

A pit alignment at Warth Park, Raunds

by

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with contributions by
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SUMMARY

An archaeological watching brief in 2000 during the construction of an access road on land at Warth Park, Raunds, located two pits of a pit alignment known from aerial photography. In 2004, a trench 45m long was targeted on the pit alignment and fourteen pits, all rectangular with steeply sloping sides and flat bases, were excavated. In 2005, a further 24 pits were recorded but not excavated during a watching brief. The length of the alignment examined comprised successive groups of five or six pits that were on the same alignment as neighbouring groups, but with the lines slightly offset from each other by 0.4m to 1.4m. At the junction of these groups there was often a pit or pits filling the gap and shortened to maintain the consistency of spacing. A few fragments of coarse pottery from four of the excavated pits is tentatively attributed to the early Iron Age.

INTRODUCTION

Northamptonshire Archaeology was commissioned in June 2000, by RPS Design Limited (trading as MRP) on behalf of clients Kier Warth Limited, to conduct an archaeological watching brief and excavation on land to the west of London Road, Raunds, Northamptonshire, where aerial photography had identified the presence of a pit alignment (NGR SP 989 734, Fig 1). The area was designated for the construction of commercial warehouses, a cold store, access roads and car parking.

The project was conducted according to a project design prepared by Northamptonshire Archaeology to meet the requirements of a brief produced by Northamptonshire Heritage, now the Historic Environment Team of Northamptonshire County Council.

All works were approved and monitored by the Historic Environment Team Leader.

ACKNOWLEDGEMENTS

Adam Yates was project manager and the fieldwork was undertaken by Danny McAree, Tora Hylton, James Aaronson, Steve Morris and Joe Prentice. The full report was prepared by Danny McAree and this has been condensed and edited for publication by Andy Chapman. The illustrations are by Jacqueline Harding and Hari Anne Jacklin. Prehistoric finds have been analysed by Andy Chapman and the environmental evidence by Karen Deighton MSc.

ARCHAEOLOGICAL BACKGROUND

The development area lies within the Raunds Priority Archaeological Area designated by Northamptonshire County Council in 1979 (Foard 1979). During the 1980s the Raunds area was the subject of a major fieldwalking survey and a series of extensive archaeological excavations on sites of prehistoric, Roman and medieval date were carried out in advance of gravel extraction and other development. The results of the Raunds Area Project are of local, regional, national and international importance and are being published as a series of monographs (Audouy forthcoming; Chapman forthcoming a; Crosby and Neal forthcoming; Harding and Healy in press; Parry 2006).

An early prehistoric monument, Cotton Henge, is situated 400m to the south-west of the Warth Park development, and forms an outlier to a complex of Neolithic and Bronze Age ceremonial and burial monuments mainly lying within the floodplain of the River Nene (Harding and Healy forthcoming; Humble 1994).

DANNY McAREE



Fig 1 Warth Park, Raunds: Site location

A PIT ALIGNMENT AT WARTH PARK, RAUNDS

The development area had been fieldwalked as part of the Raunds Area Survey and the evidence indicates that it lies within the most extensive lithic scatter from anywhere in the Raunds study area (Humble 1994 and Parry 2006). Within this extensive scatter concentrations have been noted to the east and south-east of Scalley Farm, which lies immediately west of the excavated area, although trial excavation elsewhere has shown that such surface concentrations do not necessarily reflect the presence of surviving cut features.

In 1995, a first stage of archaeological evaluation at Warth Park was carried out by Northamptonshire Archaeology, when the development was in the early stages of planning. A geophysical scanning reconnaissance was carried out across the development area on the line of a postulated prehistoric alignment running north-east from the Cotton Henge (Holmes & Morris 1995). Only two areas of higher readings were located. These areas were subject to detailed survey, which recorded only systems of parallel linear anomalies, aligned roughly north to south, interpreted as the furrows of the former medieval ridge and furrow field system. This survey therefore indicated that there were no other substantial prehistoric monuments in addition to the known pit alignment.

TOPOGRAPHY AND GEOLOGY

The development area had been open farmland used mainly for cereal cultivation. The site is bounded to the north and west by the A45/A605 Trunk Road, to the east by London Road, and by Meadow Lane to the south. The area forms a plateau at about 65m OD, and slopes away to the north and the west, where a steeper drop to the valley floor lies west of Scalley Farm.

The underlying geology is Jurassic Great Oolite Limestone to the east, cornbrash across the centre of the site and Great Oolite Clay to the north and west (Geological Survey of Britain (England and Wales) Solid and Drift, Sheet 186 1974). The transition from the clays to the north and cornbrash limestone across the centre of the site was observed along the access road. The topsoil was 300mm thick and contained frequent angular fragments of limestone measuring up to 10mm and occasional small rounded pebbles. There was no subsoil. All the archaeological features examined were cut into the cornbrash.

