

TONGEREN (BELGIUM): CHANGING PATTERNS OF MEAT CONSUMPTION IN A ROMAN CIVITAS CAPITAL

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Summary

At Tongeren, the archaeological remains from the only Roman town on Belgian territory are being excavated by the IAP, in cooperation with the province of Limburg. At the site of Kielenstraat, traces of habitation have been found, dating from the end of the 1st century BC to the second half of the 3rd century AD. This report presents an analysis of the faunal remains from the earliest habitation period, i.e. the pre-Flavian occupation that ended with the town fire of 69-70 AD. Within this period four occupation phases can be identified stratigraphically. It can be shown that cultural differences between these phases are partly reflected in the meat consumption. However, an understanding of the "romanization" process can only be achieved by combining interpretative data from all categories of finds.

Résumé

Tongres (Belgique): évolution de la consommation de viande dans un chef-lieu de cité romaine.

Actuellement, l'IAP, en coopération avec la province de Limbourg, poursuit des fouilles à Tongres, la seule ville romaine du territoire belge. Les vestiges archéologiques du site de la Kielenstraat sont datés entre la fin du 1^{er} siècle av. J.-C. et la seconde moitié du III^e siècle ap. J.-C. Ce rapport approfondit l'étude des restes fauniques provenant de la plus ancienne période d'habitation du site, plus précisément l'occupation pré-flavienne, qui prend fin avec le grand incendie de la ville en 69-70 ap. J.-C. Cette période peut être divisée en quatre phases stratigraphiques. Des distinctions culturelles entre ces phases se reflètent en partie dans les schémas de consommation de viande. Toutefois, une bonne compréhension du processus de romanisation nécessite l'intégration d'interprétations basées sur des découvertes de différents types.

Zusammenfassung

Tongeren (Belgien): Die Entwicklung des Fleischkonsums in einer römischen Stadt.

In Tongeren werden vom IAP in Zusammenarbeit mit der Provinz Limburg die Überreste der einzigen römischen Stadt Belgiens ausgegraben. Im Bereich der Grabungsstelle Kielenstraat wurden Siedlungsreste freigelegt, die vom Ende des 1. Jahrhunderts v. Chr. bis in die zweite Hälfte des 3. Jahrhunderts datieren. Dieser Bericht stellt Untersuchungsergebnisse zu den Kochenfunden der ersten - vorflavischen - Besiedlungsphase, die mit dem Brand von 69/70 n. Chr. endete, vor. Innerhalb dieser Periode konnten vier Besiedlungsperioden stratigraphisch unterschieden werden. Es kann nachgewiesen werden, daß sich die kulturellen Unterschiede zwischen diesen Phasen z. T. auch im Fleischkonsum widerspiegeln. Zum vollständigen Verständnis des Romanisierungsprozesses müssen aber die Informationen aus allen Fundkategorien zusammen betrachtet werden.

Key Words

Tongeren, Belgium, Urban site, Roman period, Romanization.

Mots clés

Tongres, Belgique, Site urbain, Époque romaine, Romanisation.

