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**Assessment of biological remains from  
excavations along the route of a water pipeline  
near Stamford Bridge, East Riding of  
Yorkshire (site code: SBW03)**

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## Assessment of biological remains from excavations along the route of a water pipeline near Stamford Bridge, East Riding of Yorkshire (site code: SBW03)

by

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### Summary

*Sixty-three bulk sediment samples, two column tins, a very small amount of hand-collected shell, five boxes of hand-collected bone and five bags of spot samples of wood, recovered during excavations along the route of a water pipeline near Stamford Bridge, East Riding of Yorkshire, were submitted for an assessment of their bioarchaeological potential. Three areas of excavation (Areas C, D and G) encountered deposits of ?prehistoric (including ?Bronze Age) to Romano-British date with some preservation of organic remains.*

*The column samples (Area C) revealed that, in general, there was little potential for study of the represented deposit sequence via pollen and none for diatoms. Only that part of the sequence relating to Context 217 gave any interpretatively useful microfossil remains, including well preserved pollen and a single trichurid parasite egg. Only two fragments of bone were recovered from this area.*

*Most of the recovered remains were from Romano-British deposits in Area D. Some of the deposits yielded rather rich assemblages of plant and invertebrate (mainly insect) remains mostly preserved by anoxic waterlogging, with a background of charred material including some probable evidence for ash from burnt peat and/or turves. One deposit associated with a firing pit, provided an assemblage of grain and chaff typical of the period, though in a very poor state of preservation. Area D also produced by far the largest quantity of vertebrate remains. The preservation of this material was poor resulting in there being few measurable fragments. The assemblage was dominated by the main domestic species, with most parts of the animals represented. Most of the remains were recovered from features associated with rear property boundaries and are highly likely to represent refuse both from carcass preparation and from consumption. One deposit (Context 478) included many freshly broken cranium fragments from the skulls of one horse and one cow and may represent a ritual deposit. Context 582 gave a single *Helix pomatia* L. (the 'Roman' or 'edible snail') – the only hand-collected shell of interpretative value perhaps representing human food waste.*

*Ancient biological remains in the samples from the ?late Bronze Age burnt mound and associated deposits in Area G were limited to very small concentrations of charcoal. The small amount of hand-collected bone from this area included the skeleton of a young calf. Although immature, the animal represented was quite large and the preservation of the remains was such that a modern burial cannot be ruled out.*

*The nature of the local environment and some aspects of human activity could be explored through the use of larger subsamples from those deposits from Area D with good preservation of plant and invertebrate remains, and microfossils from Context 217 (Area C) may supply additional supporting information. Very few rural Romano-British sites have been investigated in this area and those that have often produced very little animal bone. Although the vertebrate assemblage is not particularly well preserved, it could still contribute valuable information to any synthetic studies of the area.*

**KEYWORDS:** STAMFORD BRIDGE; EAST RIDING OF YORKSHIRE; EVALUATION; ?PREHISTORIC; ?BRONZE AGE; ROMANO-BRITISH; PLANT REMAINS; POLLEN; CHARRED PLANT REMAINS; CHARRED GRAIN; BURNT TURVES/PEAT; INVERTEBRATE REMAINS; INTESTINAL PARASITE EGGS; *TRICHURIS*; BEETLES; SNAILS; VERTEBRATE REMAINS; ?RITUAL DEPOSITS

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## Assessment of biological remains from excavations along the route of a water pipeline near Stamford Bridge, East Riding of Yorkshire (site code: SBW03)

### Introduction

Archaeological excavations were carried out by Northern Archaeological Associates along the route of a water pipeline near Stamford Bridge, East Riding of Yorkshire (NGR SE 715 555), during 2003.

The excavations were focussed on two sites, a series of enclosures (Area D) 60 metres to the south of a Romano-British settlement (probably *Deventio*), and a second area (Area G) comprising a ?Romano-British trackway or road and a series of ?Bronze Age burnt mounds. The earliest archaeological deposits were located in a third area (Area C) and contained flint wasters and charcoal (possibly indicating a phase of prehistoric activity). These deposits were overlain by the degraded remains of a ?Romano-British road surface and roadside ditch. Other areas of the site did not include deposits with organic preservation.

