

Medieval deerskin processing waste at the Moor House site, London EC2

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Introduction

An archaeological excavation at 119 London Wall, London EC2 (Moor House site), carried out by Pre-Construct Archaeology Ltd. between September 1998 and November 2002,¹ produced evidence of medieval leather-working activity. Part of this evidence took the form of concentrations of cattle horn cores, which, given the known presence in the medieval period of tanners in the Moorfields area,² were not entirely unexpected discoveries.³ However, what was not anticipated were the 81 roe deer antlers recovered from the same contexts as the quantities of cattle horn cores. Such a large group of roe deer antlers seems to be extremely uncommon if not unique among medieval sites in Britain, and considered therefore to merit detailed study, the results of which are presented in this article.

Archaeological background to the site

The Moor House site (Fig. 1) was located to the west of Moor Gate just outside the city walls, immediately to the north of the city ditch, the outer edge of which was revealed in the southern part of the site. During the 1st and 2nd centuries AD the area was subject to brickearth quarrying on a large scale. Roman occupation of the site was attested by a series of ditches and pits and small-scale structural remains. After the construction of the city wall in the early 3rd century Roman activity was more peripheral consisting of large ditches presumably dug in an effort to drain the rapidly growing marsh, which was at least partially caused by the lack of access points through the city wall for the river Walbrook.

The area remained as marginal land throughout the medieval era. Attempts were however made to utilise the land during this period. In the 12th to 13th centuries, evidence of tanning was present in the western part of the site. Later a network of

apparent drainage ditches was dug to manage the land for possible agricultural use. Widespread reclamation of the site was only achieved in the early post-medieval period.

The vast majority of the antler assemblage from the site came from two features (Fig. 2): a large rectangular tanning pit [1452]/[1455]/[1472]/[1473] with vertical sides and a flat base measuring 10.4m by 4m by 0.70m deep and a feature [2032] revealed in section only during the watching brief, and which may have been a ditch or large pit. Other isolated examples were found within ditches and pits across the site. Ceramic evidence from all these deposits indicates a date-range of AD 1180–1300.

General description of the antlers

Apart from five specimens in which both the right and left antler pair survive together, attached to a chopped portion of the frontal bone (Fig. 3), the