Schlüsselworte

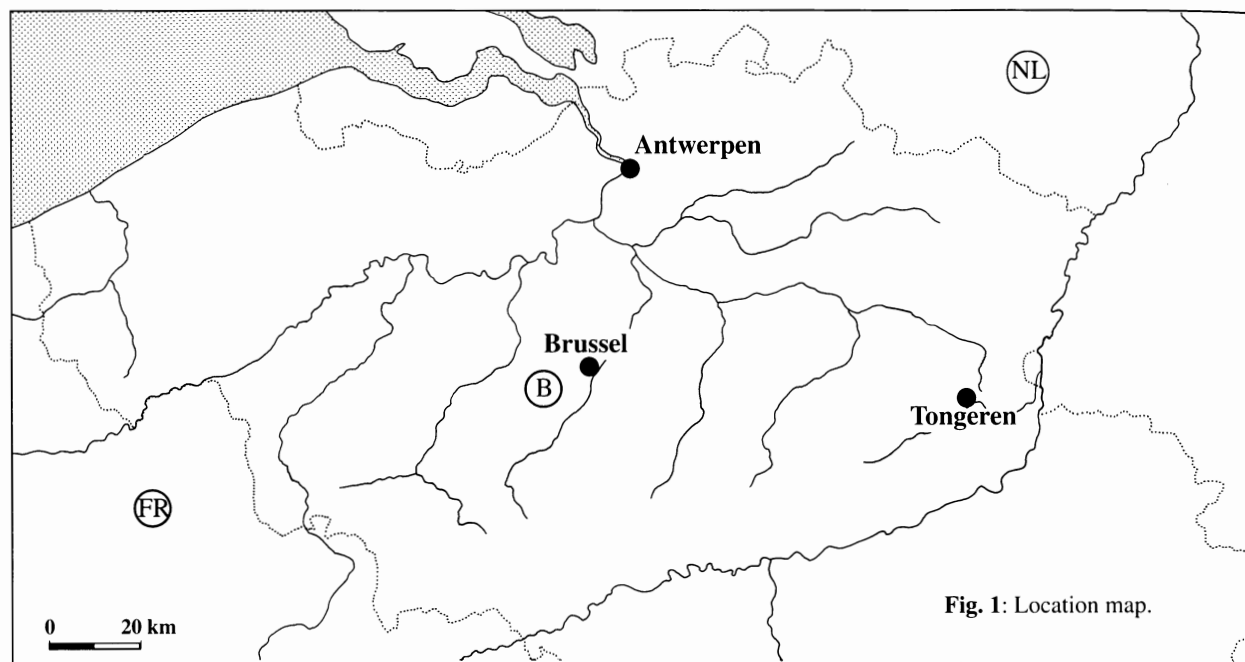
Tongeren, Belgien, Stadtgrabung, Römische Epoche, Romanisierung.

Introduction

Tongeren (*Atuatuca Tungrorum*) is situated in Flanders, the northern part of Belgium (fig. 1), more specifically in the loess region. The oldest traces of habitation from the town date from the Augustean period. The newly founded town became the capital of a *civitas*, i.e. the *Civitas Tungrorum*. A general account of the occupation history can be found in Vanvinckenroye (1985).

Excavations in the Kielenstraat at Tongeren began in 1986. They continued throughout the period 1990-1994 and were finished in 1995. Traces of habitation have been found on the terrain, dating back from the end of the 1st century BC to the second half of the 3rd century AD (Vanderhoeven *et al.*, 1987, 1991, 1992). This report presents an analysis of the archaeozoological material in relation to the features and finds from the oldest habitation

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period, namely the pre-Flavian occupation that ended with the town fire of 69-70 AD, generally associated with the Batavian revolt. Interpretation is based on an interim report (Vanderhoeven *et al.*, 1992) in which a more detailed description of the archaeological material from that period can be found.

Stratigraphy and structural remains

Stratigraphically, four periods can be distinguished within the pre-Flavian occupation. The earliest evidence of occupation (belonging to period IA) comprises only pits and ditches. In some cases, their form and distribution over the site show similarities to those from Augustean military camps, such as Oberaden and Rödgen (Morel, 1991; Köhlborn, 1992). Some of the ditches possibly contained sill-beams, a way of constructing foundations strange to the native population, and which must therefore have been introduced by the Romans (Bloemers, 1985). These features indicate a short but intense phase of occupation, although the nature of the activities remains unknown. Nevertheless, it seems most probable that the features from this first occupation represent the presence of the Roman military and not occupation by native inhabitants (Vanderhoeven *et al.*, 1992).

Traces of habitation dating from the second period (IB) indicate the presence of four, two-aisled farm houses, built according to native tradition (see De Boe, 1988; Slofstra, 1991) and probably represent an occupation by local people. In the third period (II), these houses were

demolished in order to clear space for the construction of large wooden buildings. Although a complete ground-plan for these constructions is still lacking, it is assumed that they were courtyard houses, their walls marked by alignments of posts. During the final period preceding the town fire (III) these residential buildings were remodeled and gradually exhibited more Roman characteristics. Sill-beams were used instead of posts and painted stucco decorated the walls (Vanderhoeven *et al.*, 1992).

