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Archaeological Note: Animal carcasses in a Roman ditch, West End, Haddenham, TL 4613 7552

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Evaluation of the site (Crank and Pearson 2000) had demonstrated several Roman ditches, and the excavation expanded on this. Field boundary and drainage ditches were revealed, representing several phases of land division and enclosure from the 2nd to 4th centuries. The ditches are thought to have delineated stock enclosures, probably used in winter when the lower lying fenland pastures were inundated. Finds represent domestic refuse, probably deposited through manuring or midden spreading. It is not thought that settlement was located nearby. The most significant feature revealed by the investigation was the mass burial of eight cattle and six horses in ditch F2169, and this report focuses on this feature.

Ditch F2169 was at least 15m long, extending beyond the limit of investigation. In addition to articulated remains of cattle and horses it contained a few sherds of pottery (datable only as 'Roman'), a fragment of possible human bone (too abraded for definite identification) and fired clay/daub. The size of the ditch and paucity of other finds suggests that it was specifically dug to contain the animals and was backfilled soon after their burial. Dating of the cattle and horse deposit was by radiocarbon dating of two samples of animal bone (horse SK6 and cattle SK7) (see Beta Analytic Inc/O'Brien in Grassam 2005). Both samples provided a radiocarbon date range of 40 to 230 cal. AD (1900 to 1720 cal. BP) which suggests that they were deposited either in the very late Iron Age, or in the early to mid Romano-British period.

Animal burials

Six articulated horses and eight articulated cattle were present in the ditch. Some disarticulated bones and teeth of these species were also present (see a, b, c, d on Fig. 1). It is unclear whether these bones and teeth are disarticulated parts from a nearby skeleton, or single burials of their own, or disarticulated bone that was included in the ditch fill. Completeness of the remains varied, eight were substantially complete. Partial skeletons were most frequently those of immature animals. It is likely that survival biases contributed to the incompleteness of the immature remains. Absence of butchery evidence suggests that skinning and disarticulation did not take place. It is therefore probable that these animals were buried as whole carcasses.

The horses and cattle remains lay on the base of the ditch. All but two (horse SK 1 and horse SK6) were facing southwest, therefore in nose-to-tail positions. All except horse SK1 and cattle SK12 had their backs facing the southeastern edge of the ditch. The majority of the animals stretched across the width of the ditch, although young animals seem to have been buried under or in the space near to an adult animal. The position of the animals in the ditch suggests that horses were concentrated to the northeastern end of the ditch, while a majority of the cattle were placed at the southwest. The position of the skull of cattle SK7, found resting on the back of horse SK8 suggests that the animals were placed in the ditch starting from the southwestern end of the feature (see Fig. 1).

The animals were of various ages (ages follow Silver 1969, Hambleton 1999 and Farbenfabriken 1994). Of the six articulated horses, four were adults, one was immature and one was neonatal. The eight articulated cattle comprised of three older adults (5 years or older), four young adults (1½–2½ years) and one foetus. Of the old adult cattle (old adult and senile following Hambleton 1999), a probable bull was identified (SK 14), pathological changes suggest it may have been a working animal. The vertebral pathology of this animal suggests it carried out an activity in which it was made to pull its neck to one side, such as the pulling of a grinding wheel. The old cattle would not have provided prime meat and are likely to have been primarily used for breeding and traction. Some younger horse and cattle were also present including cattle of prime meat age (*c.*1½ to 3½ years). Of particular significance is the cattle foetus (SK4) recovered with the remains of an adult horse (SK2), a foal (SK3) and a young horse (SK5).

Size could be estimated for three adult cattle and two adult horses (following Matolcsi 1970; von den

