

THE USE-SPECIFIC AND SOCIAL-TOPOGRAPHICAL DIFFERENCES IN THE COMPOSITION OF ANIMAL SPECIES FOUND IN THE ROMAN CITY OF AUGUSTA RAURICA (SWITZERLAND)

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Summary

The Roman colonial city of Augusta Raurica (around 15 BC to the 4th century) is used to illustrate the possibility of a social-topographical and use-specific division based on the findings of animal bones. In particular, the most recent osteological findings from the excavations of insulae 1 and 2 (Kastelen, 1991-93) are presented and their place within the overall evolution of Augusta Raurica is analyzed; specifically an early Roman complex (AD 20-70) as well as a later Roman complex (AD 270-320) are concerned. A typical pattern of distribution showed complexes containing a large proportion of pigs (combined with a high proportion of poultry and wild animals) on one hand and a small amount of cattle on the other which indicates better residential sections and with it the socially more privileged groups of the population. Areas with more cattle suggest sections with mixed functions (residential/small trade/handcraft) or areas with a more public character (e.g. taverns). Cattle were primarily used as working animals and provided inferior quality meat, as opposed to pigs which were often slaughtered in the earlier stages of growth. Information from books on Roman eating habits confirms a preference for pork. Over time, changes in the spectrum of animal species can be seen. These may have been related to the political and economic situation of the individual times.

Résumé

Utilisation spécifique et différences socio-topographiques dans la composition du spectre de faune de la cité romaine d'Augusta Raurica (Suisse).

La cité coloniale romaine d'Augusta Raurica (environ 15 av. J.-C. jusqu'au 4^e siècle) sert à illustrer la possibilité d'une division socio-topographique et de l'utilisation des espèces à partir des restes osseux animaux. En particulier, les découvertes ostéologiques les plus récentes issues des fouilles des insulae 1 et 2 (Kastelen, 1991-1993) sont présentées et leur place dans l'évolution globale d'Augusta Raurica est analysée. Sont concernés plus précisément un complexe romain ancien (20-70 ap. J.-C.) et un complexe romain récent (270-320 ap. J.-C.). Un modèle typique de distribution révèle des ensembles contenant une large proportion de porcs (ainsi qu'un fort pourcentage de basse-cour et d'animaux sauvages) d'une part, et une faible proportion de bovins d'autre part, ce qui désigne des zones résidentielles, et donc des groupes de populations socialement privilégiés. Les aires contenant davantage de bovins suggèrent des zones à fonctions mixtes (résidences, petit commerce, artisanat) ou des zones à caractère public (tavernes, par exemple). Les bovins étant utilisés principalement comme bêtes de somme; par comparaison avec les porcs qui étaient souvent abattus dans les premiers stades de leur croissance, ils fournissent une qualité de viande inférieure. La littérature concernant les habitudes alimentaires romaines confirme une préférence pour le porc. Au cours du temps, on observe des changements dans les spectres animaux. Cela peut être lié à la situation économique ou politique de ces époques.

Zusammenfassung

Hinweise zur Tiernutzung und zu sozio-topographischen Unterschieden im Tierartenspektrum aus der römischen Stadt Augusta Raurica (Schweiz).

Am Beispiel der römischen Koloniestadt Augusta Raurica (ca. 15. v. Chr. - 3./4. Jh. n. Chr.) wird die Möglichkeit einer sozialtopographischen und nutzungsspezifischen Gliederung anhand von Tierknochenfunden diskutiert. Im besonderen werden die neuesten osteologischen Ergebnisse der Ausgrabungen der Insulae 1 und 2 (Kastelen, 1991-93) vorgestellt und ihre Stellung innerhalb der Augster Gesamtentwicklung untersucht; es handelt sich im speziellen um einen frühromischen (20-70 n. Chr.) sowie einen spätrömischen Komplex (270-320 n. Chr.). Über typische Verteilungsmuster können Fundkomplexe mit hohen Schweine-, Geflügel- und Wildtieranteilen einerseits und geringen Rinderanteilen andererseits den guten Wohnlagen und damit den sozial besser gestellten Bevölkerungsgruppen zugewiesen werden. Erhöhte Rinderanteile sprechen für Quartiere mit gemischter Funktion (Wohnen/Handwerk) oder Areale mit eher öffentlichem Charakter (z.B. Tabernen). Wegen ihrer primären Nutzung als Arbeitstiere liefern Rinder - im Vergleich mit den häufig in jüngeren Altersstadien geschlachteten Schweinen - eine schlechtere Fleischqualität. Hinweise in den Schriftquellen über römische Essgewohnheiten bestätigen die Bevorzugung von Schweinefleisch. In der zeitlichen Entwicklung lassen sich Veränderungen im Tierartenspektrum feststellen. Sie dürften im Zusammenhang mit der jeweiligen politischen und wirtschaftlichen Situation stehen.

