THE EXCAVATION OF A RING-DITCH AT FOSTON IN THE DOVE VALLEY, 1993

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SUMMARY

In March 1993, a ring-ditch was excavated near Foston in southern Derbyshire, prior to the construction of the A564 Foston-Hilton-Hatton bypass. Two phases were recorded. Radiocarbon dates suggesting an early Bronze Age date were obtained from the fill of the Phase 1 ditch and from a nearby small circular pit, interpreted as a satellite cremation. Radiocarbon determinations suggesting a middle to late Saxon date were obtained from the fill of the Phase 2 ditch. The only artefacts recovered were a single pottery sherd, probably dating to the early Bronze Age, and three flint flakes.

INTRODUCTION

The excavation of a ring-ditch near Foston in southern Derbyshire (SK202313; Fig 1) was undertaken in March 1993 by Birmingham University Field Archaeology Unit as part of a staged archaeological assessment and excavation along the line of the A564 Foston-Hilton-Hatton bypass. The work was instructed by Scott Wilson Kirkpatrick (consulting engineers) on behalf of the Department of Transport (now the Highways Agency).

The initial stages of the assessment comprised a desk-top study and a geophysical survey. The presence of two circular ditches (SMR 20108) was first suggested by cropmarks on aerial photographs taken by J. Pickering in 1979 and was confirmed by the geophysical survey. The eastern ditch lay outside the proposed road corridor (Fig 1:RD2) and arrangements were made to ensure that it was not affected by peripheral activity (such as the excavation of borrow pits) during the road construction. However, the western ring-ditch (RD1) lay entirely within the road corridor and was threatened with complete destruction. Several trial trenches demonstrated that the ring-ditch had survived as a feature of considerable archaeological interest despite severe truncation. Consequently, a rescue excavation was undertaken.

The site is located to the north of the river Dove which here constitutes the Derbyshire-Staffordshire border, in the parish of Foston and Scropton, and in an area of fluvio-glacial gravels with occasional outcrops of the underlying Mercia Mudstone. The land is flat and used mainly for pasture, although the site is located on the edge of a former airfield (Fig 1). In addition to the two ring-ditches, a number of linear features has also been suggested by cropmark evidence (SMR 20109). A comparison with the first edition Ordnance Survey 25" map (1881) suggests that many of these may be related to field boundaries removed prior to the construction of the airfield, although at least some may be pre-enclosure features and possibly of Iron Age or Romano-British date. However, in general, archaeological information for this part of the Dove valley is limited. Unlike that which it has provided for the nearby Trent valley, aerial photography has provided little information on this area, partly due to masking alluvial deposits and partly due to flying restrictions.

