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Palaeolithic research in Austria

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Zusammenfassung

Der Artikel beschreibt die Geschichte der Altsteinzeitforschung in Österreich von den Anfängen im 19. Jh. bis heute. Einen besonderen Schwerpunkt bildet die Feldforschung Josef Bayers bis zu seinem Tod im Jahr 1931. Die Publikation seines Erbes nach dem 2. Weltkrieg war begleitet von interdisziplinären Studien die zusammen mit Geologen und Paläontologen durchgeführt wurden. Nach einer Stagnation in den 60er Jahren waren es paläontologische Studien, die ein neuer Anstoss für die Paläolithforschung waren. Mit den Rettungsgrabungen in Stratzing lebten die Feldforschungen in den Lössgebieten Niederösterreichs wieder auf. Der letzte Abschnitt dieses Beitrags zeigt die aktuelle Situation der Paläolithforschung in Österreich.

Summary

The article presents the history of Palaeolithic research in Austria from the beginnings in the 19th century to our days. A special focus is set on the fieldwork of Josef Bayer until his death in 1931. The publication of his heritage after World War II was accompanied by interdisciplinary studies together with geologists and palaeontologists. After a stagnation in the 1960ties palaeontological studies in cave sites were a new impetus for Palaeolithic research. Field work in the loess areas of Lower Austria were revived with the rescue excavations at Stratzing. In the final part of this contribution the current situation of Palaeolithic research in Austria is presented.

Keywords: Paleolithic, history of research

The beginnings

The history of Palaeolithic research in the area of present-day Austria developed parallel to the research of other prehistoric periods. It started in the 19th century with the collections of erudite laymen like Candid Pontz Reichsritter von Engelshofen and scholars like Eduard Freiherr von Sacken and Gundaker Graf

Wurmbrand. With the foundation of the first chair for Pre- and Protohistory at the University of Vienna in 1899 and the scientific work of Moritz Hoernes (1903) Palaeolithic research was finally an integrated part of Prehistory.

Hoernes was the first to separate from French research which mainly tried to achieve a relative chronological sequence on the basis of typology. From the beginning Austrian research aimed at a faunistic and geostratigraphic framework (A. PENCK & E. BRÜCKNER 1909).

Under the influence of the discovery of Altamira and other caves with paintings in southwestern Europe the cave sites of Lower Austria were especially attractive for first excavations. As early as in the eighties of the 19th century local researchers were interested in the caves of the Krems valley. They discovered several sites and carried out excavations like Hacker in the Gudenushöhle, named after its owner, in 1884. Although the excavators mixed artefacts from different layers, which were later distinguished by means of typology (BREUIL & OBERMAIER 1908), the Gudenushöhle is the most important site of the Middle Palaeolithic in Lower Austria.

Apart from that a series of open air sites like Willendorf in the Wachau have been discovered. To J. Strobl we owe the rescue of artefacts from Krems/Hundssteig, a site which had been destroyed during systematic Loess exploitation at the turn from the 19th to the 20th century (STROBL 1901). It was probably one of the richest Palaeolithic sites in Austria.

J. Szombathy, J. Bayer und H. Obermaier

The first decades of the 20th century are shaped by scientists like J. Szombathy (curator of the anthropologic-ethnographic collection of the Natural History Museum of the Imperial Court in Vienna) as well as H. Obermaier and J. Bayer.

Hugo Obermaier came to Vienna as theologian who studied Prehistory at the University of Vienna. In 1904 he finished his studies and achieved his postdoctoral qualification in 1909. Until 1911 he stayed in Austria and participated in field work like at Willendorf or carried out excavations in Langmannersdorf and Gobelsburg-Zeiselberg. Together with H. Breuil he published not only the finds from the Gudenushöhle (BREUIL & OBERMAIER 1908), but also the ones from the Hundssteig and an article about the sites at the lower Kamp river (OBERMAIER 1908). In 1911 he published together with F. Kießling a basic contribution about the so called “Plateaulehmpaläolithikum”, a special sort of surface finds from the northern Waldviertel with Mousterian and Aurignacian character frequently dis-



Josef Szombathy



Hugo Obermaier

cussed concerning their chronological position (KIEBLING & OBERMAIER 1911).