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Key Words

Roman, Domesticated animals, Animal bones, Nutrition, Social topography.

Mots clés

Romain, Animaux domestiques, Os animaux, Alimentation, Topographie sociale.

Schlüsselworte

Römisch, Haustiere, Tierknochen, Ernährung, Sozialtopographie.

Introduction

The Roman colonial city of Augusta Raurica is used to illustrate to what extent specific use and social-topographical differences can be shown from animal bone material.

This presentation is based on excavations which began in the mid 50's. Thanks to many years of osteological identification work by E. Schmid and extensive analysis of the results by J. Schibler, a wealth of information is available about Augusta Raurica (Schibler and Furger, 1988). Over the past five years, these have been expanded mostly by S. Deschler-Erb (1991a, b, 1992), a contribution which today provides us with some 60,000 dated findings of bone fragments for our work - including the most recent excavations in the area of *insulae* 1 and 2. Due to the fact that most of the excavation sites are quite old and bone weights

therefore are not known, we had to work with the number of fragments.

The Augusta Raurica settlement

Around 15 BC, Augusta Raurica was established as the oldest Roman colony on the Rhine in the area known today as Switzerland (fig. 1). It was a trade and industrial center and had a population estimated at 10,000 to 20,000 people during its prime period in the second century. Its location on the trunk road to Italy made it an important crossroad (Furger, 1987).

The city was well planned from the time of its founding and was laid out in such a way that its roads crossed at right-angles (fig. 2). These so-called *insulae* (numbered 1 to 53) formed areas with residential districts, stores, work-

shops for craftsmen and the offices of merchants.

In the second century, a part of the city developed at the river port on the Rhine with many trade settlements, warehouses and craftsmen's districts. At the end of the third century, Augusta Raurica was destroyed through repeated attacks and plundering by the Alemannians, a Teutonic tribe. In its place, a fortified *castellum* was built on the bank of the river Rhine in the fourth century. Besides the civil population, a military garnison was also stationed there to defend the territorial border of the Roman Empire, which, once again, had been pushed back to the Rhine at that time.

Excavations of *insulae* 1 and 2 (Kastelen) Site location

The basis for the following illustrations are the results of excavations conducted between



