

# A MEAL FOR THE DEAD

## ANIMAL BONE FINDS IN ROMAN GRAVES

R.C.G.M. Lauwerier

### CONTENTS

1. INTRODUCTION
2. DISHES AND BONES
3. THE SETTLEMENT ON THE VALKHOF
4. OTHER SETTLEMENTS AND CEMETERIES
5. FOOD FOR THE DEAD VERSUS FOOD FOR THE LIVING
6. ACKNOWLEDGEMENTS
7. REFERENCES
8. KEYWORDS

## 1. INTRODUCTION

In 1980 and 1981 part of a 4th century cemetery in Nijmegen was excavated by the State Service for Archaeological Investigations in the Netherlands (R.O.B.), within the framework of the Eastern River Area Project (Bloemers, Hulst & Willems, 1980) (fig. 1). The cemetery, situated on the terrain of the nursing-home 'Margriet', is one of the two cemeteries that most probably belonged to the late-Roman stronghold on the 'Valkhof' and its surroundings (pers. comm. J.H.F. Bloemers) (fig. 2).

In some graves dishes were found containing animal bones as gifts for the dead. As material for archaeozoological investigation usually only the remains of meals are available: garbage and refuse of meals eaten in the past. The interesting thing about the bone material from the cemetery is that we are not dealing with the garbage and refuse but with the meal itself: a sort of plate-service for the dead.

In this short contribution I wish to discuss the bone material found on the dishes and in connection with this I shall compare the meal for the dead with meals for the living in Roman times.

## 2. DISHES AND BONES

During the excavation 241 graves were found of which 56 contained items of pottery on which one could expect to find bones: plates, dishes and casseroles (pers. comm. P.A.M. Zoetbrood, R.O.B.). Although during the excavation of the graves bones were often observed on the dishes, only the contents of a few dishes have been saved. The reason for this is the very poor state of conservation in the sandy soil of the cemetery. Even a slight touch caused the bones to disintegrate into dust. The contents of a few dishes were treated with a preservative during the excavation and were later carefully prepared. These dishes and their contents will be discussed further below. 'Inventory number' is abbreviated to 'IN' and terra sigillata (Samian Ware) to 'TS'. The percentages mentioned in the descriptions indicate approximately the proportion of the contents of the dishes, *i.e.* of the undisturbed soil containing the bones, that were conserved during the excavation. The determinations of



Fig. 1. The situation of Nijmegen shown on the map of the Netherlands.

the age of the animals are according to Habermehl (1975). A summary of the data is given in table 1.

Grave 61, IN 192/61, TS-dish (type Chenet 304), contents: 10 %.

Pig: distal half of a right humerus. The distal epiphysis is fused, but because the bone is very small, the age of the animal at the time of slaughtering would not have been much more than one year.

For the rest the dish contains a few unidentifiable fragments of mammal bones.

Grave 85, IN 195/1/27, TS-dish (Chenet 304), contents: 10 %.

Pig: diaphysis of a right humerus. The distal epiphysis is not fused: age younger than one year.

Grave 105, IN 201/6, TS-dish (Chenet 313), contents: 25 %.

Cattle: processus olecrani of the right ulna of an adult animal.

Grave 105, IN 201/9, coarse ware (Pirling 120/122), contents: 75 %.

Pig: fragments of the head of a sucking-pig. In both the maxilla and mandibula the milk



Fig. 2. Nijmegen in late-Roman times (c. A.D. 260/270-400); 1. The settlement on the 'Valkhof' and its surroundings; 2. Cemetery in the centre of the city; 3. Cemetery on the terrain of the nursing-home 'Margriet' (drawing, A.M. Nijs, R.O.B.).

incisors, the Pd3's and the Pd4's are present. The milk premolars are not worn, the Pd2's are not yet present: age between 7 and 10 weeks.

Unidentifiable small fragments of bones.

Grave 126: IN 202/54, coarse ware (Pirling 127/128), contents: 75 % (fig. 3).

Pig: head of a sucking-pig. The cranium is fragmented. The Pd2's are just breaking through: age about 10 weeks.