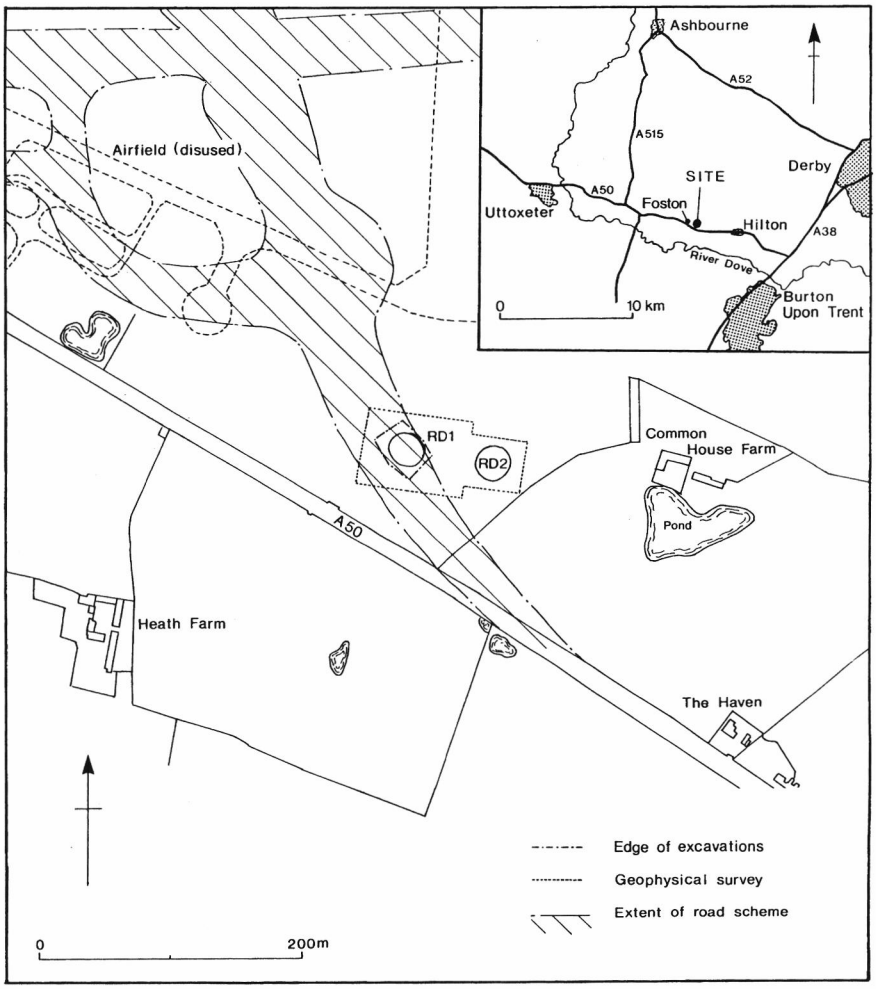

Fig 1 Foston ring-ditch: location of site.

THE EXCAVATION

The ploughsoil from an area approximately 38m x 30m (1,140 square metres) was removed by machine. The underlying gravel subsoil was cleaned manually in order to define archaeological features and deposits. The initial intention was to excavate a minimum of 20% of the ditch fills and 50% of all other features. In the event, it proved possible to excavate 80% of the ring-ditch fills, leaving a series of eleven 1m-wide baulks (Fig 2).

Following the removal of topsoil, two intercutting ditches became clear (Fig 2). After the initial cleaning, numerous small sandy-filled features were also identified and examined both inside and outside the area defined by the ring-ditches. With the exception of a single feature (F7) they were irregular in shape and profile, contained no organic material or artefacts and were probably natural in origin, possibly the result of periglacial activity or vegetation-clearance.

Extensive environmental and soil-sampling techniques were employed, and samples from the primary fills of the ditches and associated features were collected with a view to radiocarbon dating.

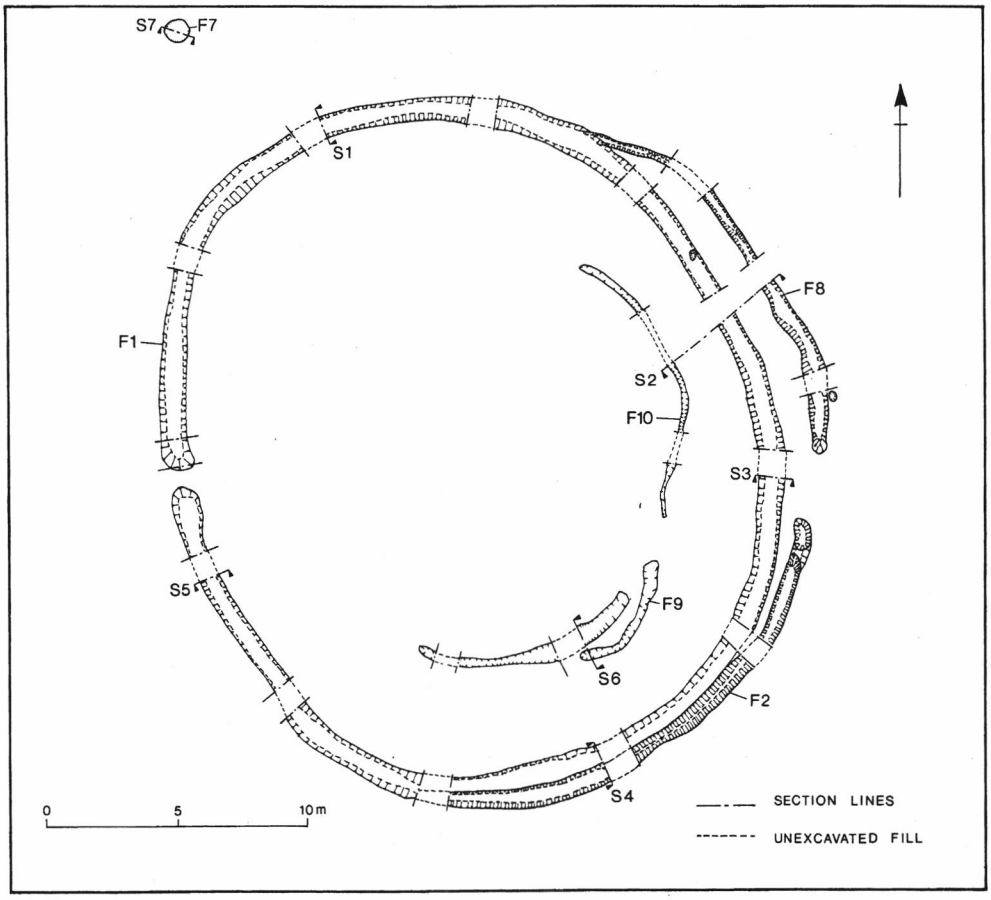

Fig 2 Foston ring-ditch: plan of excavations.

