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CHAPTER 11

THE FAUNAL REMAINS FROM THE GRAVETTIAN OPEN-AIR SITE AT HUCCORGNE-L'HERMITAGE (LIÈGE PROVINCE, BELGIUM)

Achilles Gautier

Huccorgne-L'Hermitage, or HH for short, is one of the many Paleolithic sites in the valley of the Mehaigne. These occurrences are all situated in caves, with the exception of HH, which is an open-air site in an ancient oxbow formation of the Mehaigne, situated about 6 km upstream of the confluence of this river with the Meuse at Huy. The deposits of the oxbow consists essentially of sands and gravels overlain by primary and redeposited loess. The site came to light in 1870 when these deposits were cut into by trenches for the railroad and for a road. The earliest excavations date from 1886-1890 (Dormal and Tihon 1890-91). Major excavations followed almost a century later in 1969 by J. Destexhe. Excavations to unravel the precise stratigraphy of the deposits and the site were carried out by Haesaerts from 1976 to 1980 (Haesaerts 1978, 1981). Archeological excavations by the Universities of Liège and New Mexico followed in 1991-93; some results of these campaigns, including notes on the faunal remains have already been published (Otte *et al.* 1992; Straus *et al.* 1992, 1993a, b, c, 1997). The site was occupied by Gravettian people during the period 28-26.000 bp but a second, more restricted period of occupation may have followed around 24.000 bp. The main occupation would therefore date from the so-called Maisières-oscillation said to be characterized by a medium cold climate. During the presumed younger occupation the climate would have been characterized by recurrent cold to very cold conditions and might correlate with the Tursac oscillation (Haesaerts and Laville, 1988). HH can be compared with the open-air site left by Gravettian people along the paleo-Haine near Mons, known as Maisières-Canal. This site dates from c. 28.000 bp, and may contain a slightly more archaic Gravettian than that of HH. For more detailed information on HH and its context the reader is referred to the publications cited and the other contributions in this volume.

During the excavations in 1991 and 1992 some 200 dental and osseous fragments were collected, mostly from the main Gravettian stratum 4; 35 fragments or specimens, i.e., finds which belong together, were identified with varying degree of confidence mostly to the specific level in according to the procedures used in the Ghent laboratory (see for example: Gautier 1997). In the report on the Paleolithic fauna from the Trou Magrite (Gautier 1995) I still used the label *Elephas primigenius* for the mammoth, although the proposal to reintroduce the generic name *Mammuthus* (Grant *et al.* 1990) had been adopted already in 1991 (BZN 1991). This small report provides me with the occasion to relabel the mammoth. As to the identification ratio or relative frequency of the identified material, it is quite high (17.5%), reflecting no doubt my effort to extract as much information as possible from the poorly preserved and restricted assemblage.

The identifiable material is recorded in the following list by excavation square and stratum and by number, if plotted during the excavation. The list provides an idea of the very degraded and poor state of the taphocenosis in the considerable volume of deposits excavated.

E6b, stratum 4, no. 6: horse (*Equus* cf. *germanicus*), fragmentary incisor.
H9, stratum 4, no. 22: reindeer (*Rangifer tarandus*), antler fragment (tine).
I6, stratum 4, no. 34: horse, incisor.
I6, stratum 4, spit 7,no. ?: horse, three fragments lower premolar or molar.
I9, stratum 4, no. 31: horse, lower premolar or molar.
J6, stratum 4, no. 21 and 22: mammoth (*Mammuthus primigenius*), two fragments of one rib.
J7B, stratum 4, no. 3: horse, much worn third lower molar.
J7, stratum 4, no. 31: horse, one fragmentary upper premolar or molar.
J7, stratum 4, no. 54: horse, fragment lower premolar or molar.
J7, stratum 4, no. 60: reindeer, fragment first phalanx.
J7c, stratum 4, no. 39 etc.: mammoth, rib fragments (C14 sample listed as Nos. 31-42).
J7c, stratum 4, no. 55, 56, 67, 68, 70: mammoth, fragments rib(s) (C14).
J7, stratum 4, no. ?: horse, canine.
J7d, stratum 4.2: bird, first phalanx (?).
J8, stratum 4, no. 16 to 22: reindeer, co-articulating carpals and distal radius fragment.
J8, stratum 4, no. 25: reindeer, shaft femur (?).
J8d, stratum 4, no. 43 and 52: mammoth (?), one rib
J8, stratum 4, no. 45: reindeer, fragment innominate bone.
K6, stratum 4: reindeer, fragment shaft radius.
K7, stratum 4, no. 5: horse, lower P2
K7, stratum 4, no. 33: reindeer, fragment one first phalanx
K8, stratum 4, no. 28: reindeer, shaft tibia (?).
K8, stratum 4, no. 35 and 37: reindeer, two fragments shaft tibia(?)
K8, stratum 4, no. 48: reindeer, fragment shaft tibia.
K8, stratum 4, no. 54: reindeer, fragment base shed antler.
K8, stratum 4, no. 55: horse, canonbone fragment.
K8, stratum 4, no. 59: horse, lower molar/premolar.
K8, stratum 4, no. 65: reindeer, fragment metatarsus.
K8, stratum 4, no. 70: reindeer, shaft humerus.
K8, stratum 4, no. 95 and 112: reindeer, fragment metatarsus.
K8, stratum 4, no. 99 and 101: reindeer, two medium worn upper premolars, same individual.
K8, stratum 4, no. 115: reindeer, much worn lower molar.
M5-6, stratum 3: horse, fragmentary much corroded astragalus.
M5-6, stratum 3: reindeer, antler fragment.
S25B, stratum 4: mammoth, fragment molar.