Domestic fowl (?): articulated parts of ulna, radius and humerus, probably from a domestic fowl. Three large unidentifiable fragments could be parts of the hind legs. Also a lot of bird rib fragments are present. The position of the articulated bones of the wing, the unidentifiable long bones and the fragments

of ribs strongly suggest that we are concerned here with the bones of one complete bird that was interred in an intact state.

Grave 153, IN 206/6, coarse ware (Pirling 127/128), contents: 10 %.

Unidentifiable fragments of a young mammal. Some fragments are from long bones.

Grave 190-1, IN 210/190-1, TS-dish (Dragendorf 31), contents: 100 % (fig. 4).

Domestic fowl: almost complete articulated skeleton. Missing are the head, the right femur, the right foot and the left leg. If this left leg was present, it most probably lay on the broken and cleaned fragment of the dish. Otherwise it is remarkable that the dish was made in the 2nd or 3rd century A.D. and was placed in the grave only much later (pers.



Fig. 3. Dish of coarse ware containing the remains of the head of a sucking-pig and fragments of a domestic fowl (?).

comm. J.H.F. Bloemers).

Grave 197, IN 211/197/4, coarse ware (Pirling 127/128), contents: 100 %.

Domestic fowl: articulated skeleton. Clearly identifiable are the two humeri, the right ulna, a phalanx, fragments of the vertebral column, ribs, the sternum, part of the pelvis and the two femora. Also unidentifiable fragments were found, including parts of long bones.

Cattle: on top of the skeleton of the domestic fowl a fragment of a rib was found.

That we are dealing here with meals and not with the refuse of meals is best illustrated by the articulated skeletons of the domestic fowl. One can only find articulated skeletons if complete animals have been buried from which eatable parts have not been cut off. For the two best conserved skeletons of domestic fowl from the graves nos. 190-1 and 197 it is striking that there are no traces of the head and the

uneatable parts of the hind legs. This brings to mind the well known picture of a fried chicken, from which head and feet have been cut off.

From Roman times too there are examples of such a way of preparing fowl. The ornamented bronze lid, probably of a vessel for food, from Mundelsheim from the 2nd or 3rd century A.D. is one such example (fig. 5) (Paret, 1938; pers. comm. Ph. Filtzinger, Württembergisches Landesmuseum Stuttgart). The fowl is represented on the border of the lid: the head and the ends of the hind legs have been cut off. Also represented are a ring of piglets and, flanked by grapes, a hare. Fowls prepared in this way are also known from the cemeteries of Leuna, Wessling, Neuburg and Kempten (Gandert, 1953; Keller, 1971; Keller, 1979; Mackensen, 1978).

In Nijmegen a humerus of a sucking-pig was found on two occasions, indicative of good

Table 1. Overview of the animal species of which remains were found on plates in graves in Nijmegen

Origin grave plate	Find no.	Species			
		Cattle	Pig	Domestic fowl	Uniden- tified
61 TS-dish	192/61		1		
85 TS-dish	195/1/27		1		
105 TS-dish	201/6	1			
105 coarse ware	201/9		1		
126 coarse ware	202/54		1	1	
153 coarse ware	206/6				1
190-1, TS-dish	210/190-1			1	
197, coarse ware	211/197/4	1		1	
Total		2	4	3	1

Table 2. Nijmegen, 4th century ditch, Lindenberg/Kelfkensbos. Frequency distribution of the bone fragments per species