Chronology and pottery

The pottery from period IA closely resembles that from contexts in Oberaden, Rödgen and Dangstetten (Schönberger and Simon, 1976; Fingerlin, 1986) and must date to around 10 BC. Period IB can be characterised as late Augustean - Tiberian (1-30 AD). Ceramic finds and stratigraphic data provide a dating framework for period II and III, as Claudian (30-50 AD) and Neronian (50-69 AD) respectively. The general composition of the pottery shows significant differences between the periods of occupation, especially between IA and IB-III. The first period is characterized by the predominance of imported pottery (*terra sigillata* and imported fine ware), while these categories are significantly less frequent in IB-III. During IB-III, imported ceramics only gradually regained in importance. The abundance of Mediterranean pottery in IA can be explained by the presence of Romans on the site while, during IB, the site was inhabited by local people who had less access to imported products. The differences in the pottery from both

periods thus reflect the cultural sequence seen in the evolution of the buildings. The ceramic finds further suggest that, during period IB to III, the local inhabitants became successively more "romanized". This gradual "romanization" is in contrast to the dramatic shift in building techniques observed between periods IB and II-III. Generally, the pottery suggests that the former inhabitants of the Kielenstraat were rather wealthy. Hand-made pottery (in the Iron Age tradition) is absent in all of the four pre-Flavian phases, while imported wares are always present. These are very prominent during period IA but less so, although still important in IB-III (Vanderhoeven *et al.*, 1992).

Botanical remains

The macrobotanical remains do not indicate any dramatic change in the agricultural system, as compared to the global picture obtained for Iron Age sites in the Low

Countries (De Ceuninck and Verbruggen, 1985; Roymans, 1990). Furthermore, no major differences were observed between all periods under consideration. Barley, wheat (particularly spelt wheat and to a lesser extent emmer wheat) and millet appear to have been the most important cereals. Of the other edible plants, the fruits consisted of indigenous species which must have been collected in the vicinity of the site. Almost all of the pulses and herbs are already known from pre-Roman times (Vanderhoeven *et al.*, 1992).

The archaeozoological record

All faunal remains were hand-collected and mainly consist of mammal bones (table 1). Molluscs are only represented by a single badly preserved fragment from period III, possibly identifiable as oyster (*Ostrea edulis*). Bird bones are also scarce, forming only 1% of the total osteo-

Table 1: Bone finds per species for the different habitation periods.

Period	IA	IB	II	III
Oyster (<i>Ostrea edulis</i>)	—	—	—	1
Greylag goose (<i>Anser anser</i>) or Domestic goose (<i>Anser anser</i> f. domestica)	—	—	3	4
Mallard (<i>Anas platyrhynchos</i>)	1	—	2	2
Sparrowhawk (<i>Accipiter nisus</i>)	1	—	—	—
Chicken (<i>Gallus gallus</i> f. domestica)	5	3	3	4
Aves indet.	1	2	—	—
Hare (<i>Lepus capensis</i>)	2	1	—	1
Dog (<i>Canis lupus</i> f. familiaris)	5	3	2	3
Red deer (<i>Cervus elaphus</i>)	—	—	2	3
Sheep (<i>Ovis ammon</i> f. aries) / Goat (<i>Capra aegagrus</i> f. hircus)	34	34	74	98
Pig (<i>Sus scrofa</i> f. domestica)	109	81	81	124
Cattle (<i>Bos primigenius</i> f. taurus)	41	112	238	391
Horse (<i>Equus ferus</i> f. caballus)	7	8	3	2
ribs of larger mammals	18	39	65	119
ribs of medium-sized mammals	22	21	47	38
ribs of small mammals	2	—	1	1
vertebrae of larger mammals	33	20	59	174
vertebrae of medium-sized mammals	12	4	24	19
vertebrae of small mammals	1	—	—	—
Mammalia indet.	138	160	202	406
Total	432	488	806	1390
% identified	48	50	51	45

