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Kammern-Grubgraben

Christine Neugebauer-Maresch, Margit Bachner (†) & Johannes M. Tuzar

Zusammenfassung

Die Kulturschichten im Grubgraben bei Kammern sind seit der zweiten Hälfte des 19. Jh. bekannt. In den 80er Jahren wurden bei den Ausgrabungen Brandtner und Montet-Whites fünf Kulturschichten und Strukturen einer Behausung ausgegraben. Die Fundstelle ist durch eine reiche Knochenindustrie charakterisiert, die Nadeln mit kleinem Ohr, Elfenbeinspitzen, Spatel, runde Anhänger und gezähnte Knochenartefakte enthält. Besonders bemerkenswert sind ein Lochstab, das Fragment einer Speerschleuder und die Flöte aus der Tibia eines Rentiers.

Summary

The cultural layers in the Grubgraben near Kammern have been known since the second half of the 19th century. In the eighties during the excavations of Brandtner and Montet-White five cultural layers and dwelling structures have been unearthed. The site is characterized by a rather abundant bone industry which contains needles with tiny eyes, ivory points, spatulas, round pendants and denticulated bone artefacts. Most remarkable are the fragment of a spear thrower and a flute from the tibia of a reindeer.

Keywords: Epigravettian, dwelling structures, bone flute, needles, baton

The site Kammern-Grubgraben (NEUGEBAUER-MARESCH 1999) is situated east of the river Kamp between the Heiligenstein, 360 m above sea level, and the 336m high Geißberg in the southeast within a tectonic depression forming a basin open to the south. In that place there are mighty layers of loess. One can get to the Grubgraben via a deep defile. In its lower part the first finds were detected (WURMBRAND 1879). In the following decades there were finds in the upper parts as well (SPÖTTL 1889). A first publication was made by H. OBERMAIER (1908). The cultural layers were cut through by the narrow pass which was the cause for the first excavations carried out by Bayer and Kiesling in 1922. Successive unauthorized collections led to repeated salvage excavations (1962 by Lucius).









Fig. 1: Defile which cuts through palaeolithic layers; rescue excavation carried out by E. Lucius 1962 (photograph NHM)

This couldn't be stopped until a wall was built in 1985. In the same year investigations by F. Brandtner and A. Montet-White started. From 1986 to 1987 and from 1989 to 1990 they excavated together whereas Brandtner carried out fieldwork by himself in 1993 and 1994 (MONTET-WHITE 1988 and 1990). They excavated 180 m² but due to the high density of finds and the long archaeological sequence the investigation is not yet completed in all parts. Five cultural layers – horizons of human occupation partly in direct superposition – have been found within 2 m of loess sediment. Haesarts (in MONTET-WHITE 1990, 29) attributed the palaeosol at the base to the Interglacial while F. BRANDTNER (1996, 23) was convinced it had been formed during an Interstadial of Würm around 30,000 y BP. From the 2 m of loess above the cultural layers we have a TL-date of 14 ka. Datings from bone samples are mainly distributed around 19,000 y BP.

The lowest layer (5) was found in the northeast of the excavated area consisting of some scattered finds which had been deposited at the beginning of dry and cold loess drifts. Layer 4 seems to be the result of a longer occupation because it was characterized not only by a high density of finds in the north but also by car-



Grubgraben 1986



Grubgraben 1986



Grubgraben 1985



Fig. 2: 1986: A view over the excavated area (photograph G. Trnka)

bonized bones and ashes. To the south and the east the layer becomes more and more thin and finally ends. It contains deposits of bone, artefacts and some stones brought into the camp.

The main layer is layer 3. It lies directly above layer 4 and is only separated from the later in the north by 3 to 4 cm of loess. The two layers which were deposited in a short time can be distinguished by a secondary change of colour of the finds. In 1993 and 1994 the excavation reached the thickest part of this layer. Within the layer there are deposits of numerous slabs of slate and arkose from the flanks of the Heiligenstein. Massive blocks of gneiss with a weight of more than hundred kilos from the Geisberg are especially remarkable. Apart from the high quality and the density of finds the stone deposits are a further argument for a semi permanent camp. Pointed hooks of reindeer antler stuck in the ground and seem to have fixed the cover of a tent. F. BRANDTNER and B. KLIMA (1995) reconstructed this structure as a dwelling with a circular layout and an entrance facing south. Postholes are missing but there were partly big stones surrounding the structure outside. Flat blocks have been interpreted as tables and seats.