In 1907 Josef Bayer finished his studies and was employed at the Natural History Museum of the Imperial Court in Vienna as an assistant to J. Szombathy whom he succeeded in 1919. M. Hoernes was his teacher in Prehistory and A. Penck supervised his studies in geography. In 1908 he carried out excavations as J. Szombathy's assistant side by side with H. Obermaier. During World War I he was in the army from the beginning of the war. The military service brought him to the Gazah front. There he carried out surface collections and summarized these finds with the term "Askalonkultur". After his return he became director of the Anthropologic and Prehistoric Department of the Natural History Museum. Until his early death in 1931 his work was dedicated to field surveys. With only a few exceptions practically all Palaeolithic sites known today have been detected by him or his collaborators from all parts of the country. J. Bayer carried out most of the excavations himself, published the results or left partly excellent documents in form of his diaries ("Blaue Bücher"). He made many of his works together with the photographer Lotte Adamez (Natural History Museum). Further he

planned the foundation of an “Ice Age Institute” based on interdisciplinary research and edited the scientific journals “Die Eiszeit” and “Eiszeit und Urgeschichte”. He was convinced of a biglacial Ice Age and published contributions which discussed the Ice Age chronology in 1909, 1927 (a) and 1928. He first described a Gravettian of Central and Eastern Europe and wanted to distinguish it as „Aggsbachian“ from the French Gravettian. His studies have not been limited to the loess regions. He also extended his research to the caves of Lower Austria and the alpine region. He created the term “Olschewien” (BAYER 1929) for cultural groups in the central and eastern European mountainous regions already being a part of cultures



Josef Bayer

with narrow blades. The key type of these cultures are bone points of the type Lautsch accompanied by mousteroid artefacts. His scientific dispute with Hugo Obermaier which originated in the finding of the Venus of Willendorf is well known. J. Bayer as well as H. Obermaier regarded themselves as directors of the Willendorf excavation which from a formal point of view had been conducted by J. Szombathy of the Natural History Museum of the Imperial court. Diary notes, letters and publications show the attempts of both to underline their role as director of the excavation and finder of the Venus (summaries published by ANGELI 1989 & ANTL-WEISER 2008). Also with his biglacial Ice Age system he was in contrast to H. Obermaier.

One of the last excavations of J. Bayer concerning Palaeolithic remains was the excavation at Krems/Wachtberg in summer 1930. He never published this material which remained in the Historical Museum of Krems for 60 years. This could explain why J. Bayer did not discover the real sensation: fragments of ceramic animals like the ones from Dolní Věstonice or Pavlov. The first find of this kind was a mammoth from Dolní Věstonice in 1924 which J. Bayer got to know.

We can therefore be sure that he knew such artefacts. Only F. KIEBLING (1934) described pieces of clay similar to the head of an animal. Taking an inventory he gave a number to the piece. In 1972 J. Hahn mentioned the clay fragment resembling the head of an animal but only in the nineties during new studies of the archaeological and palaeontological material the piece was identified and interpreted together with some other fragments (EINWÖGERER 2000).

The early death of J. Bayer in 1931 led to a stagnation of Palaeolithic research which saw a real renaissance only after World War II.

