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**Technical report: Vertebrate remains from Thorley, Hertfordshire  
(site codes HAT93, HAT136, R2400.94)**

by

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**Summary**

*Vertebrate material from contexts targeted by the excavators was recorded in detail together with material from other tightly dated contexts. Overall preservation of the small assemblage was variable, mostly being described as poor and fair. In total 4,667 fragments were recorded, of which only 976 were identifiable to species. A whole sheep skeleton was recovered from Late Bronze Age deposits, whilst late Iron Age/early Roman layers contained a dog skeleton and possible ritual deposits of a cattle skull and mandibles.*

*The zooarchaeological evidence gleaned from this assemblage is minimal but a limited amount of information was gathered on the nature of some of the 'special' and 'ritual' deposits, which may aid site interpretation.*

*The appendix contains the archive for all recorded bone from excavations at Thorley, Hertfordshire.*

**KEYWORDS:** THORLEY; HERTFORDSHIRE; VERTEBRATE REMAINS; LATE BRONZE AGE; MIDDLE IRON AGE, LATE IRON AGE/ EARLY ROMANO-BRITISH; ROMAN; RITUAL DEPOSITS; DATA ARCHIVE.

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## **Vertebrate remains from Thorley, Hertfordshire (site codes HAT93, HAT136, R2400.94)**

### **Introduction**

A series of archaeological interventions were carried out by Hertfordshire Archaeological Trust, between 1992 and 1994, at Thorley, near Bishop's Stortford, Hertfordshire (NGR TL 47020 48618). The excavations took place in advance of a proposed housing development. The initial evaluation (HAT 93) revealed extensive archaeology ranging from the Bronze Age to Late Roman periods. A second evaluation was undertaken in 1994 (R2400.94) which clarified the results of the initial intervention. The main excavation (HAT 136) consisted of sixteen trenches targeting the four principal archaeological areas located during the evaluations (McDonald 1995).

Five boxes (approximately 19 litres) of animal bone from Thorley were submitted for the production of an archive. Most of the material (four boxes) was from HAT136. A single box of material came from two evaluation interventions. All the material was assessed by the EAU in 1996 (Jaques and Dobney 1996). Since the assessment took place the dating of the deposits has been refined, with the prehistoric material being split into Late Bronze Age and Middle Iron Age. The contexts have also been combined into the following phases.

Phase 1 - pre Late Bronze Age? - no bone bearing contexts

Phase 2 - Late Bronze Age

Phase 3 - Middle Iron Age

Phase 4 - Late pre-Roman Iron Age/early Roman

Phase 5 - Roman

Phase 6 - Medieval onwards - no bone bearing contexts recorded.

Some contexts within Phases 4 and 5 were more tightly dated by the pottery spot dating to 1st/2nd century, 2nd/3rd century, 3rd/4th century. These dates are given with the detailed records in the appendix and with the measurements to enable comparison with other tightly dated material.

A number of contexts were highlighted by the excavators as being of particular interest in understanding the nature of some of the features on the site. These targeted contexts mainly represent 'special' or 'ritual' deposits, for which the excavators required discussion of the vertebrate remains in light of these interpretations.

### **Methods**

Data for the vertebrate remains were recorded electronically directly into a series of tables using a purpose-built input system and *Paradox* software. For contexts containing more than ten fragments and including at least one identifiable fragment, subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additionally, semi-quantitative information was recorded for each context

concerning fragment size, dog gnawing, burning, butchery and fresh breaks.

Where possible, fragments were identified to species or species group, using the reference collection at the Environmental Archaeology Unit, University of York. For the separation of sheep and goats the criteria set out by Boessneck (1969) and Payne (1985) were used in addition to the reference material. Only fragment counts and weights by context were recorded for the unidentified material. Weights were also recorded for the identified species by context.

For the identified material, each fragment was assigned an individual record. The information entered in that record consisted of (where appropriate); the species element and side, the zones present (following Dobney and Rielly 1988), the state of epiphysial fusion, isolated tooth wear stages, and any additional information in a notes field. Information on tooth wear stages from mandibles, butchery, and measurements are recorded into separate tables. Details of the codes used for all these (with references) can be found at the beginning of the appendix.