Fig. 3: A view over the excavated area 1993; in the foreground F. Brandtner, in the background (standing) B. Klima (photograph G. Trnka)

Layer 2, a loess layer, was lying directly above layer 3 and provides evidence for the beginning deterioration of the climate. The separation of the finds from those of layer 3 is rather difficult especially in the area of the stone slabs because some of the stones obviously reddened by the heat seem to have been reused. There is also a series of hearths. It is supposed that the dwelling has been rebuilt at the same place (F. BRANDTNER 1995).

These structures are covered by a 1 m thick layer of loess and above it there is layer 1 with remains of a short time occupation within a limited area. A working place with a stone seat and a hearth should be mentioned in particular. The hearth was built with stone slabs arranged around a square shaped central stone (A. MONTET-WHITE 1990). The most important find of this horizon is a baton with a zigzag ornament. In the western wall of the deep defile there are 3 m of loess above this layer. After its deposition a 2 m deep erosion gully through the layer and was refilled during a moderate maritime climate by silty sands with horizons of gravels. The youngest 2 m thick late glacial loess containing shells of *Pupilla* was TL dated to 14 ka y BP.

Only parts of the stone tools from the different layers (mainly from layer 3)









Fig. 4: 1994: F. Brandtner explaining the stone layer, in the background M. Bachner and O. Schmitsberger (photograph G. Trnka)

have been described and studied yet. There seem to be no major differences from a typological point of view. Comparable to the old collection tools are mainly based on flakes with mainly steep and dorsal retouches; blades and gravettes are practically missing. The blanks are flat and broad blades, coarse flakes, split nodules, narrow bladelike flakes with a high ridge and a series of microlithic tools. Endscrapers and scrapers are dominating. Burins are rather rare. Apart from a single scraper made of obsidian a series of notched tools with points similar to borers and zinken and usewear traces at the notches should be especially mentioned. These notched pointed scrapers were especially concentrated near the dwelling and according to the opinion of the excavator these had been used for working bone. The bone industry is rather abundant at this place: a series of needles with tiny eyes, ivory points, spatulas, round pendants and denticulated bone artefacts are a proof of special skills. The hooks which fixed the cover of the tent, axes and a dagger were made of reindeer antler. The antler of a red deer was used to produce an axe similar to the one from Willendorf. A fragment of a spear thrower