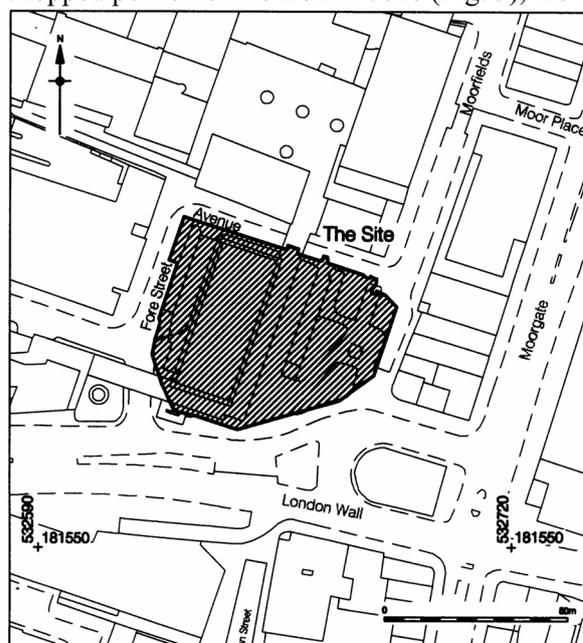


Fig. 1: site location

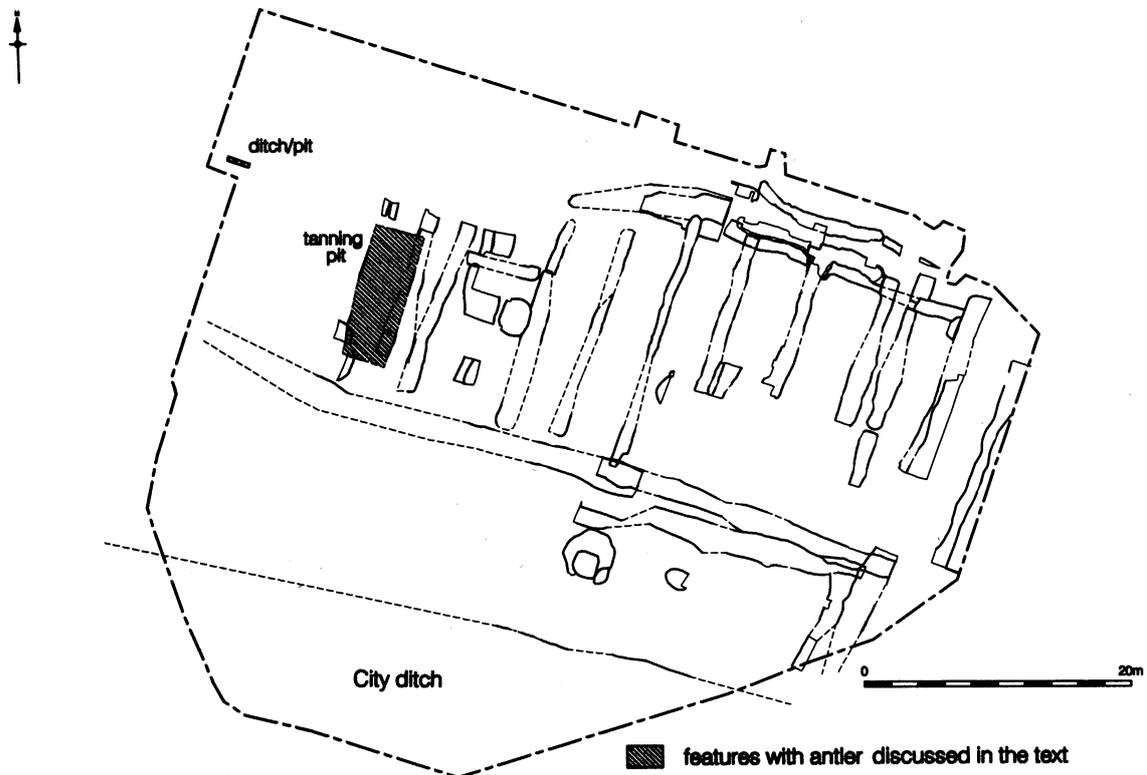


Fig. 2: medieval phase plan showing location of features containing the antlers

majority of specimens are either isolated right or left antlers but even these include the pedicle attached to a small chopped fragment of the frontal bone, indicating all the specimens originated from hunted male deer and were not collections of naturally shed antlers.⁴ From the appearance of the Moor House specimens it seems the deer represented had probably been hunted and killed at the time of optimum growth in their antlers and before shedding. This would have been sometime between June/July and September, towards the end of the permitted hunting season for this species in the High Medieval period.⁵

Based on known antler morphological development at different ages in modern herds of roe deer,⁶ the greatest proportion (67%) of the deer represented in the Moor House deposits are identified as mature individuals aged three years or over at time of death, with the balance comprising two year olds (with characteristically forked antlers) and yearlings (with antler “spikes”) (Fig. 4).

Deerskin processing waste

Evidence of chopping on the frontal bones indicates the manner in which the antlers had originally been removed from the head as pairs still attached to a portion of the upper cranium, which (except in the five specimens mentioned above) later became broken apart prior to disposal in the pits and ditches. Knife scoring marks on the frontal bone fragments indicate all of the roe deer had been skinned, and given the absence of any associated post-cranial elements of these animals in the archaeological deposits, it would appear that the antlers had been imported in skins removed from deer hunted-killed-butchered-consumed elsewhere – in the same way that cattle, sheep and goat horns were often left in the hides/skins supplied to leatherworkers by butchers.⁷

Leaving antlers in the skins appears at first consideration to be adding unnecessary weight during transportation from the kill-site to the tannery. There would also have been problems in stacking the skins on the cart, requiring extra care

to ensure the antlers did not become intermeshed or cause damage to the skins while being transported. However, during unloading at their final destination, the presence of the antlers would have allowed the leatherworker to readily distinguish and separate out older from younger skins.⁸ Establishing the age of each skin received may have held implications for the duration (and type?) of curing treatment required; alternatively, the age of the animal may have determined the final quality and consequently the price obtained for the treated skin product. Following sorting of the deerskins according to age group, the medieval leatherworkers at Moorfields would have removed these appendages and then disposed of them as unwanted waste. There is no evidence the antlers had served as a source material in the manufacture of objects such as bodkins and knife handles⁹ – in all specimens the beam and tines had remained as intact structures at the time of disposal and burial.

Who supplied the deerskins?