Measurements for mammals were taken, (where appropriate) according to the system of Von den Driesch (1976), with additional measurements following those outlined by Dobney *et al.* (forthcoming). Withers heights were calculated following Kiesevalter (in Von den Driesch and Boessneck 1974) and Johnstone (1996) for horses, and Fock (in von den Driesch and Boessneck 1974) and Matolsci (1970) for cattle.

## Results

Material from a total of 276 contexts, constituting five boxes (approximately 19 litres each), was submitted for examination. The 14 contexts from HAT 93, for which the dating was not as tight as the other two sites, yielded very little bone material. For this reason it was considered to be not worth recording as any additional information for interpretation of the site would be very limited. The only fragment worthy of note was a deer metatarsal fragment in Context 043 (Phase 3).

Material from 182 of the 262 contexts from HAT136 and R2400.94 was recorded as outlined in the methods statement. Priority was given to those contexts targeted by the excavators as being of particular interest in site interpretation (square brackets [] enclose information supplied by the excavator). Of the remaining contexts, only those associated with the target features and those with tight dating were recorded. The remaining bones, representing 80 contexts, (approximately half a box) were from deposits which were either very broadly dated or were of uncertain date. It was felt that this material did not warrant recording.

In total, 4,667 fragments (weighing 15.32 kg) were recorded of which 976 (weighing 28.77 kg) were identifiable to species or species group.

### *Phase 2 - Late Bronze Age*

Deposits from a total of 74 contexts, dated to the late Bronze age, yielded bone material. Material from 66 of these contexts was recorded. A total of 1,304 fragments (weighing 4,704 g), of which 341 were identifiable to species, was recovered.

Preservation of material from Phase 2 contexts was described as variable, with most contexts containing a mixture of fragments in the 'poor' and 'fair' categories. A few contexts contained very poorly preserved fragments. The angularity (appearance of broken surfaces) was also variable with most fragments being battered in appearance, whilst a few were described as 'spiky' or 'rounded'. Colour was more uniform than the other variables recorded, being mostly described as fawn. A few contexts contained slightly darker (light brown) fragments.

The degree of fragmentation was high, with more than 50% of the fragments in most contexts being less than 5 cm in maximum dimension. Four contexts contained single fragments over 20 cm in greatest dimension. Evidence of dog gnawing was very limited. Burnt fragments were scattered throughout some contexts, whilst evidence of butchery was present in most contexts to a small degree. Fresh breakage was evident on between 0 and 50 % of the fragments in all contexts in this phase.

The species represented included all the main domestic mammals (Table 1); caprovid (297 fragments), cattle (32), horse (7) and pig (4). In addition, a single deer antler fragment was recovered which could not be identified to species level. Two cattle bones produced withers heights - a radius giving a height of 1152 mm and a metatarsal giving 1161 mm at the withers.

#### *Targeted contexts*

[The pits are described as possible 'special deposits']

#### **Pit 1691** [pit with metalworking debris]

The fill (Context 1692) of this pit contained evidence for metalworking. The bone consisted of caprovid teeth, maxilla and metatarsal, together with 86 unidentified fragments.

#### **Posthole 1789** [near south enclosure]

The fills (1790 and 1822) of this feature contained a horse tibia, cow mandible and tooth, and caprovid mandibles and teeth, together with 93 unidentified fragments.

#### **Pit 1833** [part of pit alignment at the end of E. ditch]

The bone from the two targeted fills (1835 and 1846) from this pit consisted of a horse femur, cow tibiae, scapula, metatarsal and teeth and caprovid teeth. In addition to the 74 unidentified fragments recovered from these two contexts, another 35 were recorded from Context 1848 (between the deposits mentioned above).

#### **Feature 1912** [possible cremation next to E ditch]

Although described as a possible cremation, most of the animal bone from Context 1913 was not burnt. The assemblage consisted of what appeared to be a single, subadult, sheep skeleton. Most parts of the body were represented, if very fragmented. The number of fragments of this skeleton came to 264; 36 of these could be definitely attributed to sheep elements, the rest were fragments of bone from an animal the size of a sheep. In addition, 42 unidentified, unrelated fragments (mostly burnt) were recovered from this deposit.

