An Archaeological Evaluation of a Ring Ditch at Tucklesholme Farm Staffordshire 1990

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Birmingham University Field Archaeology Unit 1990

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1.0 INTRODUCTION

This report outlines the results of the second stage of an archaeological evaluation of a ring ditch and associated features at Tucklesholme Farm (NGR. SK 210188) approximately 2km east of Barton-under-Needwood, Staffordshire (Fig. 1A). The work was commissioned by Douglas Concrete Limited in advance of the submission of proposals for gravel extraction and undertaken by Birmingham University Field Archaeology Unit between the 24th of September and the 1st October 1990. The first stage of the evaluation involved a geophysical survey reported upon seperately (Jones 1990). The second stage involved the excavation of several trial trenches, described in Section 3, and a second limited geophysical scan on the potential site of an Anglo-Saxon cemetery, outlined in Section 4.

2.0 THE SITE

The site is located on arable farmland and is bounded to the west by the Birmingham to Derby railway and to the east by the River Trent (Fig. 1B). Several features have been identified from crop marks on aerial photographs (Staffs. SMR Pickering/AP 2018/3-5). These include a ring ditch and several linear features immediately to the east of the railway (Staffs. SMR no. 1447). The ring ditch was partially excavated by the Trent Valley Archaeological Rescue Committee in 1975 (O'Brien unpub.). It is located at the southern end of a large field, and has been interpreted as the remains of a ploughed out Bronze Age round barrow. The aerial photograph suggests that its southern side has been partly truncated by the field's southern boundary. The previous investigation involved the excavation of a number of radial sections across the main ditch which was found to be approximately 30m in diameter. Two much shallower, inner concentric ditches were also recorded.

It has been suggested that a second ring ditch is located within the same field approximately 100m to the north although, the crop mark evidence is not so clear. Both the confirmed ring ditch and the possible feature will be threatened should the proposed gravel extraction proceed. Several further ring ditches have been identified to the west of the railway and these have been given statutory protection. It is possible that the threatened features belong to the same barrow cemetery.

To the south of these features several urns containing human bones and associated with metal knives were found when a ballast pit was dug in 1851 (V.C.H. 1908, 204). It has been suggested that these might indicate the existence of an Anglo-Saxon cemetery (Fig.1B).

The objectives of the geophysical survey were to accurately locate the partially excavated ring ditch and to clarify the existence and location of the possible northern feature. A detailed account of the methods and results appears in the geophysical report (Jones 1990). In summary, the survey, using a gradiometer, detected strong anomalies which appeared to be associated with the partially excavated feature (Area II, A7, A7a and A8), although their location did not exactly match the plotted position of the cropmark. A second circular anomaly to the north was thought to possibly relate to the suggested northern ring ditch.

The objectives of the excavation were i) to clarify the existence of the northern ring ditch, ii) to assess the survival and quality of both the confirmed and potential archaeological features, in particular their potential for providing environmental and dating evidence and iii) to make recommendations for any further archaeological provision that might be considered necessary.

3.0 THE EXCAVATION

3.1 Method

Two areas were selected for investigation, corresponding to the areas of the geophysical survey (Fig. 2). The location of Area I was designed to investigate the northern anomaly thought to correspond to the suggested northern ring ditch, and Area II was designed to reinvestigate the southern, partially-excavated ring ditch. In each area two trenches were initially excavated, intersecting at right angles over the approximate centre of the circular anomalies recorded during the geophysical survey. In each case the trenches were 2m wide and at least 40m long. The ploughsoil was removed using a mechanical excavator and the underlying sands and gravels were then cleaned by hand in order to define archaeological features and contexts. Sample areas of these features were then excavated to establish their depth, sequence and preservation.

In Area II several features thought to correspond to the southern ring ditch and backfilled trenches from the 1975 excavation were defined. In order to investigate a reasonable, undisturbed sample of the ring ditch and any possible internal features, an extension measuring approximately 6m by 20m was made to the northern part of the area. A second extension measuring 3m by 17m was made to the western part of the area in order to investigate a linear feature (F3) apparently truncated by the railway line.

3.3 Results

Area I

The natural sandy gravels were cut by a series of parallel linear cuts, orientated north-south and between 7 and 8m apart (Fig. 2, F7 and F11-13). Each was filled with a mid-brown sandy silt with frequent rounded gravel. A section of F7 was excavated and proved to be a shallow feature, 0.3m deep and 2.2m wide, with gradual sloping sides and a flat base (Fig. 4, S4). A narrower linear feature (Fig. 2, F5) located in the western branch of the area was also sectioned. This had a similar orientation but was filled by a darker brown sandy silt. None of the features provided any dating evidence. No features corresponding to the curved anomalies detected by the geophysical survey (Jones 1990, Figure 3; A2-A4) were identified.

