

Prehistoric Ditch Systems at Ketton and Tixover, Rutland

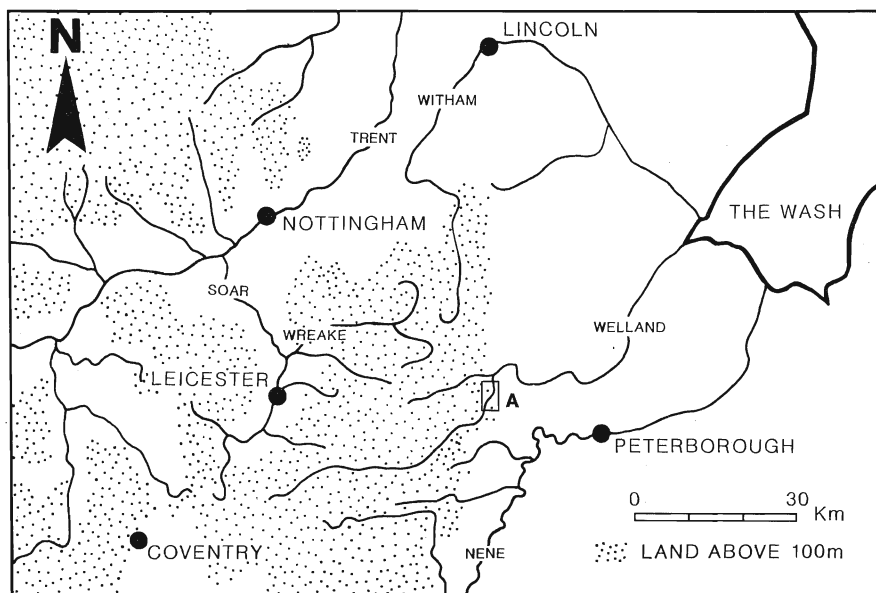
by David Mackie

Archaeological investigation of a prehistoric ditch system in Rutland has, for the first time in the county, produced finds which provide important information on the character and date of such a complex.

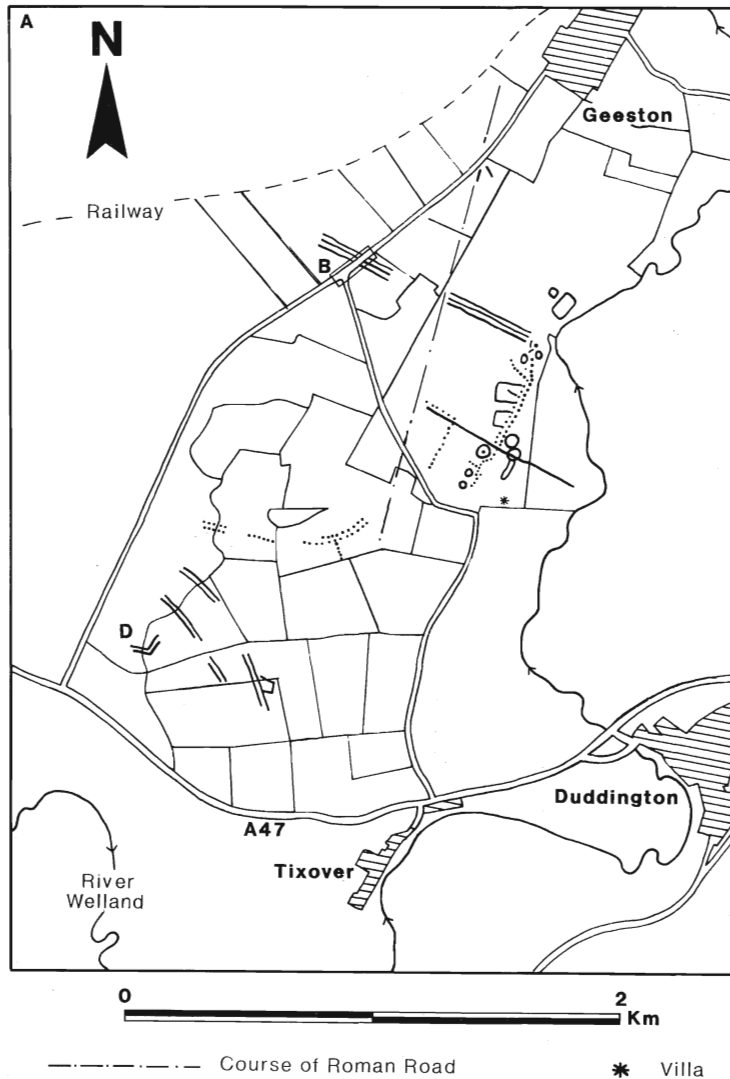
Introduction

Aerial reconnaissance by James Pickering (Pickering and Hartley 1985, p.74), located a complex series of cropmarks on the lower Lincolnshire limestone and river terrace gravels, 0.9 miles (1.5km) north of Tixover (SK 980 023) in Rutland (illus. 1). The complex included sub-rectangular enclosures, various lengths of pit alignment, ring ditches, linear ditch alignments and a Roman road (illus. 2).

This area of archaeological interest was threatened by a pipeline route proposed by Fina plc. The main area of cropmarks was largely avoided by re-routing the pipeline to the west, however this proposed route crossed the recorded lines of a double ditch and triple ditch system.