THE WATCHING BRIEF

Fieldwork was conducted in three stages. In June 2000, two pits revealed in the topsoil stripping of the site access road were excavated (Fig 3 and Prentice 2001). In October 2004, an area 48m long and 8m wide was excavated revealing 16 pits (Figs 3 and 4), 14 of which were excavated. In April 2005, a further 24 pits were exposed and recorded in plan only during topsoil stripping prior to the construction of a dairy cold store on the site (Fig 3).

THE PIT ALIGNMENT

Aerial photography had recorded the pit alignment for a total length of around 350m, running on a west-north-west to east-south-east alignment (Fig 2). To the east it was lost 40m from London Road, while to the west it was lost some 60m from the track running north from Scalley Farm. It is likely that these were not original terminals but just limits of visibility determined by modern land use. The full extent of the alignment and the nature of the true terminals are therefore unknown. Along the observed length it followed a general near straight alignment, although there are slight small-scale deviations, which are described below.

In the watching brief and excavation a total length of 190m of the western end of the alignment was examined (Fig 3). Two pits to the east, on the access road, were excavated but the length between the access road and the excavated area was not uncovered. The excavated area was 45m long, and a total of 16 pits lay within it, of which 14 were sectioned. To the west a short length was not uncovered and then the final watching brief area took in a length of 80m, containing 24 pits which were planned but not excavated. Given the regularity of the alignment, it is possible to interpolate the missing pits in the observed and excavated area, which gives a total of 61 pits in the observed length of 190m.

The pits in the excavated area appear to be typical of the general character of the alignment, which was of regularly sized and shaped pits set at a regular spacing (Fig 4). They were rectangular in plan, with quite straight sides and rounded corners, with the longer axis along the alignment. The pits were 1.7-1.9m long by 1.4-1.5m wide, and were spaced 1.4-1.6m apart. There were a few pits that were square, pits 4 and 12, at 1.4 and 1.6m long, and one that