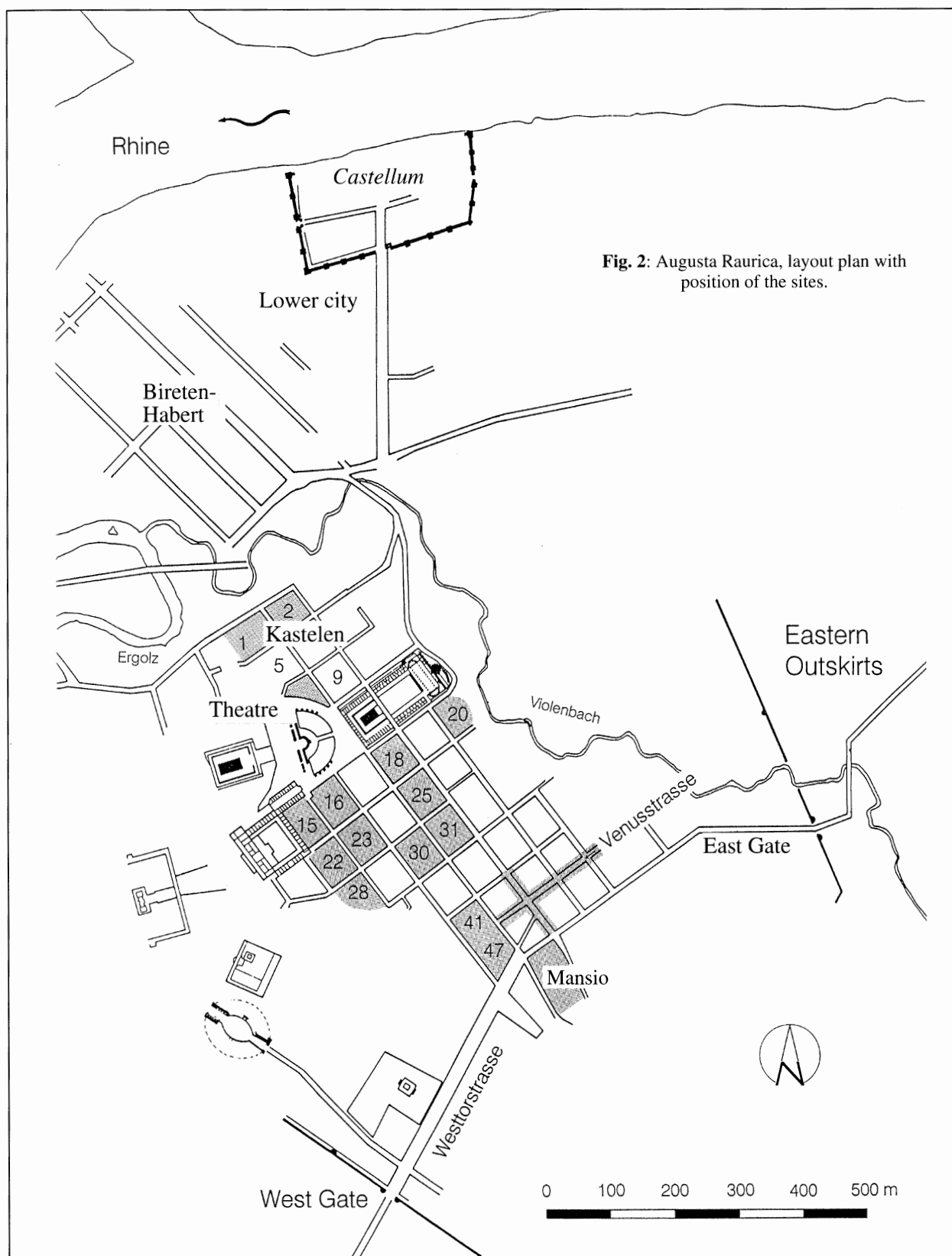


Fig. 2: Augusta Raurica, layout plan with position of the sites.

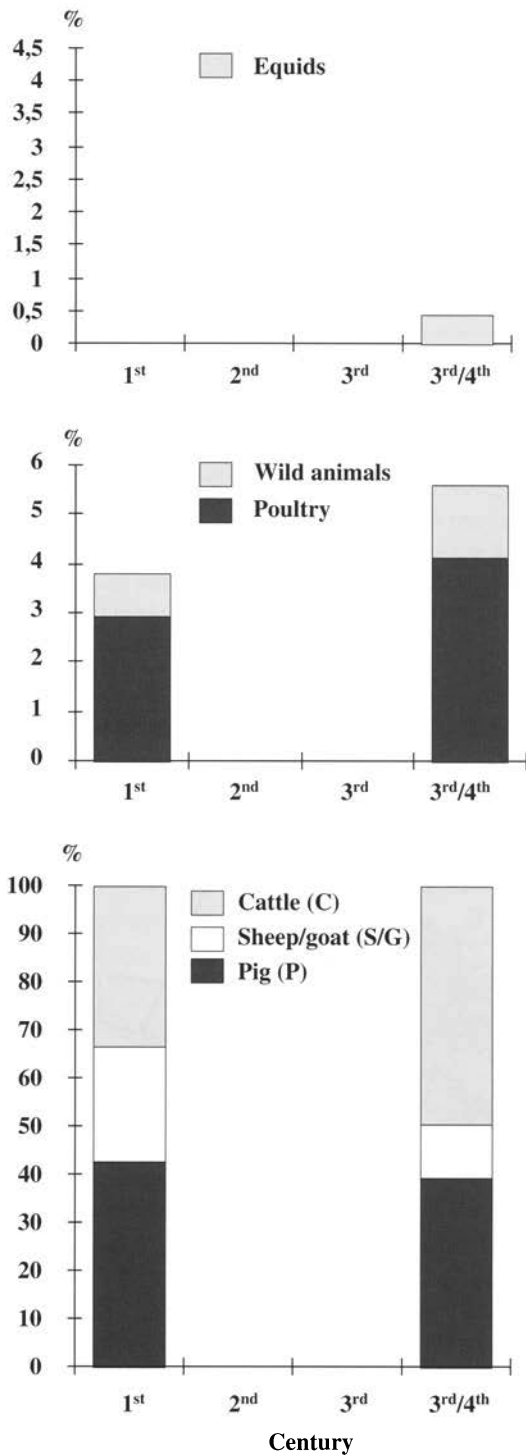


Fig. 3: Augusta Raurica, excavations insulae 1 and 2 : percentage of the most important animal species in the first and in the third and fourth centuries.

