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NEUMARK-NORD IN THE VALLEY OF THE GEISEL NEAR HALLE/S. (GDR) A NEW MIDDLE PALAEOLITHIC SITE WITH KILLING AND BUTCHERING AREAS

ABSTRACT — The Neumark-Nord Middle Palaeolithic Site is studied and found to be a combined hunting-, butchering- and living floor site situated in the lowland on the shore of a small lake rich in vegetation.

KEY WORDS: Neumark-Nord — Middle Palaeolithic — Killing and butchering site.

In the course of 1985, the digger opened up an interglacial series of sediments in the brown-coal quarry of Neumark-Nord situated in the northern border zone of the "Geiseltal". Palaeolithic finds, which are ascribed to the hunting activities of Upper Pleistocene men are contained in its shore deposits (Mania and Thomae 1988)¹.

The interglacial sediments were deposited in a flat basin which formed by coal diapirism following the Saale glaciation. The limnic-telmatic sediment series developed from laminated glacial silts overlying the Saale glacial ground moraine. This series is covered by two periglacial sequences. The upper periglacial sequence corresponds to the Weichsel loess series.

By this, it is possible to place the interglacial into the period between the Saale and Weichsel glaciations. To ascribe it into the Eem interglacial is complicated by the lower periglacial series.

At present, the pollen grains (M. Seifert, Freiberg/Sachsen), the seeds and fruits are being analysed (D. H. Mai, Berlin). According to the results of pollen analyses, the vegetation succession is different from

¹) The research carried out on these finds was conducted by the Landesmuseum für Vorgeschichte Halle/s. in collaboration with the Braunkohlenwerk Geiseltal.

that of the Eem interglacial, to a certain degree, with an *Acer tataricum*-*Quercus petraea*-steppe forest, which is not typical of Eem, having been found after the investigation of the carpological remains. *Acer tataricum* and this association were determined by D. Mai for the first time in the Pleistocene of the middle Elbe/Saale region.

In the interglacial sequence, especially two shore levels are conspicuous. The lower one was formed during the process of basin formation and still exists at a width of about 100 m. It is an "Anmoor" (soil formation in swampy environment) partially grown with trees on the shore similar to those of gallery forests as is proved by the determination of numerous trunks and stumps of trees.

10 to 50 cm thick sand layers embedded with fossil material, in particular with plant detritus, cover this "Anmoor". The flat lake, gradually forming, transgressed far beyond this shoreline laying down sandy plant detritus muds (Grobdetritusmudden).

Stagnation of depression formation and a short lasting filling up of sedimentation or drying up formed a new shore zone on top of these "Grobdetritusmudden" approximately reaching as far into the basin as the lower shore zone.

Again an "Anmoor" formed in places with a 10 to 20 cm thick layer of sand and plant detritus being deposited on top of it. Then the transgression with "Grobdetritismudden" was repeated. Overlying them, muds (Feindetritismudden and laminated limestone muds) were laid down containing numerous leaves impressed between the layers. Both the lower shore zones are the most significant from an archaeological standpoint because they contain the majority of palaeolithic finds. Further conspicuous finds were uncovered in the "Grobdetritismudden", in rare cases they occurred even in the laminated limestone mud.

SHORE ZONES

In the portions of the shore zone in the direction of the basin, the butchering sites were discovered. In the lower horizon, there were skeletal remains from the rhinoceros, e.g. the dissected cervical vertebral spine the vertebrae of which bore cut marks, but also skeletal remains from the forest elephant and several tusks accumulated on one place. Other finds more frequent in the direction of the landside are fractured bones, in particular from cervids with fallow deer predominating. Less frequent are the smashed bones of the large mammals already mentioned, furthermore those of giant deer, red deer, wild cattle and wild horse. Rare are the remains of lion, wolf, hyena and other medium-sized and

smaller mammals not yet determined. Numerous remains from *Emys orbicularis*, birds and small mammals can be explained as from animals which were not the prey of man.