Area II (Fig. 3)

Following the removal of the ploughsoil, the fills of the ring ditch (Figs. 2 and 3, F1) only became apparent after careful cleaning. Time did not allow the feature to be fully exposed, although segments were defined in the northern, eastern and western branches of Area II. Four sections were investigated, two in the northern branch of the area and one each in the western and eastern branches. It soon became apparent that three of these sections had already been partially excavated during the investigation in 1975. Consequently, only one section, in the northern part of the area, was fully excavated during the current evaluation. The ditch was 3m wide and survived to a depth of 1.7m from the surface of the natural gravel (Fig. 4, S1), although it is likely that some truncation has taken place as a result of ploughing. It appeared to have originally had a V-shaped profile, although the upper sides had a more gradual slope, possibly as a result of erosion. The basal fills consisted of bands of grey-brown sand and gravel (1006-1009). These were overlain by a siltier material with very occasional flecks of charcoal (1004 and 1005) and a grey-green silty sand and gravel with bands of iron staining (1002). The uppermost fill consisted of a brown silty sand with occasional gravel and very occasional flecks of charcoal (1001). Soil samples were recovered from the upper fills. The only finds consisted of several fragments of burnt daub with possible post impressions and a flint flake from the uppermost fill (1001).

Within the main outer ring ditch, the two inner concentric ditches, identified during the 1975 excavation, were partially redefined (F2 and F9). A backfilled section through these two features, relating to the earlier investigation, was identified and re-excavated in the eastern branch of Area I. In addition two further sections were excavated in the northern part of the area. Both dirches proved to be fairly shallow features approximately 0.6m wide and 0.15m deep, filled with a brown silty sand and gravel (Fig. 4, S1). A possible post setting (Fig.3, F10) was identified within the eastern excavated section of the inner ditch (F9). It was approximately 0.1m deep and 0.3m across (Fig. 4, S1) with a rounded base.

A sub-oval feature (F8), measuring 2m by 1.2m, was defined at the centre of the ring ditch but was found to have been previously excavated. It appeared that a narrow baulk had been left across the feature indicating an original fill of brown silty sand. The northeast quadrant was reexcavated although any evidence for a burial, if such ever exisisted, would appear to have been removed during the earlier investigation. It proved to be a fairly shallow feature, 0.15m deep, with gradually sloping sides (Fig. 4, S2).

The only possible suggestion of a surviving central mound was an area of silty sand (1016) overlying the coarser natural gravels. A shallow, backfilled rectangular trench, approximately 4.5m by 2m, suggested that this deposit had previously been tested but proved to be no more than 0.1m deep. The absence of any trace of a buried soil indicates that this layer was in fact probably a variation in the natural sub-soil.

To the west of the ring ditch and its associated features, two linear ditches were identified and recorded (F3 and F6). F3 was orientated north-south and had clearly been truncated by the railway to the northwest. It was sectioned in two places and proved to be approximately 1.7m wide, 0.7 m deep and to have a V-shaped profile (Fig. 4, S3). It was filled with layers of silty sand and gravel (1003, 1012 and 1013) and provided no conclusive dating evidence. F6 was also filled with a silty sand but was not excavated.

3.4 Discussion

The regular spacing and orientation of the linear features recorded in Area I suggest that they relate to a Medieval ridge-and-furrow cultivation. No evidence of any prehistoric features was recovered. It is possible that the crop marks observed on the aerial photographs and the anomalies recorded by the gradiometer relate to variations in the composition of the natural sands and gravels. The circular ring ditch in Area II (F1) presumably represents a quarry ditch for a former central barrow mound. The mound itself appears to have been completly flattened by centuries of ploughing. The previously excavated central feature (F8) may have originally contained a primary central burial. Monuments of this type normally belong to the early part of the 2nd millenium BC. A radiocarbon determination may possibly be obtained from the small quantities of charcoal recovered from the upper fills of the ditch. The only finds were three small flattened since a small flake from the upper fill of the ditch.

The inner concentric ditches (F2 and F9) had no direct relationship with the outer feature so their relative chronological position is unclear. Similar arrangements of multiple ditches are suggested by one or two of the circular crop marks to the west of the railway line. It is possible that in some cases this arrangement may be the result of repeated reuse of the site. Secondary burials may sometimes be accompanied by an enlargement of the mound necessitating the excavation of further quarry ditches beyond the original. Round barrows with multiple phase ditches have been excatated at Amesbury on Salisbury Plain (Christie 1967), Risbury in Suffolk (Vatcher and Vatcher 1976) and at Four Crosses in Powys (Warrilow et al. 1986, 63-67).