The post war period

Research after World War II is primarily connected with F. Felgenhauer and the Institute for Prehistory of the University of Vienna. Due to a lack of funding for extensive field work there was a special focus on J. Bayer's scientific heritage: monographic publications of the sites in the Wachau like Spitz (FELGENHAUER 1951a), Aggsbach (FELGENHAUER 1951 b) and above all Willendorf (FELGENHAUER 1959), but also Getzersdorf (FELGENHAUER 1955), Langmannersdorf (ANGELI 1953) and Kamegg (BRANDTNER 1955) emerged. Efforts of interdisciplinary research were decisive during this period. Geology and Palaeoclimatology started studies concerning the loess stratigraphy (F. Brandtner, J. Fink) being still in progress today. The new possibility of radiocarbon datings did not always contribute to a facilitation of cultural classifications. The financial situation only allowed small scale field work. While the building of the railway had cut through the ice age camp sites like Willendorf at the beginning of the 20th century now the new Wachau road and other building projects again cut through a series of sites (Aggsbach, Horn, Getzersdorf). Apart from an excavation in 1961/62 at Langenlois (FELGENHAUER 1974), smaller rescue excavations at Kammern in 1962 (LUCIUS 1974), at Hollenburg in 1966 (FELGENHAUER 1969), at Ruppersthal in 1971 (BACHMAYER & al. 1971) and the prehistoric research at Stillfried, where F. Felgenhauer detected a Gravettian flint knappers workshop (FELGENHAUER 1980) no further field work was carried out. As a student of F. Felgenhauer, W. Heinrich (HEINRICH 1973) summarized the Upper Palaeolithic finds of Austria. This was unfortunately never published in full detail (HEINRICH 1974-75). Comprehensive studies concerning the Aurignacian of Central and Eastern Europe (BROGLIO & LAPLACE 1966 a, HAHN 1977) and the Gravettian of Central Europe (BROGLIO & LAPLACE 1966 b, OTTE 1981) also considered Austrian sites and integrated the finds into the European cultural development.

Research in the alpine cave sites

Palaeolithic research in the alpine region developed differently. Even nowadays finds from open air sites are rather rare (FUCHS 1994). All finds are from caves which have been known for a relatively long period. During World War I Austria faced an increasing lack of fertilizers especially of those based on phosphate. In 1917 the Austrian Ministry for Agriculture ordered to search for all sorts of phosphate deposits in the country. This led to the exploitation of cave deposits containing bones of extinct animals which was carried out with big technical effort (mine railways, chutes, cable cars). This partly affected the Tischoferhöhle near Kufstein (Tirol) which was already known as a prehistoric site, but especially caves like Peggauer-Felsenhöhle, Badl-, Repolust- and the Drachenhöhle near Mixnitz in Styria. Bearing in mind scientific questions a commission for the exploration of the caves was established which was composed of technicians, people who executed the works and leading representatives of science. The Central Commission for the protection of monuments (the prehistorian Georg Kyrle) and the palaeobiologist Othenio Abel were brought into play. They recognized that the rich deposits of phosphate were connected with the remains of fossil mammals and they concluded that primarily the cave bear and its excrements, its carcass and the intruded prey were responsible for the phosphate deposits. The mighty up to 9 m thick deposits of the Drachenhöhle produced 21,000,000 kg fine grained material, approximately 500,000 kg of bone fragments for the production of fertilizers and 4,000 kg fossils selected for scientific purposes (EHRENBERG 1970). Parallel to these scientific studies were pushed ahead (KYRLE 1921, ABEL & KYRLE 1931) and reports sound rather unbelievable: "A very rich material of rare abundance and variety exists for the palaeontologist. Waggon of fossil bones are unearthed and characteristic and important assemblages are completely recovered by specialists. In this way Abel and his students systematically unearthed precious osteological material. Bone fragments dedicated to the bone mills are screened with respect to their scientific value in order to prevent interesting pieces to be brought to the bone mills." (KYRLE 1921).

The excavations at Mixnitz made spelaeology a renowned science. In 1929 the first chair of this science at the University was held by G. Kyrle. In 1929 these caves were declared as monuments of nature and finally protected (TRIMMEL 1972).