In the upper shore zone, such bone finds are less frequent. Close to the shoreline, the butchering sites of two large species of mammals were uncovered, the one containing an aurochs (in the lower shore zone), the other with a rhinoceros (in the upper shore zone). In both cases, the skeletal remains of these animals, killed by man, had barely been appropriate for use — skull, vertebral column and thorax — were still in their natural articulation. The long bones the meat of which had been cut off and parts of the pelvis, were found several meters from these remains (Fig. 1).

Cut marks on these bones, on the ribs and vertebrae infer to butchering operations. Knives in the shape of simple silex flakes presumably used for butchering were found close to the bones (Fig. 2), especially on the butchering site of the aurochs. Here was also an anvil from a crystalline erratic block with flakes, a disc-shaped core stone of silex and a slim end of a tusk (tool?) fractured in a diagonal way. We regard the butchering areas of these large mammals to be identical with the killing site.

On the other hand, on the parts of the upper shore zone, situated higher and directed to the landside, traces of a living floor no longer preserved and situated more outside the shore zone were uncovered. They had been washed into the shore sand and

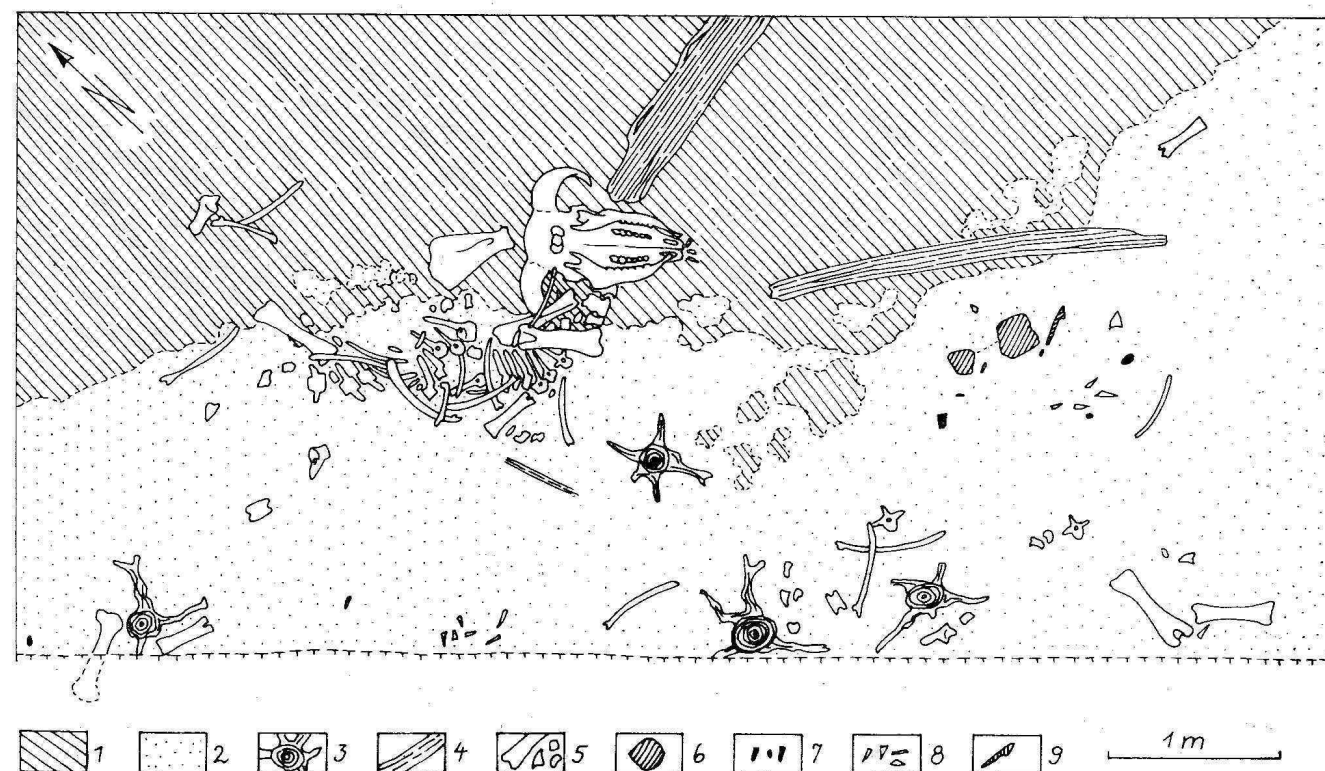


FIGURE 1. Neumark-Nord (Geiseltal). Butchering site of an aurochs. 1 mud, 2 shore sand, 3 tree stumps, 4 tree trunks, 5 bones of the aurochs, 6 anvil, (kristallin), 7 silex artifacts, 8 bone splinters, 9 tip of a tusk (tool?).

they consist mainly of the fractured bones and dental remains of big game — bovids, wild horse, rhinoceros and elephant. Less common are cervid remains.

The fractured bones found in the lower shore zone have equally to be assigned to a living floor situated more outside this zone. In both zones, the areas of the shore containing the food refuse yielded numerous silex artefacts. In particular, there were flakes and some disc cores in the lower shore zone scrapers occurring only rarely.

As yet, some hundred artifacts were uncovered from the upper zone which were somewhat different in their appearance from those of the lower zone:

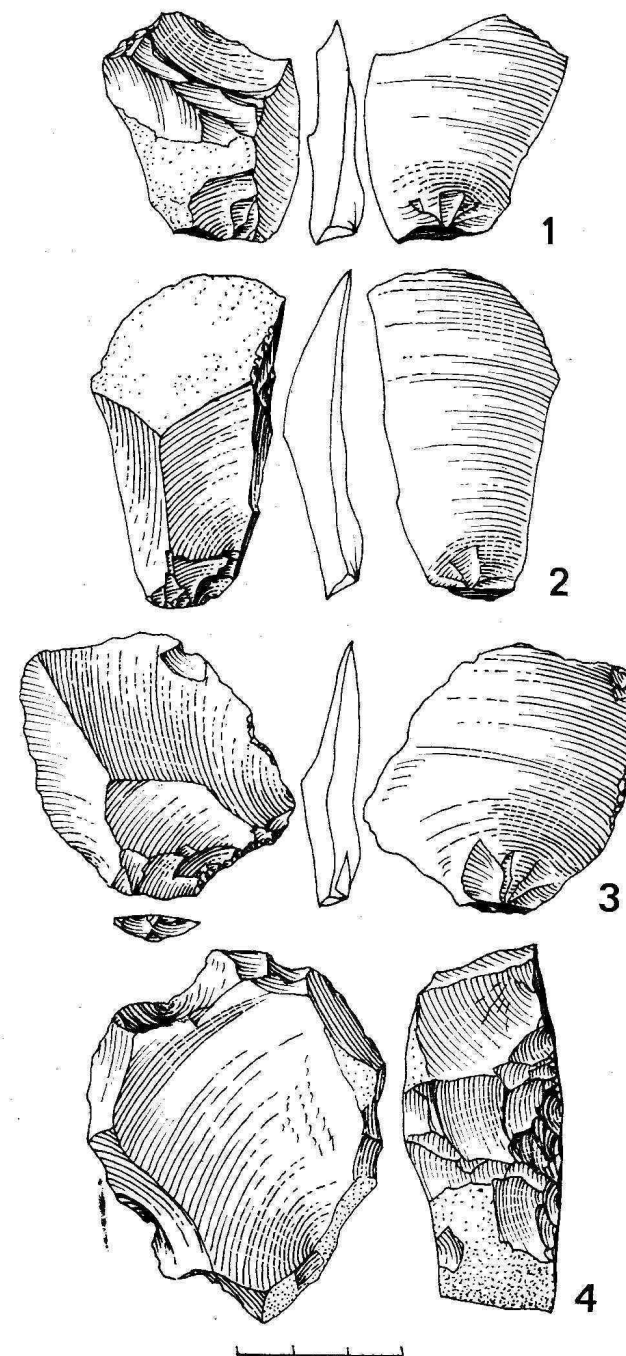


FIGURE 2. Neumark-Nord (Geiseltal). Silex artifacts found on butchering sites.

numerous small disc cores and their residuals, irregular flakes and some edge retouched tools with denticulated tools predominating.