#### **Pit 1915** [pit dug through end of ditch of N enclosure]

The identifiable remains came from Context 1916 and included a horse tibia, caprovid teeth and cattle teeth, metacarpal and femur. This context yielded 69 unidentified fragments, whilst the other fill (Context 1986) contained 14.

#### **Pit 1688** [pit cut through end of W. ditch of S. enclosure]

Although only one fill (1690) of this pit was highlighted, four other bone bearing fills (1689, AF10, AF11, AF12) were also recorded. As a whole these yielded three horse, six cow and single caprovid and deer fragments. In addition, 60 unidentifiable fragments were recovered.

#### **Other pits (1752, 1773, 1793, 2032)**

The highlighted fills of these pits (1753-4, 1774, 1794-5, 2033) contained very little bone material, of

which only four fragments were identified to species and 149 were unidentified.

### **Ditch sections 1827 and 1971**

The fills of these ditch sections contained 22 unidentified fragments.

### **Isolated features**

Feature 2195 (fill 2196) contained cattle tibia and astragalus, pig humerus and caprovid teeth with 38 unidentified fragments. Feature 2500 (fill 2501) contained cattle and caprovid teeth and five unidentified fragments.

## *Phase 3 - Middle Iron Age*

Bone was recovered from 44 contexts dated to the Middle Iron Age. Material from 32 of these was recorded. These deposits yielded 664 fragments (weighing 6,655 g), of which 130 were identified to species.

The preservation of Phase 3 material was more uniform within contexts than the Phase 2 material and was generally either fair or poor. The angularity (appearance of broken surfaces) overall was battered, with a few contexts also containing rounded fragments. Colour was similar to Phase 2 material, with some fragments showing a ginger staining to their surface.

Fragmentation was also similar to Phase 2 material, although no fragments above 20 cm were recovered. Dog gnawing was noted in one context only, whilst evidence of butchery was seen in only four contexts. Burning was noted in many contexts but affecting less than 10% of the fragments. Fresh breakage was slightly less evident than on the Phase 2 material with up to 20 % of the fragments affected.

Species represented in the Phase 3 material also included cattle (65 fragments), caprovid

(33), horse (16) and pig (14). In addition, two fragments of dog were recovered (see Table 1). A single horse bone (radius) produced a withers height of 1319 mm (13.1 hh).

### *Targeted contexts*

#### **Pits (2341, 2345, 2392, 2465, 2420, 2391, 2454)**

A reasonable quantity of bone was recovered from the fills of these pits (2342, 2348-50, 2399-401, 2467, 2420, 2391 and 2457), with cattle (33 fragments), caprovid (28), pig (9) and horse (3) remains present. In addition 261 unidentified fragments were recovered. Pit 2418 (fill 2420) produced a moderate amount of bone (42 identified and 71 unidentified fragments). The identified remains from all these pit fills represented mainly head and feet elements. However, the unidentified fraction consisted mainly of shaft fragments, possibly representing the rest of the skeletal elements. The preponderance of teeth may be a factor of preservation rather than deposition, as teeth generally preserve better than bones.

#### **Postholes (2547, 2553, 2310)**

The only identifiable fragment from the fills (2548, 2554, 2311) of these postholes was a horse metacarpal. Sixteen unidentified fragments were also recovered.

#### **Ditches (2355, 2357, 1555, 1560, 2353)**

The fills of these ditch sections (2356, 2358, 2464, F5, 1556, 1561, 2354) produced a moderate amount of bone. Thirty three identified and 118 unidentified fragments were recovered. Of the identified material cow (20 fragments), horse (7), pig (3), caprovid (2) and dog (1) were represented. The range of elements present does not appear to indicate waste from any specialised activity, but more the general disposal of all refuse. Evidence of butchery was noted on a horse scapula from Context 2356, indicating that the horse remains here may represent the occasional consumption of horse meat.