In spite of this – comparable to the situation in the East of Austria – more intensive studies didn't start before the fifties mainly characterized by the work of

the palaeontologist Maria Mottl (Country Museum of Styria Joanneum at Graz). She published many palaeontological and archaeological studies concerning her research in the alpine caves with Palaeolithic finds (Salzofenhöhle 1950a, Lieglloch 1950b, Repolusthöhle 1951) which she tried to classify from a cultural and chronological point of view (MOTTL 1968, 1975 a and b). Recent studies in the Styrian caves shed new light on the results of her studies as was to be expected (FUCHS 1989, FLADERER 1992, 1999, FLADERER, FUCHS & FÜRHNOLZER 1999). Research in the Lurgrotte north of Graz a well known cave open for visitors are remarkable because there are deposits from the time of neanderthals. On the occasion of an excursion of the 2nd European Congress of Palaeontology in 1997, a 7 m thick sequence of layers was documented. In the Middle Palaeolithic layers there were animal bones and artefacts made of quartz. Apart from this a humerus of a reindeer with clear cut marks provides evidence for the presence of Neanderthals. (FLADERER et al. 2002).

Almost a new beginning

While there was a stagnation in archaeological field work in the course of the sixties palaeontologists and speleologists continued their field work (EHRENBERG 1966) and thus initiated a new phase of prehistoric research. To G. Rabeder we owe not only the discovery of single artefacts from caves of the alpine region of Lower and Upper Austria (Nixloch, Gamssulzen, Herdengelhöhle) giving evidence of the presence of Ice Age man, but also the development and use of new dating methods (evolutionary stages of cave bears, use of uranium series, HILLE & RABEDER 1986). A comprehensive presentation of these sites was published as a "Catalogus fossilium Austriae" (DÖPPES & RABEDER ed. 1998).

Initiated by the local speleological society (MAYER et al. 1983) the Teufelsrast-Felsdach in the valley of the river Krems was excavated from 1983 to 1985 which brought evidence of its use by Palaeolithic hunter-gatherers (NEUGEBAUER-MARESCH 1993 and 1999).

In the middle of the eighties Palaeolithic finds from open air sites returned to the centre of interest. The building of a water works at the Galgenberg of Stratzing led to the discovery respectively the rediscovery of an Aurignacian site which has been studied during the following 15 years on behalf of the Bundesdenkmalamt. In 1988 the finding of a human statuette made of stone was an international sensation. The statuette interpreted as female figurine is depicted in a moment of motion. Its nickname „Fanny“ (after the famous Austrian dancer Fanny Elßler)

expresses the difference to Gravettian figurines like the Venus of Willendorf: the posture is not static but dynamic. The scientific significance of the site lies in the abundant evidence of settlement structures and the stratigraphy. With an excavated area of 1200 m² Stratzing is the largest excavation of Palaeolithic layers in Austria as far as the excavated area is concerned. (NEUGEBAUER-MARESCH 1988, 1990, 1993, 1996, 1999, 2000, 2007).

The public presentation of the statuette led to vivid debates: first of all the site name of the statuette had to be extended to Stratzing/Krems-Rehberg because the border between Stratzing and Krems leads through the site. In 1988 the excavation included a plot belonging to Krems. Fragments of the statuette were found a few metres in the area of Rehberg which is a part of Krems. Therefore the city of Krems postulated Krems as the origin of the statuette. All fragments of the statuette could be refitted except a small part between the legs leaving a sharp edge sometimes interpreted as a fractured penis. Accordingly the breast on the right side would be the elbow and the upright arm could be regarded as a club held by a man. Although there are sufficient arguments against this interpretation of the figurine the manufacturer rather focussed on the posture than on the sex of the depicted human being. The only analogies are a relief from the Geissenklösterle (HAHN 1986) and a figurine half man half lion from Hohlenstein-Stadel (WEHRBERGER 2007) as well as the smaller variant from Hohlefels (CONARD 2007) which can be judged according to the same principle.

