

## II

# A REVIEW OF ARCHAEOLOGICAL RESEARCH AT THE GRUBGRABEN PRIOR TO 1980

by

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Grubgraben was mentioned for the first time in a scientific context by Graf Wurmbrand (1879) who wrote of the discoveries of horse teeth, fragments of mammoth tusk, unidentified pieces of antler and a shapeless flint object. All these things lay together in "black earth" in front of the access to the wine cellar of a parson named Ertl. Ertl's wine cellar is located near the lower end of the Grubgraben on the way to Kammern. It does not correspond to the site described by all the later authors.

During the following decades the two parsons Gustav Schacherl (1893) and Lambert Karner paid attention to the upper section of the Grubgraben where artifacts and bones were repeatedly washed out of the natural loess profile by heavy rains. According to Gustav Schacherl (1893) a cultural layer, which in its lower, southernmost part was 12 m below the loess surface could be followed up towards the Heiligenstein for a distance of about 100 m where finally it was no more than 2 - 3 m below the present surface.

Glassner described it as more strongly marked on the left side (?) of the graben ("left hand side" - probably looking "downstream" - This would mean the side of Grubgraben, where the recent excavation took place) (Obermaier, H., 1908).

The layer's thickness was not more than 0.10m. But Glassner mentioned sporadic charcoal and bone fragments below and above the cultural level.

In his oral report to Obermaier (1908) Glassner described firehearths towards the upper end of Grubgraben. These features were surrounded by blocks of granite (gneiss), which partly crumbled at any attempt to take them out.

Spöttl (1890) described the layer as rich in bone and flint and almost red in color. At the upper end of the bed he found fireplaces with ashes, coal and again those granite blocks. Here he noticed a remarkable concentration of flakes, cores and bones as well as clusters of massive boulders that were interpreted as foyers.

Spöttl gave an extension of 78 m for the layer, its depth ranging from 2 - 3 m (upper part) to 6 m (lower part) below surface.

He wrote about his excavation of a place, obviously in the lower part, which to his mind contained the older traces of settlement.

Digging into the loess wall of a manmade cave that was used as shelter against rain by local peasants Spöttl discovered a hearth. Apart from artifacts and animal bones, he found also one "poniard" with "grooves for blood" (about 20 cm long), pieces of white quartz, and rock crystal flakes.

This excavation took place at the western side of the ravine.

Spöttl observed a strong spring to the south-east of the place described above, on the eastern side of the Grubgraben; probably he meant the now enclosed well near the lower end of the ravine.

He concluded that this water had been also at the disposal of paleolithic settlers.

H. Obermaier (1908) wrote a detailed article. He got most of his information from Edmund Glassner and from previous publications. He was the first to study some of the old collections and to refer to the importance of faunal finds. He mentioned remains of the following animals :

<i>Elephas primigenius</i>	(Schacherl's collection in Zwettl),
<i>Rhinoceros tichorhinus</i>	(Schacherl's collection in Zwettl),
<i>Arctomys marmota</i>	(Schacherl's collection in Zwettl),
<i>Equus caballus</i>	(Schacherl's collection in Zwettl and very frequent in Glassner's collection).
<i>Rangifer tarandus</i>	(Glassner's collection)
<i>Cervus</i>	(together with <i>Rangifer t.</i> , <i>Equus c.</i> , <i>Elephas p.</i> in the Museum of Natural History in Vienna).
<i>Capra</i>	

Obermaier gave in his article a detailed survey of the lithic archaeological material. In his opinion the raw material for artifacts originated from the fluvial sediments of the Danube river, from the Kamp valley and its surroundings within the "Böhmischen Masse." He described the minerals as "hornstein" (metamorphous, yellow to brown, breaks like flint), flint, jasper, rock crystal and various kinds of quartz. The cores and consequently the artifacts were, to his mind, relatively small. Obermaier concluded that at Grubgraben there was a pure, but early Aurignacian with archaic elements. His interpretation of the fact that there were two points and one scraper resembling Mousterian artifacts was, that "pseudo-Mousterien" elements were present (Obermaier 1908 : fig. 27). Finally he gives a survey of the artifacts.

As to the lithic material he describes distinctive tool - classes as follows :

- a.) blades (rich in blades with Aurignacian type - retouch with more or less total retouch and blunted points - fig. 25, h, i, k, l, m, - occasionally with notch - fig. 25, m, -, but poor in microliths - fig. 26, b, c, -).
- b.) Mousterian - type tools (as mentioned above - fig. 27 a, b, c, -).
- c.) burins and perforators ( - fig. 28 a, b, c, d, e, - ).
- d.) scrapers (on discoid or oval flakes and on blades - mostly with flat retouch - of Aurignacian type ; - fig. 29; a, b, c, d, e, f, g, h, i, - ; as well as massive pieces with steep retouch of various size and shape).