Inner ditch (F1)

This was oval in plan, enclosing an area 26m x 22.5m, and varying between 0.05m and 0.3m in depth and between 0.75m and 1.2m in width. The whole circuit had survived, although the western side was shallower. A gap in the ditch on the western side, 0.6m wide, may have represented a former narrow causeway. The primary fill comprised a compact sand and gravel (Fig 3:1013). On the southern and eastern sides, the upper part of the fill (1002) consisted of a finer, dark greyish-brown, silty loam with very little gravel, and had an organic peaty appearance. It was noticeable that the natural in this area included bands of clay, and it seems likely that the peaty deposit is the result of waterlogging. Although pollen was preserved due to the acidic nature of the soils (see below), few charred plant remains were identified (Lisa Moffett, *pers. comm.*). A charcoal sample from the bottom of the primary fill (1013), identified as oak (*Quercus* sp), possibly heartwood (Rowena Gale, *pers. comm.*), provided a radiocarbon date of 1185 ± 60 BP (OxA-4403), corrected to Cal AD 693-986 at two standard deviations (Stuiver and Pearson 1993). A charcoal sample from the upper part of the fill (1002) was identified as Hazel stem (*Corylus* sp) and provided a radiocarbon date of 1130 ± 60 BP (OxA-4402), corrected to Cal AD 783-1017 at two standard deviations (Stuiver and Pearson 1993).

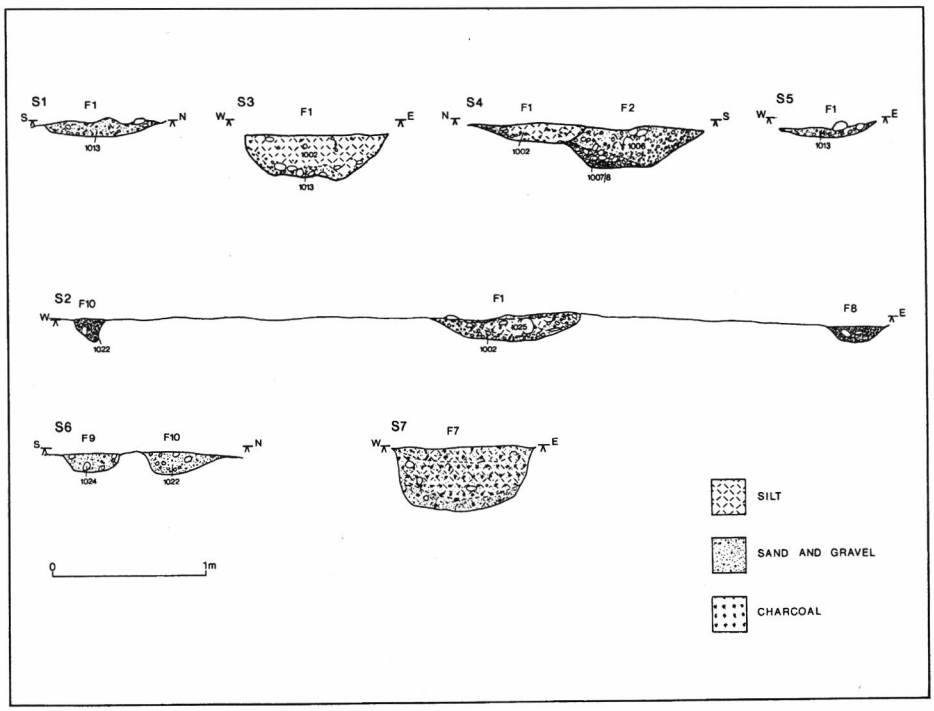

Fig 3 Foston ring-ditch: sections.

The pollen from the inner ring-ditch (F1) (JG)

Six samples were examined from varying depths (0-3, 3-5, 5-10, 10-15 and 15-20cm) within the fill of the ring-ditch (F1/1002).

All of the samples contained pollen which is probably preserved because of the acidic nature of the soil. Plant macrofossils do not appear to be preserved apart from small (unidentifiable) charcoal fragments.