The two finds from M5-6 are no doubt reworked from the underlying stratum 4 in stratum 3, a locally occurring gravelly silt. Table 1 presents the identified remains listed in another and quantified way, including separate counts for cranial, dental and postcranial remains. Not included in the list are two finds of the upper strata 1 and 2 which consists of a subadult humerus of a domestic fowl (*Gallus gallus* f. domestica) and a scapula of a large lagomorph, most likely hare (*Lepus capensis*). The position of these finds, their preservation and the domestic status of the bird find, indicate clearly that the finds are late.

Table 1. Gravettian faunal remains from HH (excavations 1991-93).

	n	n		
		antler	teeth	postcranial
bird(?)	1	-	-	-
mammoth	5	not	1	4
horse	12	not	10	2
reindeer	17	3	2	12
totals	**35**	**3**	**13**	**18**

During the 1856-1890 excavations at Huccorgne, "some teeth of horse and cattle (*boeuf*) and some unidentifiable fragments of antlers of red deer, roe deer or another animal" (my translation) were encountered as well as many very poorly preserved bone fragments, in part derived from very large animals (Dormal and Tihon, 1890-91: 9). In the light of the assemblage described above the antler finds can no doubt be ascribed to reindeer. As to the cattle teeth, these could pertain to steppe bison (*Bison priscus*), but I find it more likely these finds derive from reindeer, positively identified in the site. The larger unidentified bone fragments might be derived from mammoth. As to the Destexhe excavations, although they cover quite an area, they yielded but a few unidentifiable bone fragments and some poorly preserved fragments of mammoth molars (Destexhe, *in litt.* March 23th 1999).

Faunal remains were also collected in the profiles studied by P. Haesaerts or under his supervision. Unfortunately details on their precise provenance were not available at the time this contribution was finalized. The finds were identified by the author and by M. Germonpré (Institut royal des Sciences Naturelles de Belgique, Brussels, pers. comm.). They include unidentifiable bone fragments, but also two milkmolars and remnants of another molar of mammoth, ten fragments of molariform teeth of horse and a shed antler attributable to red deer (*Cervus elaphus*). An interesting find derives from the west trench facing the site, where at the contact between the lithostratigraphic units G3 and H1, recognized by Haesaerts (see for example Haesaerts 1978: 127, fig. 6), an incomplete skeleton of an Alpine marmot (*Marmotta marmotta*) was excavated. The animal probably died in its burrow; marmots are clear indicators of cold, open conditions (Gautier, n.d.).

The few faunal data from the older excavations and the stratigraphic trenches corroborate the less restricted faunal evidence from the 1991-93 excavations. The HH assemblage seems to be dominated by horse, reindeer and mammoth. Finds of smaller animals are absent, except for a small find attributed tentatively to a bird. Immunological analysis of a burin/endscraper from stratum 4 gave a positive reaction to anti-rabbit serum (see Newman, this volume), suggesting hare (*Lepus* sp.) was included in the small-gamebag of the HH people. The foregoing and the poor preservation of most of the finds confirm that we are dealing with a much impoverished taphocenosis. The depositional context points in the same direction. Dental and osseous remains have little chance to survive in open-air sites, as their collagen degrades very rapidly on the surface or in shallow subsurface conditions, that is when sedimentation is slow and erratic, as in the case of primary and well redeposited loess. Boldly spoken and given the taphonomic conditions, the fact that faunal remains are preserved at HH, militates for a long period of recurrent and intensive occupation and the creation of many thanatocoenoses of which only a small attritional sample survived.