Of course Obermaier also mentions bone artifacts, one piece of red chalk from Schacherl's collections, ochre and 8 pieces of dentalia.

Kiessling (1918) gave a detailed description of the site and its location. He found a dark cultural layer which was open in the very upper part of the ravine between Geissberg and Heiligenstein where the recent excavations took place, its depth below surface ranging from about 1.20 m on the right hand side (walking up) and 8 m on the left side of the sunken road. At this time Spöttl had already died and his collections had been transferred to the "K.K. Hofmuseum" (now Museum of Natural History) in Vienna. The Schacherl collection was in Zwettl, many objects had been sent to Krems after its owner Ertl (a parson from Gobelsburg) had died and "finds from the Heiligenstein near Zöbing" were treated in the museum of Langenlois as "minerals" from the surroundings. So Ertl's collections were

mixed with other material in Langenlois; only a few objects in Krems undoubtedly originate from Grubgraben and (or) Heiligenstein.

A heavy storm devastated the Grubgraben in July 1913, the farm was washed out and the road loess walls collapsed; during the road repairs workers observed the presence of flint artifacts, charcoal and large bone fragments, most of which were finally destroyed in place or removed with the mud. At the time Kiessling arrived, work was finished, but the cultural layer was clearly visible along the profiles.

Two years later, fortunately for archaeologists, another storm caused even greater damage to road and walls exposing the upper part of the cultural layer below the previous road surface.

Kiessling tried to evaluate the extension of the paleolithic settlement which seemed to be larger than he had ever believed and to study the topographic situation. He stated that during the Würm there must have been a platform set between slight elevations protecting the settlers against winds from all directions. The fact, that on the Heiligenstein-side of the ravine the layer was not as long and thick as on the Geissberg-side (where it is also on a higher level) indicated, in his opinion, that settlers' activities had decreased towards the surrounding slopes. The platform was relatively open only to the south. And in view of the existence of a nearby spring at the foot of Geissberg, Kiessling concluded that the Grubgraben must have been an ideal place for early man.

Kiessling carefully examined the profiles and dug a test pit into the road above the point where the dark layer disappeared underneath the road level.

With the help of a local assistant named Prassen and equipped with small shovels and pickaxes he dug horizontally into the loess walls wherever he could trace the cultural layer and as far as his arms could reach.

In this way he retrieved about 150 lithic artifacts (among them 70 classifiable objects), 750 objects which he described as waste, more than 100 teeth plus numerous pieces of bone and dentalia. In all, the excavated area was not larger than 3.5 m<sup>2</sup>.

Kiessling's classification of lithic artifacts was as follows :

a.) blades and flakes (with and without "marks from using")	total 39 .
b.) blades with notch and Aurignac-retouch	" 1 .
c.) microlithic blades	" 8 .
d.) "saws" on broad blades (probably denticulates)	" 2 .
e.) burin spalls	" 9 .
f.) backed blades	" 2 .
g.) Mousterian points ("Handspitzen")	" 6 .
h.) perforators	" 5 .
i.) burins and burins on scrapers	" 10 .
j.) endscrapers	" 21 +
+ 20 fragments of endscrapers	" 6 .
k.) scrapers on broad and flat flakes	" 14 .
l.) scrapers on thick flakes including those on cores	" 6 .
m.) sidescrapers on thin and flat flakes	" 6 .

He noticed the presence of a *Corbula Striata* (seashell) with a man made slit cut through it. There was also a tiny slab of slate with scrawls on its surface. To Kiessling it seemed as if someone had tried to make an artifact on the soft stone. A rib with artificial scrawls is also described.

