## Hunting in the Upper Palaeolithic in Hungary

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In course of the analysis of the material of Hungarian Upper Palaeolithic sites, traces of hunting as a specific human behaviour were only incidentally found. Therefore, this paper aims at approaching the subject starting from the modifications in the fauna basically determined by ecological circumstances.

The dramatically change reflected in archaeological material with the appearance of Upper Palaeolithic technocomplexes, is rooted partly, in changes in the fauna, that is the animals hunted, just as in the traditions and/or innovations of the communities sharing everyday care of food supply. Rich faunal remains found on the settlements denote an optimal adaptation to circumstances in all cases.

The Upper Palaeolithic in Hungary can be subdivided into three cultures (ethnic groups?) differing from each other in their essential features, namely the Aurignacian, a leaf-point industry (Szeleta Upper horizon) and the Gravettian. This latter technocomplex is present in Hungary at least in three different chronological/typological horizons. The above order does not necessarily indicate a chronological sequence. A younger phase of the Aurignacian in Hungary was contemporary with the Szeletian (s.s.), occupying at the same time similar ecological niches. This is the period for the earliest appearance of the Gravettian people as well.

On the table 1, the hunted faunal spectra of those most important sites are presented where an analysis of the fauna list was possible, namely where something more than a simple listing of the species present made it possible to estimate individual number or percentage distribution. This distinction is necessary because most of the sites are known. Some questions, which are very difficult to answer as yet, necessarily emerge:

 whether or not does the fauna list of the site reflect the natural composition of the contemporary faunas: in other words, is the

- domination of certain species on a site a reflection of natural ratios or not;
- at some sites, specialisation (selection) is obvious, but the extent of this cannot be estimated, lacking natural accumulations of the fauna;
- what is most obscure, is whether this potential specialisation was coloured by the irrational, i.e. existence of a special relation to one or more animal species in spiritual life.

Summarising data of the table we can say the following on the changes in the most important species constituting the booty of Upper Palaeolithic hunters: corresponding to a temporal oscillation of the population, the earliest Upper Palaeolithic people had arrived into circumstances standing very near to that of Late Middle Palaeolithic populations. They were cave bear hunters, in the older Aurignacian layer of the cave Istállóskő, the ratio of Ursus spelaeus is 85 %.

In the second phase the cave bear was to some extent pushed back, but still comprising the bulk of the booty with 65 %.

Slowly, the significance of great herbivores started to increase (horse, elk and the giant deer). These latter species, together with the mammoth were typical of the early settlements of the contemporary new ethnic community, the Gravettian people.

The third wave of inhabitance is a real "âge du renne". On the settlements of the period between 22000–18000 B.P. the bulk of the animals hunted was the reindeer. This is especially true for the hilly areas dissected by river beds and stream valleys lying to the West of the Danube. On the contemporary East-Hungarian settlements horse is dominating in the hunted fauna.

The youngest settlement horizon belongs, in respect of subsistence system and technological traditions, definitely to the Palaeolithic, but hunting is seemingly less specialised. The varied fauna was already changing, or the

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Table 1

Holocene supplied demands for food and for abundantly.

The selection of the site of the settlement in the Upper Palaeolithic is seemingly connected to, on several instances, hunting or the processing of the booty. It is evident from the topographical position of the settlements around Pilismarot, that the temporary changes in the grazing grounds of the reindeer were checked on the hillside settlements situated over the routes generally used by the animals. Taking an advantage of the well-known insistence of the reindeer to permanent routes, the hunters could easily and efficiently bring down their share from the herds. Though we have no concrete evidence on the way of hunting, they could hardly be different from those practised even in historical times in Southern Norway, known as trapping methods.

The other type of settlements, caves or rock-shelters were, according to our present knowledge, not dwelling places and did not serve for permanent inhabitation. Nevertheless, almost all bigger natural cavities contained in their fill-ups traces denoting human inhabitance. A part of the caves served probably as temporary shelter for hunters. This is confirmed by the incomplete tool set of the two known Aurignacian sites.

Analysis of the Vertebrate fauna indicate, on the basis of the grouping of the remains according to parts of the body recovered, that part of the caves functioned as temporary storerooms for fur or depot of meat.

In case of more recent sites with a better site record we have more chances for an economical reconstruction. We can estimate duration and season of settlement, number of inhabitants on the basis of the utilised amount of meat computed from the number of animal hunted. We have numerical data on the intensity of hunting as well. According to the opinion of palaeontologists, the amount of animals hunted on our Upper Palaeolithic settlements could not exceed 10 % of the potential game stock.

No systematic agreement between tool kit and the animals hunted was found so far.

The well-known hunting implement of the earliest Upper Palaeolithic population is the bone points with split basis (fig. 1). The fragile basal parts probably made it impossible for use in close-range fight with the cave bear: much rather, served as dart (not for stabbing, but throwing) for "softer" games than the cave

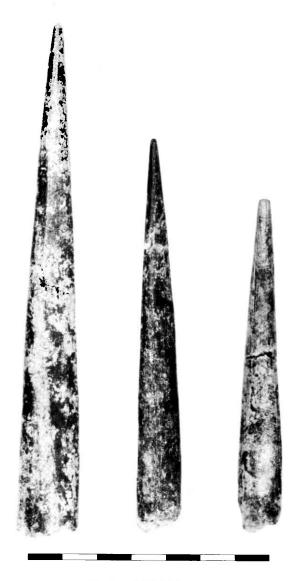


Fig. 1 — Istállóskő cave.

bear. For hunting their favourite game, probably other methods must have been in use: artificial or natural trap, slaughtering during winter sleep, etc.

It should be stressed that arrow-heads already appeared among the split-base bone points. Discovering the elastic force of the bent twigs, that is, the construction of the bow radically increased the effective distance of the hunting implement and the number of species conveniently hunted. Contemporary "younger Szeletian" population hunted effectively with stone-tipped stabbing spears (fig. 2). Hafted blades with retouched or natural pointed edge of the classical blades industries probably also functioned as hunting implements. Small backed blades were parts of composite tools with antler- or bone socket.



Fig. 2 — Szeleta cave.

Within the finds of the Hungarian Upper Palaeolithic, there are some objects originally defined as decoy whistles; phallanges of different herbivores with a hole on them. According to recent hypothesis of I. Vörös, these holes

(injures) can be connected with hunting, specifically, hunting methods, in order relation as well. Spit daggers placed into traps on animal routes might possibly cause such injuries on the foot of animals.

Bones fossilised among fairly unvaried? climatic conditions, however, are mainly found in bad state of preservation which does not allow micro-traceological examination to support any of the hypotheses.

Surpassing temporal frames of our study, still worth mentioning, is a piece of bone recovered from a Neolithic settlement. This is one of the cervical vertebrae (atlas) of the aurochs, with an arrow-head embedded in the bone (fig. 3). The tip of the flat blade

with triangular cross section is perpendicularly retouched at an angle of 90°, the part attached to the bolt is obliquely truncated. The arrowstuck into the first cervical vertebra of the animal was broken into the neck. The shot was not strong enough to reach the spinal marrow and cause a fatal wound. The aurochs survived the first trial for killing, the stone point was fixed and embedded in the bone. The second hunting, whatever method it were, was already successful. This find is, so far, unique



Fig. 3 — Aurochs' atlas with truncated blade.

in Hungarian archaeozoological material. The projectile point, a double truncated blade could conveniently fit in an Upper Palaeolithic or Neolithic assemblage. We can certainly say that not only the morphological type but also the function of the implement is rooted in Upper Palaeolithic hunting tradition.

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