Species	No. of fragments	Percentage
Cattle – <i>Bos taurus</i>	972	81
Sheep/goat – <i>Ovis aries/Capra hircus</i>	18	2
Pig – <i>Sus domesticus</i>	163	14
Domestic fowl – <i>Gallus domesticus</i>	7	1
Aurochs – <i>Bos primigenius</i>	3	+
Elk – <i>Alces alces</i>	2	+
Red deer – <i>Cervus elaphus</i>	27	+
Wild boar – <i>Sus scrofa</i>	1	+
Total	1193	

quality meat (graves nos. 61 and 85). Also heads of sucking-pigs have been found (graves nos. 105 and 126). Nowadays we tend to consider the meat of this part of the animal to be of lower quality, but there are indications in written sources that this kind of meat was in fact a delicacy in Roman times. Macrobius (3, 13, 12) tells about a banquet Lentullus offered his guests in about 70 B.C. on the occasion of his installation as a priest. Besides oysters, thrushes with asparagus, fried hare and fowl also fried heads of pigs were served. Of course there are four centuries and 2000 km between this banquet and the meals for the dead in Nijmegen. But even the scanty information provided by the contents of the dishes gives the impression that food was placed in the graves that was not the refuse of a meal of for example the funeral guests, having only a symbolical meaning, but rather a good meal for the dead.

### 3. THE SETTLEMENT ON THE VALKHOF

The cemetery on the terrain of the nursing-home 'Margriet', most probably belongs, like the cemetery in the city, to the stronghold on the Valkhof and its surroundings. It is obvious that we should compare the bone material from the cemetery with that from the settlement. A lot of animal bones were found in one of the ditches enclosing the settlement in its successive phases in the 4th century. The ditch was found on the 'Lindenberg' and on the 'Kelfkensbos' (Bogaers, 1969; Bloemers *et al.*, 1980). Its cross-section is the shape of a v, it is 14 to 15 m wide and 5 to 6 m deep.

Table 2 gives a general overview of the hand-collected bones of meat-providing animals found in that part of the ditch that was excavated by Bloemers *et al.* (1980). Horse and dog are not included in this summary because they are not considered as animals killed for their meat on account of the absence of any traces of slaughtering. The main part of the

Table 3. Overview of the occurrence of cattle, sheep/goat, pig and domestic fowl in graves within the Roman Empire

Cemetery	Species identified			
	Cattle	Sheep/goat	Pig	Domestic fowl
Early-Roman				
Kempton	11	7	182	37
Weisenau		1	2	
Brugg			1	
Mid-Roman				
Hörafing		1	7	1
Eining			1	
Stephanskirchen			1	
Regensburg				1
Courroux	2	4	47	4
Late-Roman				
Nijmegen	2		4	3
Krefeld				1
Neuburg				2
Neuss	3	1	6	
Augsburg				1
Göggingen			1	1
Burgheim				3
Valley				1
Potzham				1
Altenstadt				2
Wessling				7
Oudenburg	5	4	25	19
Total	23	18	277	84
Percentage	6	4	69	21



Fig. 4. TS-dish containing the articulated skeleton of a domestic fowl.

garbage and the refuse of the meal are bones of cattle: 81 % of the fragments found. The pig is the most important of the smaller domesticated farm animals constituting 14 % of the number of bones. Sheep/goat constitute 2 %. As for birds, only the domestic fowl was found: 2 %. The remaining 3 % are wild animals: aurochs, elk, red deer and boar.

If we compare the frequency distribution of the bone material from the settlement with the frequency of occurrence of bones of cattle, sheep/goat, pig and domestic fowl found in the cemetery, then we see a totally different picture. Unfortunately, however, the number of finds from the cemetery is so small (9!) that no conclusion whatsoever can be drawn from this comparison.

#### 4. OTHER SETTLEMENTS AND CEMETERIES

In order to make a more meaningful comparison between animal bones from settlements and those from cemeteries, archaeozoo-

logical data have been collected relating to 27 settlements and 20 cemeteries or individual graves within the Roman Empire.

For the cemeteries a random selection has been made from the available literature in which faunal material is mentioned, from sites in the Netherlands, Belgium, Germany, Austria and Switzerland (table 3). These include early-Roman sites cemeteries in Kempten (Mackensen, 1978), Weisenau (Kessler, 1927) and Brugg (Tomašević & Hartmann, 1972); cemeteries dating from mid-Roman times in Hörafing (Gerhardt & Maier, 1964), Eining (Kellner, 1965), Stephanskirchen (mentioned in Kellner, 1965), Regensburg (Mackensen, 1973) and Courroux (Martin-Kilcher, 1976; Kaufmann, 1976); late-Roman cemeteries in Krefeld (Pirling, 1974), Neuburg (Keller, 1979), Neuss (Härke, 1980; Reichstein, 1980), Augsburg, Göggingen, Burgheim, Valley, Potzham, Altenstadt, Wessling (Keller, 1971), Oudenbürg (Mertens & Van Impe, 1971) and the previously described cemetery in Nijmegen.