In Kiessling's view, there was no doubt that the dark layer belonged to an Aurignacian occupation. He realized that there were sporadic artifacts, coal and bones on another level

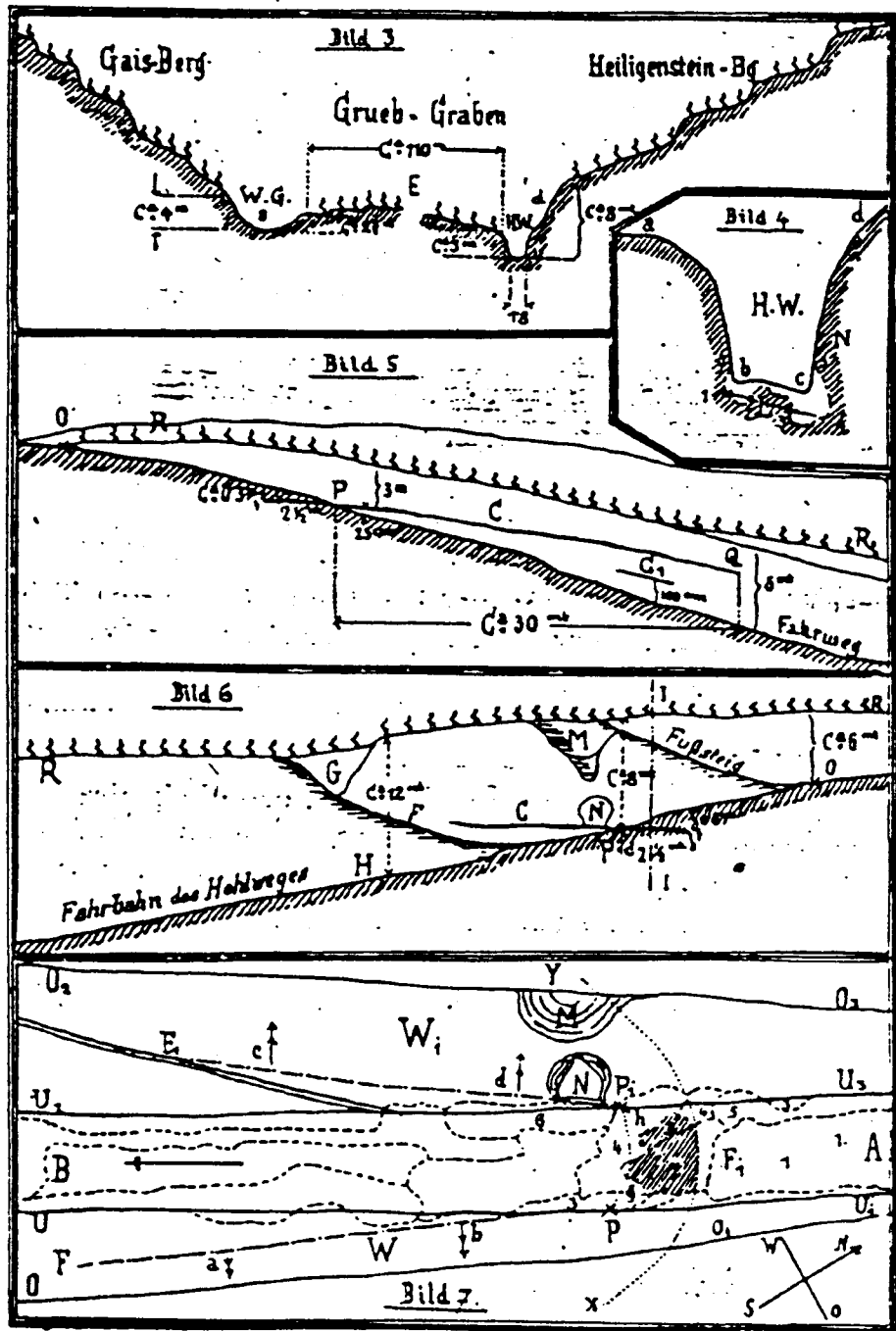


Fig. II - 1 Kiessling sketches :

- bild 3 : cross section E - W
- Bild 4 : the gorge after the 1915 rain; 1,2,3,4 are spots, where the layer was open; b,c - previous road - level; L - socle left by the water and removed by Kiessling.
- Bild 5 : eastwall ; dark layer (C) visible from Q to P where it disappeared below road-level.
- Bild 6 : westwall; C - dark layer : G,M,N - disturbed; H - road level : F - footpath; in P layer disapp.
- Bild 7 : plan of the section with Kiessling 's sondage- pit (2,3); road between U1 and U2 ; O - U walls; in g,h the layer had been washed out; numbers give levels (road ascending from A to B).

above the "Aurignacian," but if there was a homogeneous stratum it could not be separated from the surrounding loess.

Finally there are some artifacts described as "Grubgraben, 16. June 1922, oberes Niveau - B" - certainly from Bayer's excavation.

The topographic situation as shown in these sketches has considerably changed in the meantime. Kiessling mentioned heavy rains during the years 1917 and 1918 washing and hollowing out road and walls. Consequently repairs were made and the road level was raised.

