burial ground which (it is now clear) hindered the full recognition of the Upper Palaeolithic sequence at the time of the first investigation. The horizontally hatched area shows Amirkhanov's excavated squares 4-7. A new

section, 2.8 metres thick, “on the northern line” of square 4, was published by Amirkhanov (Fig. 6), the details of which are as follows.

#### Gubs Rockshelter 1 stratigraphy (1975)

The layer numbering follows that of Amirkhanov.

- (1) Present day soil. 12-25 cm.
- (2) Brown loam with fine rubble and gravel. **Upper Pal cultural layer 1.** 10-17 cm.
- (3) Greyish-yellow loam with gravel and a little angular rubble. Archaeologically sterile. 9-13 cm.
- (4) Whitish loam with gravel, high carbonate content. Archaeologically sterile. 5-8 cm.
- (5) analogous to (3). 17-23 cm.
- (6) analogous to (4). 6 cm.
- (7) analogous to (3) and (5). 10-11 cm.
- (8) Ashy, humified. A buried soil? **Upper Pal cultural layer 2.** 8-10 cm.
- (9) analogous to (3) (5) and (7). 4-5 cm.
- (10) analogous to (4) and (6). 5-8 cm.
- (11) A collapse horizon? Sandy soil with some limestone blocks and much coarse rubble. In places the matrix is coloured rust-red, due to the effects of ferric oxide, consequent on the destruction of small ferruginous concretions. The limestone material also shows signs of decomposition. 12-14 cm.
- (12) Light and dark brown loam with fine and medium sharp edged rubble and gravel. 20-30 cm.
- (13) Brownish-yellow sandy soil with some sharp edged rubble and much gravel. 23-30 cm.
- (14) Dark brown loam with much decomposed rubble and some gravel.  
**Mousterian cultural layer 3.** 20-23 cm.

It will be seen that this sequence is generally similar to that described by Muratov. In particular, his layers (3) and (4) correspond to Amirkhanov's (8) and (11). The recognition of two Upper Palaeolithic cultural layers is new. Amirkhanov ascribes the totality of the old finds to Cultural layer 2, the excavated portion of which now covers about 16 square metres. In 1975 two hearths were discovered in this layer. Cultural layer 1 was located only in 1975 and covers about 3 square metres; Amirkhanov is of the opinion that it could not have been recognised by Autlev in the portion dug by him due to disturbance from the medieval burial ground.

A little new fauna from the Upper Palaeolithic layers was recognised by G.F. Baryshnikov, to add to the three species already identified by Vereshchagin: a vole, an artiodactyl, 2 bison, and 2 sheep/goat. The numbers are not great enough to permit palaeo-environmental reconstruction, but a significant new pollen and spores sequence was established for the entire section, thanks to a study carried out at Leningrad university (it is not said by whom). The details given by Amirkhanov are as follows.

### Palynological sequence

15 samples were allocated to 8 zones (numbered 2-9) corresponding to the stratigraphic layers at the site, as shown in this table, which has been compiled on the basis of Amirkhanov's summary.

Zone	Layers	AP%	NAP%	Comments
2	1	5-7	dominant	AP: maple NAP: Artemisia, Chenopodiaceae, Asteraceae, varia.
3	2	-	-	no pollen or spores
4	3	45	22	AP: fir, spruce, pine; oak, elm, ash, hornbeam, hazel, alder, willow, cornel, birch, Zelcova. NAP: varia, Cyperaceae, Chenopodiaceae, Asteraceae. Moist climate indicated. AP in valley (?) not unlike montane zone at present.
5	4-7	3-5	92-95	AP: pine. NAP (in order): 1 varia 2 Asteraceae 3 Chenopodiaceae 4 Artemisia. Dry and cold, periglacial wooded steppe.
6	8	?	?	AP: hazel, maple. NAP: varia. Treeless watershed, wooded valley.
7	9-12	12	dominant	AP: pine, oak, maple, honeysuckle, alder, willow. NAP: varia.
8	13	0	92	NAP: 1 Asteraceae 2 varia 3 Cyperaceae 4 Chenopodiaceae. Periglacial steppe.
9	14	-	-	NAP: Asteraceae, Chenopodiaceae, varia. Only a few grains, insufficient to reconstruct climate.