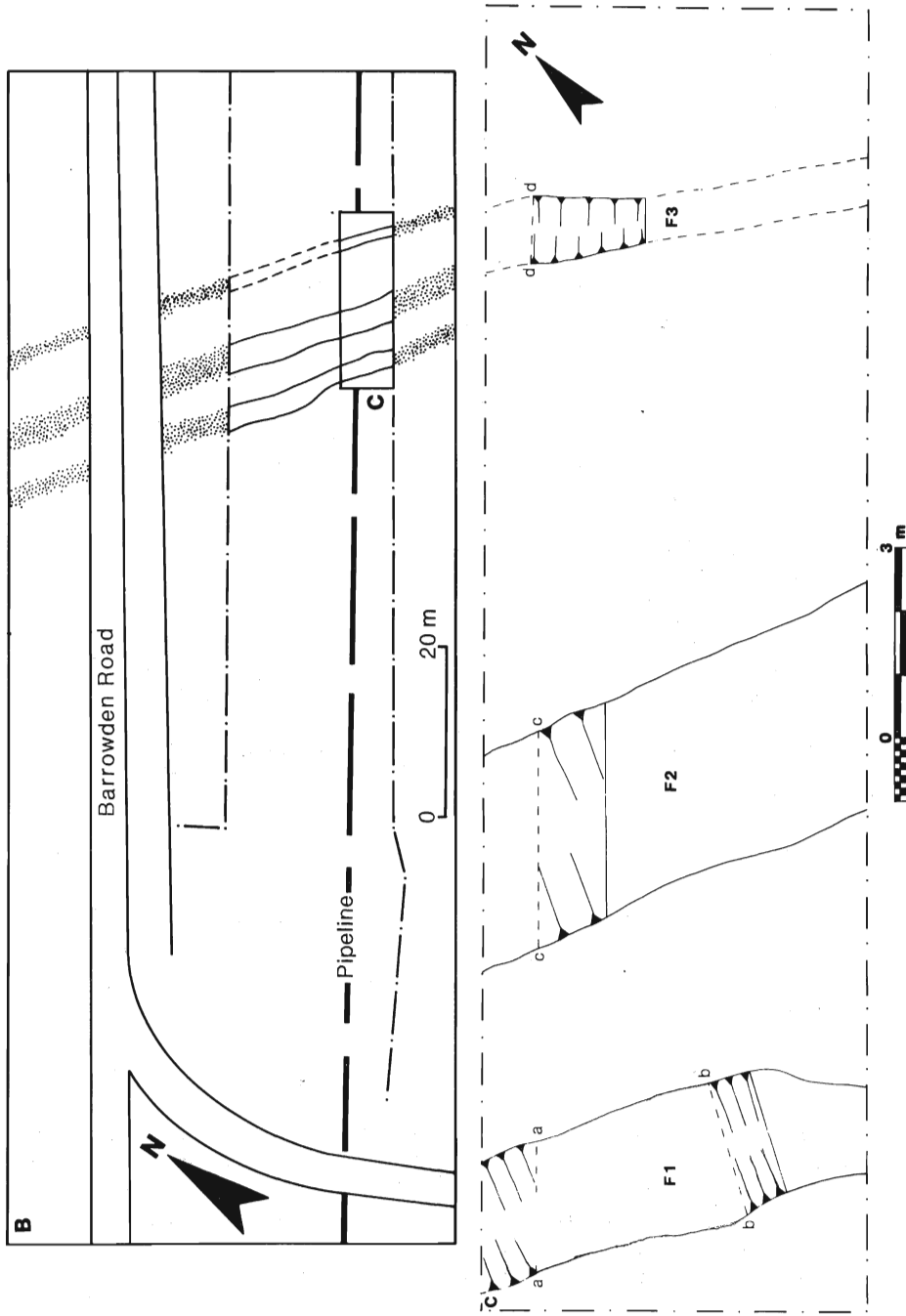


1. Location plan.



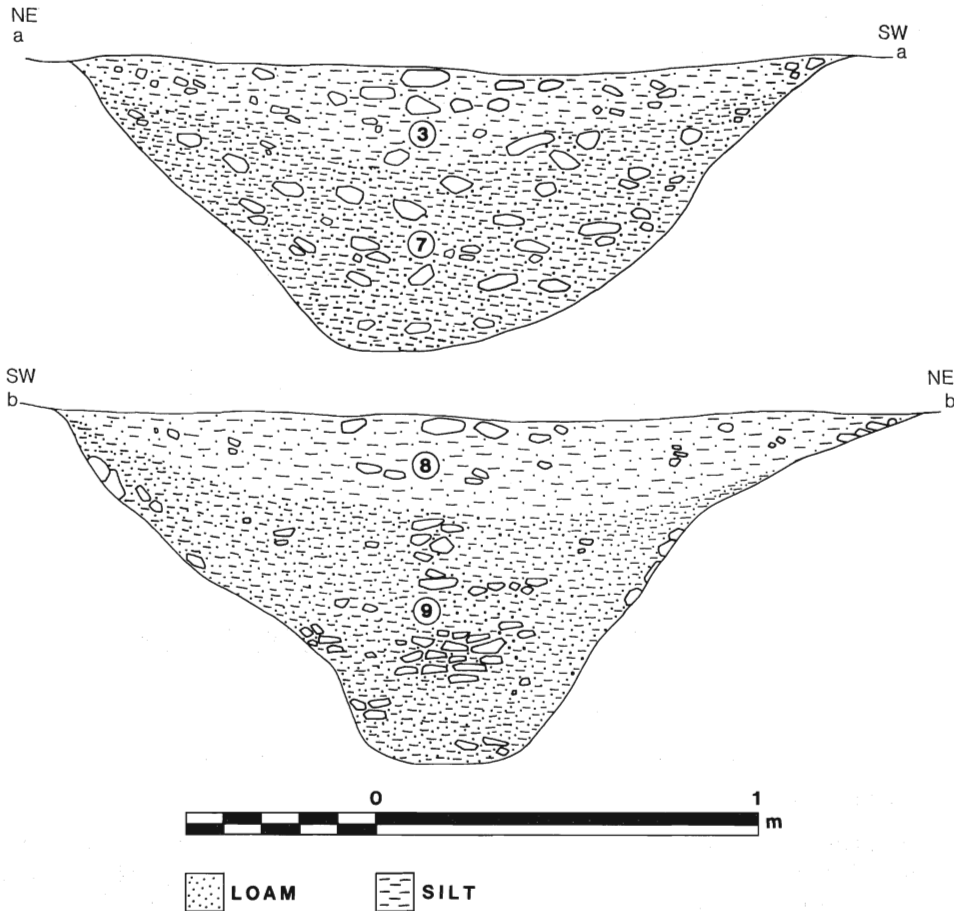
2. Ditch systems in relation to other cropmarks and sites in the area. Excavations were carried out at B and D.

During December 1989 a geophysical survey was carried out which located both ditch systems, as well as other anomalies, between the ditches and surrounding area. In January 1990 a pre-construction archaeological evaluation was undertaken by Leicestershire Archaeological Unit, its aim being to examine the potential for further archaeological excavation by hand-digging a series of test pits. As a result, it was recommended that further excavation should be carried out on both ditch systems during the construction of the pipeline.



3. Ketton: location of triple ditch system in relation to pipeline.

4. Ketton: plan of the excavated area.

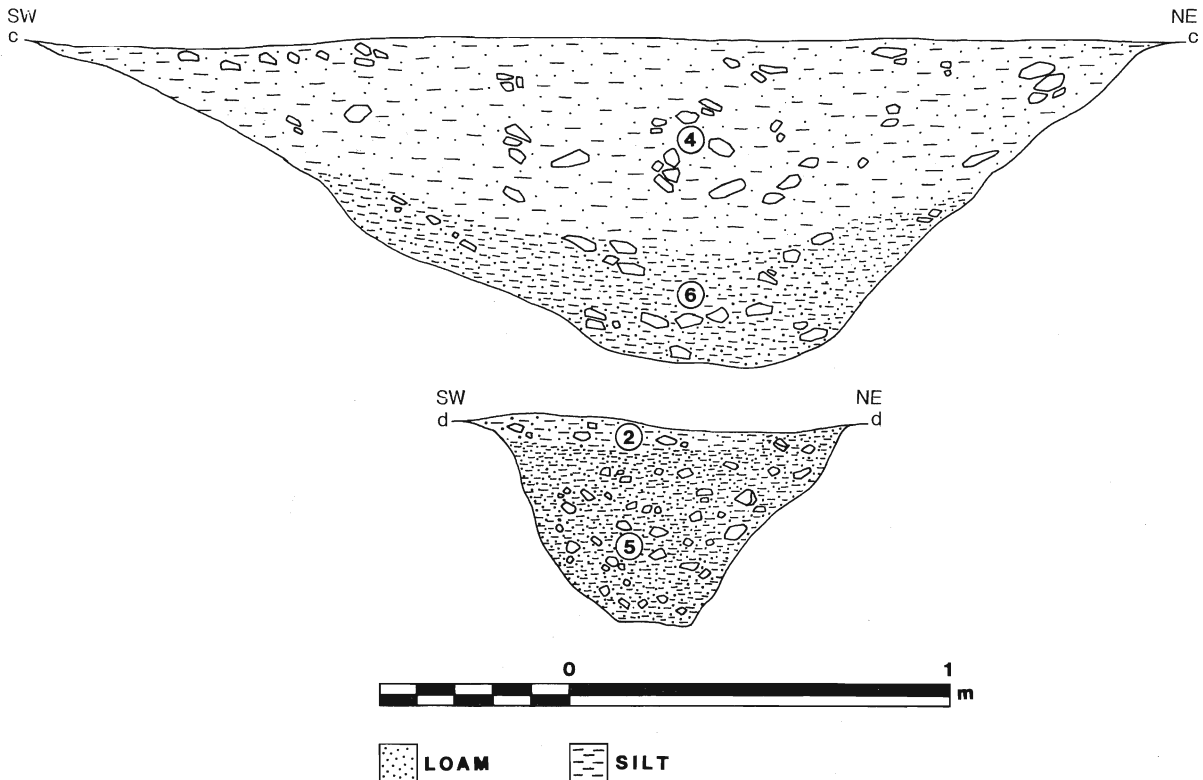


5. Ketton: sections a-a and b-b across Feature 1 (illus.4).

A triple ditch at Ketton (SK 975 029) (illus. 3)

The excavation of a small section of the triple ditch alignment took place during the first week of August 1990. A band c.20m wide was cleared of topsoil by the contractors to provide access for the construction of the pipeline. Within this cleared strip, a smaller area of 120 sq.m was positioned along the line of the proposed trench-cut, where it would cross the ditches. The area was cleared by hand, planned, and sections were positioned across ditches F1, F2 and F3 (illus.4). Samples from the deposits were taken for environmental analysis, and these will be published elsewhere at a later date. The location of the site and the exposed lengths of ditch were surveyed using an EDM theodolite. The finds and records are deposited with Leicestershire Museums, Arts and Records Service, accession no. A2.1990.