In the table no distinction has been made between animals or parts of animals that were



Fig. 5. The bronze lid from Mundelsheim (photograph, Württembergisches Landesmuseum Stuttgart).

found on dishes or plates and those that were simply placed in the grave. Possibly a few bones are present that accidentally came into the grave together with the earth used to cover the remains of the deceased. As in the great majority of cases the faunal material found was described as clearly belonging to the grave, this will hardly influence the overall picture of the occurrence of the various kinds of animals interred. The numbers shown in the table indicate the frequency with which the animal species occur in the graves. In the case of one grave containing faunal remains of one species on different plates, separate counts have been made for each plate. Pig is the most abundant species, with a frequency of 69 %, followed by domestic fowl at 21 %. Cattle and sheep/goat account for only 6 and 4 % respectively.

In addition to the species mentioned in the table other animal species occur incidentally: horse in Oudenburg, dog in Neuss and Courroux, hare or rabbit in Hörafang, goose in Courroux and Oudenburg, eider duck (*Somateria mollissima*) in Neuss, fish in Weisenau

and oyster in Oudenburg. The few fragments of horse and dog that have been found in graves probably cannot be considered as representing food for the dead as these species were not normally eaten in Roman times (Luff, 1982). Martin-Kilcher (1976) indicates the possibility that a dog may have been provided as a companion for the journey to the hereafter. As an indication of this he mentions the presence of a ceramic figure of a dog in one of the three graves in Courroux that contained dog remains.

Table 4 gives an overview of the settlement refuse of the most frequently consumed mammals and the domestic fowl in Roman times. The table includes data from 27 sites where a total number of more than 100 bone fragments of cattle, sheep or goat, pig and domestic fowl have been found. The sites concerned are of both civilian and military settlements in the Netherlands, Germany, Austria, France and Switzerland (Clason, 1977: tables 15 and 18). The table gives the mean percentual distribution of the number of bone fragments. This overall picture of the species composition in

Table 4. General overview of the occurrence of cattle, sheep/goat, pig and domestic fowl in settlement refuse within the Roman Empire

Species	Mean percentual distribution of the number of fragments
Cattle	60
Sheep/goat	13
Pig	26
Domestic fowl	2

all the settlements considered jointly corresponds more or less to the frequency spectra within the individual settlements (Clason, 1977: p. 126).

## 5. FOOD FOR THE DEAD VERSUS FOOD FOR THE LIVING

The data of the settlements and the cemeteries cannot be directly compared because they express different quantities, namely numbers of fragments and numbers of individual animals respectively. This problem is a consequence of the different ways of presentation of the bone material in the literature consulted, that is partly accounted for by the different nature of the objects excavated. In a self-contained structure like a grave it is more sensible and more meaningful to indicate individuals than in the refuse pits of a settlement. However, this difference in presentation does not prevent us from gaining insight on a broad scale into the differences between settlements and cemeteries.

The most conspicuous differences are as follows. Cattle, that are represented in the settlements by 60 % of the fragments, are found in very small quantities in the cemeteries. Pig, on the other hand, that constitutes 26 % of the number of fragments in the settlements, is the most important animal in the cemeteries, certainly if one compares the mammal species with one another. Among the mammals, sheep/goat comes third in both the settlements and in the cemeteries, although the percentage for the settlements is higher than that for the cemeteries. The domestic fowl, that rates on 2 % in the settlements, is the second most abundant animal in the cemeteries.