Sixty-three bulk sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992, of between 10 and 350 litres), two column tins (column samples 1 and 2 forming one overlapping sequence), a very small amount of hand-collected shell, five boxes of hand-collected bone and five bags of spot samples of wood, were recovered from the encountered deposits. The material was submitted to Palaeoecology Research Services Limited (PRS), County Durham, for an assessment of its bioarchaeological potential.

### Methods

#### *Sediment and 'spot' samples*

The sediment samples were inspected in the laboratory and their lithologies were recorded using a standard *pro forma*. Subsamples of the

selected samples were processed, broadly following the procedures of Kenward *et al.* (1980), for the recovery of plant and invertebrate macrofossils.

Plant remains in the single flot and wet residue and the washovers, together with the general nature of these various fractions were recorded briefly by 'scanning', identifiable taxa and other components being listed directly to a PC using *Paradox* software.

Insects in the flot were recorded using 'assessment recording' *sensu* Kenward (1992), creating a list of the taxa observed during rapid inspection of the flot, with a semi-quantitative estimate of abundance, and a subjective record of the main ecological (e.g. aquatics, grain pests) or indicator/activity (e.g. for stable manure, Kenward and Hall 1997) groups present. A record of the preservational condition of the remains was made using scales given by Kenward and Large (1998). This scheme provides scales for chemical erosion and fragmentation (0.5-5.5, the higher figure representing the greatest degree of damage), and colour change (0-4), in each case giving a range and a value for the position and strength of the mode (Kenward and Large 1998, tables 2, 3 and 5-7).

Snails recovered from the samples were examined and identified as closely as possible within the constraints of an assessment.

Where the residues were primarily mineral in nature they were dried, weighed and their components recorded.

The wood (spot) samples were examined and species identifications made where possible.

### *Column samples*

The column samples were examined via a series of subsamples using the ‘squash’ technique of Dainton (1992). This was originally developed to quickly assess deposits for their content of eggs of intestinal parasitic nematodes but routinely reveals other microfossils such as pollen and diatoms. In this instance, the primary purpose of the subsamples was to determine the presence/absence of these other microfossil remains and, if present, assess their state of preservation. Assessment slides were scanned at 150x magnification with 600x used where necessary.

### *Hand-collected shell*

The very small amount of hand-collected shell was examined, identified as closely as possible and notes made on its state of preservation.

### *Vertebrate remains*

For the vertebrate remains, data were entered directly into a series of tables using a purpose-built input system and *Paradox* software. Subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces (‘angularity’). Additional information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. The bones which could not be identified to species were described as the ‘unidentified’ fraction. Within this fraction fragments were grouped into a number of categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid), and totally unidentifiable.

## **Results**

### *Sediment, ‘spot’ and column samples*

The results are presented in context number order by Area. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample numbers. Sample numbers were derived from the context numbers for PRS internal recording keeping purposes.

Wood identifications for the ‘spot’ samples are presented in Table 1 (as are some additional details of the twigs recovered from the subsample from Context 446).

### *Area C: ?prehistoric to Romano-British*

#### **Column samples 1 and 2**

The two column tin samples formed one overlapping sequence through seven contexts (Contexts 214, the uppermost, though 220, basal), each a distinct fill of cut 219. A ‘squash’ subsample was examined from each of these contexts. In all but one case the ‘squash’ subsamples were essentially inorganic and devoid of interpretatively useful remains (although all but the basal fill, Context 220, contained some ?fungal hyphae). The exception was Context 217 (the subsample being taken from around 47 cm from the base of column sample tin 2). This subsample was again mostly inorganic but with a little organic detritus and some well preserved pollen grains/spores. In addition, a single very well preserved (retaining both polar plugs and measurable) *Trichuris* egg was seen—almost certainly of either *T. trichiura* (Linnaeus) or *T. suis* (Schrank), the whipworms of humans and pigs respectively.