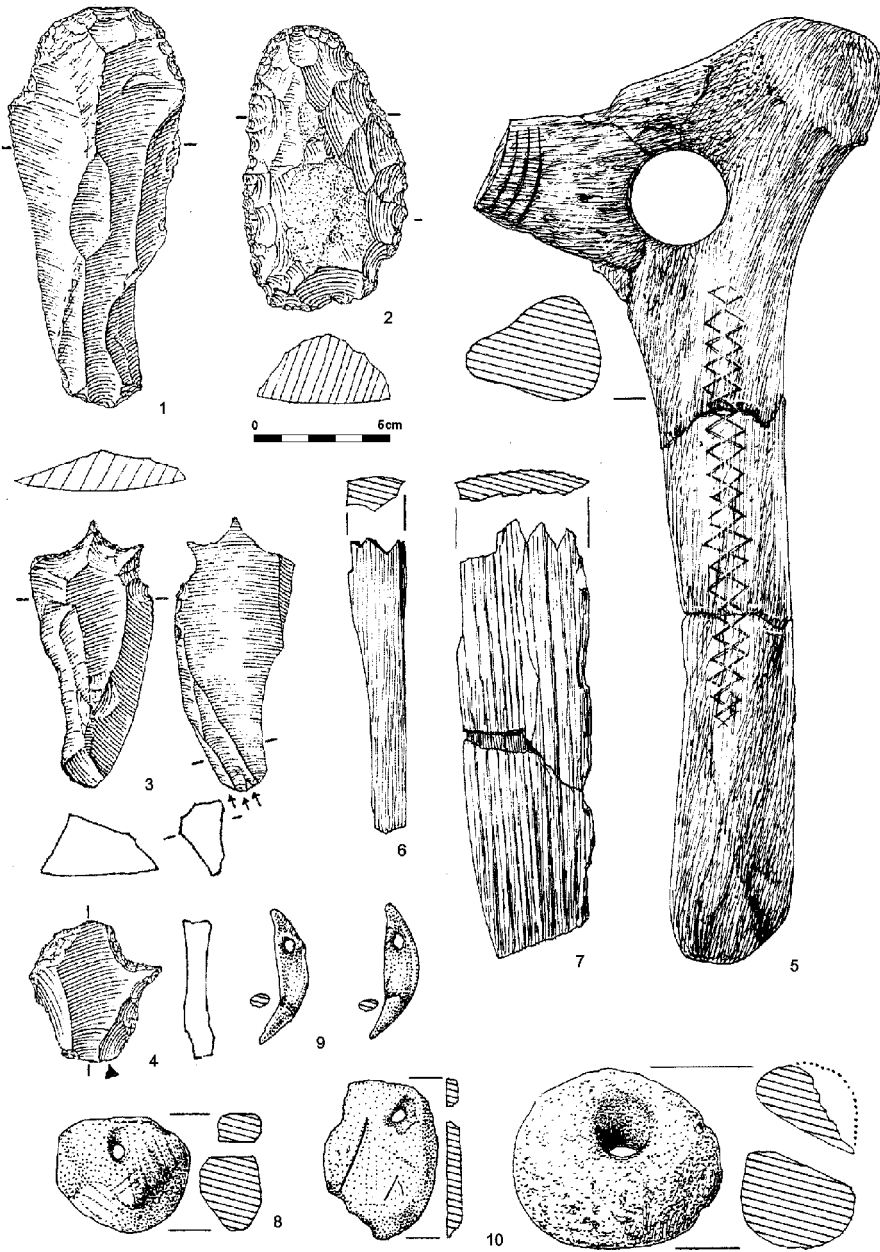
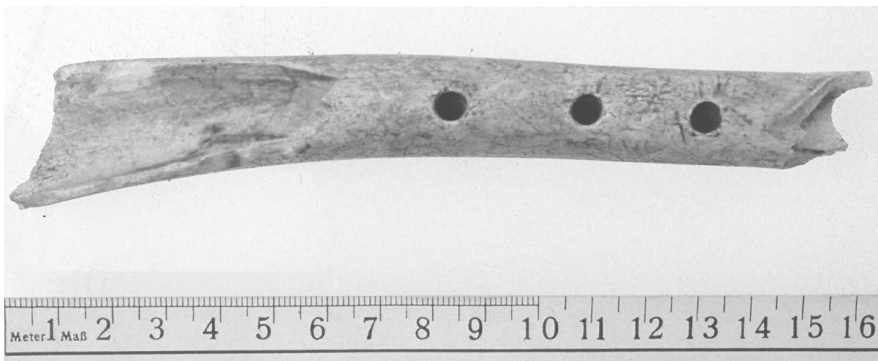


Fig. 5: 1,2 different types of scrapers, 3,4 notched tools with points like zinken or borers, 5 decorated baton, 6,7 carved ivory plates and perforated plate of shist, 9 teeth from arctic fox, 10 round pieces (after Brandtner 1990 and 1996)







and of a flute made of the tibia of a reindeer which is 16 cm long with 3 perforations were also recovered (EINWÖGERER & KÄFER 1998, BACHNER & WINDL 2004).