That we are dealing with a much impoverished assemblage, is clearly illustrated by the comparison of the faunal assemblage with that of Maisières-Canal, the Gravettian open-air site mentioned in the introduction. This site yielded a rich mammalian fauna (Gautier, 1973, 1979)

and even some bird remains (Ballmann, 1973). Only a small part of the site was excavated in a complex of colluvial deposits near a channel of the Haine. Rapid burial and trampling apparently created favourable conditions for preservation, as indicated by quite a few remains which appear to co-articulate, the presence of intrusive small, water-loving rodents, a small weasel (*Mustela nivalis*), small game including birds, snow hare (*Lepus timidus*) and polar fox (*Alopex lagopus*). The larger game is clearly dominated by reindeer, while horse, red deer (*Cervus elaphus*) and steppe wisent (*Bison priscus*) are very poorly represented. According to Haesaerts and de Heinzelin (1979: 48-49), the site represents a single occupation of a few weeks, in some colder period of the year; in summer people would have suffered too much from the insects near the river. In my opinion, the excavated fauna represents a very generous meat supply per day, if the occupation lasted but a few weeks. I find it more likely that several periods of occupation are represented with rapid burial at the edge of the area where the Gravettian used to set up camp. Since fur bearing animals such as polar fox or bear are best killed or trapped in fall or winter because their pelts are then in optimal condition, occupation in the colder seasons seems indicated.

The possible difference in time depth and the real difference in taphonomy of HH and Maisières-Canal make it difficult to compare the larger game fauna of both sites. The short time occupation and the limited area of the site excavated at Maisières-Canal may be responsible for sample bias making horse practically invisible in the assemblage obtained. At HH differential preservation and identification bias may have seriously affected the relative frequencies of the game found (Table 1). In the case of mammoth, the size of the teeth and the fact that ribs were not fragmented for marrow extraction may have led to their survival in identifiable form. The relative size and compactness of the molariform teeth of horse appear to have favored their preservation, while fragmentation probably rendered postcranial elements unrecognizable. The reverse may be true for reindeer, of which the teeth are more vulnerable than those of horse, while the smaller size of the postcranial skeleton allows more readily identification of postcranial fragments. As to the reindeer antlers, the evidence suggests that people collected shed antlers for tool making; the few finds of these excrescences may be what is left of large hoards. The two shed antlers, attributed respectively to reindeer and red deer, provide a tenuous clue to seasonality. Cervids shed their antlers in the colder period of the year and the Gravettians may have collected shed antlers still suitable for toolmaking in the following warm period. Anyhow, if we assume that the mentioned biasing factors and others such as differences in seasonality played but a minor role, climatic differences may be invoked. The occupation at HH, dated 28.-26.000 bp may correspond mainly to the maximum of the Maisières oscillation, while Maisières-Canal would correspond to the beginning of this oscillation. A shift from colder, tundra-like to more steppic conditions may have favored the establishment of horse as a major game species for the Huccorgne people.

Both at HH and Maisières-Canal, mammoth is present. Finds of this pachyderm which probably did not belong to the game regularly hunted (Haynes, 1991), are difficult to interpret. People may have come across dead animals or have finished off ailing individuals. They may also have collected mammoth bones for building purposes or as combustible as the Maisières-Canal finds suggest. Finally some mammoth remains may be part of the so called background fauna, the carpet of animal remains due to attritional or catastrophic mortality spread out over most terrestrial surfaces, with its occasional concentrations, e.g., near places where animals come to drink.

Summing up, the seriously degraded HH assemblage provides but limited information. It would however appear that the site was occupied for a long period. The Gravettian hunters included mainly reindeer and horse in their game bag. Smaller game is virtually invisible but

includes probably birds as well as hare. As to the mammoth, people may have added it to their meat supply in an opportunistic way. Antlers, both of reindeer and red deer, were apparently collected for toolmaking; this activity most likely took place in the warmer period of the year. In comparison with Maisières-Canal, which has been called the virtual twin site of HH, horses are definitely more frequent at HH. Sampling, taphonomic or other bias may account for the marked difference in the game bags of HH and Maisières-Canal. If not, climatic differences and hence chronological differences can be adduced. HH may have been occupied at a later and less cold and more steppic stage of the so-called Maisières oscillation. Horses would have been more available at that time than at the Maisières site, where people had access mainly to reindeer.