These inventories are quite distinct from the artifact assemblages found on the butchering sites, where only unretouched flakes occur!

„GROBDETRITISMUDDEN“

In these muds, especially in those connected with the shore zones, numerous fallow deer skeletons occur. More skeletons were also found in the laminated limestone mud. At present, a total of ten skeletons more or less complete were excavated. Of other ten skeletons, only parts could be secured. Considering the area excavated by the digger, at least some more 20 to 30 skeletons may have been destroyed by the digging operations. It is conspicuous to see so many skeletons occurring most of which were fallow deer. One cervid exhibits an injury on the cervical spine probably inflicted by hunting arms. In its vicinity, a ca 1 m long charred pole was uncovered. We have come to explain these skeletons as victims of animal drives which had been executed by middle Palaeolithic hunters specialised on fallow deer. This assumption is also confirmed by the fact that 90 % of the animals hunted found in the lower shore zone belong to cervids. The skeletons in the muds come from victims of animal drives having died in the lake too far away from the shore to be reached by the hunters. In another case, the skeletal remains of a big cerf (giant cerf?) were excavated which were still in their natural articulation: vertebral column (without ribs), pelvis and right hind extremity. All the other skeletal parts were missing and could not be found even in the farther surrounding area. Several vertebrae, the pelvis and the exterior side of the distal femur joint display up to 5 mm deep and 5—8 mm wide circular depressions which are regarded to be gnawing marks caused by a large predator which also had carried off the other carcass remains.

CONCLUSIONS

The findings illustrate the hunting operations of the middle Palaeolithic hunters and permit to recognize particular economic-ecologic relations as yet rarely observed, characterized also by the stone artifact inventory: Only flakes of silex occur serving for butchering and dismembering the animal carcasses. Such small inventories are not comparable to inventories from living floors or camping sites with numerous well retouched tools occurring there. Comparable is the finding of the forest elephant together with a spear of yew and some flakes of silex from Eem basin deposits of Lehringen near Hannover (Thieme and Veil 1985) as well as the latest finding of the contemporary basin formations of the brown-coal quarrying of Gröbern near Bitterfeld. Here, colleagues of the Landesmuseum für Vorgeschichte Halle discovered the bones stripped off meat coming from

a forest elephant posed arbitrarily on a pile. All about them and between them, simple silex flakes appeared which were derived from disc cores. This butchering site of the aurochs from Neumark-Nord can easily be paralleled to the finding of Potsdam/Schlaatz (Gustavs 1987, Gramsch 1987) deriving from the Younger Dryas.

As in the case of Neumark-Nord, only skulls with spinal column and thorax were present here. Equally, only blades of silex were employed, instead of retouched tools (Gramsch 1987). By these finds, the special composition and technology of the artifact inventories of the butchering areas outside the camping sites is confirmed. Moreover, it is interesting to observe that bones stripped off meat, even long bones, remained on the butchering site.

So, the true individual percentage of the hunted animals cannot be inferred to by the bone refuse of the camping sites without restriction. Equally, the number of big hunted animals may have been underrepresented on the camping sites. The traces of occupation on the higher parts of the shore zones of Neumark-Nord show, however, the preference of the Pleistocene hunters for certain localities of staying near waters which were stagnant, in most cases near the mouths of smaller rivers and brooklets, e.g. at places like Bilzingsleben, Rabutz (Soergel 1920, 1921), Königsau etc.

Summing up, the new site of Neumark-Nord can be characterized as a combined hunting-, but-

chering- and living floor site situated in the lowland on the shore of a small lake rich in vegetation.

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