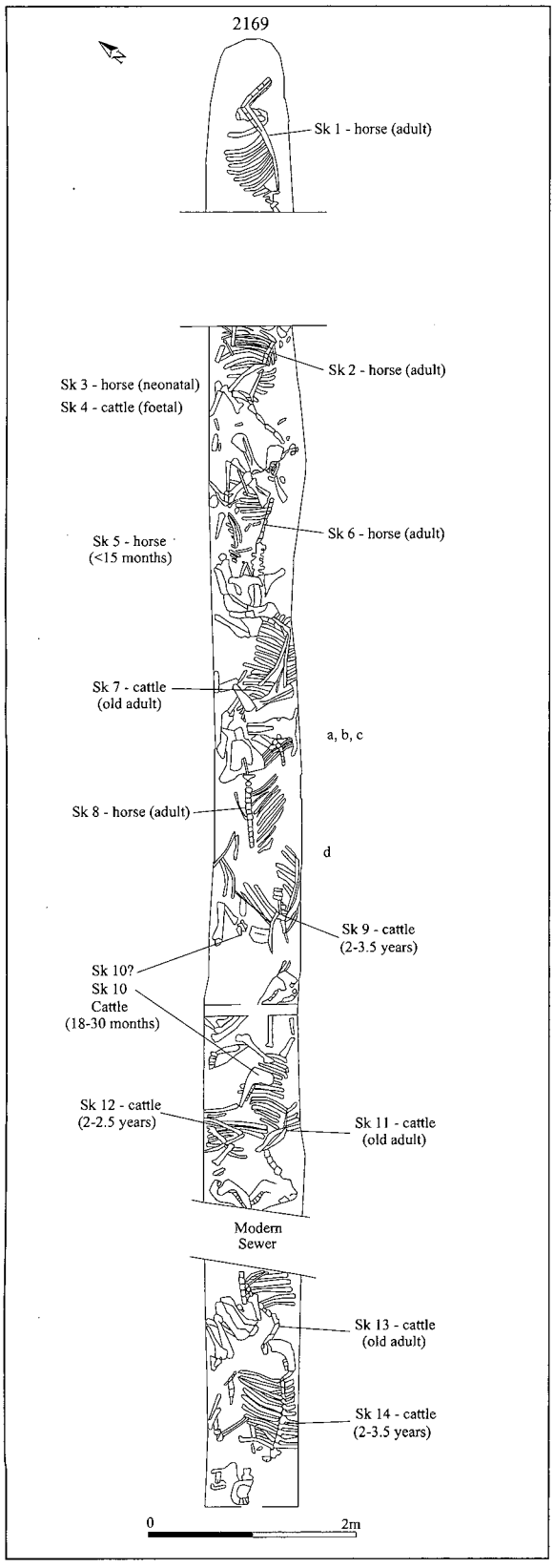

Figure 1. *Detail of F2169. a, b, c and d indicate the approximate location of disarticulated bone. Sk3 (probable newborn foal), sk4 (foetal calf) and sk5 (foal) were not identified during planning, but their approximate locations are marked.*

Driesch & Bosseneck 1974). The three cattle skeletons were similar in size, ranging from 123 to 128cm; the horses had withers heights of 137cm/13 hands and 145cm/14 hands. Comparison to the statistics for modern animals of old breeds of similar heights suggests the cattle are likely to have weighed approximately 450–550 kg, and the horses 350–450kg (Sambraus 1992).

Black staining with associated erosion was evident on some mandible and foot bones. The staining was caused by the presence of iron oxide in a wet environment (R Jones pers comm). The fact that it has only occurred on the foot bones and mandibles could indicate that the lower leg and feet were buried lower in the ground in a more waterlogged environment. The other possibility is that the burials were covered by skins or hides, which rotted and attacked the foot bones. The feet/ankles and mandibles are less fleshly than other areas of the body and consequently are likely to rot to the bone more quickly and be affected by the putrefaction fluids from the skins. Burning was evident on only the distal radius of cattle SK10, indicating that this bone had been close to a fire at some point. The disarticulated remains in this context prevent further assertion as to the extent of burning. It cannot be ascertained whether the animal was buried as a complete skeleton.

Discussion

The remains represent the burial of a number of horse and cattle carcasses in a single event. The ditch was probably dug specifically for their burial. After positioning in the ditch, the carcasses may then have been covered in skins or hides before subsequent refill. The weight of adult animals suggests they were close to the ditch before slaughter.

Various scenarios have been considered to attempt to explain the burial of these animals. Disease is one possibility resulting either in natural death or in view of their size, slaughter. Another interpretation is the slaughter of these animals in an aggressive act by an opposing community, perhaps explaining the absence of butchery. However, this does not explain the ordered manner in which these animals were buried: the nose-to-tail arrangement of some of the animals and deliberate patterning of the deposit.

The purpose-dug linear ditch, simultaneous burial of numerous complete carcasses, and ordered manner of burial suggests that there was intention and planning. The deliberate deposition of whole or part of animals is recorded at many Iron Age and Roman sites. Iron Age examples include Danebury, Hampshire (Grant 1984), Ashville, Oxfordshire (Wait 1985) and Cadbury Castle, Somerset (Alcock 1972). Ritual deposition has also been recorded in the Roman period at cemeteries, (eg the eastern cemetery in London (Barber & Bowsher 2000), at villas (eg Keston, Kent (Philp *et al* 1999)) and at shrines (eg Upper Delphs, Haddenham, Cambs (Evans 1984)). The deposits range from a single skull to articulated bones and

Figure 2. *Horse skeletons sk2 and sk6 in ditch F2169.*

whole carcasses, and vary from single deposits in a pit to multiple deposits. The definition, classification and identification of a 'ritual' or 'special deposit' have been discussed by many authors (eg Wait 1985; Hill 1995). The careful burial of complete carcasses without butchery for meat or skins fits well with some of the criteria.

Burial of a foetal calf in association with a neonatal foal and adult horse supports the suggestion of a ritual or special deposit. The use of foetal and neonatal remains in deliberate burials is common. Various examples were found at Iron Age Danebury (Cunliffe 1995). At Romano-British Shiptonthorpe, East Yorkshire there were a number of examples of foetal and neonate calf burials, one of these, a foetal calf, was associated with the burial of a human infant. The most comparable example is the burial of a foetal sheep/goat situated between the ribcage and hind limb of a mature cow at Bronze Age Old Sarum (Powell *et al* 2005:267).

If this is a votive offering, the number of animals suggests an exceptionally large contribution. The death of so many animals, of varied ages, at the same time would have been a great loss to the community. It is possible that the deposit consisted of animals contributed from different family units to provide a 'sacrifice' for one large ceremony. This may explain the presence of two cattle side by side, indicating they were a single offering from a group.

There must have been an extraordinary event or circumstances to justify sacrifice of so many animals at once. Local environmental degradation is a possibility, reducing available grazing land and thus stimulating both votive behaviour and reduction of herd size. Excavations at nearby middle Iron Age settlements at Upper Delphs revealed increasing water levels towards the end of this period (Evans & Serjeantson 1988; White 1997) causing settlements to be abandoned. Except for the high ground on which the site rests, the area then remained under fen conditions until the 17th century.

The slaughter and burial of these animals must represent a significant event in the lives of the fenland people. While special animal deposits are not unusual at Iron Age or Roman sites, Haddenham is currently the only example of deliberate burial of horse and cattle in a purpose-built linear ditch.

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