The above-mentioned differences can partly be explained by a different method of excavating cemeteries and settlements. If the cemeteries have been excavated more meticulously than the settlements or if sieving has been carried out, something that is not mentioned in most of the publications concerning the cemeteries, then it is possible that notably the quantitative difference in domestic fowl remains can be explained as a result of this (Clason & Prummel, 1977; Clason, Prummel & Brinkhuizen, 1979). That the differences for mammals can also be attributed to different excavation techniques seems unlikely. If this were indeed the cause, then one would expect that in addition to pig also sheep/goat, that fall into the same size class, would score higher, which is not the case.

The low numbers of bird remains in the settlements can also be explained by gnawing by dogs. This, however, does not explain the difference in occurrence of mammals between the settlements and the cemeteries.

An explanation for the scarce occurrence of cattle in the cemeteries could be that beef, in contrast to pork, was completely removed from the bone before being placed in the grave, so that in the cemetery no traces of cattle are to be found. Also Mackensen (1978) mentions this possibility. The considerable differences for domestic fowl are difficult to reconcile with such an explanation, however.

Finally it is well possible that the dead were provided with a special meal that was different to what the living were accustomed to eating daily.

Concerning these two last possible explanations for the differences between the settlements and the cemeteries, it cannot be said which is the more likely. However, if the latter explanation is correct, then it is possible to suggest what the reason is for the frequency distribution of the bone material.

In figure 6 the data of tables 3 and 4 are presented alongside the frequencies with which the different animal species are mentioned in the cookery book of Apicius/Caelius. This cookery book dates from the 1st century A.D., was written by the well-to-do gastronome Apicius and, in the form of the book that is known to us, may have been revised by a certain Caelius at the end of the 4th century or beginning of the 5th century (Forbes, 1965).



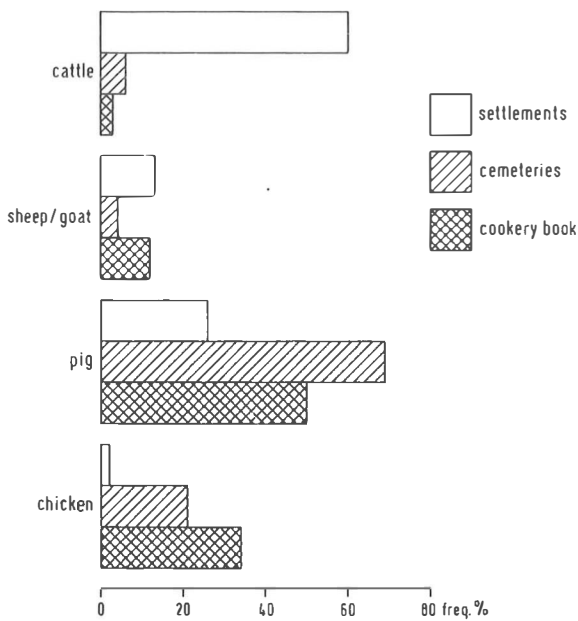


Fig. 6. Frequency distributions of cattle, sheep/goat, pig and domestic fowl in settlements, cemeteries and the cookery book of Apicius/Caelius.

The frequency-percentages are based on numbers of fragments for the settlements, the frequency of occurrence for the cemeteries and the number of times a species is mentioned in the cookery book.

For the quantitative data concerning the occurrence of the various animal species in the cookery book the English translation of Flower & Rosenbaum (1958) has been used. In addition to the species listed in the figure, namely cattle, sheep/goat, pig and domestic fowl, in the cookery book, there is occasional mention of a great number of other species: wild sheep, wild goat, red deer, fallow deer, boar, rabbit, hare, dormice, goose, duck, hazel hen, partridge, pheasant, peacock, crane, ostrich, parrot, pigeon, wood pigeon, turtle dove, thrush, fig-pecker, flamingo, electric ray, murena, eel, conger eel, anchovy, scorpionfish, perch, sea-perch, sea-bream, gold-bream, dentex, red mullet, gray mullet, horse mackerel, tunny fish, bonito, sole, sheat-fish, 'cornuta', prawn, lobster, squid, cuttlefish, sea crayfish, octopus, squill, sea urchin, jellyfish, mussel, oyster and snail.