In considering who might have supplied the roe deer skins to the London leatherworkers operating in the Moorfields area it is important to recognise that following the Norman Conquest access to deer was severely limited and illegal for the majority of the British people. Only huntsmen authorised by the King or nobles would (legally) have been able to stalk and kill deer in the forests around the City and have had the right to sell their skins to the London leatherworkers.¹⁰ From the 11th century, only bishops, abbots and barons were permitted to hunt all beasts of the forests, providing they were not royal beasts (i.e. red deer stags). Penalties for anyone else infringing the strict hunting laws were extreme – loss of a limb or even death. As a “beast of the forest”, roe deer were subject to these hunting laws, at least this was the situation until 1338 when the Court of the King’s Bench, on the basis it was a nuisance animal prone to driving away the other more highly regarded game (red deer and fallow deer) relegated this species to the status of “beast of the warren”, thus allowing their hunting by commoners. Orders were also given to the Royal Foresters to have roe deer eradicated from the royal hunting preserves.¹¹ These measures, coupled with removal of the protection of the

forest laws resulted in the extermination of the species throughout southern Britain by the early post-medieval period – as illustrated with reference to Epping Forest where roe deer are documented to have died out by the 16th century.¹²

Tanners and white tawyers

Although the roe deer antlers were found with cattle horn cores in the same ditch and pit fills at the Moor House site, it is important to recognise that they probably represent waste from an entirely different branch of the leatherworking trades. In medieval England the treatment of cattle hides with oak bark to produce leather was the prerogative of *tanners*, whilst the curing of skins of horses, deer and smaller animals such as sheep, goats, and dogs, using alum, oils and vegetable extracts, was carried out solely by white tawyers (*whittayers*).¹³ The archaeological deposits at Moor House seem to indicate these two very different trades were carried out in

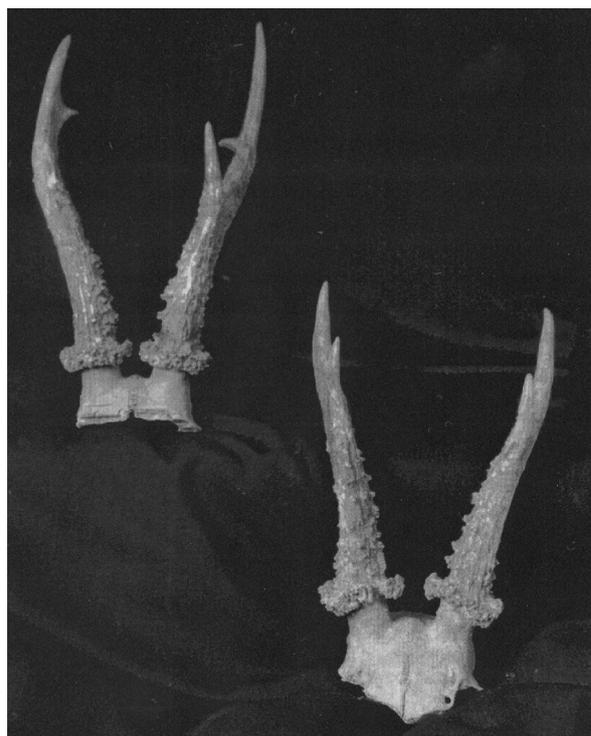


Fig. 3: antler pairs attached to chopped portions of frontal bones, from the heads of roe bucks (two-year old and fully mature animal).
Photo: courtesy of PCA Ltd.