In considering that the figurine is the oldest piece of art ever found in Austria and following its interpretation as a female figurine which then is the oldest female representation of the world a bronze monument fifteen times bigger than the statuette was positioned at the crossing of Krems-Rehberg/Stratzing (Gneixendorf). The association of wine growers from Stratzing reserved for themselves the right of commercial exploitation of the name “Fanny, the dancing Venus from the Galgenberg”. Her image can be found on labels of selected wines, wine glasses, napkins, parasols etc. and of course on publications of the community of Stratzing. In 1996 a hiking trail was established leading interested visitors across the site. The trail was renewed in 2008.

At the same time F. Brandtner came back from America to his home country as a pensioner and revived his research which had been interrupted in the fifties. Partly together with A. Montet-White he started excavations at Grubgraben-Kammern (between 1985 and 1994; MONTET-WHITE 1990, BRANDTNER 1996) and tried to publish his finds which had been left unpublished during his absence (e.g. Großweikersdorf, Aggsbach, Senftenberg). He also reopened the debate on qua-

ternary geology, the stratigraphy of Willendorf and the question concerning palaeolithic surface finds in the Waldviertel (BRANDTNER 1990). Due to his sudden death in 1999 he was not able to publish his results in scientific papers. Among many other very interesting finds of his excavation one piece is especially important: a flute made of reindeer bone. Attempts to reconstruct and play the flute have been already published on the part of experimental archaeology and natural science (EINWÖGERER & KÄFER 1998, KÄFER 2000).

Different activities finally reached the most famous Palaeolithic site of Austria - Willendorf. In the course of an international project P. Haesaerts and G. Trnka initiated a new documentation and dating of the Willendorf sequence (HAESAERTS 1990 a, b and HAESAERTS et al. 1996). On the occasion of the 90 years anniversary of the finding of the Venus of Willendorf the completely destroyed profile was cleaned in 1997. Through the initiative of S. Verginis, Laboratory of Physical Geography of the University of Vienna, together with members of a working group for Palaeolithic research of the ÖGUF founded by the author in 1995, the profile was cleaned, set back a few centimetres and newly documented. A copy of this profile was produced with the Lackfilm method which was then set up in the museum including the stone tools. After that signposts, a roof against weathering and a fence were built. Shortly afterwards a second copy was produced for the exhibition "4 Millionen Jahre Mensch" at Schönbrunn, which was later exhibited in the Natural History Museum in Vienna. In 2006 new initiatives started with the excavations of P. Nigst und B. Viola. First the main focus was on sampling for further scientific analyses. For sampling the profile was extended to the south. The main goal however is the research concerning the lower layers in order to study the transition from the Middle to the Upper Palaeolithic on a site highly important for the cultural development of Europe.

The site Alberndorf I has also been discovered in the course of palaeontological research in the north of the Weinviertel. Archaeologists continued to study the site (TRNKA 1992, BACHNER et al. 1996). Palaeolithic artefacts were found as a by product of the excavations of the Neolithic ring ditches of Rosenberg and Schletz (TRNKA 1990, OTT 1996).

In the area of Stillfried, an important region in respects of Palaeolithic research, new excavations have started. Due to the tireless collector H. Preisl numerous palaeontological and archaeological sites became known. With his collection a discussion started about a whole series of "Lower Palaeolithic" artefacts mainly found within gravels and without stratigraphical context (VALOCH 1996, 1999). Artefacts he found at the site Grub/Kranawetberg were without any doubt tools

and flakes from the Upper Palaeolithic. At this site, known since many years, bones had been unearthed by ploughing. After the first archaeological investigations a project concerning further excavations and scientific analyses was formulated (ANTL-WEISER 1996, 1997, 1998). Apart from the remains of butchering a multilayered hearth and traces of a dwelling could be documented. Within the area of the dwelling numerous pendants and beads of ivory were found (W. ANTL-WEISER 1999). Two deciduous teeth – a molar and an incisor – from this site were the first palaeolithic human remains to be found within a stratigraphic context in Austria (TESCHLER-NICOLA & ANTL-WEISER 2000).