### *Area D: Romano-British*

#### **Context 306** [fill of firing pit 305]

Sample 30601/T (3 kg sieved to 300 microns with washover; approximately 54 litres of unprocessed sediment remain)

Moist, light to mid grey-brown to mid grey, crumbly to unconsolidated (working soft), slightly clay silty sand, with some small lumps (to 12 mm) of light orange-grey-brown clay silt. Stones (2 to 20 mm) were present.

The washover of about 15 ml consisted of charred material, mainly very poorly preserved (distorted, eroded and with much iron deposition) charred cereal grains with some glume wheat (spelt, *Triticum spelta* L.) chaff and at least two two-grained ?spelt spikelets; barley and oats were also present and perhaps at least one ?spelt grain with evidence of sprouting. There were also some charred remains which may have originated in burnt turves or peat: traces of fragments (to 5 mm) of ?mor humus, monocot rhizome, and ?heather (cf. *Calluna vulgaris* (L.) Hull) root/basal twig fragments).

The small residue (dry weight 0.35 kg) was entirely of sand.

**Context 446** [secondary fill of large pit 420]

Sample 44601/T (3 kg sieved to 300 microns with paraffin flotation; approximately 55 litres of unprocessed sediment remain)

Moist to wet, mid to dark grey-brown to dark grey, brittle (working soft), humic, slightly clay (more so in places) slightly sandy silt, with some small stones (2 to 6 mm) present.

The residue was small, about 200 ml, of which about 50 ml was quartz sand, the rest woody debris (also see Table 1), including some rather well-preserved sloe/wild plum (*Prunus spinosa* L./*P. domestica* ssp. *insittia* (L.) C. K. Schneider) to about 15 mm in length and with a very characteristic shape (having a rather attenuated point at either end). There was also a single holed specimen of cherry, *Prunus* Section *Cerasus*. The fruitstones were usually somewhat eroded, especially the fragments.

For the rest, the assemblage from both the residue and flot was dominated by well-preserved seeds and fruits of taxa likely to have been growing in scrub and tall and somewhat weedy herbaceous vegetation colonising a hedgebank, the edge of an area of woodland or perhaps disturbed land that had been neglected for a season or two. The more abundant taxa, most of which indicated this kind of vegetation, were hemlock (*Conium maculatum* L.), elder (*Sambucus nigra* L.), chickweed (*Stellaria media* (L.) Vill.) and stinging nettle (*Urtica dioica* L.), but there were also records for taxa such as bur chervil (*Anthriscus caucalis* Bieb.), cow parsley (*A. sylvestris* (L.) Hoffm.), burdock (*Arctium*), white bryony (*Bryonia cretica* ssp. *dioica* (Jacq.) Tutin) and upright hedge-parsley (*Torilis japonica* (Houtt.) DC.).

Some fragments of charred root/rhizome, ?heather root/twig, and nutlets of sedge (*Carex*) may have originated in burnt peat or turves. There was no evidence from the plant remains for aquatic deposition, in contrast to the evidence from insects (below),

perhaps suggesting the presence of water in the pit was intermittent.

The flot was quite large, and contained numerous invertebrate remains whose preservation was rather good (E 1.5-2.5, mode 2.0 weak; F 2.0-3.0, mode 2.5 weak). Aquatic deposition was attested by numerous water flea resting eggs (*Daphnia ephippia*), together with modest numbers of water beetles. There was a range of species able to live on vegetation at the water's edge, although most may have come from further afield on 'dry land' herbaceous plants. A rather open landscape with low plants, probably including grassland, was suggested by forms such as *Phyllopertha horticola* (Linnaeus) and *Oulema melanopa* (Linnaeus). There was little evidence for human occupation: *Acritus nigricornis* (Hoffmann) and *Trox scaber* (Linnaeus) are typical of occupation-site deposits but both may have exploited semi-natural habitats. A notable record was of remains of a large green chafer, probably *Cetonia aurata* Linnaeus. This material—preferably from a larger subsample—has substantial potential.