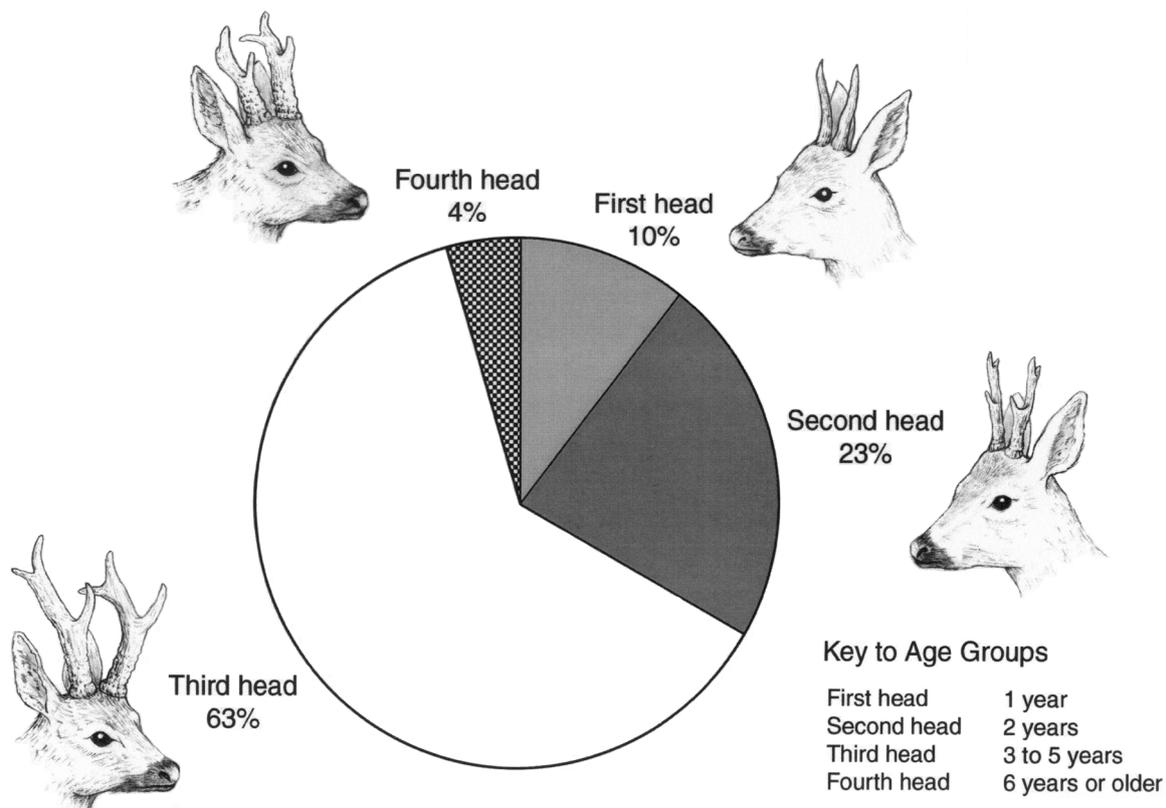


Fig. 4: pie chart showing relative proportions of the different age classes represented in the Moor House roe deer antler assemblage (calculated as percentages of the total number of animals)

reasonably close proximity and in an outlying, conveniently sparsely populated area just beyond the City wall where their foul-smelling processes did not impinge on other citizens and where their noxious tanning agents (tannic acid, lime and oils etc.) and unpleasant byproducts (dried blood, fatty tissue, hair) could not pollute drinking water sources. By the later medieval period, City and Guild Ordinances enforced such industrial zoning – as exemplified by an ordinance of the Pelterers’ guild in 1365, which laid down that leather workers should live and work in the Walbrook area to the north of the City.¹⁴

Conclusion

The discovery at the Moor House site of deerskin processing refuse together with the debris from tanning has added a new dimension to our understanding of industrial activities in the Walbrook valley during the medieval period. Such evidence complements other archaeological discoveries, including the industrial waste

deposits, dated to AD 1050–1150, located further south in the Walbrook valley, at Northgate House, during excavations carried out by the Museum of London Archaeological Services – which like the Moor House site, included cattle horn cores that may have been linked with tanning. The Northgate House site, however, did not produce deerskin-processing products; but of special interest was the presence of furrier waste in the form of cat skulls exhibiting skinning marks.¹⁵