Each ditch has been described separately by its feature number and relevant section.



6. Ketton: sections c-c across Feature 2 and d-d across Feature 3.

Feature 1 (illus. 5)

After removal of the topsoil, the upper fill of the ditch was clearly visible, and a fragment of copper alloy brooch was recovered following initial cleaning. The ditch had a north-west to south-east alignment and was sectioned in two places. Section a-a showed the ditch to be 2m wide and 0.70m deep with a rounded bottom. Dark brown and yellowish-brown silty loam fills were present, which contained a quantity of pottery and fragments of animal bone. Section b-b showed the ditch at this point to be 2.35m wide and 0.90m deep with a flat bottom. A small amount of pottery and fragments of animal bone were recovered from the fills, which were similar to those in section a-a.

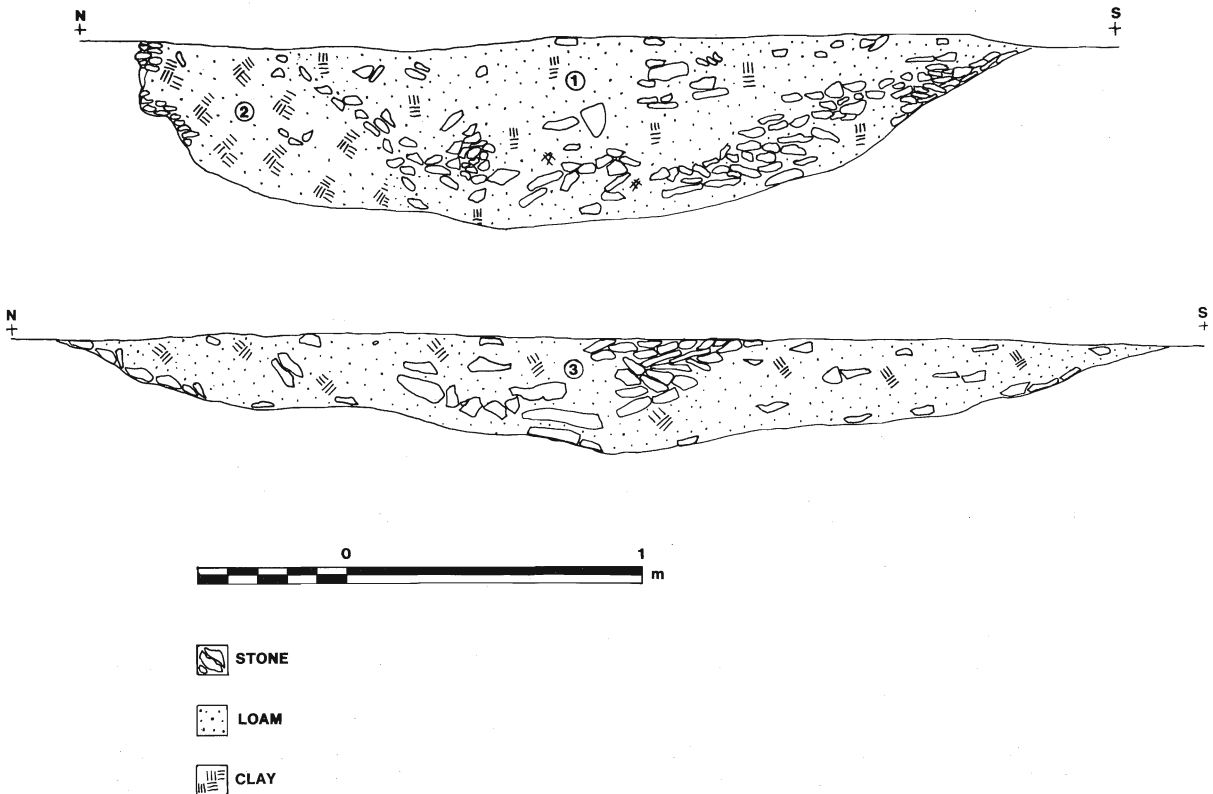
Feature 2 (illus. 6)

The second ditch lay parallel to the first, c.2.5m-3.0m north-east of feature 1. This ditch (section c-c) was 3m wide and 0.95m deep and contained two fills of dark brown and very dark greyish-brown silty loam. A second fragment of copper alloy brooch was recovered from the upper fill together with a small amount of pottery and animal bone.