**Context 482** [primary fill of ditch 479]

Sample 48201/T (3 kg sieved to 300 microns with washover; approximately 22 litres of unprocessed sediment remain)

Moist to wet, mid brown to mid grey-brown (some light orange-brown patches), soft and sticky (working very sticky), slightly sandy clay silt. Stones (20 to 60 mm) were present.

The washover of about 20 ml consisted largely of elder seeds, with some hemlock mericarps and woody debris (some of it floating and perhaps dried and not fully rewetted at some stage prior to processing); the woodier seeds were usually quite well preserved, others a little eroded, but preservation was generally at least moderately good. There was very little evidence from the plant remains for conditions in the ditch—the deposit certainly did not contain any obligately aquatic taxa, though a few might have lived in drying mud in a formerly wet feature. For the most part the taxa present indicated tall and somewhat weedy herbaceous vegetation along the ditch bank, perhaps under a hedge or an area of scrub. As in the sample from 446, elder, stinging nettle and hemlock were the more frequent remains, with traces of other taxa consistent with their ecological indications, including greater celandine (*Chelidonium majus* L.), henbane (*Hyoscyamus niger* L.), white horehound (*Marrubium vulgare* L.) and perhaps ground ivy (cf. *Glechoma hederacea* L.). Most of the other taxa are weeds of waste ground. Occupation material was limited to a trace of charred bread/club wheat (*Triticum aestivo-compactum*). Numerous well-preserved insect fragments were recovered from the washover during examination of

plant remains; they included species from dung and (probably) an area of herbaceous vegetation. It seems likely that a large subsample of this deposit would give a useful insect fauna.

The small residue (dry weight 0.52 kg) was mostly sand, with a few stones.

**Context 498** [grave fill in ditch 479]

Sample 49801/T (3 kg sieved to 300 microns with washover; approximately 55 litres of unprocessed sediment remain)

Just moist, mid brown to mid grey-brown, unconsolidated, slightly silty sand, with no obvious inclusions.

There was a minute washover: a few scraps of charcoal and some charred weed seed, with one fragment (to 3 mm) of rhizome from peat/turves.

The small residue (dry weight 0.58 kg) was almost entirely of sand, with a few rather fragmented vertebrate remains which included a human tooth. Other bone fragments may also be human but were too small, and in some cases too eroded, to identify.

**Context 550** [fill of ditch 506]

Sample 55001/T (3 kg sieved to 300 microns with washover; approximately 23 litres of unprocessed sediment remain)

Moist, mid to dark grey-brown to mid to dark grey, brittle to crumbly (working soft), humic, slightly sandy slightly clay silt. Twigs and stones (6 to 20 mm) were present.

The small washover of about 60 ml comprised twigs and woody debris, some of the material appearing to have become desiccated and not rewetted (cf. sample from 482). The elder seeds present were well preserved, the remaining taxa (of low diversity), with moderate to good preservation. Again, most taxa were consistent with vegetation forming in a neglected area close to scrub or a hedge. There were again traces of charred material likely to have arrived in burnt peat/turves. A few taxa perhaps indicated stronger disturbance and a higher nutrient status than the otherwise rather similar assemblages from 446 and 482.

Numerous insect fragments were recovered from the washover during examination of plant remains. They were in good condition, with dung beetles and plant-feeders predominant. Water flea resting eggs were present, too, indicating aquatic deposition. A large subsample would probably give a useful group of remains.

The small residue (dry weight 0.35 kg) was mostly sand, with a few stones.

**Context 582** [primary fill of large pit 420]

Sample 58201/T (3 kg sieved to 300 microns with washover; approximately 13 litres of unprocessed sediment remain)

Moist, light to mid grey to mid to dark grey-brown, stiff (working soft and sticky), slightly stony (stones 2 to 60+ mm present), slightly sandy clay silt (to silty clay), with some small (to 6 mm) patches of light brown sand. Land snails were present.

There was no washover fraction from this sample.