DANNY McAREE

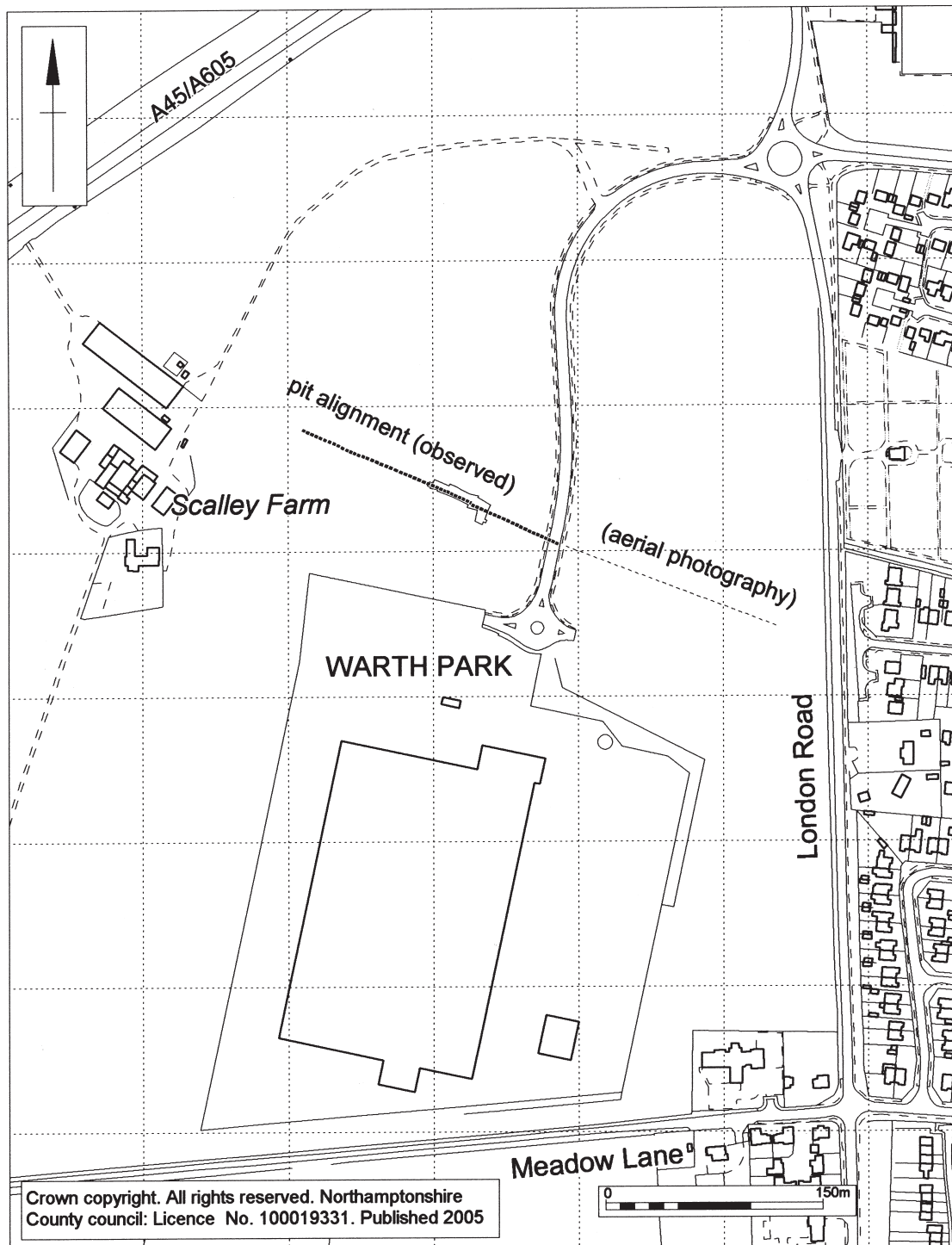


Fig 2 The pit alignment

A PIT ALIGNMENT AT WARTH PARK, RAUNDS

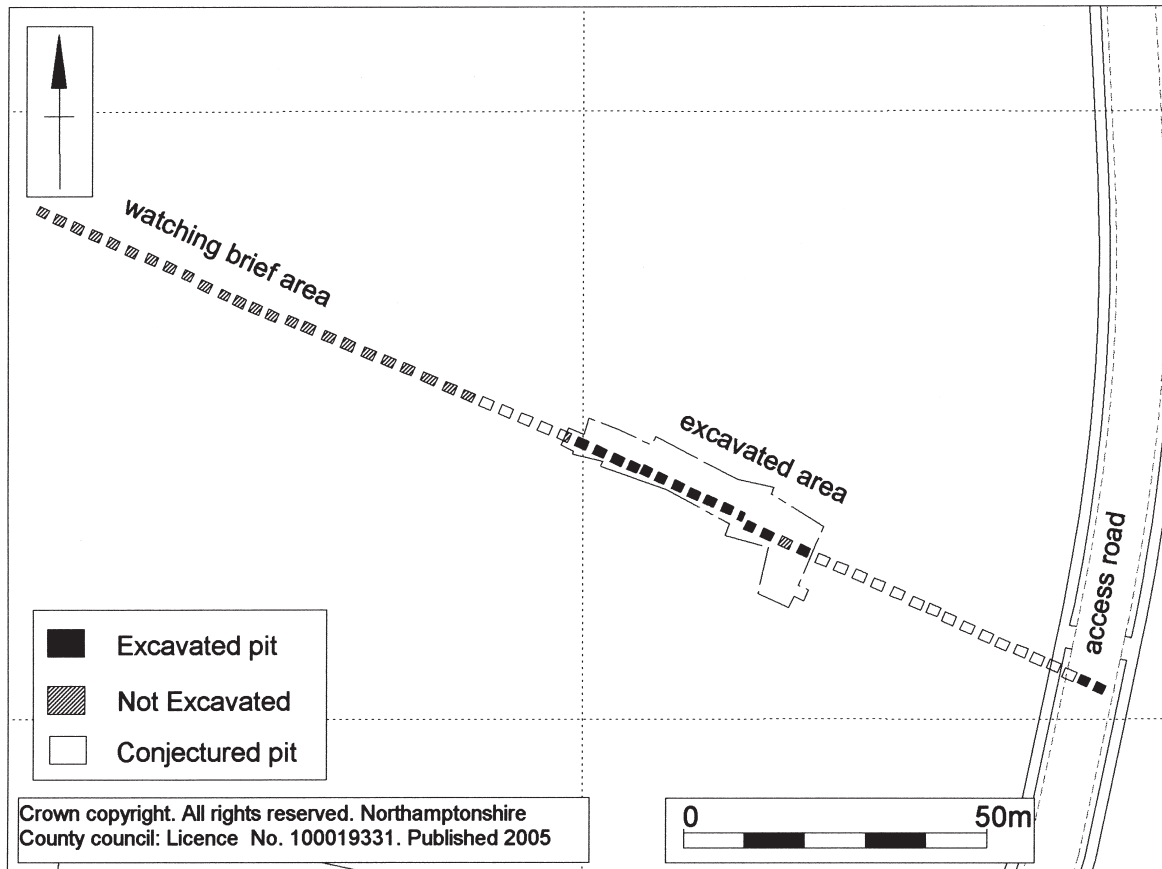


Fig 3 The observed length of the pit alignment

was actually shorter than its width, pit 5, at 1.0m long by 1.4m wide. However, these shorter pits all lay at points of dislocation on the alignment, and so appear to depart from the norm in order to balance the overall spacing along the alignment.