Feature 3 (illus. 6)

This ditch followed the same alignment (north-west to south-east) as the other ditches c.7m north-east of F2. Unlike the other two ditches, however, which were clearly visible, this ditch appeared narrow and indistinct. The ditch (section d-d) was c.0.95m

6



7. Tixover: sections across double ditch system (illus. 2D). The northern-most ditch is at the top.

wide and c.0.55m deep, with steep sides and a flat bottom. No finds were recovered from the dark brown and dark yellowish-brown silty loam fills. The areas between the ditches were checked for possible features as suggested by the results of the geophysical survey, however none was found within the small area cleared.

A double ditch at Tixover (SK 966 014) (illus. 2d)

The Fina pipeline trench crossed a double ditch alignment one mile (1.6km) north-west of Tixover and 1.5 miles (2.4km) south-west of the triple ditch, on a subsoil of fragmented limestone over boulder clay. Both ditches were sectioned during the first week in May, 1990, with the aim of finding dating evidence and discovering their width and depth (illus. 7). On excavation, both ditches were found to be wide and shallow, with the more southerly one, F1, proving to be the more substantial. The fill of F1 consisted of an equal mixture of dark yellowish-brown clay loam and limestone fragments, with occasional small lumps of charcoal and snail shells. The ditch, on a north-east to south-west alignment, was 3m wide and 0.6m deep. No finds were recovered, but samples were taken for environmental analysis. F2 followed a course parallel to F1, 4m to the north, but was much less distinct. The fill, a dark yellowish clay loam with limestone fragments was very clean, with no charcoal or other finds.

The site archive is held by Leicestershire Museums, Arts and Records Service, accession no. A3.1990.

During main line trenching operations 0.9 miles (1.5km) to the north-east of the Ketton triple ditch, two more substantial ditches were recorded. The first ditch was c.1m wide and 0.85m deep and contained pottery and an abundance of animal bone. The second ditch was 2.5m-3.0m wide and c.0.90m deep from which pottery and animal bone was recovered. It is likely that both ditches form part of the larger cropmark complex north of Tixover.

Discussion

The excavations have confirmed the presence of archaeological features as indicated by aerial reconnaissance, geophysical survey and test pits.

The triple ditch alignment at Ketton was revealed by aerial reconnaissance as a broad cropmark. The line and width of the individual ditches appeared irregular sometimes discontinuous, which may in part be due to variations in soil and crop conditions from field to field (Everson 1979). The overall width of the exposed ditches was 16.5m. Two of the ditches (F1 and F2) were of substantial proportions compared with the smaller narrow ditch (F3) to the north-east. Any upstanding earthworks thrown up during the construction of these ditches have since been ploughed away, although earthwork banks between the ditches are known to survive elsewhere (Pickering 1978).

These features and others like them, have been recorded widely across the country, in Wessex, Dartmoor, Yorkshire and Cambridgeshire (Spratt 1987). Others have been recorded on the limestone hills of north Lincolnshire (Everson and Hayes 1984) and across the East Midlands (Pickering 1978). Their function, although uncertain, may have been to serve as boundary markers. Some lengths may have been in existence for a considerable period of time, subsequently being re-used and developed. The date of these features is generally thought to range from the mid Bronze Age through to the early Iron Age. Ditch systems are not usually associated with any settlement features, and generally little dating evidence has been recovered by excavating random sections across them, as was the case at Tixover. Therefore the recovery of material from the two larger ditches (F1 and F2) at Ketton is of great interest.

A study of the pottery indicates late Bronze Age-middle Iron Age forms (see below). An inturned rim found in F1 might be paralleled by a late Bronze Age form from Billingborough, Lincolnshire (Elsdon 1989, p.11, fig. 2.6). Two copper alloy brooch fragments recovered from F1 and F2 are late La Tene Nauheim types dating from the mid-late first century B.C. (see below p.11). Also of note was the presence of metalworking debris, including a small fragment of a mould, possibly for a brooch (illus. 10.1). The earlier date of the pottery compared with that of the brooches, perhaps suggests use of the triple ditch system over a long period of time, and perhaps that there was a settlement nearby.

The excavations at Ketton and Tixover, therefore, have provided important information on the date and character of these possible boundary systems. Excavations of Iron Age enclosures and ditch systems to the south of these at SK 960 101 (Beamish, forthcoming), may further elucidate their use.

Finds from the ditches at Ketton

The pottery

Sheila M. Elsdon

Pottery was recovered from all three ditches at Ketton but the bulk came from F1. Full details of the pottery are included in the archive available from Leicestershire Archaeological Unit.

Feature 1

Pottery from the upper fill was mostly very coarse shell-tempered ware and included: the square-topped rim of a large jar with punched decoration (illus. 8.1); a sherd with a raised slashed cordon (illus. 8.2); a small pedestal base (illus. 8.3) and two sherds with scored decoration (not illustrated). One sherd, in a finer fabric with fine crushed shell temper, had a regular tooled pattern, possibly part of a chevron or filled triangle pattern (illus. 8.4). There was also a rim sherd from the upper fill of another section of the same ditch which had a short and sharply everted rim (illus. 8.5). A rim sherd from what is almost certainly the same pot came from the upper fill of F3 (illus. 8.5a).

Also in the upper fill were fragments of metal work moulds, possibly for horse trappings and a fragment of a copper alloy brooch.

Pottery from the lower fill of the ditch was in no way different in character to that from the upper fill and included a base sherd from a rounded jar and a carinated body sherd with slashed decoration on the shoulder (illus. 8.6, 8.77).