The small residue (dry weight 0.44 kg) was of sand, with some stones and small numbers of snail shells and shell fragments. The last included *Vallonia ?costata* (Müller) (1 individual), a succineid (*Succinea oblonga* Draparnaud/*S. pfeifferi* (Rossmässler), perhaps most likely the former), a planorbid apex fragment (perhaps *Planorbis leucostoma* Millet) and a rather small *Bithynia ?tentaculata* (L.). This assemblage was rather too small for definitive interpretation but the presence of both aquatic and terrestrial taxa, together with an indicator of waterside vegetation, suggests that this feature held freshwater (rather than that the aquatics arrived via the dumping of waste water, for example) but perhaps not permanently. Although limited, the evidence from the snails accords well with that from the more substantial invertebrate assemblage recorded from the secondary fill of this feature (Context 446, see above).

*Area G: ?late Bronze Age*

**Context 1120** [burnt mound deposit]

Sample 112001/T (11 kg sieved to 300 microns with washover; approximately 50 litres of unprocessed sediment remain)

Just moist, mid grey-brown to mid to dark grey, crumbly to unconsolidated, very stony (stones 2 to 60 mm were common and of over 60 mm present), slightly sandy ashy silt.

The washover consisted of a few ml at most of charcoal (to 5 mm) and some uncharred (?modern) weed (*Atriplex*) seeds.

The large residue (dry weight 6.5 kg) was of stones and sand, with some fine charcoal (15 g).

**Context 1125** [fill of pit 1124]

Sample 112501/T (3 kg sieved to 300 microns with washover; approximately 26 litres of unprocessed sediment remain)

Dry, very dark grey, indurated to crumbly, slightly stony, slightly sandy slightly silty ash. Stones (6 to 60 mm) were present and fragments of ?charcoal and/or lumps of ash were abundant.

The washover here was about 15 ml charcoal (to 10 mm), the fragments brittle, often vitreous but perhaps mostly oak (*Quercus*).

The small residue (dry weight 0.66 kg) was mostly stones, with some sand and a little charcoal (3 g).

**Context 1127** [fill of pit 1128]

Sample 112701/T (3 kg sieved to 300 microns with washover; approximately 23 litres of unprocessed sediment remain)

Moist, mid grey to mid grey-brown, stiff (working plastic), very stony, slightly sandy clay. Stones (2 to 60 mm) were common and larger stones, fragments of ?brick/tile and ?charcoal were present.

The washover of about 10 ml comprised charcoal (to 10 mm) and some fine modern rootlets; the charcoal was very crumbly and contained what appeared to be oak with some unidentified diffuse-porous material.

There was a fairly large residue (dry weight 1.05 kg) of stones, with some sand and a little charcoal (2 g).

**Context 1150** [fill of pit 1151]

Sample 115001/T (3 kg sieved to 300 microns with washover; approximately 25 litres of unprocessed sediment remain)

Moist, mid brown to mid grey-brown to mid to dark grey, crumbly and slightly sticky to unconsolidated (working plastic), slightly silty clay. Stones (20 to 60 mm) and a trace of ?charcoal were present.

The washover contained a very few fragments of charcoal to 5 mm with a little coal and concreted sand.

The small residue (dry weight 0.34 kg) was mostly sand, with some stones and a very little charcoal (1 g).

*Hand-collected shell*

Only trace amounts of poorly preserved shell were hand-collected from three contexts. Context 222 (Area C) gave a single highly fragmented *Cepaea/Arianta* sp.

and a few other unidentified shell fragments. Context 310 (Area D) yielded a few highly eroded and fragmented pieces of oyster (*Ostrea edulis* L.) shell. Context 582 (also Area D) gave another fragmented ?*Cepaea/Arianta* sp. and a single *Helix pomatia* L. (the 'Roman' or 'edible snail'). This last was the only shell of interpretative value perhaps representing human food waste.

*Vertebrate remains*

Vertebrate remains representing 86 deposits were recovered from three of the excavation areas (Areas C, D and G, Table 2). The deposits represented the fills of ditches, pits and some layers, with most dating to the Romano-British period. In total 1,879 fragments were recovered, of which 16 were measurable and eight were mandibles with teeth *in situ* of use for providing biometrical and age-at-death information.