Again it must be pointed out that the frequency percentages in figure 6 cannot be directly compared with those for the cemeteries and settlements. In the figure different

quantitative categories stand alongside one another: numbers of fragments for the settlements, numbers of individuals for the cemeteries and the number of times a species is mentioned for the cookery book. However, the figure does appear to serve a purpose in demonstrating general tendencies.

If we assume that beef was not cut off the bone and that the frequency with which normally available kinds of meat of cattle, sheep/goat, pig and domestic fowl were mentioned in an exclusive cookery book is a measure of the extent to which the different kinds of meat were appreciated, then a broad comparison of the data from the three sources concerned indicates that the dead were not provided with ordinary, everyday food but with something more festive. Naturally the argument for this is dependent on the validity of the two pre-suppositions.

In the above, an attempt has been made to explain the apparent discrepancy in the frequency of faunal remains from cemeteries and settlements. No evidence is available to support any of the three explanations.

The two explanations, that the difference in the species spectra is caused by different excavation methods or by gnawing by dogs, seems to be the least acceptable, notably for the mammals. The lack of clear information as to the method of excavation in the literature consulted limit the possibilities for testing this explanation, however. The two other explanations are diametrically opposed to each other and are dependent on the question as to whether or not the beef that was placed in the graves was removed from the bone. If the answer is yes, then this provides an explanation for the different bone spectra, at least as far as the mammals are concerned. If the answer is no, then the explanation lies in the fact that the dead were provided with a different kind of meal, possibly one regarded as being of higher quality, to that normally eaten by the living.

This investigation is merely an initial attempt to compare the meal for the dead with those of the living, and as such has many limitations. The relation between a settlement and the associated cemetery has not been considered, with the exception of the cemetery and settlement in Nijmegen. To gain further

insight into this material an analysis will have to be made, according to a rigidly applied research method, of the different factors that play a role in the interpretation of the data (Jones, 1977). Research will have to be focussed on among other things the relations between the settlements and the associated cemeteries, the geographical differences, the nature of the settlements, the degree of Romanization, the relation between the faunal material found in the graves and the other archaeological finds from the graves, the way in which bones are found in the graves (whether on dishes or not), *etc.* This article gives only suggestions for possible reasons for the difference in the species spectra between cemeteries and settlements.

## 6. ACKNOWLEDGEMENTS

I thank Mrs. A.T. Clason for reading preliminary versions of this paper, Mr. J.H.F. Bloemers and Mr. P.A.M. Zoetbrood for providing the archaeological information and Mrs. S.M. van Gelder-Ottway for translating the text into English. The investigation was supported by a grant from the Foundation for Archaeological Research, that is subsidized by the Netherlands Organization for the Advancement of Pure Research (Z.W.O.).

## 7. REFERENCES

- Apicius. *The Roman cookery book*. A critical translation of 'The art of cooking' by Apicius. Translation: B. Flower & E. Rosenbaum. London, 1958.
- Bloemers, J.H.F. *et al.*, 1982. Nijmegen, gem. Nijmegen. Opgravingen Romeinse militaire en civiele bewoning. *Jaarverslag Rijksdienst voor het Oudheidkundig Bodemonderzoek* 1980, pp. 33-35.
- Bloemers, J.H.F., R.S. Hulst & W.J.H. Willems, 1980. A short introduction to the Eastern River Area (ERA) project. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 30, pp. 277-280.
- Bogaers, J.E., 1969. Ontdekkingen op de Lindenberg. *Numaga* 16, pp. 1-4. (Also: *Bulletin van de K.N.O.B.* 68, 1969, pp. \*37-\*38).
- Clason, A.T., 1977. *Jacht en veeteelt*. Haarlem.
- Clason, A.T. & W. Prummel, 1977. Collecting, sieving and archaeozoological research. *Journal of Archaeological Science* 4, pp. 171-175.
- Clason, A.T., W. Prummel & D.C. Brinkhuizen, 1979. Vogelen en vissen. Een glimp van de Nederlandse