There are some fairly obvious problems with the way in which the data has been summarised. %s are not always given for AP and NAP; they do not add up to 100%, the remainder presumably being taken up by spores; and there is a general lack of precision. Amirkhanov points out that there are two warmer and damper phases corresponding to layers 3 and 8. He thinks that these may correspond to Lascaux (16-17 kyrs ago) and Bryansk (25-29 kyrs ago) respectively, and in his view the nature of the archaeological material would agree with this. It should be noted that (if these correspondences are correct) Upper Palaeolithic cultural layer 2 would occur in an interstadial period, but Upper Palaeolithic cultural layer 1 would be later than the climatic amelioration detected in layer 3. Lithologically layers 2 and 3 are very similar, hence (despite the absence of pollen in layer 2) Amirkhanov considers it possible that the warmer climatic conditions may in fact have continued at that time. Since Upper Palaeolithic cultural layer 2 is identified as "mid" upper palaeolithic, then as Amirkhanov says the period corresponding to the "early" upper palaeolithic (not represented here, equivalent to layers 9-11?) may also have been fairly mild. Despite the existence of a postulated "collapse horizon" in layer 11, Amirkhanov considers that the sequence of deposits through from the Middle to the Upper Palaeolithic was continuous, without signs of a major break.

### Archaeological material

Amirkhanov's description is confined to the Upper Palaeolithic.

Upper Palaeolithic cultural layer 2. Combining the material from all the excavation years (1962-63 and 1975) Amirkhanov states that there were 4590 pieces in total, or 286 per square metre. There are 55 cores and 163 tools, the remainder being flakes and blades and debitage fragments. Endscrapers are the most numerous tool class, 109 altogether, of which 46 can be classified as nosed or carinate (Amirkhanov, 1986, Fig. 9.15 and 17). These are commonly regarded as Aurignacian-type artefacts, although Amirkhanov does not claim that this is so in this case. As he says, there are no points or backed blades, or geometric pieces, therefore the assemblage is radically different from the second upper palaeolithic assemblage. The site remains the only one in the northern Caucasus where Upper and Middle Palaeolithic are superimposed, and this is also the only site in the area with a “mid” upper palaeolithic.

Upper Palaeolithic cultural layer 1. The material excavated in 1975 amounts to 513 lithic pieces plus one bone awl, or 170 per square metre. There are 6 cores and 33 tools, as well as flakes and blades and debitage fragments. There are 9 points (including 4 Gravette points) and 10 backed bladelets, but no geometric microliths, therefore the assemblage is classified as “late” upper palaeolithic.

### Comments

Since this is the only site in the northern Caucasus with superimposed Upper and Middle Palaeolithic, it has an obvious importance. Cultural layer 2 is described as “mid” Upper Palaeolithic, but it seems to have some Aurignacian-type characteristics, and may therefore be relatively “early”. At the very least, it will provide a terminus ante quem for the Middle Palaeolithic in the area. As emphasised by previous excavators, Muratov’s layers 3 and 4, corresponding to Amirkhanov’s layers 8 and 11, are quite distinctive and worth investigating in their own right. The palynological characteristics of the Middle Palaeolithic layers are said to resemble the uppermost Middle Palaeolithic layer at Monasheskaya, which according to G.M. Levkovskaya corresponds to the end of oxygen isotope stage 3. But so far the site remains totally undated.

The new section drawn in 2004, from which the samples were taken, should be in close proximity to Amirkhanov’s 1975 section, and does in fact resemble it, as the photograph makes clear.

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