Acknowledgements

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1. Project Managers: Gary Brown and Jonathan Butler of Pre-Construct Archaeology Ltd. Archaeological work at the site was financed by Greycot plc and the Archaeological Consultant was Peter Mills of the Mills Whipp Partnership.
2. Tanning was known from the general area in Cripplegate Outer Ward; in 1298 the Hustings Rolls recorded a house called 'le Taninghus' and later in 1358 a brewery and house was called 'le Tanhous' (Baddeley 1921, 91). From the Mayor's Court Rolls of the City of London in April 1304 a Richard de Houndeslowe, who had been 'summoned to answer the Prior and Brothers of the Order of St Augustine for killing horses and burying their carcasses within the Walls of London, . . . Was mainprised by John Baudry and John Note, tanners of the Moor, for his appearance on Friday to hear judgement' (Thomas 1924, 161). Refs: J. J. Baddeley *Cripplegate* (1921); A. H. Thomas *Calendar of Early Mayor's Court Rolls of the City of London 1298–1307* (1924).
3. The association between large deposits of cattle horn cores found at archaeological sites and the process of tanning is explained in W. Prummel 'The archaeological study of urban medieval sites in the Netherlands' in A. R. Hall and H. K. Kenward (eds) *Environmental Archaeology in the Urban Context*, CBA Research Report 43 (1982) 117–122; D. Serjeantson 'Animal remains and the tanning trade' in D. Serjeantson and T. Waldron (eds) *Diet and Crafts in Towns The Evidence of Animal Remains from the Roman to the Post-Medieval Periods*. BAR 199 (1989) 129–146; P. L. Armitage 'Post-medieval cattle horn cores from the Greyfriars site, Chichester, West Sussex, England' *Circaea* 7, no. 2 (1990 for 1989) 81–90. Descriptions and metrical data relating to the cattle horn cores from the Moor House site are not included here but are available from Pre-Construct Archaeology or the site's permanent archive.
4. In roe deer only males develop antlers, which in southern England reach full growth by June/July and are shed from late October to December; D. I. Chapman 'Roe deer' in G. B. Corbet and H. N. Southern (eds) *The Handbook of British Mammals* (1977) 440.
5. During the 13th century, the hunting season for roebuck was from Easter (end of March) to Michaelmas (29th September); G. K. Whitehead *Hunting and Stalking Deer in Britain through the Ages* (1980) 168.
6. Ageing of the roe deer represented in the Moor House deposits was based on the descriptions and illustrations of antler growth and appearance in the species, given in H. Tegner *The Roe Deer Their History, Habits and Pursuit* (1951) 50–55 and A. J. de Nahlik *Deer Management. Improved Herds for Greater Profit* (1974) 74–85, Figs. 15a to 15d.
7. W. Prummel, D. Serjeantson, P. L. Armitage, *op. cit* fn 3.
8. This explanation for the retention of the antlers in the skin is based on the reason given by Swiss farmers in more recent times as to why they left part of the head with the horns on the skin of goats during the skinning process, "so that the tanner can easily know the ages of the animals"; Schmid (1974) quoted in D. Serjeantson *op. cit.* fn 3, 139.
9. As discussed by Ian Riddler (forthcoming), the small size of roe deer antlers, and prominent guttering in their beams, rendered them of little use as raw material for manufacturing objects – apart from bodkins. Riddler reviewed the evidence from Anglo-Saxon sites in England, and discovered that the quantities and range of objects were severely limited; I. Riddler 'A lesser material: the working of roe deer antler in England during the Anglo-Saxon period' in I. Riddler (ed.) *Materials of Manufacture: The Choice of Materials in the Working of Bone and Antler in Northern and Central Europe During the First Millennium AD* BAR British Series no. 1193.
10. This suggestion of control over the supply in the skins of roe deer to the City by the king and/or nobles is based on the observation made by MacGregor that from the time of the Norman Conquest, the bulk of the red deer antlers reaching manufacturers from slaughtered animals were "channeled through the royal and noble households that operated a jealously guarded monopoly on hunting"; A. MacGregor 'Bone, antler and horn industries in the urban context' in D. Serjeantson and T. Waldron (eds) *Diet and Crafts in Towns The Evidence of Animal Remains from the Roman to the Post-Medieval Periods*. BAR 199 (1989) 108.
11. Whitehead *op. cit.* fn 5, 152 & 164.
12. R. S. R. Fitter *London's Natural History* (1945) 197.
13. See R. Thomson 'Leather manufacture in the post-medieval period with special reference to Northamptonshire' *Post-Medieval Archaeol* 15 (1981) 161–175. According to the highly regulated trade prices charged by white tawyers in medieval London for their products, 100 roe deer skins would have cost 16 shillings – see The Statutes of the White Tawyers (in London, 1346), ref. Source: www.geocities.com/elangoc/medieval/careers.html. Information on the sources of objects that would have been made from roe deer skins in the 12th and 13th centuries has not been forthcoming. It is well documented, however, that deerskins generally were used in bookbinding and as the source of parchment, as well as in making gloves.
14. H. T. Riley *Memorial of London Life, Thirteenth, Fourteenth and Fifteenth Centuries* (1868) 614–6.
15. J. Drummond-Murray and J. Liddle 'Medieval industry in the Walbrook valley' *London Archaeol* 10, no. 4 (2003) 87–94.