For a long time the first palaeolithic burial which had been found more than 100 years ago (1896) was reported from Spitz-Mießlingtal and was thrown into the Mießlingbach by superstitious people (BAYER 1927). From this site we also know a series of other human remains and there are also some fragments from the sites Willendorf I and II which can be attributed to a palaeolithic assemblage (compilation NEUGEBAUER-MARESCH 1999, 115). The age of the remains from Willendorf was confirmed by new dating efforts (TESCHLER-NICOLA & TRINKAUS 2001) while the individuals from Krems-Hundssteig belong to the Bronze Age (TRINKAUS & PETTITT 2000). It was not until 2005 and 2006 that during excavations of the Austrian Academy of Sciences the first palaeolithic graves could be unearthed in the course of modern excavations at Krems-Wachtberg. These are the double grave of two newborn babies and the single grave of a three month old infant who had carefully been covered with red ochre and partly furnished with grave goods. These Gravettian graves provide evidence for the care and respect towards the newborns, who had obviously been regarded as full members of their group; a fact which was doubted for a long time because graves of children of that age had been previously unknown (EINWÖGERER et al. 2006).

The Late Palaeolithic and the Mesolithic were presented in a doctoral thesis which dealt with the finds from old collections by W. ANTL-WEISER (1986). During excavations of Mesolithic layers at the abri near Elsbethen/Salzburg the skeleton of a child deposited in cross-legged position was found (RETTENBACHER 1998). Until now it is the first burial of that time. Due to increasing surveys in the alpine region initiated by the finding of “Ötzi” a series of other sites of that time became known (e.g. LEITNER 1999, SCHÄFER 1998).

New initiatives and ways – retrospect and prospects

A view on the publications shows that the abundance and interdisciplinary variety of scientific contributions initiated since the nineties of the 20th century is not comparable to the previous research. The only comprehensive presentation of the state of palaeolithic research in Austria (NEUGEBAUER-MARESCH 1999) – the manuscript was finished in 1996/1997 – is standing at the threshold of new initiatives. It may well be that the finding of the statuette from the Galgenberg contributed to a new interest in Palaeolithic research, but probably time was simply ready for it.

The basis established during the eighties by palaeontological studies (G. Rabeder) and surveys (G. Fuchs) in the alpine region and by a new start of Palaeolithic excavations in the loess areas of Lower Austria was continuously enlarged by its initiators (F. Brandtner, Ch. Neugebauer-Maresch). Field research of the Institute for Prehistory of the University of Vienna (G. Trnka), of the Department for Prehistory of the Natural History Museum of Vienna (W. Antl-Weiser) as well as the intensification of Mesolithic research in the high mountain regions by the University of Innsbruck (W. Leitner, D. Schäfer) should be added here.

International cooperations with G. Albrecht (University Tübingen), who held a series of workshops with students from Tübingen on the refitting of silex artefacts in Stratzing, as well as with P. Haesaerts, whose interest in the scope of an international project focussed on loess stratigraphy led to numerous contacts and discussions, started.

In 1993 the Hugo Obermaier Society held a congress together with the Austrian Society for Pre- and Protohistory in Krems. With about 200 participants from 7 countries the congress on one hand provided evidence for the newly arising interest in Palaeolithic research, on the other hand it underlined the supra-regional importance of the area of Krems.

In 1995 a working group concerning Palaeolithic research within the Austrian Society of Pre- and Protohistory was initiated (Ch. Neugebauer-Maresch) with the aim to encourage contacts between students and scientists for mutual support and especially to enable interdisciplinary work. One of the first activities was to find an almost uniform system for recording the of the stone artefacts which allows easier comparisons between the sites. A system which had been developed by the University of Tübingen was most suitable for this task and was used in a reduced version. The first study published according to this system was Krems-Wachtberg 1930 (EINWÖGERER 2000). The complete catalogue of finds was for the first time

added in a digital version (CD) by the publishers of the Academy of Sciences. This database comprising the catalogue of attributes built the basis for most of the following publications concerning studies of flint material (MAYER 2002 in prep., HINTERWALLNER 2006, EINWÖGERER & SIMON 2008, EINWÖGERER in prep.).