In the excavated area the pits formed three distinct groups. At the centre there was a group of six pits, numbers 6 to 11, of closely similar lengths and spacing, spanning a length of some 17m. The continuation of the alignment to both the south-east and the north-west was with groups of pits on the same angle of alignment but on parallel lines slightly offset to the south. Pits 1-3 were therefore uniform in size and spacing on a line offset 1.4m to the south, the full width of the pits themselves. The two shorter pits, 4 and 5, can be seen as filling the gap between the two uniform lengths, with the

shortening maintaining the consistent pit spacing. To the north-west, pits 13 to 16 were a uniform group, offset to the south by 0.5m, with a single square pit, 12, filling the gap between the two groups. In this instance, although the pit was shortened to a square plan the spacing to the next pit to the south-east was still narrower than normal, at only 1.0m wide.

The pattern in the excavated area continued to the north on the area recorded during the watching brief. Here there were again distinct groups of five or six pits, forming lengths 15-19m long with alignments offset from neighbouring groups by 0.4-0.5m. The direction of offset appears to alternate group to group, so that the alignment was continually brought back in line. In at least one instance there was again an intermediate pit linking two groups, while at another junction there appeared to be just

DANNY McAREE

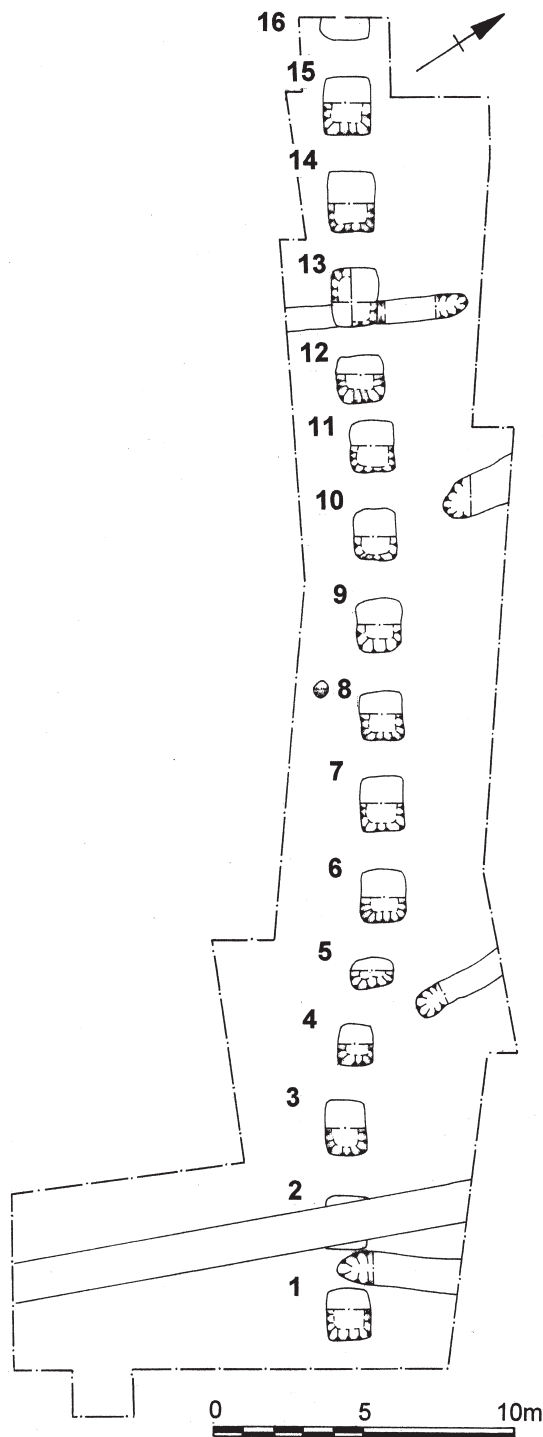


Fig 4 The excavated length of the pit alignment

an offset, with no intermediate pit, perhaps because the spacing was already consistent, so that a linking pit was not required and could not be fitted in. Unfortunately, the other probable group junctions in the watching brief area were obscured by medieval furrows.