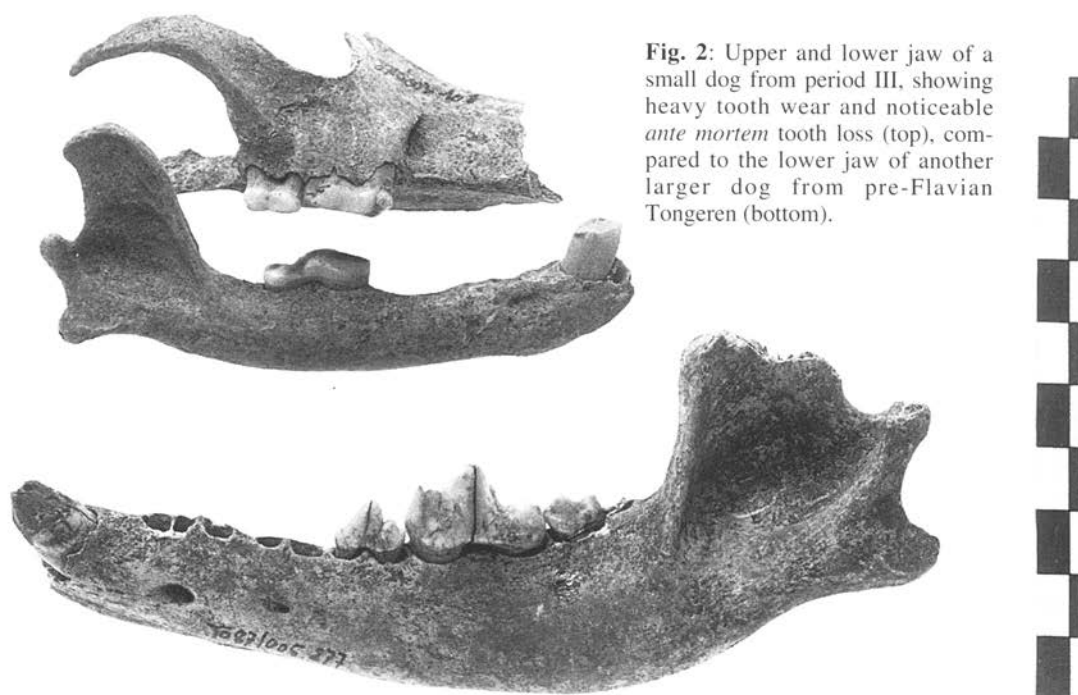


Fig. 2: Upper and lower jaw of a small dog from period III, showing heavy tooth wear and noticeable *ante mortem* tooth loss (top), compared to the lower jaw of another larger dog from pre-Flavian Tongeren (bottom).



Fig. 3: Short horn core of indigenous cattle (bottom) compared to a find from period III, possibly belonging to an imported animal (top).

logical assemblage. It is assumed that those bones identified as greylag goose (*Anser anser*) belong to the domesticated form (*Anser anser* f. *domestica*). There are no morphologic or osteometric grounds for this assumption but the domestic goose is already present in the Low Countries during the Iron Age (Crawford, 1984). The status of the remains of mallard (*Anas platyrhynchos*) remains uncertain. They probably represent wild individuals although it is possible that during the Roman period mallards were also kept in captivity (Lauwerier, 1988).

Among the mammal bones, few belong to hunted species. Only the presence of hare (*Lepus capensis*) and red deer (*Cervus elaphus*) could be attested. The domestic fauna is dominated by those species that were consumed. In terms of the taphonomic categories described by Gautier (1987), the remains of carcasses are comparatively rare. Two species, dog (*Canis lupus* f. *familiaris*) and horse (*Equus ferus* f. *caballus*), belong to this group. The dog remains all indicate the presence of a medium-sized breed, with M_1 between 20.6 and 23.6 mm in length ($n = 5$). An exception is one incomplete skeleton from period III, with M_1 being 17.2 mm in length (fig. 2). A striking difference between this specimen and the other five mandibles is the presence of extreme tooth wear. In addition, the long bones from the incomplete skeleton of this smaller dog indicate a withers height of between 28 and 31 cm.

The contexts from the Kielenstraat rarely contained horse remains but, when they did occur, articulating skeletal elements were often found. The absence of chop or cut marks on most of the bones suggests that horse was not consumed in pre-Flavian Tongeren. However, three humeri were recovered that had been chopped in two mid-shaft. This pattern was also frequently found in the humeri of cattle (see below) and was probably related to some kind of food processing technique. In that way the consumption of horse meat at the site cannot be excluded. Calculation of withers heights from four complete long bones show values of 133, 140, 142 and 146 cm.