A brief examination of these samples indicates surroundings mainly of grassland [*Poaceae* (grasses), *Centaurea nigra* (knapweed), *Cichorieae* (dandelions etc)], some of it damp [*Dipsacaceae* (scabious)], perhaps representing the immediate surroundings of the ring-ditch. There is also evidence of heathland [*Ericales* (heathers)]. This suggests that at the time of deposition the landscape was heavily grazed by herds of animals. Only slight indication of trees and woodland, mainly *Alnus* (alder) and *Corylus* (hazel), was found. No sign of cultivated crops was detected.

Outer ditch (F2/F8)

The northern and southern sides of the inner ditch (F1) cut two features (F2 and F8) which may have formed part of an earlier ring-ditch. The gap, 2.5m wide, between these two features suggests that this proposed ring-ditch might have been penannular, with a causeway or entrance facing east. The surviving southern and eastern sides suggested that the original feature may have been circular with a diameter of 25m. However, no trace of this earlier ditch could be identified to the west of the cut of the inner feature (F1). The outer ditch had survived to a maximum depth of between 0.34m (on its eastern side) and 0.9m (on its southern side). The primary fills comprised a coarse gravel and cobbles (1007/8) which appeared to have accumulated from the inner edge of the feature (Fig 3:S4). The lowermost fill (1008) contained three flint

flakes and a single sherd of pottery identified as early Bronze Age on the basis of fabric, texture and colour (Ann Woodward, *pers. comm.*). Several fragments of charcoal, identified as Oak (*Quercus* sp.), including both heartwood and stem, were recovered from this fill (Rowena Gale, *pers. comm.*). These provided a radiocarbon date of 3480 ± 65 BP (OxA-4401), corrected to 1952-1619 Cal BC at two standard deviations (Stuiver and Pearson 1993). The upper fill (1006) comprised a grey silty loam with rounded pebbles.

Inner gully (F9/F10)

Within the area enclosed by F1 were found two narrow and shallow gullies up to 0.6m wide and 0.14m deep, possibly forming part of an internal circular ring, 16m in diameter, with an apparent 3m wide gap on its south-eastern side. The surviving sections appeared to be concentric with the outer ring-ditch (F2/F8) and were located approximately 3.5m from its inner edge. However, no evidence for the northern or western sides of the proposed circuit could be identified. The southern section (F9) appeared to branch into two on the southern side of the gap. Both sections were filled by brown sand and gravel (Fig 3:S2 and S6, 1022).

External pit (F7)

A small circular, vertical-sided pit (F7) was located approximately 6m to the north-west of the Phase 2 ring-ditch (F1). It was 0.9m in diameter and 0.42m deep and contained a large quantity of charcoal and a single fragment of unidentifiable cremated bone (Fig 3:S7). A sample of this charcoal was identified by Rowena Gale and comprised 34 fragments of oak stem, a single fragment of oak heartwood and three fragments of hazel, probably stem. This sample provided a radiocarbon date of 3370 ± 65 BP (OxA-4404), corrected to 1874-1510 Cal BC at two standard deviations (Stuiver and Pearson 1993).

DISCUSSION (GH, VG)

Phase 1: Early Bronze Age

The fragment of pottery, the flints and the radiocarbon date from the fill of the outer ditch (F2/F8) suggest an early Bronze Age date. Although there was no trace of the outer ditch in the western half of the excavated area, it seems likely that it originally formed a complete circuit. If so, it adds another example of a poorly understood class of monument to an increasing corpus of known prehistoric sites in the upper Trent valley and its tributaries, which are believed to be ritual or funerary in nature. In many cases, such ring-ditches are considered to have originally surrounded burial mounds belonging to the late third or early second millennium BC (Watson 1991, 12-13), the central mounds having then been gradually flattened by centuries of agricultural activity on the gravel terraces of the valley bottoms.

It is not clear how much plough truncation has occurred at Foston. In addition to removing any upstanding features, ploughing is also likely to have truncated features cut into the ground surface, such as shallower ditches, pits, and post-holes. The partial survival of the ditch suggests that ploughing may have had a disproportionate effect on the northern and eastern sides of the site. However, this assumes that the feature was originally a complete circuit and, if so, that it had an even depth all round.