Considerable damage was obviously done by local collectors. This is well illustrated by a letter addressed by J. Bayer to a Mr. Spitzwieser in which he refused to give permission for exploiting the site to Mr. Höbarth and "his friends." (Bayer was at that time professor at the Institute für Ur-Frühgeschichte at the University of Vienna, Höbart was custodian of the local museum in Horn - but without definite qualifications for leading excavations).

Although Grubgraben was under regular observation (J. Szombathy, H. Obermayer - Museum of Natural History; F. Kiessling; J. Bayer), illegal and uncontrolled digging continued.

On 16th of June 1922, J. Bayer started a two day excavation on the east wall of the sunken road with the permission of the Zwettl Abbot (land owner). F. Kiessling and two students, Penninger and Jenny, participated in the work.

Obermaier (1925) could distinguish two layers :

a.) at an upper level, two meters below loess - surface ; concentrations of little lithic artifacts, but mainly bones from horse and reindeer; graphite and hematite (red chalk);

Above this level dispersed bones, flint and big stones, but no cultural layer was found. (5 - 10 cm above upper level).

b.) at a lower level, 80 cm below a ; no finds were recovered from this excavation, but Obermaier admits that it could be richer than the upper level; in the upper part of the ravine layers a and b meet according to Obermaier.

In 1962 Luzius from the Bundesdenkmalamt led a two day emergency excavation (May 28, 29), for there were plans to widen the road. There are sketches by Dr. Luzius showing remains of a cultural layer on the west wall, whereas a continuous layer meets an interrupted one in an acute angle on the east wall. Unfortunately there are no further documentation available.

At the same time Prihoda of the Museum in Horn collected materials at the site . In this case also no documentation exists about the circumstances of his work.

In his survey of paleolithic sites in Lower Austria, F. Felgenhauer (1962) gave a brief summary of Grubgraben - Kammern in which he listed some basic information (all described in a more detailed way above).

Heinrich in his dissertation (1981), gave a detailed description of most of the archaeological finds from Grubgraben and mentioned the faunal material as well. According to Heinrich (1981, 113 - 198) the following collections have been treated in his dissertation:

collections	depository
Glassner Köhler - Ranscher Guler - Ritter Kiessling	Museum of Natural History (Vienna)
Museum Horn Museum Aspern / Zaya Prihoda	Horn (private)
Weinfurter	Institut für Ur - und Frühgeschichte (University of Vienna)
Mossler	(?) probably Museum of Natural History
Museum Langenlois (Grubgraben ?) Schacherl	Zwettl (private)

Numerous objects from private collections have disappeared (Heinrich 1981).

For Heinrich the material from Grubgraben is not sufficient and not marked enough to permit any interpretation. He tends to regard it as Aurignacian, for Gravettian elements seemed to be missing. It should be noted that many small specimens were probably lost because of poor recovery techniques. Heinrich described and counted 1700 artifacts. In addition he described groups of small flakes and chips which were not counted. His inventory of Grubgraben artifacts is as follows :

1.) chips and flakes unretouched (including splintered pieces) and what is described as "waste.....	1938
2.) chips and flakes, retouched.....	79
3.) blades, retouched .....	50
4.) blades, unretouched .....	38
5.) blades with Aurignacian retouch .....	3
6.) cores : (4 fragments, 1 scraper on nucleus.....	10
7.) endscrapers, sidescrapers - scrapers of all other types .....	135
8.) burins.....	49
9.) point.....	1
10) leaf-shaped point .....	1

According to the illustrations, some of the blades and bladelets seem to have been truncated although they are not described as such. One quartzite artifact described as "Handaxe-like" is illustrated in figure T XXIX/5. Pieces of ocher, red material, slate and pebbles are mentioned. However, some of the artifacts described by Kiessling and Obermaier among which was the specimen of *Corbula striata* seemed to have been missing from the collections examined by Heinrich.

In summary, old collections from the site are sizeable though scattered. They are mostly grab samples salvaged from the downcutting of the roadway and slumping of the

loess walls. A number of individuals have dug potholes wherever the cultural layers were visible. Early excavation reports provide valuable information about parts of the site along the sunken road which have now disappeared.

Various authors have emphasized the Aurignacian-like appearance of the assemblages, an opinion probably derived from the relative abundance and variety of scrapers and the presence of thick, carinate scrapers. The scarcity of backed elements contributed to this attribution as well. The presence of a single leaf-shaped point is worth a special mention even though its exact provenience is not known (deepest level ?). The specimen has apparently disappeared.

Still, the site has been known for a long time and specialists, Kiessling especially, had understood its importance.