The remains of those domestic mammals which were certainly consumed are represented by cattle (*Bos primigenius* f. *taurus*), sheep (*Ovis ammon* f. *aries*), goat (*Capra aegagrus* f. *hircus*) and pig (*Sus scrofa* f. *domestica*). Only one element (a horn core) was identified as goat. Those bones within the sheep-goat group allowing a discrimination between the two species (according to Boessneck, 1969), were all identified as to sheep, suggesting that the majority of the caprovid remains belongs to this species. The few complete long bones from cattle show withers heights varying between 104 and 124 cm, and along with the other biometrical data, indicate the presence of a rela-

tively small breed. Skull fragments show that this breed was also of a short-horned variety. One exception is represented by a horn core (fig. 3) from period III, belonging to an individual with much larger and longer horns. However, post-cranial bones from this larger breed have not been found in the pre-Flavian contexts.

Chronological differences in meat consumption

When comparing the relative frequencies of the major domesticates (cattle, sheep, pig) for the four habitation periods, significant differences are apparent (fig. 4). Period IA is characterized by a high frequency of pig (59.2%) while cattle (22.3%) and sheep (18.5%) are less abundant ($n = 184$). However, during period IB, cattle bones are most common (49.3%), followed by pig (35.7%) and sheep (15%) ($n = 227$). Contexts from period II and III produced even less pig bones (20.6 and 20.2%) while sheep are almost as frequent (18.8 and 16%). Cattle remains, however, dominate during those periods (60.6 and 63.8%).

The high frequency of pig remains in period IA corroborates the thesis that around 10 BC people of Roman origin occupied the site. Their pattern of meat consumption differs significantly from that found in Iron Age sites from the Belgian loess region (table 2) and can best be compared with the feeding habits in Roman sites from the Italian peninsula (King, 1984). This "Mediterranean" trend of high pork consumption is also present in the Augustean army

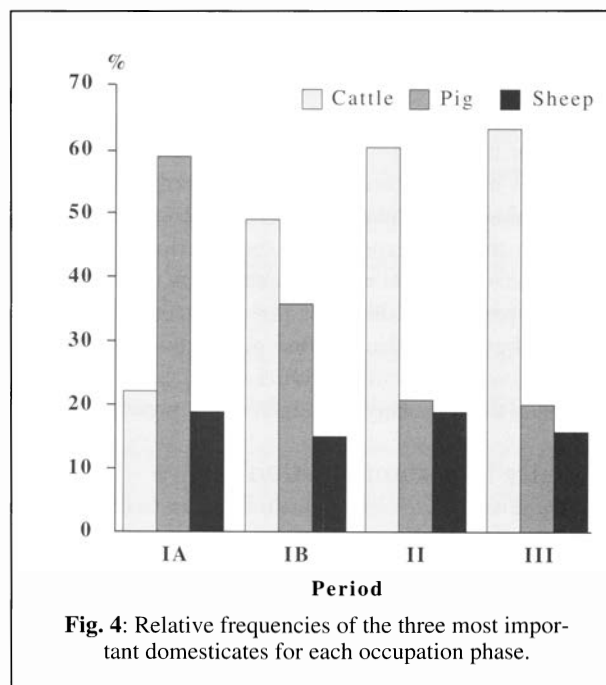


Fig. 4: Relative frequencies of the three most important domesticates for each occupation phase.

Table 2: Relative frequencies of the most important meat suppliers in Iron Age sites from the Belgian loess region (after Van Neer, 1988; Ervynck, 1991; Van Neer and Lodewijckx, 1992).

Site	cattle%	pig%	sheep%	n
Broekom	41	21	38	121
Meldert	64	12	24	165
Wange	31	27	42	177

camps at Dangstetten and Oberaden (Uerpmann, 1977; Lanser, 1992), where mainly soldiers from Italia were barracked. Of course, the first occupiers of the site at Tongeren will not have significantly altered the traditional animal husbandry regimes of the region during their short stay. More probably, they selected their preferred meat from local stocks.