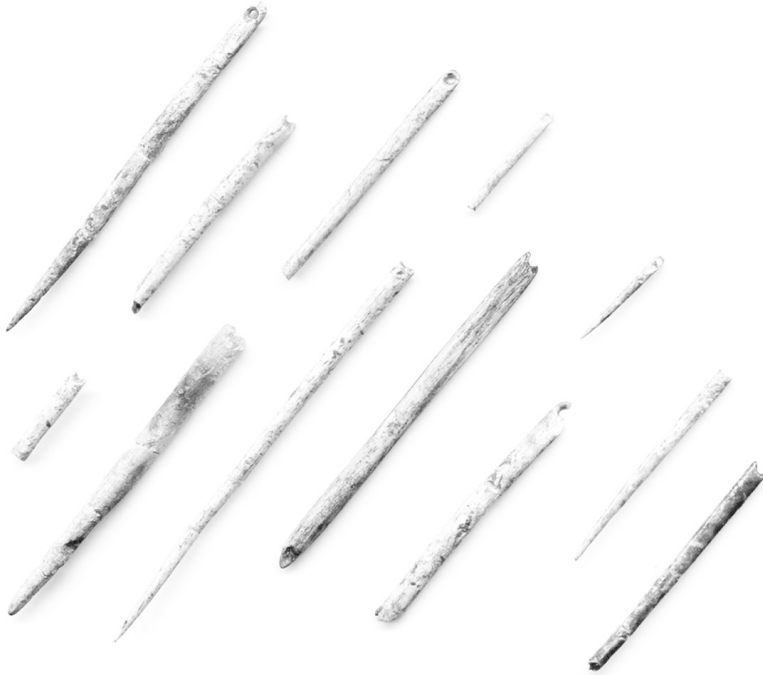


Fig. 6: Needles of bone (photograph G. Trnka)

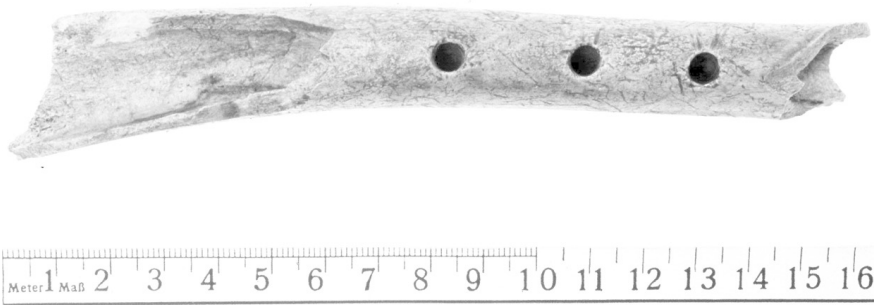


Fig. 7: Bone flute (photograph T. Einwögerer)

Canines of arctic foxes and fossil snails and tertiary bivalves have been used as pendants. A pendant of alabaster, a quartz nodule with extremely fine perforation and fragments of round pendants similar to those of Gönnersdorf should be especially mentioned.

The contrast between the aurignacoid stone industry and the bone artefacts similar to Magdalenian complexes in combination with late Gravettian datings led A. MONTET-WHITE (1990) to attribute this site to the Epigravettian. F. BRANDTNER did not agree with this classification (1996, 144) and preliminarily assumed a unique position of the site. J. K. KOZLOWSKI (1996) also attributed the site to the Epigravettian referring to the datings from 19 to 17 ka y BP. After his opinion the direct sequence of settlement periods is a characteristic of that time and is due to small very mobile groups. This can be seen as an argument for a change of the family size and the hunting strategies. Due to the lack of typical backed bladelets we should look upon these attributions with caution.

After the death of F. Brandtner these studies have not been continued. M. BACHNER (†) sorted and reconstructed his heritage on behalf of the Lower Austrian Regional Museum who is the owner of the finds, in cooperation with the Krahuletz-Museum Eggenburg as well as the Prehistoric Commission of the Austrian Academy of Sciences.

It is also important to mention that artefacts and original documentation were brought back to Austria from the University of Arizona, USA. The aim was to assess the amount of work, necessary to initiate a project for scientific investigations and field work in order to clarify and complete the documentation. We hope that this promising complex can soon be analyzed and the full scientific value of one of the most important Palaeolithic sites of Austria can be demonstrated.