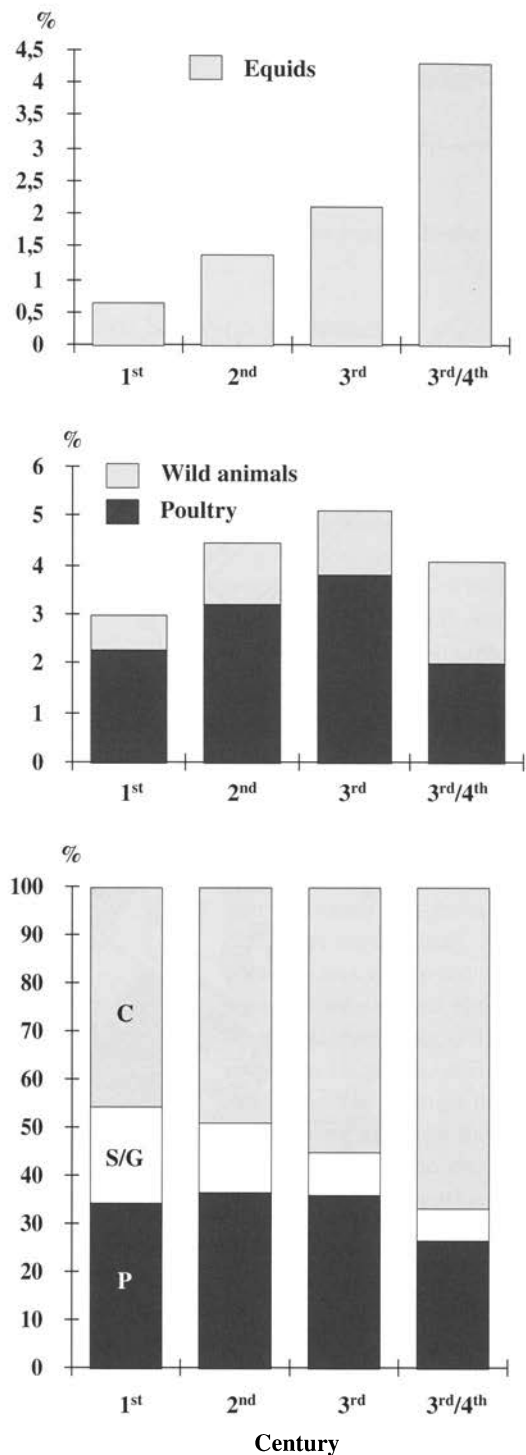


Fig. 4: Augusta Raurica, all relevant sites : percentage of the most important animal species from the first to the third and fourth centuries.

1991 and 1993 in the areas of *insulae* 1 and 2. The excavation site covers an area of almost 700 square meters. One half of the site is atop the so-called Kastelenplateau, while the other half is on the plateau's north slope (Schwarz, 1992). This plateau is set on a prominent, spur-like elevation in the Upper City of Augst. It is renowned as an attractive topographical site with panoramic view.

Toward the close of the third century and the outset of the fourth, fortifications protected the Kastelenplateau and its buildings.

Osteologically, two settlement phases were analyzed: the early Roman wooden constructions of the period AD 20-70 and a late Roman fortification phase of the period AD 270-320. For the time being, an analysis of the intermediate settlement phases has been omitted as these do not allow fine-stratigraphic evaluation.

Osteological results

The results from the early and late Roman periods are compared in figure 3. Percentages of the most important animal species are shown. From the viewpoint of nutrition, only domestic animals such as cattle, pigs and sheep/goats are significant and are therefore presented as a unit of 100%. In contrast, the percentage of poultry (domestic), equid and wild animals relate to the total sum of all definable fragments.

When comparing the different species of domestic animals, it becomes apparent that the proportion of cattle in the late Roman period was clearly higher than in the earlier period. The proportion of sheep and goats on the other hand decreases. In both periods the proportion of pigs equals some 40%. In the late Roman complexes, poultry, equid and wild animals are more common than in the first century.