Can the archaeozoological finds also provide evidence for the hypothesis that, after the Roman settlers had left, people with local traditions settled in the area of the future town? During habitation period IB, the frequency of pig bones is significantly lower than in period IA, but still higher than from the Iron Age sites already mentioned (table 2). During the subsequent periods II and III, this frequency is further reduced. Can this marked decrease in pork consumption be explained as a return to Iron Age traditions? An important question is, however, whether the inhabitants could maintain a husbandry regime following the Roman cultural traditions. While the inhabitants of period IA, during their short-term occupation, could kill domestic livestock without accounting for the long-term consequences, this was impossible for the permanent residents of period IB to III. They had to adjust their culinary demands on a long-term base to the constraints of the natural environment and the existing agricultural economy. We do not know yet which changes occurred in the landscape during these periods. Possibly, some deforestation had already taken place, further limiting the preferred habitat for pig production. It is also possible that a depletion of the pig population during period IA resulted in negative consequences for pig breeding in the following periods.

Evidence for “romanization”?

When sites of the Gallo-Roman culture in Northwestern Europe are compared with older, Iron Age sites, or with contemporary sites outside the Roman empire, some general “Roman” characteristics can be found in the archaeozoological record (see e.g. Luff, 1982). One example is the import of exotic species in Northern

Gaul, such as the edible snail (*Helix pomatia*), the domestic cat (*Felis silvestris* f. *catus*), the black rat (*Rattus rattus*), the peacock (*Pavo cristatus* f. *domestica*) and the ass (*Equus africanus* f. *asinus*). None of these animals, however, appear in pre-Flavian contexts at Tongeren - Kielenstraat.

The Roman cultural influence is also held responsible for the development, in Northern Gaul, of inland trade from the coastal area. At inland Iron Age sites, oyster shells are never found (Gautier, 1990) while they do appear in large quantities in sites from the Roman period (Günther, 1897). At Tongeren, the single shell, possibly identifiable as oyster, found in a context from period III, suggests that the trade with the coastal region could already have started just prior to 69-70 AD.

Generally, it is well known that domestic animals from Roman sites in Northern Gaul were larger than their Iron Age predecessors. This phenomenon is well described for cattle (Boessneck *et al.*, 1971; Noddle, 1984; Lauwerier, 1988) and most probably explained by the import of larger Mediterranean races. However, all measurable cattle post-cranial elements from pre-Flavian Tongeren show dimensions that do not exceed those from Iron Age sites such as Manching (Boessneck *et al.*, 1971). The presence of a single larger horn core from period III could suggest an early import of a larger breed close to 69-70 AD.

Finally, another possible “Roman” characteristic of the Tongeren assemblage is suggested by the presence of a small dog from period III. Generally, smaller specimens are found from Roman sites but rarely from those of Iron Age date (Harcourt, 1974; Teichert, 1990). All together, the “romanized” traits of the pre-Flavian collection at Tongeren are limited and all dating back to the youngest period, just before 69-70 AD.

Conclusion

The non-archaeozoological data from Tongeren seem to indicate that different find categories (structural remains, ceramics, macro-botanical material) show different trends in “romanization”. While Iron Age pottery disappears immediately after the arrival of the Romans, no change in the agricultural system is evident. Ceramics and structural remains (but not the plant remains) illustrate the cultural differences between the Iron Age, period IA (the military occupation) and period IB (the houses built by the local elite). In periods II and III “romanization” manifests itself markedly in the structural remains, only gradually in the finds of imported pottery, and not at all in the plant remains.

The pattern of meat consumption appears to corroborate the allochthonous nature of the occupation in period IA, and the subsequent colonization of the town's territory by local people during IB. These inhabitants, whose consumption pattern did not evolve significantly from period IB to III, did not or could not follow a "Roman" diet. Moreover, generally accepted "Roman" characteristics of the fauna assemblage only appear during the latest period. Most probably, the strongest shifts in animal husbandry only took place after the pre-Flavian period.

Archaeozoological work at Tongeren will continue in the future, and one of the most promising aspects of the site

is the opportunity to integrate data from all find categories in conjunction with detailed stratigraphic information. This will allow a more detailed chronological picture of the different stages of "romanization" and changes in animal husbandry in and around the town.

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