All of the excavated pits had been cut with steep sides and flat bases, which maintained the rectangular shape of the surface outline. They were cut through the looser cornbrash limestone and either bottomed on the bedding plane of the underlying solid limestone bedrock or they were cut slightly into the solid bedrock. The pits at the south-eastern end of the line were the deepest, at 0.75-0.85m deep, while those further north-west were slightly shallower, at 0.60-0.70m deep, which reflected the shallower depth at which solid bedrock was encountered (Fig 5). Intermediate pits 4 and 5, at 0.58 and 0.47m deep, were both shallower than the neighbouring pits while, in contrast, intermediate pit 12, at 0.77m deep, was noticeably deeper than its neighbours. In many pits there was an evident break of slope in the pit sides, where the original steeply inclined lower sides had been protected by the rapidly accumulated primary fills, while the upper edges had evidently been eroded, indicating that the pits had been open for some time, and that the silting was largely a natural accumulation (eg Fig 5, Pit 3).

The primary fill of the pits was of compact yellow sandy clay, containing some small pieces of limestone. The upper fills were of varying shades of red or brownish sandy clay containing angular fragments of limestone and occasional small rounded pebbles. The steep angles of the tip lines in many of the pits is interpreted as indicating the presence of one or two recuts, which were always fully contained within the pit fills (eg Fig 5, Pit 6), while other pits contained no evidence of recutting (eg Fig 5, Pit 1). The only material recovered from the pits was a total of 11 sherds of pottery and two pits produced single degraded cattle teeth, although this does suggest that bone preservation was poor and other material may have been lost.

OTHER FEATURES

Truncated furrows of a former medieval ridge and furrow field system, aligned roughly north to south, cut across the pit alignment, partially obscuring several of the pits. They have been omitted from the published illustrations.