References

- BACHNER, M. & WINDL, H. (2004): Die Flöte vom Grubgraben. In: Schwanenflügelknochen-Flöte, Textheft zur Sonderausstellung, Württembergisches Landesmuseum Stuttgart, 32-33
- BRANDTNER, F. (1990a): Die Paläolithstation „Grubgraben“ bei Kammern. Vorläufige Ergebnisse neuer Grabungen, Fundber. Österr. 28, 1989, Wien, 17-26
- BRANDTNER, F. (1990b): Stand der Paläolithforschung in Niederösterreich. Vortrag gehalten auf der Niederösterreich-Tagung der Gesellschaft für Vor- und Frühgeschichte in Asparn/Zaya, Mannus, Bonn und Wien, 43-58
- BRANDTNER, F. (1995): Mineralien und Gesteine als Rohmaterial für Werkzeuge und Geräte am Beispiel der Paläolithstation „Grubgraben“ bei Kammern, NÖ. In: Katalog zur Sonderausstellung: Schamanenzauber und Eiszeitkunst, Katalogreihe des Krahuletz-Museums Nr. 14, Eggenburg, 59-61
- BRANDTNER, F. (1996): Zur geostratigraphischen und kulturellen Zuordnung der Paläolithstation Grubgraben bei Kammern, NÖ. In: Svoboda J. (Hrsg.), Paleolithic in the Middle Danube Region, Festschrift B. Klíma, Arch. ústav AV ČR, Brno, 121-146
- BRANDTNER, F. & KLÍMA B. (1995): Überlegungen zu einer Rekonstruktion der Behausung der Paläolithstation „Grubgraben“ bei Kammern, NÖ. In: Katalog zur Sonderausstellung Schamanenzauber und Eiszeitkunst, Katalogreihe des Krahuletz-Museums Nr. 14, Eggenburg, 45-50
- EINWÖGERER, T. & KÄFER, B. (1998): Eine jungpaläolithische Knochenflöte aus der Station Grubgraben bei Kammern, Niederösterreich., Arch. Korrespondenzblatt 28, 1998, 21-30
- HAESAERTS, P. (1990): Stratigraphy of Grubgraben Loess Sequence. In: Montet-White, A. (Ed.) The Epigravettian Site of Grubgraben, Lower Austria: The 1986 and 1987 Excavations. ERAUL 40, Liège, 15-35
- KÄFER, B. (2000): Knochenklang, Klänge aus der Steinzeit. CD, erschienen im Verlag der ÖAW
- KOZŁOWSKI, J. K. (1986): The Gravettian in Central and Eastern Europe, *Advances in World Archaeology* 5, 131-200
- KOZŁOWSKI, J. K. (1996): The Latest Aurignacien and "Aurignacoid" Elements in the Epigravettian of the Carpathian Basin. The Colloquia of the XIII International Congress of Prehistoric and Protohistoric Sciences, Forlì, 8.-14. September 1996, Vol. 6, 83-98
- MONTET-WHITE, A. (1988): Montet-White A., Recent Excavations at Grubgraben, a Gravettian Site in Lower Austria, Arch. Korbl. 18, 213-218
- MONTET-WHITE, A. (1990): (Ed.), Montet-White A. (Hrsg.), The Epigravettian Site of Grubgraben, Lower Austria: The 1986 and 1987 Excavations, *Etudes et Recherches Arch. de l'Université de Liège* 40
- MONTET-WHITE, A. (1992): Un Epigravettien en Basse Autriche, *Etudes et Recherches Arch. de l'Université de Liège* 43, pp. 87
- NEUGEBAUER-MARESCH, CHR. (1999): Le Paléolithique en Autriche, *Préhistoire d'Europe* 8, Grenoble
- OBERMAIER, H. (1908): Obermaier, H. Die am Wagramdurchbruch des Kamp gelegenen niederösterreichischen Quartärfundplätze, *Jahrbuch für Altertumskunde* 2, 49-85
- SPÖTTL, I. (1889): Resultate der Ausgrabungen für die Anthropologische Gesellschaft in NÖ und in Mähren im Jahre 1889. *Mitt. Anthropol. Ges. Wien* XX, 1890, pp. 59
- WURMBRAND, G. (1879): Über die Anwesenheit des Menschen zur Zeit der Lößbildung, *Denkschr. kais. Akad. Wiss., math.-naturwiss. Cl.* 39, 1-22, Pl. I-IV, Plans I-II

Authors' addresses:

Christine Neugebauer-Maresch
Austrian Academy of Sciences
Prehistoric Commission
Fleischmarkt 22
A-1010 Vienna
Austria

Johannes M. Tuzar
Krahuletz-Museum, Eggenburg
Krahuletzplatz 1
A-3730 Eggenburg
Austria

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