Note, however, that by a percentual comparison only relative variations in the types of animals are evident. By contrast, documenting real increases and decreases in meat consumption is not possible as this would require information about the density of the bones.

The results of excavations in *insulae* 1 and 2 by comparison to the overall development of Augusta Raurica

There are basic tendencies in the overall development of Augusta Raurica which appear similar to that of Kastelen (fig. 4). While the importance of cattle from the first to the third and fourth centuries clearly increased, small domestic ruminants lost importance. Likewise, equids and wild animals appeared to be on the increase. The proportion of pigs remained quite constant from the first to the third century.

Data for the third and fourth centuries is not very impressive. Only some 400 bone findings are documented for this time from a fortress (*castellum*) which was occupied mainly by the military. The bones were spread over various site complexes.

When comparing results of the excavation of Kastelen with the overall development in Augusta Raurica, we can see that these fit well with the early Roman period (wooden building era). By contrast, in the third and fourth centuries, clear differences become apparent, e.g. great differences in the proportions of equid, pigs and poultry. The reason for these differences may well have been that the proportion of the civilian population of Kastelen was larger than that of the *castellum*.

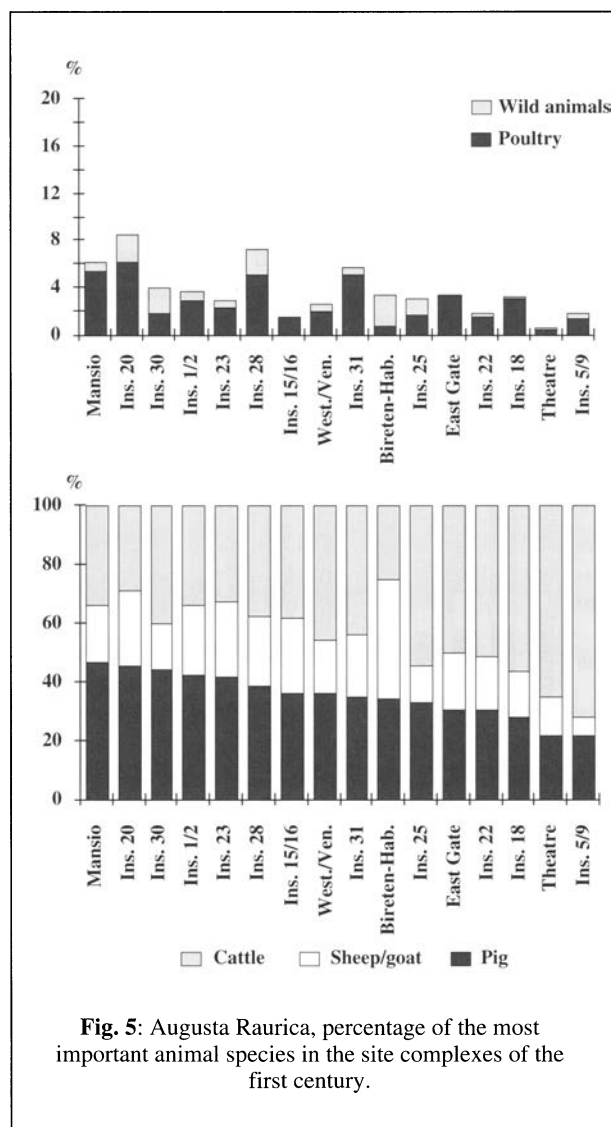


Fig. 5: Augusta Raurica, percentage of the most important animal species in the site complexes of the first century.

Use-specific and social-topographical differences

To see if social differences and diversity of uses could be determined, strata from the same periods from various sites in Augusta Raurica were compared.

First century

Figure 5 shows the composition of animal species in the first century. The sites are classified according to their proportion of pigs. It is evident that where there was a large proportion of pigs, the proportion of cattle was smaller and vice versa. There is also a weak correlation between proportions of pigs and poultry.

Insulae 20, 30 as well as 1 and 2 represent sites with a large proportion of pigs (left in fig. 5), that is, they reflect purely residential, non-industrial areas (fig. 2). The largest proportion of pig bones is found in the area of the future *mansio*, a famous inn operated AD 140 to 270. In view of the composition of bone material, it is assumed that wooden and framework houses built in the first century were used in the same way as the *mansio* (Schibler and Furger, 1988).