A PIT ALIGNMENT AT WARTH PARK, RAUNDS

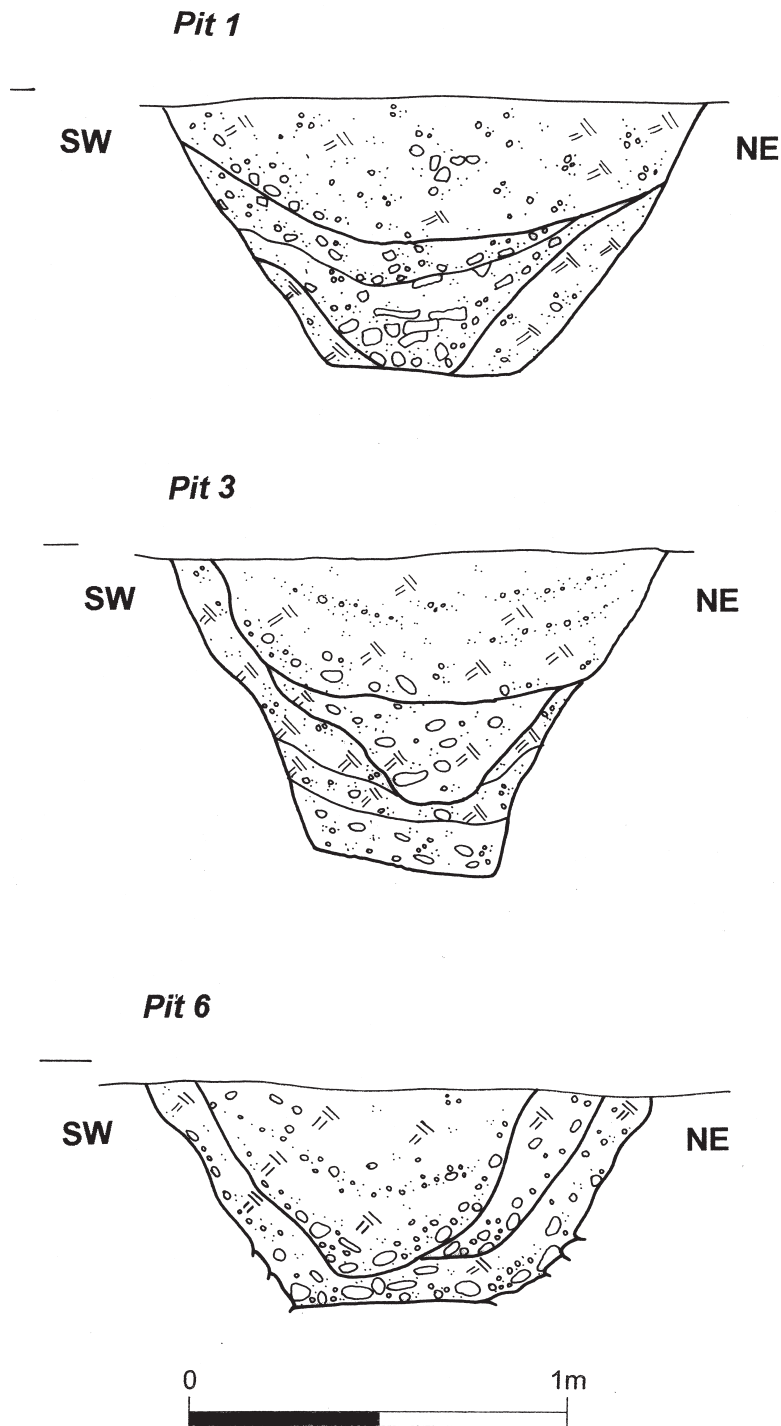


Fig 5 Sections of pits 1, 3 and 6

DANNY McAREE

THE FINDS

THE POTTERY

by Andy Chapman

A total of 11 sherds weighing 29g were recovered from four pits. In three pits (5, 6 and 9) there were single sherds, while Pit 12 contained eight sherds. The majority of the assemblage comprised small, often abraded plain body sherds from handmade vessels containing varying densities of crushed shell. The fabrics were 7-11mm thick with dark grey, reduced cores and either dark grey or oxidised surfaces. A single rim sherd, from pit 9, was from a finer vessel with a grey core and interior and an oxidised brown, external surface, and containing sparse, finely crushed shell. The sherd was 5mm thick, tapering to 3mm at the plain everted rim.

Given the small size of the assemblage and the lack of diagnostic traits, the sherds can only be broadly assigned to the Iron Age, although the single fine rim sherd would be appropriate within an early Iron Age assemblage.

THE MOLLUSCS

by Karen Deighton

A total of 15 snail shells were recovered from six pits, they were all of the family *Cepea Nemoralis*. These have a wide range of habitat and are not indicator species for any specific environmental condition or habitat, but are normally associated with bright woodland and hedges or field boundaries.

DISCUSSION

by Danny McAree, with additional comment by Andy Chapman

Pit alignments are a phenomenon of the Late Bronze Age and Early Iron Age landscape, where they evidently formed primary landscape boundaries. However, the regular plan forms, often comprising pits of regular and uniform shape, size and spacing, as well as the occurrence of abrupt changes in alignment or lengths offset from what were otherwise often quite precise linear courses, makes them an enigmatic landscape feature. The degree and the precision of the planning often considerably exceeds the practical requirements of providing a visible earthwork as an indicator to others of either ownership or perhaps of areas of differing functional use, and clearly this organisation must reflect elements of social structure and belief systems, even if the exact meanings continue to elude us.

The Warth Park pit alignment cannot be dated with any precision from the small pottery assemblage, and no material suitable for radiocarbon dating was obtained, so an Early Iron Age date can only be presumed by analogy with similar sites for which radiocarbon dates have been obtained. A pit alignment at Grendon quarry, also in the Nene valley, has recently been radiocarbon dated to between the

8th and 6th centuries BC, or perhaps a little later (850-520 cal BC, 2570+/-60 BP, Beta-131548 and 780-380 cal BC, 2420+/-60 BP, Beta-131548) (Last 2005, 350), while a pit alignment in the neighbouring valley of the Great Ouse at Gayhurst has produced a closely similar date range (800-520 cal BC, 2510+/-70 BP, Wk-9171) (Chapman forthcoming b). However, a pit alignment at Upton, Northampton has recently been dated to the 4th to 3rd centuries BC, the early Middle Iron Age (400-210 cal BC, 2270+/-40, Beta-215489). However, at this site there is also a pit group radiocarbon dated to the 8th to 6th centuries BC, and it may be that the late date is an indication that the particularly deep pits, which were up to 1.0m deep, had remained partly open and still accumulating cultural debris for many generations after they were originally excavated. This would also indicate the longevity of this particular boundary in the landscape.

Pit alignment boundaries at Wollaston (Meadows pers comm) and Ringstead (Jackson 1974) also survived as landscape features at least until the Roman period, when ditches were cut following the same alignments. At St Ives, Cambridgeshire (Pollard 1996), a boundary running down to the Fen edge was marked first by pit alignments and then by repeated re-cutting of ditches, with this sequence extending from the early Iron Age until well into the Roman period. At Warth Park there is no indication that the pit alignment was related to later settlement or boundaries, so it evidently had a much shorter duration of use and respect.