Feature 2

Pottery from the upper fill was all in a coarse shelly ware, similar to that in the upper fill of F1. It included: the flattened internally expanded rim of a bucket shaped jar (illus. 8.8); two upright or slightly inturned rims (illus. 8.10, 8.11) and a body sherd with finger tip decoration on the carination (illus. 8.9). The Nauheim brooch also came from the upper fill of this ditch.

Feature 3

The pottery from the upper fill was a medium fine shelly ware and included three rims one very similar to, and almost certainly from, the same pot as a rim found in F1 (illus. 8.5a) and the rounded form (illus. 8.12). There was also an expanded rim in coarse shelly ware (illus. 8.13).

Discussion

The pottery is a fairly homogeneous group of coarse and medium fine shell-tempered wares. The only exception is a few sherds in a black sandy fabric with sparse and very fine crushed shell inclusions found in the upper layers of F1 and F3.

In the coarse shelly fabric there are jars with flattened, expanded rims typical of the late Bronze to early Iron Age period (illus. 8.8, 8.13). Also in this fabric there are carinated body sherds with finger tip and slashed decoration on the carination (illus. 8.7, 8.9), jars with upright or hooked rims (illus. 8.10, 8.11), jars of rounded body form (illus. 8.5, 8.6) and an unusual thickened, squared rim with punched decoration on the neck (illus. 8.1). In the same fabric is a sherd with a raised slashed cordon which possibly comes from the neck of a large vessel (illus. 8.2) and a very small base

of a pedestal jar (illus. 8.3). In a medium fine fabric there is the rim of a rounded jar with sharply everted rim (illus. 8.5, 8.5a) and in a finer but still shell tempered ware there is a thick sherd with three tooled parallel lines which could be part of a chevron or filled triangle motif (illus. 8.4).

For such a small assemblage of pottery there are many diagnostic pieces and all point to a late Bronze to early Iron Age date.

The most important site in the area to have produced similar pottery is Billingborough, to the north and on the fen edge (Chowne 1980,1988). Here the Group 2 pottery belongs to the 'post Deverel-Rimbury' tradition as defined by Barratt (1976,1980). At Billingborough in this period there are jars with flattened internally expanded rims, jars with upright and hooked rims, fingertip decoration on the body and on raised cordons and jars of more rounded profile, all of which are similar to pottery from the Ketton triple ditches. Radiocarbon dates at Billingborough suggest seventh to sixth century B.C. dates for this pottery. The scored ware from Billingborough belongs to a later date with origins in the fourth century B.C. The Ketton sherd with tooled, possible chevron decoration can be paralleled at Fengate, Peterborough, where pottery of this type appears in the early Iron Age (Hawkes and Fell 1943).

Based on the associations cited above it would seem that the pottery found in both the lower and upper layers of the three Ketton ditches dates them to the period from the late Bronze Age through to the middle Iron Age. Yet fragments of two Nauheim brooches of *c.*50 B.C. were found in the upper fill of F1 and F2, and metal working moulds and crucible fragments, presumably also late Iron Age, also came from the upper layers of F1 and F3. It seems strange that the dates of the two groups of finds are not compatible. One could postulate a very long period of use for the ditches but the apparent absence of any later pottery is odd, unless the small quantity of black sandy ware from the upper fill of F1 and F3 falls into this category. This is a possibility but the sherds are undiagnostic.

On balance it would seem that the main period of use for the ditches was from the late Bronze Age through to the middle Iron Age, and that the metal work finds are fortuitous and the result of later re-use of the ditches. There is evidence of some disturbance and re-deposition, as pieces of the same pot were found in both F1 and F3 and similar pottery was found in the upper and lower fill of F1.

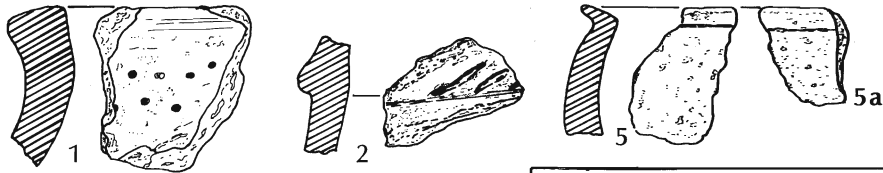
The illustrated pottery

Illus. 8

F1 upper fill:

1. Squared rim of large jar, *c.*180mm diam. Very coarse fabric with large (up to 8mm) shell inclusions; light reddish-brown surfaces and light brown core. Double row of deeply punched holes at neck.
2. Body sherd in fabric as above. Raised cordon with deep slashes. Possibly from the neck of a large jar.
3. Pedestal base of a small jar in a coarse light red shelly fabric as above.
4. Medium fine ware with crushed shell temper (up to 2mm). Three parallel tooled lines. Light brown surfaces with darker core.
5. Rim sherd with sharply everted rim; medium fine crushed shell fill; dark brown exterior with lighter core and interior.
- 5a. Probably the same pot as 5 above but found in F3.