### *Phase 4 - Late pre-Roman Iron Age and Early Roman*

Phase 4 bone was recovered from 52 contexts, of which material from 26 was recorded. The dating of the remaining 26 contexts was less precise and/or the assignment to this phase was uncertain. The 26 recorded contexts contained 1,105 bone fragments (weighing 4,155 g), of which 195 were identifiable to species.

The overall impression of the preservation was variable, possibly more so than the preceding two phases. Only six contexts contained over 10 fragments and preservation was only recorded for this material. Half these were recorded as containing fragments with mixed preservation (good to poor), the rest being more uniform. The angularity (appearance of broken surfaces) was equally variable but overall the material appeared to be less battered than that from previous phases. Material from two contexts was recorded as spiky, and one contained a few rounded fragments. Colour was similar to Phase 3 material: mostly fawn with a few darker and ginger stained fragments.

The degree of fragmentation was again quite high, with most contexts containing more than 50% of fragments less than 5 cm in greatest dimension. A single fragment greater than 20 cm was recorded. No burnt fragments were recorded and evidence of both, dog gnawing and butchery was sparse. Fresh breakage, however, was high, with 20 - 50% of fragments affected.

The most numerous species appears to be dog (149 fragments) but 141 of the fragments represent a single individual. The main domestic mammals are again present; cattle (30 fragments), caprovid (9), horse (1)

and pig (5) (see Table 1). In addition, a single cat fragment was recovered.

#### *Targeted contexts*

[Pits associated with mortuary enclosure ('ritual deposits') and ditches for comparison]

**Pit 1351** [pit near mortuary enclosure 'B' with cattle skull]

The fill (1352) of this pit contained a horse femur and a cow horncore. The unidentified fraction contained 545 fragments (including many from sample 43) most of which seem to have been from a large mammal (probably cow) skull. Information from the excavators suggests that a single, complete, cattle skull was uncovered which presumably broke up on excavation.

**Pit 1396** [pit cut through ditch of mortuary enclosure 'B' with 'horse' mandibles]

The fill (1397) of this pit was said by the excavators to contain horse mandibles. However, upon inspection of the bones, only cattle mandibles (2), teeth (10), radius (1) and two caprovid teeth were identified. In addition, 142 unidentified fragments were recovered.

**Context 1482** [pit cut through ditch of mortuary enclosure 'B' with dog skeleton]

This context contained a dog skeleton. Of the 141 fragments recovered, 72 were identifiable to element. All the bones, for which the ends were present, were fused, indicating an adult individual. The size of the bones suggested a small to medium-sized dog.

**Pit 1486** [associated with the mortuary enclosure]

The fill (1487) contained only eight fragments of which one was identifiable (a caprovid deciduous premolar).

**Ditch 1342** [associated with the mortuary enclosure]

A moderate amount of bone was recovered from the fill (1343) of this ditch section and, included two caprovid, three dog and eight cattle fragments, together with 53 unidentified pieces. The three dog bones (humerus, tibia and canine) did not appear to represent a single individual. Their size was consistent with a smallish dog. A range of elements,

of the domestic mammals, were represented, although most were those traditionally associated with butchery waste.

**Ditch 1392** [associated with the mortuary enclosure]

The fill (1393) of this ditch section contained the only cat fragment identified from the site, together with a pig tibia and six unidentified fragments.

*Phase 5 - Roman*

Although all the contexts assigned to Phase 5 are broadly described as Roman, many have been more tightly dated (see Table A1 for details). Bone was recovered from 85 Phase 5 contexts, of which material from 54 was recorded. These 54 contexts yielded 1,594 fragments (weighing 14,720 g), of which 310 were identifiable to species.

Overall preservation was again described as variable, with most contexts containing both 'fair' and 'poor' fragments. A few well preserved fragments were scattered throughout the contexts. Angularity (appearance of broken surface) was also recorded as variable. However, unlike material from previous phases, most contexts contained spiky fragments, although most were battered in appearance. Colour was also somewhat variable. Overall it was fawn, but most contexts contained ginger stained and darker fragments.