Among the sites with a large proportion of cattle (right in figure 5) it seems that there were areas for public use, such as the northwest corner of the theatre, a tavern in the

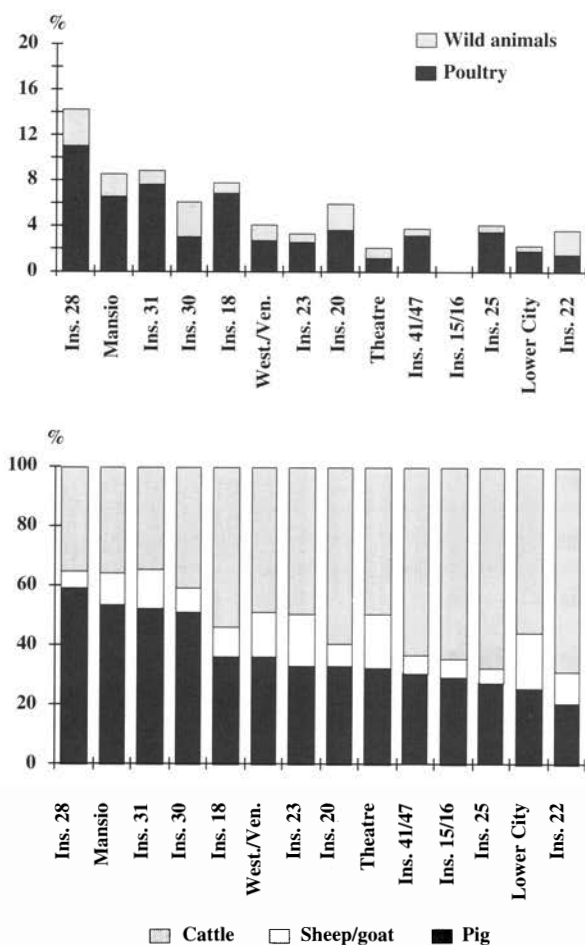


Fig. 6: Augusta Raurica, percentage of the most important animal species in the site complexes of the second century.

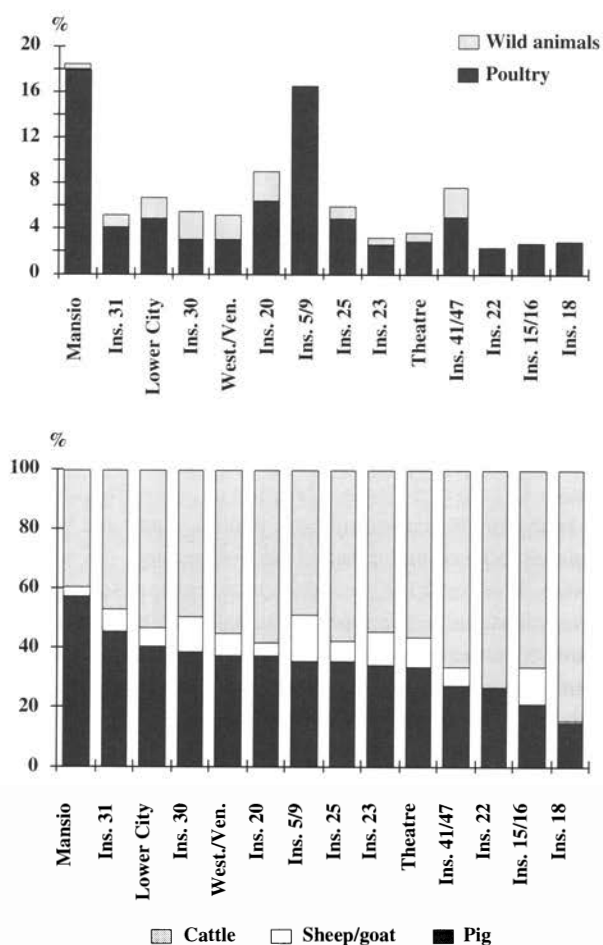


Fig. 7: Augusta Raurica, percentage of the most important animal species in the site complexes of the third century.

vicinity of *insulae* 5 and 9 as well as the East Gate at the outskirts of the city. At the same time, there are also sites here used for residential purposes as well as commerce. *Insulae* 18, 22 and 25 for instance are mentioned. They all show indications of smoke-drying or horn crafting activities. The districts at the outskirts of the city are also marked by a larger proportion of equid.