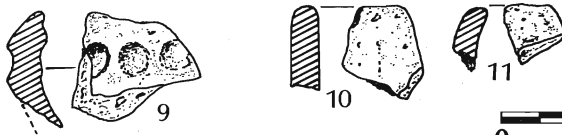
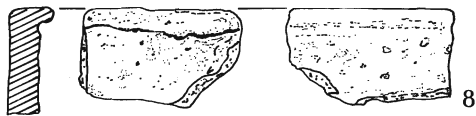
F1 Upper Fill



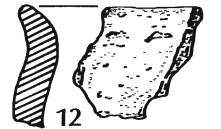
Lower Fill



F2 Upper Fill



F3 Upper Fill



0 50 mm

S.M.E. 91

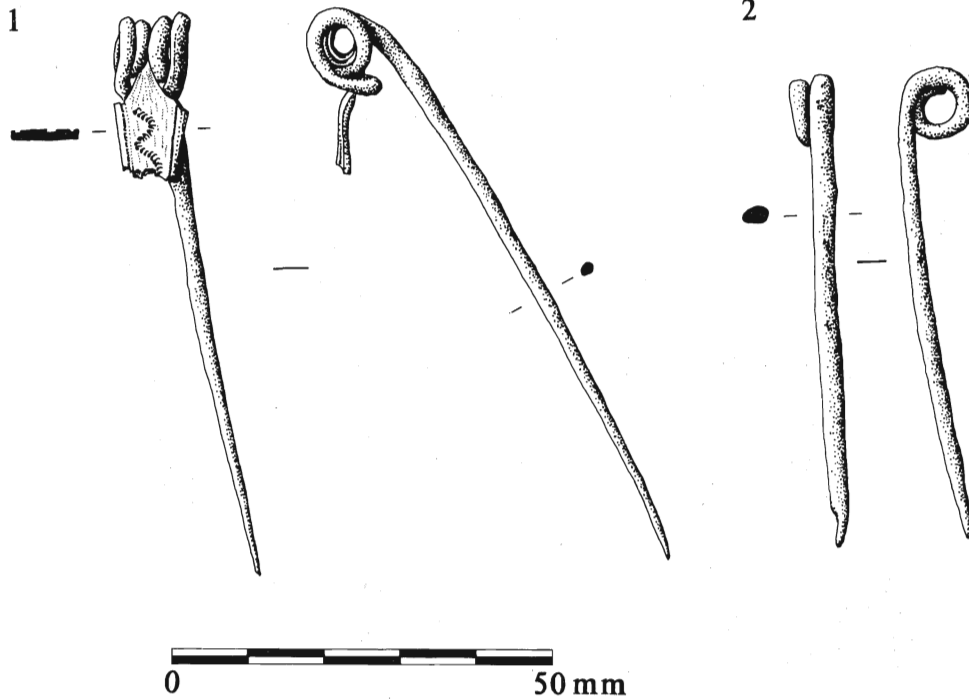
8. The pottery, scale 1:2.

F1 lower fill:

6. Sherd from the base of a rounded pot. Medium fine crushed shell filler (up to 3mm), brown surface and core; black interior. Red layer beneath outer surface.
7. Body sherd in coarse shelly ware (filler up to 4mm). Light brown surface and dark brown core and interior. Slashes on carination.

F2 upper fill:

8. Drawing shows interior and exterior of a large jar with internally expanded rim; diameter *c.* 240mm. Coarse shelly ware; buff exterior with dark brown core and interior.
9. Body sherd from large carinated jar. Finger impressions on the carination; coarse shelly ware; reddish-brown exterior and dark brown core and interior.
- 10,11. Two rim sherds in medium fine shelly ware (inclusions up to 3mm). No.11 is possibly a hook-rimmed jar.



9. The brooches, scale 1:1.

F3 upper fill:

12. Rim sherd from jar with rounded profile. Medium crushed shell filler; dark brown surfaces and core.
13. Expanded rim from large vessel in a coarse shell-gritted ware, buff.

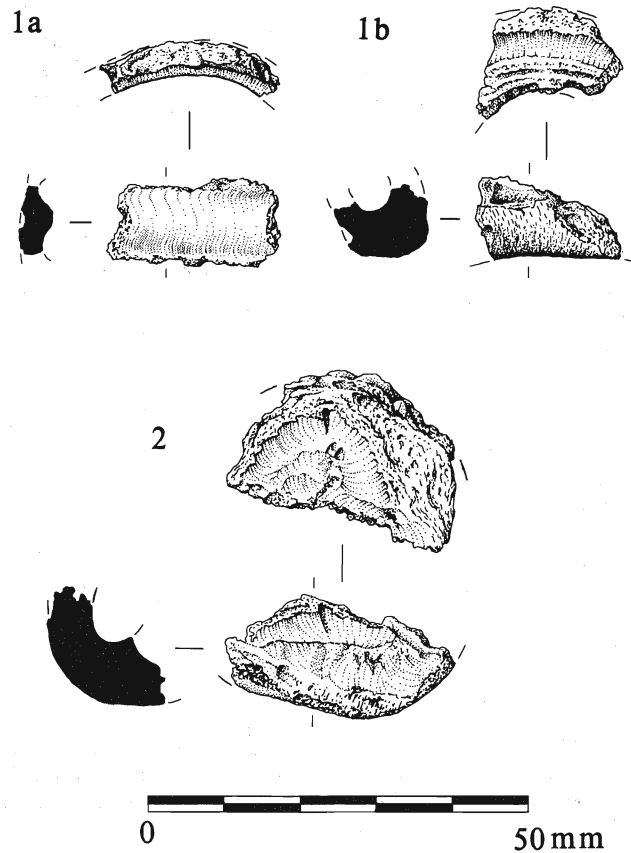
The copper alloy brooches

D.F. Mackreth

Late La Tène

Illus.9.1 A2.1990, F2 (4), sf.2 The integral spring has four coils and an internal chord. Only the very top of the bow survives. It is broad and shows signs of a taper towards the foot. On each side is a groove and in the middle a wavy line made by using a curved and cross-cut stamp. The length of the brooch could not have been less than 77mm.

