An Iron Age Boundary and Settlement Features at Slade Farm, Bicester, Oxfordshire: a Report on Excavations, 1996

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SUMMARY

Excavation and fieldwork by Birmingham University Field Archaeology Unit in advance of housing development on the north side of Bicester revealed a 400 m. long boundary ditch which had been recut on a number of occasions within the Iron Age. Four or possibly five Middle Iron Age ring gullies were excavated. The entrance of one ring gully was sited across the boundary. Within it were pits with special deposits, one earlier than the ring gully containing a Hallstatt razor. Two ring gullies were typical of house sites while two others may have been the site of structures used for animals. Gully features suggested the existence of a system of stock control. A number of pits and a possible oven or pottery kiln of Late Iron Age date were also excavated. In addition to finds of Iron Age pottery and metalwork a collection of worked flint from one area indicated seasonal Mesolithic activity.

INTRODUCTION

The report outlines the results of fieldwork undertaken in 1996 prior to residential development of land at Slade Farm, Bicester, Oxfordshire (Fig. 1). The proposed development (the Study Area) comprised 15 fields to the N. of the railway line and W. of the Banbury Road centred on NGR SP 580240. The work conformed to an archaeological specification[1] based on a project brief by Paul Smith, Oxfordshire County Archaeological Officer.

An initial archaeological evaluation of the site comprised geophysical survey and trial trenching. All the fields were down to pasture and thus no artefact collection from field walking was possible. Geophysical survey was undertaken by Geophysical Surveys of Bradford,[2] using a fluxgate gradiometer, in two fields alongside the Banbury Road in the NE. part of the Study Area (marked on Fig. 1 as Area of Detailed Investigation). This area was selected because Romano-British features were known to lie to the E. of the road.[3] The survey mapped a number of possible archaeological features. The principal anomaly recorded was a ditch-like feature running N.-S. This was associated with a number of pit-like

[1] Archaeol. specification, Slade Farm, Bicester, Oxfordshire, Birmingham Univ. Field Archaeology Unit (1996).

[2] 'Slade Farm II: Report on Geophysical Survey', Geophysical Surveys of Bradford (1995).

[3] P. Smith, 'Slade Farm, Bicester, Oxfordshire: project brief for integrated archaeological mitigation programme', Oxfordshire County Council 95/01300/OUT, p. 3.