The Bireten-Haberl site is special. The above average proportion of sheep/goats is explained by the presence of troops (Deschler-Erb, 1991a).

Second century

In the second century, the tendencies illustrated are more pronounced (fig. 6). There are now clear indications of a correlation between the proportion of pig bones and the proportion of poultry, a tendency which was somewhat apparent in the first century. Except for small changes in the sequence of the sites there are no basic shifts. Left in figure 6 are:

- *insulae* 28 and 30 with lavishly furnished buildings suggesting use by the wealthy population;
- the *mansio*, a large building complex at the crossing of two main streets used as a fashionable inn;
- *insula* 31, a luxurious household with a variety of businesses.

At the other end of the spectrum, again there are areas for the public and commerce.

The distribution of animal species is interpreted as follows:

First of all the different use of various areas played a decisive role. We assume that cattle bones were less likely to be brought into housing areas because of their size and that they were better disposed of than the bones of small

animals. It seems more likely to us that it was in public places and commercial areas where cattle bones were simply left lying around, be it as litter or as material used in handicrafts.

Secondly, an explanation is given concerning the social status of the inhabitants. With the preference for pork to cattle meat (Schibler and Schmid, 1989), a large amount of pigs indicates wealthier groups of the population, as for example in *insulae* 28, 30 and 31. Positive proof of the social standing of the inhabitants in multi-use areas is difficult as food rests here are mixed with industrial waste.

More frequent evidence of equid in the suburbs makes it more likely that horse stables were located on the outskirts of the city rather than in the center.

Third century

In the third century, the amount of cattle increased clearly once again (fig. 7). In the *mansio*, there was a large amount of pigs and poultry. Otherwise the differences between various sites are less noticeable than in the second century. The relationship between the amount of pigs and that of poultry can no longer be established. Consequently, there is a certain interleaving which could be due to increased social equality or social intermixture. The increasing portion of cattle indicates a possible drop in the standard of living during trying political and economic times.

Outlook

On the basis of the comparison method used, only relatively rough tendencies are shown. Detailed statements on the distribution of animal bone require small-space analyses of vertical and horizontal stratigraphic conditions (Deschler-Erb, 1991b). This aspect is to be given full attention during future research.

Bibliography

DESCHLER-ERB S., 1991a.– Auswertung von Tierknochenfunden der Grabung Kaiseraugst-Bireten/"Haberl" 1979.01 : Speise- und Schlachtabfälle römischer Truppen in der Kaiseraugster Unterstadt der 1. Hälfte des 1. Jahrhunderts. In : E. Deschler-Erb, M. Peter and S. Deschler-Erb eds., *Das frühkaiserzeitliche Militärlager in der Kaiseraugster Unterstadt. Forschungen in Augst*, 12 (Augst 1991) : 121-131, 147-148.

DESCHLER-ERB S., 1991b.– Neue Erkenntnisse zur vertikalen und horizontalen Fundverteilung in einer Augster Stadtinsula. Die Tierknochenfunde aus der Insula 23 (Grabung 1987.56). *Jahresberichte aus Augst und Kaiseraugst*, 12 (Augst 1991) : 305-379.

DESCHLER-ERB S., 1992.– Osteologischer Teil. In : A. R. Furger and S. Deschler-Erb, *Das Fundmaterial aus der Schichtenfolge beim Augster Theater. Forschungen in Augst*, 15 (Augst 1992) : 355-451.

FURGER A., 1987.– *Römermuseum und Römerhaus Augst*. Kurztexte und Hintergrundinformationen. *Augster Museumshefte*, 10 (Augst 1987).

SCHIBLER J. and FURGER A., 1988.– *Die Tierknochenfunde aus Augusta Raurica (Grabungen 1955-1974)*. *Forschungen in Augst*, 9 (Augst 1988).

SCHIBLER J. and SCHMID E., 1989.– *Tierknochenfunde als Schlüssel zur Geschichte der Wirtschaft, der Ernährung, des Handwerks und des sozialen Lebens in Augusta Raurica*. *Augster Museumshefte*, 12 (Augst 1989).

SCHWARZ P.-A., 1992.– *Die Nordmauer und die Überreste der Innenbebauung der spätrömischen Befestigung auf Kaste-len in Augusta Rauricorum*. Vorbericht über die Grabung 1991.65. *Jahresberichte aus Augst und Kaiseraugst*, 13 (Augst 1992) : 47-75.