The regular shape, size and depth of the pits in the alignment at Warth Park are features typical of other excavated pit alignments in the county, which include Aldwincle (Jackson 1977); Ringstead (Jackson 1978); Grendon quarry (Jackson 1995 and Last 2005); Gretton and Briar Hill, Northampton (Jackson 1974 and Bamford 1985); Upton, Northampton (Maull 2001); Pitsford quarry (Hallam *et al* 2003); Wollaston bypass (Chapman and Jackson 1992) and Wollaston quarry (Meadows pers comm). There are many comparable sites from other Midland counties, of which St Ives, Cambridgeshire (Pollard 1996); Tallington, Lincolnshire (Simpson 1966) and Gayhurst, Buckinghamshire (Chapman forthcoming b) are just a few. Other pit alignments identified from aerial photography both in Northamptonshire and across the country show that regular spacing of the pits is a common feature (Hollowell 1971, Cunliffe and Poole 1991, Pollard 1996).

A PIT ALIGNMENT AT WARTH PARK, RAUNDS

At these other sites there are also pit alignments that similarly comprise only square or rectangular pits, while at others there are similarly regular alignments formed only of circular or oval pits. In both instances, when the pits are elongated, it is always along the line of the alignment. At Gayhurst (Chapman forthcoming) separate alignments of rectangular and circular pits met, and in the continuing multi-phase alignment, which was later partly recut as an interrupted linear ditch, it appeared that the circular pits were the earlier phase. However, at present there is insufficient dating evidence to show any general correlation between pit shape and pit alignment chronology. At Grendon (Last 2005, fig 13), a length of oval pits abruptly changed to rectangular pits following the same alignment.

Slight displacements or offsets in the alignment of pits have been noted on many sites including Aldwinkle, Briar Hill, Pitsford and Gretton. At Pitsford, the displacement varied between clusters of six to eight pits; at Gretton, between every five or six pits, where this was taken to indicate gang work, as had been suggested at Tallington, Lincolnshire (Simpson 1966, Pollard 1996).

At Warth Park the planning appears to have been quite precise, with groups of five or six pits set out in a common line and being closely consistent in shape, size and spacing. Neighbouring groups followed the same criteria, but were on parallel slightly offset lines. The offsets appear to have typically been of the order of 0.4-0.5m, but in one instance amounted to 1.4m, the width of the pits themselves. In many cases there was an intermediate pit linking separate groups, and in the case of the wider offset it required two pits to fill the gap. The interesting aspect of these linking pits is that they were typically shorter, in one case actually shorter than its width. This suggests that the individual groups had been laid out previously and that these truly were linking pits whose length was adjusted to fill the gap between the existing groups whilst attempting to maintain the overall consistency of pit spacing.

There is no direct evidence for any accompanying bank or soil heaps, although it is suggested that a tendency for an increased level of silting against the northernmost pit sides might suggest that any bank or piles had lain on this side, although any increased deposition could have been a product of the greater extremes of heating and cooling experienced on the pit sides that faced the sun.

Any bank produced from the soils upcast from

the pits would have formed a substantial landscape feature and, if topped by a hedge or undergrowth, would have made a significant statement about land division and perhaps ownership. The dominant snail species found provides a little support for the postulated presence of an adjacent bank topped by a hedge, although this was not a specific indicator species.

From the offset lines, it is clear that instead of starting at a single point and digging in one direction to complete the alignment, there was a process of fragmentation within the overall plan, with different groups or individuals working on small groups of several pits with sometimes a subsequent need to fill gaps between these separate groups. This could simply be defined as a product of gang working, but the consistency of shape, size and spacing, and the alternating offsets to maintain the common alignment, all show the presence of a far more complex process than was necessary for the simple provision of a boundary system, and one that is certainly not a mere filling of gaps within a poorly set out line. The offsets are quite clear and regular, and the grouping of the pits must be seen to have a social function that was tied into the whole process of boundary creation. It is clear that for these people the creation of the boundary was not merely a mechanical and practical process but one that also had a far deeper significance within their social organisation and belief systems.

As parts of a physical boundary the precisely regular pits were useless, as the spacing would allow easy access to animals and people. If a formal physical boundary was all that was required, a ditch and bank would have been more practical, and amorphous quarry pits would provide spoil for a substantial bank without the need for the elaborate control of the pit digging evidenced in so many pit alignments.

Pollard (1996) argues that the pit alignments may have served to re-instate existing divisions, whether natural boundaries, water channels, woodland edges etc, both as actual boundaries but more significantly as conceptual entities. In this context, it may be significant that the Warth Park alignment divides the lighter, free draining cornbrash to the south from the heavy marl clay immediately to the north.