As with all the previous phases, a high degree of fragmentation was noted. Three fragments more than 20 cm in greatest dimension were recorded, but over half the contexts contained more than 50 % of the fragments less than 5 cm in greatest dimension. Burning was noted in only two contexts, whilst dog gnawing was noted in most contexts at low frequencies (0-10 %). Evidence of butchery was slightly more frequent, with 10-20 % of fragments being

affected. Fresh breakage was evident in all contexts, with between 10 and 50 % of the fragments affected.

Once again the main domestic species predominate: cattle (136 fragments), caprovid (82), horse (12) and pig (6) (see Table 1.). Dog accounts for 65 fragments, but again 61 of these probably represent a single individual. Other species present include a wader, possibly woodcock (cf. *Scolopax rusticola* L.) ulna, single small mammal and small bird fragments and six amphibian bones. Three horse bones produced withers heights; radius - 1276 mm (12.3 hh), tibia - 1243 mm (12.2 hh) and 1st phalanx - 1372 mm (13.3 hh). A single cattle metacarpal gave a withers heights of 1188 mm.

*Targeted contexts*

[for comparison between time periods and context types]

**2nd to 3rd Century ditches (1006/1027, 1202, 1251)**

The fills ((1007, 1015, 1203, 1252) of these ditches contained 211 fragments, of which 25 were identified to species. These represented caprovid (14), cow (10) and a single horse fragment. Teeth were the most numerous element but again, this may be a factor of preservation. The horse 1st phalanx had knife marks on the anterior face near the proximal articulation.

**3rd to 4th Century ditches (1200, 1411, 1529)**

A total of 305 bone fragments was recovered from the fills (1201, 1500, 1535, 1381, 1412, 1530, 1582) of these ditches, of which 60 were identified to species. These included 17 caprovid, 39 cattle, two horse and two pig fragments. The range of elements is similar to the earlier ditches (see above) but is more noticeably biased towards non-meat-bearing bones and teeth (again, probably a factor of preservation).

**2nd - 3rd Century pits (1190, 1382)**

The number of fragments recovered from the fills (1167, 1383, 1429) of pits of this date totalled 66, with 16 of these being identifiable. Species represented included cattle (11), horse (2), and single caprovid and dog fragments. As with previous context groups the slight preponderance of teeth is probably due to poor preservation conditions.

### 3rd to 4th Century pits (1013, 1021, 1471)

Fills (1014, 1022, 1472) from these pits produced 190 fragments of bone, of which 28 were identifiable to species. In addition to the main domestic species (18 cattle, eight caprovid and a single pig fragments), a single ulna of a wader was recovered. This bone was tentatively identified as ?woodcock (cf. *Scolopax rusticola* L.), but lack of reference material precluded a more certain identification.

### 2nd to 3rd Century Layer (1384)

The single context from this date contained 54 fragments, of which 15 were identifiable to species. Caprovid fragments were most numerous (7), followed by cow (6) and single fragments of pig and horse bones.

### 3rd to 4th Century Layers (1388, 1389)

Layers dated to the 3rd and 4th centuries produced a total of 156 fragments of bone, of which 16 were identified to species (14 cattle and two caprovid fragments).

### *Unphased or tentatively dated material*

A few contexts not assigned to a phase or not tightly dated contained fragments worthy of a short note. Context DB6 (R2400.94) contained a single dog tibia from a smallish dog. If either the middle Iron Age spot date, or tentative assignation to Phase 4, is correct this is interesting, as small dogs are not normally thought to occur frequently until the Roman period.

Context 1000 contained an small piece of antler tine, which appeared to have been

sawn. The species could not be determined and no date or phase was given for this context.

Context 2227 (Phase 4?) contained nine horse teeth and fragments of skull (probably horse). The teeth almost certainly belong to the same individual and may represent the burial of a complete skull. This may suggest a possible 'ritual' deposition (see Phase 4 discussion below).

## Discussion

The context numbers referred to in this section are the feature numbers not the fill.

For the assemblage as a whole, the higher proportion of teeth recovered in comparison to limb bones (in the identified fraction) is most likely due to the overall poor preservation of the material (teeth preserving better) rather than any deposition patterns.

### *Phase 2*

All the Phase 2 contexts produced very similar bone assemblages, with the exception of Context 1912. The target contexts showed no significant differences in species or body part representation to other Phase 2 contexts. On the basis of the vertebrate remains alone it is impossible to differentiate the targeted 'special' deposits from the rest i.e. there is nothing, from the vertebrate remains, to suggest that these deposits are special in any way.