- vogel- en viswereld uit het verleden. *Westerheem* 28, pp. 9-23.
- Flower, B. & E. Rosenbaum, 1958. See: Apicius.
- Forbes, W.A., 1965. *De antieke keuken*. Bussum.
- Gandert, F.O., 1953. Die Säugetier- und Vogelreste aus den Gräbern von Leuna. In: W. Schulz, *Leuna ein germanischer Bestattungsort der spätrömischen Kaiserzeit*. Berlin, pp. 85-95.
- Gerhardt, K. & R.A. Maier, 1964. Norische Gräber bei Höraving im Chiemgau. *Bayerische Vorgeschichtsblätter* 29, pp. 119-177.
- Habermehl, K.-H., 1975. *Die Altersbestimmung bei Haus- und Labortieren*. Berlin, Hamburg.
- Härke, H., 1980. Die Grabung des Jahres 1976 auf dem Münsterplatz in Neuss. *Bonner Jahrbücher* 180, pp. 493-587.
- Jones, R., 1977. A quantitative approach to Roman burial. In: R. Reece (ed.), *Burial in the Roman world* (= C.B.A. Research report 22). Oxford, pp. 20-25.
- Kaufmann, B., 1976. Die anthropologische Untersuchung der Leichenbrände aus dem römischen Friedhof von Courroux im Berner Jura. In: S. Martin-Kilcher, *Das römische Gräberfeld von Courroux im Berner Jura* (= Basler Beiträge zur Ur- und Frühgeschichte 2). Derendingen, pp. 207-231.
- Keller, E., 1971. *Die spätrömischen Grabfunde in Südbayern* (= Münchner Beiträge zur Vor- und Frühgeschichte 14). München.
- Keller, E., 1979. *Das spätrömische Gräberfeld von Neuburg an der Donau* (= Materialhefte zur Bayerische Vorgeschichte A 40). Kallmünz.
- Kellner, H.-J., 1965. Das erste römische Brandgrab von Eining. *Bayerische Vorgeschichtsblätter* 30, pp. 272-277.
- Kessler, P.T., 1927. Ein früh römisches Brandgrab aus Weisenau bei Mainz. *Germania* 11, pp. 44-50.
- Luff, R.-M., 1982. *A zooarchaeological study of the Roman north-western provinces* (= B.A.R. International Series 137). Oxford.
- Mackensen, M., 1973. Ein Fibelgrab von Regensburg-Grossprüfening. *Bayerische Vorgeschichtsblätter* 38, pp. 57-79.
- Mackensen, M., 1978. *Das römische Gräberfeld auf der Keckwiese in Kempten* (= Materialhefte zur Bayerische Vorgeschichte A 34). Kallmünz.
- Macrobius. *The Saturnalia*. Translation: P.V. Davies. New York/London, 1969.
- Martin-Kilcher, S., 1976. *Das römische Gräberfeld von Courroux im Berner Jura* (= Basler Beiträge zur Ur- und Frühgeschichte 2). Derendingen.
- Mertens, J. & L. van Impe, 1971. *Het laat-Romeinse grafveld van Oudenburg* (= Archaeologica Belgica 135). Brussel.
- Paret, O., 1938. Der römische Bronzedeckel von Mundelsheim. *Germania* 22, pp. 104-105.
- Pirling, R., 1974. *Das römisch-fränkische Gräberfeld von Krefeld-Gellep* (= Germanische Denkmäler der Völkerwanderungszeit B 8). Berlin.
- Reichstein, H., 1980. Tierknochen als Reste von Totenspeisen in römischen Gräbern aus Neuss (Münsterplatz). *Bonner Jahrbücher* 180, pp. 578-581.
- Tomašević, T. & M. Hartmann, 1972. Die Grabungen

an der Zürcherstrasse in Brugg, 1963 und 1971.  
*Jahresbericht Gesellschaft Pro Vindonissa* 1971, pp.  
7-35.

## 8. KEYWORDS

Europe, Nijmegen, Roman period,  
archaeozoological investigation, cemeteries,  
settlements, grave gifts, animal bones, food,  
food quality, cookery book.