However, it is difficult to argue that the shallow inner ditches at Tucklesholme were quarry ditches for an early phase of the barrow, even allowing for probable plough truncation. It is perhaps more likely that they were post trenches; a possibility supported by the suggested post setting in the inner ditch (F9). A number of barrows with associated concentric circles of stake or post holes have been recorded from different parts of the country (Burgess 1980, 308). Examples from the Midlands area include Tallington, Lincolnshire (Simpson 1976, 226-227), Sproxton, Leicestershire (Clay 1978 and Vine 1982, 78 and 223) and Four Crosses, Powys (Warrilow et al. 1986). It has been suggested that some may have been temporary, pre-barrow stake circles or circular pallisades associated with the burial ritual (Ashbee 1960). It is possible that the burial may have been enclosed in this way for some time before the construction of the mound. In other instances such stake circles are seen as structural features aiding the construction of the barrow mound (Warrilow et al. 1986, 84).

The evaluation was not able to determine the relationship between the ring ditch and the linear feature (F3) to the west. However it is likely that the linear ditch is an element of a later field system and is possibly related to two parallel cropmark features in the field to the west of the railway.

4.0 THE GRADIOMETER SCAN by A.E. Jones.

4.1 Introduction

Following the earlier gradiometer survey, a further geophysical survey was effected to investigate the possible eastward continuation of Anglo-Saxon postulated cemetery a (Staffordshire SMR no. 917) suggested during the excavation of a ballast pit in 1851 (V.C.H. 1908, 204). An area measuring 60m by 20m, adjoining the postulated cemetery site, was scanned with a fluxgate gradiometer along traverses 2m apart in an attempt to locate iron grave goods, such as the metal knives found in 1851. During the scan, instrument readings above or below the background level (anomalies) were plotted, measured and defined.

4.2 Results, (plan in archive)

The values recorded during the scan were mostly in the narrow range between 5-8 nano Tesla (nT). A group of anomalies, concentrated in the south of the area, were located and defined. Anomalies A1 and A2 were isolated high readings (50nT) measuring up to 2m across. Anomalies A3-5 were of similar strength and form, but surrounded by strong negative residual readings. Anomalies A6-A7 formed a band 4m wide, aligned approximately west-east, measuring up to 40 nT. Anomaly A9, to the east, was a roughly circular anomaly, measuring up to 200 nT.

4.3 Interpretation.

The values recorded over most of the area scanned were notably consistent, and suggest that the ploughsoil contained little metal debris. Anomalies A1-A5 may be caused by metal debris in the near subsurface, which may be of archaeological significance. The linear anomalies could be caused by the adjoining electricity pylon, or by a buried underground cable: the westward continuation of this service trench, possibly at a greater depth, may be represented by anomalies A3-A5.

5.0 IMPLICATIONS and

RECOMMENDATIONS

There is little doubt that the ring ditch, previously investigated in 1975, originally surrounded a Bronze Age round barrow. That excavation and the current evaluation have considerably increased our understanding of this important monument. The main ditch appears to have been particularly well preserved although little trace of the central mound has been recovered. However, several outstanding archaeological questions remain and further investigation would be desirable.

Although barrows associated with concentric rings of stake holes are relatively common, continuous post trenches, such as those apparently identified at Tucklesholme, are not. The complete excavation of these internal features at Tucklesholme, might provide further evidence for their function.

Several excavated ring ditches in the Midlands area suggest an original chordal plan created by apparently staking out the ditch in short segments (eg Bromfield (Stanford 1982, 293; Leach 1989) and Meole Brace, Shrewsbury (Cooper and Leach 1990)). The presence or absence of a similar form at Tucklesholme could only be established following the excavation of all or a substantial sample of the outer ring ditch. Further excavation of the ditch might also provide a ceramic sample and establish the presence or absence of potential secondary or satellite burials.

The barrows at Bromfield and Meole Brace also became the focus for subsequent flat cremation cemeteries. A similar association has been recorded at a ring ditch at Cossington, Leicester (O'Brien 1976). The existence of such external features at Tucklesholme could only be tested by exposing and cleaning an area of the natural gravels beyond the outer ring ditch. This might also provide evidence for the relationship between the ring ditch and the external linear features recorded during the evaluation (F3 and F6).

The proposed gravel extraction will inevitably remove all trace of the remaining unexcavated elements of the monument. Further archaeological investigation, with the above questions in mind, prior to this development would be desirable. It may be possible to undertake the proposed work in conjunction with the initial topsoil stripping prior to gravel extraction.

The evaluation failed to identify any prehistoric features to the north of the ring ditch and no further archaeological work is considered necessary here.

No clear evidence for the postulated Anglo-Saxon cemetery could be identified during the gradiometer scan although the precise location of the 19th century finds is not known. It is recommended that any gravel extraction in this area be closely monitored. This might also allow further clarification of a series of crop marks identified in the field to the west of the postulated cemetery. A monitoring exercise should also be carried out during the initial topsoil striping in the fields immediately to the west and south of the excavated ring ditch where further linear crop marks have been identified.

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Gwilym Hughes, October 1990.

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FIG 1







FIG 4