Preservation was generally quite poor with only three contexts (465, 478 and 551, all from Area D) being classed as 'good'. Material from two of these was noted as being dark brown in colour suggesting that the deposits may have been waterlogged; this would account for the better bone preservation. For several of the deposits almost 50% of the fragments were smaller than 50 mm in maximum dimension, indicating a high degree of fragmentation. Fresh breakage damage was common, although this was a reflection of the fragile and brittle condition of these remains, rather than the result of poor recovery techniques. Burnt material was recovered from ten deposits (Contexts 303, 352, 407, 417, 433, 452, 454, 466, 513 and 547, again all from Area D), whilst evidence of dog gnawing and butchery was somewhat scant.

*Area C: ?prehistoric to Romano-British*

Area C was represented by two deposits, which produced only two fragments of bone.

*Area D: Romano-British*

Excavated deposits in this area represented several phases of Romano-British activity which included a number of large pits and a series of ditches defining rear property boundaries. Most of the bone-bearing deposits (81) from this site were located in this area, producing a total of 1,735 fragments of bone.

A limited suite of species was represented which included cattle, caprovid, pig, horse and dog. The complete absence of bird and fish bone is probably a result of the poor preservation; bones of these taxa being more fragile and more easily destroyed than those

of mammals. The body part representation of cattle, horse and caprovid suggests that all parts of the skeleton were present, while pig and dog seem to have a less even distribution (this is probably because of the limited number of fragments representing these species, however). The most common skeletal elements identified were isolated teeth and this is again a result of differential preservation; the enamel of teeth being harder and more resistant to chemical erosion than bone and, therefore, having a better survival rate. One deposit (Context 478) included many freshly broken cranium fragments from the skulls of one horse and one cow, together with some isolated caprovid teeth and shaft fragments. These skulls may form a ritual deposit but information regarding the context from which they were recovered would be necessary for detailed interpretation.

#### *Area G: ?late Bronze Age*

Material from this area was recovered from three deposits, two of which contained only tooth fragments. The third deposit, Context 1100, described as a 'grave' contained the skeleton of a young calf. Many of the ends of its bones had been destroyed and the only certainly unfused bone was a distal metapodial, giving an age of less than two years. The mandibles were incomplete but also suggested an immature animal. Although immature, the animal represented was quite large and the preservation of the remains was such that a modern burial cannot be ruled out, despite the suggested Bronze Age date for some of the deposits from this area.

## **Discussion and statement of potential**

The assessment of the column samples from Area C revealed that, in general, there was little potential for study of the represented deposit sequence via pollen and none for diatoms. Only that part of the sequence relating to Context 217 gave any interpretatively useful microfossil remains. The 'squash' subsample from this context was clearly different to those from the under- and over-lying deposits. Providing that dating can be obtained, some further study is warranted—to determine the extent and the nature of the faecal content indicated by the presence of the *Trichuris* egg and to investigate any variations in the pollen spectrum around this 'point' which may reflect changes in the local landscape.

Some of the deposits of Romano-British date from Area D yielded rather rich assemblages of plant and invertebrate (mainly insect) remains mostly preserved by anoxic waterlogging, with a background of charred material including some probable evidence for ash from burnt peat and/or turves (consistent with evidence for such material from many deposits of this date in south east Yorkshire, cf. Hall 2003). The three deposits with good waterlogged preservation gave essentially rather similar assemblages of uncharred remains, with tall weedy herbaceous vegetation close to scrub the most likely vegetation indicated—areas of nettles and elder with a rather diverse range of plants typical of later stages of succession on disturbed soils. One deposit associated with a firing pit, provided an assemblage of grain and chaff typical of the period, though in a very poor state of preservation.

Ancient biological remains in the samples from the ?late Bronze Age burnt mound and associated deposits in Area G were limited to very small concentrations of charcoal.

The very small quantity of hand-collected shell was of no interpretative value beyond that given in the text above.