Context 1912 was described at the time of excavation as a possible cremation. The bone was subsequently analysed and only 45 fragments were recorded as burnt (from a total of 306), none of which could be positively identified as human. The 264



unburnt fragments represent a single subadult sheep skeleton. This is, in itself, interesting, as very few whole skeletons of this date are reported, although numerous examples exist from the Iron Age (Wilson 1978, Grant 1984 and Dobney and Jaques 1996).

Excavations at Wilsford Shaft (Ashbee *et al* 1989) recovered a moderate-sized Bronze Age vertebrate assemblage, which included several part skeletons of caprovids (most probably sheep). Age at death of these individuals ranged from foetal/neonatal to adult and, whilst some were interpreted as stillborn or having died of other natural causes, a few were considered to be perhaps ritual deposits (Grigson 1989).

However, the single sheep skeleton from Thorley, on its own, cannot provide definitive evidence for interpretation as either the disposal of an individual that died of natural causes, or a ritual deposit.

### Phase 3

The remains from targeted Phase 3 contexts were combined into feature type groups to enable comparisons to be made. Most bone was recovered from the pit fills, although ditch fills also produced assemblages of moderate sized. The posthole fills produced very little bone (17 fragments, one identified), as is usually the case with this type of feature.

The numbers of fragments recovered was too small for differences to be statistically significant. Main domestic mammals were all represented in both pit and ditch fills, with cattle fragments the most numerous in both feature types. The skeletal elements represented in the pit fills appeared to be

mostly heads and feet. However, as mentioned earlier, the preponderance of teeth may be due to differential preservation. A wider range of elements was recovered from the ditch fills, suggesting generalised rather than specialised deposition of waste material.

A horse scapula with chop marks across the blade was recovered from the fill of ditch 2355. The presence of butchery marks on horse bones from this period is not unusual. Material from other sites, such as Ashville (Wilson 1978) and Danebury (Grant 1984), suggest that during this period horse meat was eaten but on what scale remains unclear. Horse remains appear to have been disposed of in much the same way as the bones of the other major domesticates. The withers height of 1319 mm, from a horse radius of this phase, is relatively tall in comparison to the mean of 1224 mm calculated by Johnstone (1996) for Iron Age horses.

### Phase 4

The targeted contexts from Phase 4 were mostly associated with a feature interpreted as a mortuary enclosure. Bones from contexts representing the fills of pits and ditches were targeted. The ditch deposits contained cattle and caprovid remains, together with three disarticulated dog bones and a single cat bone. The dog and cat remains are slightly unusual but most probably indicate the general dumping of refuse rather than the result of ritual activity. Their presence in conjunction with the other remains of domestic mammals appears to support this.

Information from the excavators suggests that a single complete cattle skull was recovered from the fill of pit 1351. This

presumably broke upon excavation, as only skull fragments were recorded, together with a few other bones. The fill of pit 1396 was said to contain horse mandibles, but upon inspection these proved to be cattle mandibles. Like the skull these had fragmented upon excavation. The third pit (1482) contained the skeleton of a small to medium-sized, adult dog.

Deposits of whole or part skeletons and head elements are relatively common in the late Iron Age and Roman periods and occur at many sites including Ashville, Oxfordshire (Wilson 1978), Danebury, Hampshire (Grant 1984) and Wavendon Gate, Milton Keynes (Dobney and Jaques 1996). Complete dog skeletons are relatively common and are not necessarily 'special' or 'ritual' deposits. Deceased dogs were unlikely to be utilised in any way (with the possible exception of pelt removal) and would hence have been buried whole.

Deposition of the cattle skull and mandibles could merely be the disposal of butchery waste. However, the excavators suggest that the location of the features and other finds, such as pottery, may indicate these deposits were connected with ritual activity. Although the bones alone cannot be interpreted as evidence of ritual activity, by association with other lines of evidence and comparison with similar deposits from other sites, (such as Danebury - Grant 1984), it may be suggested that these cattle bones were possibly ritual deposits.