While it is clear that pit alignments performed a role as landscape markers, this was not just in the sense of physical barriers, but as indicators of possession and claim on parts of the landscape by specific social groups, and the offset lengths of pits at Warth Park may have marked the part ownership

DANNY McAREE

by sub-groups, perhaps individual families, within the larger social grouping. The full purpose and intent of pit alignments cannot now be deduced with any certainty, but they remain an enigmatic monument form indicative of both developing concepts of landscape tenure and the associated social structures and belief systems.

BIBLIOGRAPHY

- Audouy, M, forthcoming *Raunds: The Origin and Growth of a Midland Village, AD 450-1500*, Oxbow Books/English Heritage
- Bamford, H, 1985 *Briar Hill: Excavation 1974-1978*, Northampton Development Corporation Archaeological Monograph, **3**
- Chapman, A, and Jackson, D, 1992 Wollaston Bypass, Northamptonshire. Salvage excavations 1984, *Northamptonshire Archaeology*, **24**, 67-75
- Chapman, A, forthcoming a West Cotton, Raunds: a study of medieval settlement dynamics, Oxbow books/English Heritage
- Chapman, A, forthcoming b A Bronze Age barrow cemetery and an Iron Age pit alignment and enclosures at Gayhurst quarry, Buckinghamshire, *Records of Buckinghamshire*
- Crosby, V, and Neal, D S forthcoming *Raunds Area Project: The Iron Age and Romano-British landscapes of Stanwick, Northamptonshire*
- Cunliffe, B, and Poole, C, 1991 *Danebury: an Iron Age hillfort in Hampshire*, CBA Res Rep, **73**
- Foard, G, 1979 *Archaeological Priorities: proposals for Northamptonshire*, Northamptonshire Archaeology Unit Occasional Paper 4
- Harding, J, and Healy, F, in press *Raunds Area Project: the Neolithic and Bronze Age landscapes of West Cotton, Stanwick and Irthlingborough, Northamptonshire*, English Heritage monograph
- Hallam, T, Lloyd, R, and Yates, A, 2003 *Pitsford Quarry, Archaeological recording: Bottom Sheep Dale Field*, Northamptonshire Archaeology report
- Hollowell, R, 1971 *Aerial photography and field work in the Upper Nene Valley*, Bulletin of the Northamptonshire Federation of Archaeological Societies, **6**
- Holmes, M, and Morris, S, 1995 *Land West of London Road and North of Meadow Lane, Raunds, Northamptonshire. Archaeological Evaluation, Stage 1*, Northamptonshire Archaeology report
- Humble, J, 1994 Evaluation of Cotton Henge, Raunds, *Northamptonshire Archaeol*, **25**, 177-179
- Jackson, D A, 1974 Two new pit alignments and a hoard of currency bars from Northamptonshire, *Northamptonshire Archaeol*, **9**, 13-45
- Jackson, D A, 1977 Further excavations at Aldwinckle, Northamptonshire, 1969-71, *Northamptonshire Archaeol*, **12**, 9-54
- Jackson, D A, 1978 A Late Bronze-Early Iron Age vessel from a pit alignment at Ringstead, Northamptonshire, *Northamptonshire Archaeol*, **13**, 168
- Jackson, D, 1995 Archaeology at Grendon Quarry, Northamptonshire. Part 2: Other prehistoric, Iron Age and later sites excavated in 1974-75 and further observations between 1976-80, *Northamptonshire Archaeol*, **26**, 3-32
- Last, J, 2005 Life by the River: a Prehistoric Landscape at Grendon, Northamptonshire, *Proceedings of the Prehistoric Society*, **71**, 333-360
- Maull, A, 2001 *Excavation at an Iron Age and Roman occupation site at Upton, Northampton SW district, Northampton, 2000: Interim Report and Potential*, Northamptonshire Archaeology report
- Parry, S, 2006 *Raunds Area Survey. An archaeological study of the landscape of Raunds, Northamptonshire, 1985-89*, Oxbow Books/English Heritage
- Pollard, J, 1996 Iron Age Riverside Pit Alignments at St Ives, Cambridgeshire, *Proceedings of the Prehistoric Society*, **62**, 93-115
- Prentice, J, 2001 *An archaeological watching brief at Warth Park, Raunds, Northamptonshire*, Northamptonshire Archaeology report
- Simpson, W G, 1966 Romano-British settlement in the Welland Valley, in A.C. Thomas (ed) *Rural Settlement in Roman Britain*, CBA Research report, **7**, 15-26