The internal gully (F9/F10) appeared to be concentric with the outer ditch suggesting that it might have been contemporary. However, there was no direct stratigraphic or other dating evidence to confirm this association. A nearby parallel for this gully has recently been excavated at Tucklesholme Farm, near Barton under Needwood, in the Trent valley (Hughes 1991). In this instance, two internal concentric gullies were identified. Such gullies may be the remains of post-trenches for internal palisades. A number of barrows with associated concentric circles of post-holes or stake-holes have been recorded from different parts of the country (Burgess 1980,

308). Examples from the Midlands include Tallington, Lincolnshire (Simpson 1976, 226-227), Sproxton, Leicestershire (Clay 1978; Vine 1982, 78, 223) and Four Crosses, Powys (Warrilow *et al* 1986). It has been suggested that in some cases these features may have been temporary, pre-barrow stake-circles or circular palisades associated with the burial ritual (Ashbee 1960). It is possible that a burial may have been enclosed in this way for some time before the construction of a covering mound. In other instances, such stake-circles are seen as structural features aiding the construction of the mound (Warrilow *et al.* 1986, 84). At Foston, the feature may have held as a revetment palisade, either providing structural support for the unstable gravels of a barrow mound or revetting the inner side of a bank beside the ditch.

There was no surviving evidence for a mound. Even allowing for truncation, the ditch probably could not have provided sufficient material for the construction of a mound of any size. If such a mound existed, the barrow may therefore have taken the form of a disc- or very low saucer-barrow (Ashbee 1960). Alternatively, the material from the ditch may have been used to create an internal or external bank. The primary infill (1007) suggests that it initially accumulated from the interior, indicating that any associated earthwork (whether bank or mound) may have been located on the inside.

The absence of any internal features, apart from the gully, may be the consequence of plough truncation. Consequently, there is no evidence for the nature of the activity that was undertaken within the area defined by the ring-ditches. The only external feature identified was the small circular pit (F7). The radiocarbon date from the fill of this feature suggests an early Bronze Age date and the few flecks of cremated bone suggests that it might originally have held a satellite cremation.

Phase 2: Middle to Late Saxon

The radiocarbon dates associated with the inner ring-ditch indicate a middle to late Saxon date suggesting that the two phases of activity at Foston were separated by at least two millennia. Multiple ring-ditches, with several distinct phases, are known from elsewhere in the region, including Fatholme in Staffordshire (Losco-Bradley 1984; Graeme Guilbert, *pers. comm.*), Four Crosses in Powys (Warrilow *et al* 1986) and Holme Pierrepont, Notts. (Graeme Guilbert, *pers. comm.*). Apart from the time gap between the two phases, the Foston example is unusual in that the later ditch has a slightly different plan to that of the earlier feature and does not appear to represent any significant enlargement of the defined area. However, the close superimposition of the later ditch suggests that the earlier one, or a mound which it surrounded, was still visible at this later date.

During the later Saxon period the area of the Dove valley lay within the northern part of the kingdom of Mercia, a dynastic unit which emerged during the last decades of the sixth century AD (Stafford 1985, 96) and developed into a major kingdom during the seventh century. The kingdom was the subjected to a series of Viking raids after 866-7, and within a decade the area was under Danish power. During the early tenth century, the Danes were placed under pressure by the English and the boundary between Danish and English Mercia may have run, in part, along the valley of the Dove (Stafford 1985, 137). Although there was a brief change in Danish fortunes under Olaf Guthfrithson in the period 939-41, the area did not return to English possession until the mid tenth century (Stafford 1985, 114-5).

It is possible that the ring-ditch at Foston was a former Viking or Saxon burial mound. Early pagan Saxon burials in cremation cemeteries occur to the south and west of the Trent, while burials within barrows are a later phenomenon (Stafford 1985, 96). Burials of this period are known from a number of mounds in Staffordshire and Derbyshire, and may occur as primary burials or as secondaries within mounds constructed during an earlier period (Gelling 1992, 29;

VCH 1905, 265, 267; Posnansky 1955, 135). Viking-period burials in mounds are know from Ingleby, Derbyshire (Posnansky 1956).

Alternatively, specific features, including mounds, were frequently used as open-air meeting places associated with the hundred, wapentake or Danish Herred (Adkins and Petchey 1984, 246). The origins of these mounds appear to vary. Although some are thought to have been constructed specifically for this purpose (Adkins and Petchey 1984), many were older monuments which were chosen at a later date to serve as convenient meeting places. Such mounds may have been surrounded by a ditch, and, if ploughed-down, this could appear as a ring-ditch. An earlier tumulus at Foston could have been used for such a purpose, perhaps enlarged through the cutting of a secondary ditch. However, by at least the fourteenth century the meeting places for Appletree Hundred, which included Foston, was at at Sutton-on-the-Hill (Cameron 1959, 515).

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