### Phase 5

The Phase 5 contexts chosen for examination were the fills of ditches and pits, and layers from two date ranges (2nd-3rd Century and 3rd-4th Century). The species represented in

each different feature type was very similar, with cattle and caprovid remains being most numerous and pig, horse and dog represented in much smaller numbers.

The proportion of fragments of each species is marginally different between the two periods, that of cattle fragments being substantially higher than caprovid in the 3rd to 4th Century and only slightly higher in the earlier period. The other species are represented by so few fragments that no comment can be made.

Material from both periods showed a slight bias towards non-meat-bearing parts of the skeleton, but once again the number of teeth may be inflated by conditions of preservation which appear to favour them rather than limb bones.

The three reconstructed horse withers heights, of 1243, 1276 and 1372 mm, fall well within the size range of Roman horses calculated by Johnstone (1996). One value falls close to the mean of 1373 mm (Johnstone 1996) and the others just below. The cattle withers height falls within the range of Romano-British cattle at Ashville (Wilson 1978) but below that for 3rd and 4th Century cattle at Lincoln (Dobney *et al.* 1996).

The knife marks on the horse phalanx from Context 1203 may indicate that this individual was skinned. Additional, very limited, evidence of possible craft activity in this period is represented by two caprovid horncores recovered from Contexts 1384 and 1582.

## Conclusions

As was stated in the assessment report (Jaques and Dobney 1996), the relatively poor preservation and small size of the assemblage as a whole, together with the limited numbers of identifiable fragments meant that very little zooarchaeological information could be gleaned from this material. It is hoped that the limited information gathered on the nature of some of the possible 'special' and 'ritual' deposits (discussed above), is of use in site interpretation.

### Retention and disposal

Vertebrate remains site should be retained, under suitable storage conditions, for the present.

### Archive

All material is currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

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Table 1. The numbers of bone fragments recorded by phase from Thorley, Hertfordshire. Numbers in parentheses refer to the numbers of fragments from whole or partial skeletons.

| Taxa            |                                  | Phase 2      | Phase 3    | Phase 4      | Phase 5      | Total        | Weight (g)      |
|-----------------|----------------------------------|--------------|------------|--------------|--------------|--------------|-----------------|
| Dog             | <i>Canis f. domestic</i>         | -            | 2          | 149<br>(141) | 66(61)       | 213          | 313.8           |
| Cat             | <i>Felis f. domestic</i>         | -            | -          | 1            | -            | 1            | 4.2             |
| Horse           | <i>Equus f. domestic</i>         | 7            | 16         | 1            | 12           | 36           | 3,897.1         |
| Pig             | <i>Sus f. domestic</i>           | 4            | 14         | 5            | 6            | 29           | 229.7           |
| Deer            | Cervidae                         | 1            | -          | -            | -            | 1            | 3.5             |
| Cow             | <i>Bos f. domestic</i>           | 32           | 65         | 30           | 136          | 263          | 9,729.4         |
| Sheep           | <i>Ovis f. domestic</i>          | 1            | 3          | 2            | 9            | 15           |                 |
| Sheep/goat      | Caprovid                         | 296<br>(264) | 30         | 7            | 73           | 406          | 1,139.0         |
| ?Woodcock       | cf. <i>Scolopax rusticola</i> L. | -            | -          | -            | 1            | 1            | 0.3             |
| Small mammal    |                                  | -            | -          | -            | 1            | 1            | 0.1             |
| Amphibian       |                                  | -            | -          | -            | 6            | 6            | 0.4             |
| Bird            |                                  | -            | -          | -            | 1            | 1            | 0.1             |
| <b>Subtotal</b> |                                  | <b>341</b>   | <b>130</b> | <b>195</b>   | <b>310</b>   | <b>976</b>   | <b>15,317.6</b> |
| Unidentified    |                                  | 963          | 534        | 910          | 1,284        | 3,691        | 13,452.6        |
| <b>Total</b>    |                                  | <b>1,304</b> | <b>664</b> | <b>1,105</b> | <b>1,594</b> | <b>4,667</b> | <b>28,770.2</b> |