Excavations at Stamford Bridge produced a moderate-sized assemblage of vertebrate remains. Only small amounts of bone were recovered from Areas C and G, with most of those from the latter possibly being of modern date. Material from Area G does not warrant further analysis unless dating information can be provided. Area D produced a much larger assemblage of vertebrate remains and was dated to the Romano-British period. The preservation of this material was poor, with much of it being brittle and susceptible to fragmentation, the result being few measurable fragments. The assemblage was dominated by domestic species, with most parts of the animals represented. Most of the remains were recovered from features associated with rear property boundaries and



are highly likely to represent refuse from both carcass preparation and consumption.

The presence of isolated skulls, particularly of horses, has been recorded on other sites of Iron Age and Romano-British date and they are sometimes interpreted as deliberate depositions of a ritual nature (Grant 1984). The skulls from Context 478 may represent just such a deposit.

Very few rural Romano-British sites have been investigated in this area and those that have often produced very little animal bone. Although this assemblage is not particularly well preserved, it could still contribute valuable information to any synthetic studies of the area.

## Recommendations

The nature of the local environment and some aspects of human activity could be explored through the use of larger subsamples from those deposits from Area D with good preservation of plant and insect remains by anoxic waterlogging. They will add usefully to a growing body of evidence for plant and invertebrate remains from sites in the south east of the Vale of York and adjacent Yorkshire Wolds area for the Iron Age and Romano-British periods, valuable for synthesis. Providing dating can be obtained, some further study of the microfossil content of the deposit sequence around the assessment subsample from Context 217 may provide additional supporting information from Area C.

No further study of the hand-collected shell is warranted.

Vertebrate material from rural Romano-British sites is rare and, therefore, even though this assemblage is not well preserved, it could provide an important contribution to any synthetic studies of this area. In view of this, a basic archive, including biometrical and age-

at-death data, should be produced for the current vertebrate remains from all well-dated deposits.

## Retention and disposal

All of the current material should be retained for the present.

## Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

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Table 1. Identifications of wood from deposits along a water pipeline near Stamford Bridge, East Riding of Yorkshire (site code: SBW03).

Context /Sample	Taxon	Notes
446		bag of about 200 ml twig fragments to 120 mm: clean, appearing well-preserved superficially, but when cut, actually rather soft; some willow ( <i>Salix</i> , though no other willow remains sample from this context, cf. 'Results' text); one willow fragment with an oblique cut at one end and another cut laterally (these seem to be ancient); one ?plum/cherry/blackthorn (? <i>Prunus</i> ) fragment; one rather broad, flattish fragment with much mineral impregnation, seems to be elder ( <i>Sambucus</i> ); one vertebrate long-bone shaft to 70 mm
539AA	alder ( <i>Alnus</i> )	1 of 3 or 4 wood fragments: dark coloured, to 80 mm, flattish with bark (also a small fragment, ?broken from it)
	cf. <i>Prunus</i>	small pale-coloured fragment to 30 mm of ?knot and associated stem; very soft, identification very uncertain
546AA	<i>Prunus</i>	unusual-shaped piece with ?knot at one end and flattened limb forming rest of piece (to 140 max)
549AB	ash ( <i>Fraxinus</i> )	a single twig to 60 mm
551AA	elder ( <i>Sambucus nigra</i> )	three pieces of stout twig with pith canal – largest fragment 110 mm; some mineral impregnation
581AB	?herbaceous stem	soft herbaceous stem, originally about 15 mm diameter, with node, e.g. hogweed, <i>Heracleum</i> , or hemlock, <i>Conium</i> , to about 60 mm long
	<i>Prunus</i>	one of several twigs to 75 mm, some showing a degree of mineral impregnation

Table 2. Vertebrate remains (including those recovered from the samples) from deposits along a water pipeline near Stamford Bridge, East Riding of Yorkshire (site code: SBW03).

Species		Area C	Area D	Area G	Total
<i>Canis</i> f. domestic	dog	-	35	-	35
<i>Equus</i> f. domestic	horse	1	54	-	55
<i>Sus</i> f. domestic	pig	-	15	-	15
<i>Bos</i> f. domestic	cow	-	140	49	189
Caprovid	sheep/goat	1	89	-	90
Unidentified			1402	93	1495
<b>Total</b>		<b>2</b>	<b>1735</b>	<b>142</b>	<b>1879</b>