Although the framed catch plate is missing, there can be no doubt that this brooch belongs to the Nauheim type. The length coupled with the style of decoration on the bow, as well as the indicated form of the latter, hardly leaves room for doubt. The only recent discussion of the type (Feugère 1985, pp.203-229) also gave a catalogue of designs (Feugère 1985, fig.10) in which the present one is No.46 or 49; the loss of the



10. The metalworking debris, scale 1:1.

bow means that the presence or absence of the grooves stopping the bottom of the pattern cannot be established. The dating (Feugère 1985, pp.223-226) is fairly clear. While the earliest examples date to the end of the second century B.C., the greatest incidence if the type is to be expected between 70/60-30/20 B.C. The relevance of all this to Britain is not entirely certain, but there is no reason to suppose that there had ever been any dramatic 'time-lag' between the continent and its largest island, therefore the dating in Britain should at least equal the period when the type seems to have had its greatest currency on the continent: *c.*65-25 B.C. In terms of its known early dating, this is a conservative estimate of its floruit.

Unclassified

Illus.9.2 A2. 1990, F1 (2), sf.1 All that remains of the brooch is a large pin with one coil of a spring.

In view of its size, there is no reason to think that the pin had not come from a spring system like that on Brooch 1. Not enough survives to tell whether or not the

chord had been internal or external, although the former is the more likely. The dating is, naturally, difficult to assess, but it could run from as early as the beginning of the Nauheim in Britain to the earliest years of the first century A.D. It is most unlikely to be as late as the Roman conquest as brooches in general became smaller, especially those with four-coil bilateral springs.

Metalworking debris

Graham C. Morgan.

Illus.10.1 F1 (3) upper fill;

Orange to black fired clay, with some quartz sand fragments - these are probably mould fragments. One piece has a sunken section suggesting a brooch shape such as the underside of a fibula bow. Total weight 12g.

Illus.10.2 F1 (9) lower fill;

Leached crucible rim or mould fragment? There are traces of copper corrosion products and slagging. Total weight 3g.

Acknowledgements

I should like to thank Fina plc and Wessex Archaeology for their help and co-operation with his project, which was managed by Patrick Clay. All illustrations are by the author, except illus. 9 and 10 which were prepared by David Hopkins whilst illus. 8 was prepared by Sheila M. Elsdon.

Bibliography

- Barrett, J.C., 1976 'Deverel-Rimbury: problems of chronology and interpretation', in C Burgess and R Miket ed, *Settlement and Economy in the Third and Second Millennia B.C.* pp.289-308 Oxford: B.A.R. (Brit. Ser.), 33
- Barrett, J.C., 1980 'The pottery of the later Bronze Age in Lowland England', *Proc. Prehist. Soc.*, 46, pp.297-320
- Beamish, M., forthcoming *Excavations at Tixover, Rutland, 1991*
- Chowne, P., 1980 'Bronze Age settlement in South Lincolnshire' in J Barrett and R Bradley ed. *The British Later Bronze Age*, pp.295-305. Oxford: B.A.R. (Brit. Ser.), 83
- Chowne, P., 1988 *Aspects of Later Prehistoric Settlement in Lincolnshire: a study of the western Fen Margin and the Bain Valley.* University of Nottingham Ph.D. thesis, pp.66-81 and 21pp of illustrations.
- Elsdon, S.M., 1989 *Later Prehistoric Pottery in England and Wales.* Shire Archaeology. Aylesbury:Princes Risborough
- Everson, P., 1979 'Pre-Roman linear boundaries north of Lincoln' *Lincolnshire Hist. and Archaeol. J.*, 14, pp.74-5
- Everson, P., and Hayes, P., 1984 'Lincolnshire from the air', in N Field and A White, (eds) *A Prospect of Lincolnshire.* pp. 33-41. Lincoln: Field and White.
- Feugère, M., 1985 *Les Fibules en Gaule Méridionale de la conquête à la fin du V^e siècle après J.C.* Revue Archéologique de Narbonnaise, Supplément 12. Paris

- Hawkes, C.F.C.
and Fell, C.I., 1943 'The early Iron Age settlement at Fengate, Peterborough', *Archaeol. J.*,
100, pp.188-223
- Pickering, J., 1978 'The Jurassic Spine', *Current Archaeol.*, **64**, pp.140-143
- Spratt, D.A., 1987 *Recent British Research on Prehistoric Territories and Boundaries.*
Unpublished
- Pickering, J. and
Hartley, F., 1985 *Past Worlds in the Landscape, Archaeological Cropmarks in*
Leicestershire. Archaeol. Reports Series No.11. Leicester:
Leicestershire Museums, Arts and Records Service.

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