At the Institute for Pre- and Protohistory the offer of lectures on the Palaeolithic also increased: for the first time external lecturers got employed (W. ANTL-WEISER, workshop for drawing artefacts, since 1984, CH. NEUGEBAUER-MARESCH, lecture and seminar since 1994, I. OTT, workshops concerning typology since 1999, T. EINWÖGERER and P. NIGST, workshops since 2003) or guestlectures (J. Svoboda, L. Owen, D. Schäfer).

The main difficulty during this initial period consisted in finding the right interdisciplinary contacts. First contacts were established by students who participated in the excavations. Although there were lectures on the Palaeolithic the tradition of field research was interrupted and needed to be newly developed. A thorough scientific discussion of problems concerning the Palaeolithic did not exist apart from some exceptions since the late sixties. As a consequence there were no contacts to scientists from other disciplines especially in the natural sciences which would have been necessary for scientific analyses. These contacts increased slowly but steadily so that sedimentology, malacology, pollen analysis and various methods of absolute dating are now standard of Palaeolithic studies.

An important step in the sense of an institutionalisation of Palaeolithic research was made by the Austrian Academy of Sciences in 1998: In the course of a new orientation of the Prehistoric Commission under its chairman H. Friesinger the Palaeolithic became one of three focuses (apart from Bronze- and Iron Age).

Since 1999 the author has been employed at the Prehistoric Commission and is responsible for the Palaeolithic (NEUGEBAUER-MARESCH 2008 a). Investigations are now supported in the scope of projects of the Austrian Science Fund (FWF). Initially the project aimed at surveying and investigating the condition of the Palaeolithic sites in the central area of Lower Austria. A consequence of this project was the extensive excavation at the well known site Krems-Hundssteig due to rescue excavations (2000-2002). The discovery of a complex stratigraphy comprising layers between 41,000 and 27,000 y BP shed a completely new light on the traditional classification of this site: It was possible to reconstruct that during the earthworks around 1900 Gravettian layers must have been excavated first, then followed by rich Aurignacian layers. Therefore the rich material formerly regarded as Aurignacian was in fact mixed with Gravettian finds (NEUGEBAUER-MARESCH ed. 2008). It was further possible to provide evidence for calcified wood

among them roots, branches, and parts of trunks and perhaps also artificially modified pieces could be identified (NEUGEBAUER-MARESCH 2008 b).

From 2005 excavations at Krems-Wachtberg started as succeeding projects (2005-2008). Not far from the place J. Bayer investigated in 1930, a rich find layer had been detected by auger drillings in a depth of 5 m below the surface. The sensational discovery of the Gravattian double grave of newborns which were in excellent condition made the site well known.

Accompanying these projects an extensive data base system is being established to which internal as well as external collaborators have safe access to the newest data and can work online. Its heart is the site data base which is still under construction (quaternary sites in Austria – AQS). The biggest part presently consists of the data of the Wachtberg excavation. The catalogues of flint artefacts, attributes, raw material analyses, of photographs etc. as well as scientific analyses can be connected. Special attention is paid to a newly developed raw material analysis which comprises microscopic studies of all stone tools in and around Krems in order to show changes of raw material use in this micro region.

It is likely that especially in the North and the East of Austria only a limited number of Palaeolithic sites are known and that below metres of loess many surprises may be still covered. The potential of the high quality of sites in a central position of Europe is able to supply essential contributions to our understanding of the development of early cultures between East and West. This should be a sufficient impetus to further follow the course already adopted, while always being open for discussions with other branches of science.

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