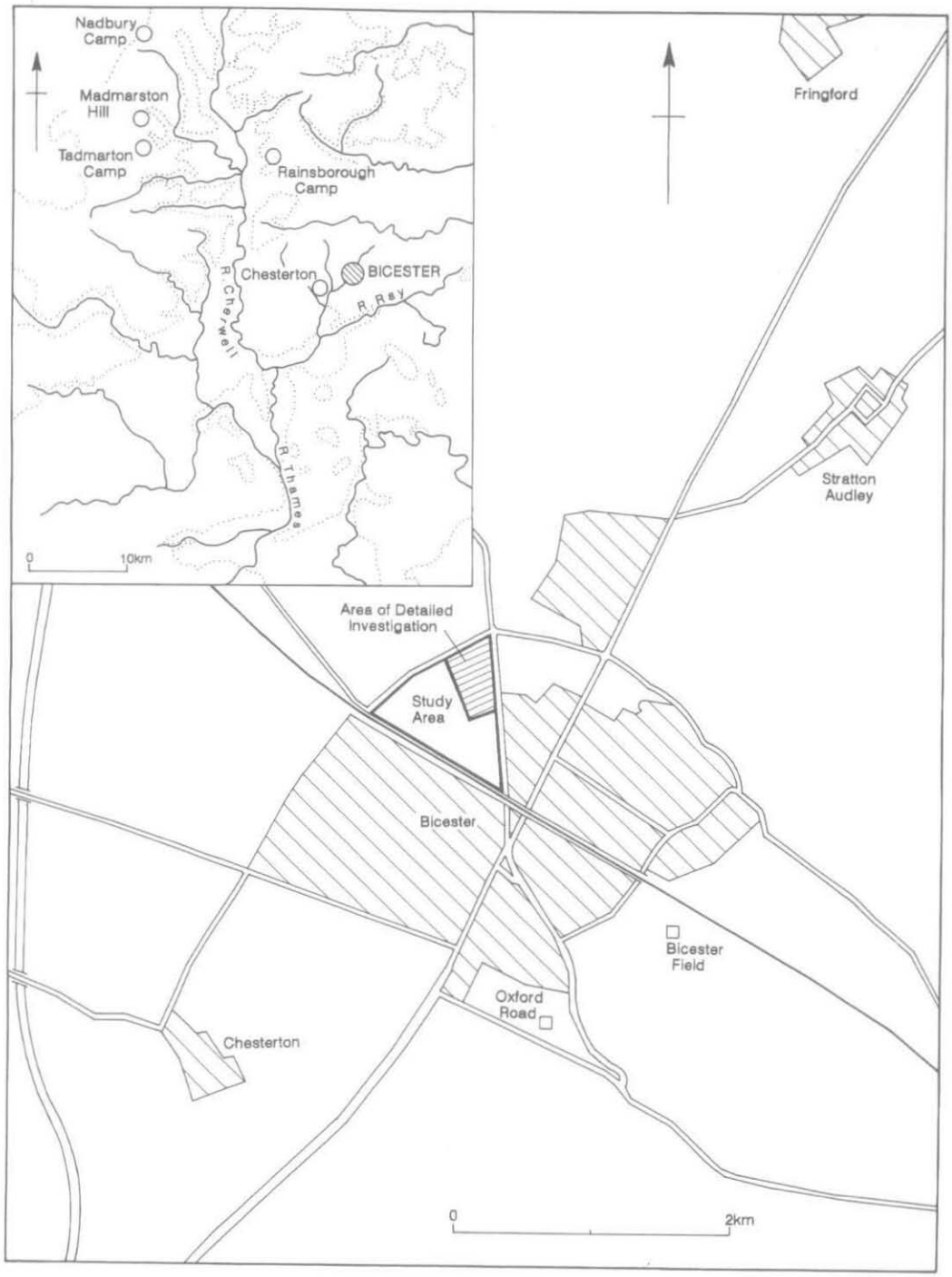

Fig. 1. Site location maps; scale main map 1:5000.

anomalies and possible ring gullies. At the extreme NE. corner of the two fields, a group of ditch and pit-like anomalies was interpreted as either possible settlement features or as due to recent quarrying. Some weaker responses were interpreted as possible field systems.

Geophysical survey was followed by trial trenching of the whole of the Study Area.[4] Thirty-one trenches were excavated by machine within the Area of Detailed Investigation, comprising a 1.5% sample of these two fields. A further 42 trenches were excavated in the remainder of the area proposed for development. The trial trenching in the NE. part of the Study Area confirmed that archaeological features were the cause of the geophysical anomalies and identified further features dating to the Iron Age. To the S. of the long boundary ditch trenching revealed irregular features containing Mesolithic flintwork (Fig. 3; Trench N), while to the N. the geophysical anomalies at the NE. corner of the site were found to be caused by 19th-century quarrying activity despite the prehistoric appearance of the features on the geophysical plot. No archaeological features were identified in the trial trenches elsewhere in the Study Area.

The detailed information provided by the geophysical survey and the evaluation trial trenches was used to determine an excavation strategy targeted on the areas with the clearest evidence of settlement. Five areas, lettered A-E, were stripped of topsoil using a 360-degree mechanical excavator with a toothless ditching bucket under archaeological supervision (Fig. 3). In most areas the topsoil directly overlay the limestone bedrock on thin bands of clay. This was manually cleaned in order to define rock-cut or clay-cut features such as pits, post-holes or ditches. Features and layers were recorded by means of pro-forma record cards, plans (at scales of 1:20 and 1:50) and sections (at scales of 1:10 and 1:20), and monochrome print and colour slide photography. Spatial recording of artefact locations was normally two-dimensional within context and by segment for linear features. Excavation in plan and three-dimensional recording of artefact locations was limited to selected features. Appropriate samples were taken for luminescence dating and environmental analysis.

In Areas A-D (respectively 5276 sq. m., 1991 sq. m., 1600 sq. m. and 1600 sq. m.) a minimum of 50% of discrete features such as pits, and 25% of linear features associated with settlement elements such as enclosure ditches were excavated. Linear features, e.g. field boundaries, not directly associated with settlement elements, were sampled to a lesser degree, generally around 5%, or sufficient to determine date and function.

Area E was the subject of an initial programme of test pitting with 48 topsoil and subsoil test pits, *c.* 2 m. by 2 m. in area, mechanically excavated at 10 m. intervals. A total of 25% of the topsoil from each pit was dry-sieved with a small sample wet-sieved. The finds, principally of Mesolithic flint, were then plotted. The test pitting strategy was sharpened in the light of the initial findings, and topsoil and subsoil samples were sieved and the results compared in a second stage of work. In the light of the test pitting results an area excavation, Area E, comprising 908 sq. m. was examined in the same way as for the other four areas, except that all features thought to be Mesolithic were fully excavated.

Further trenches, Trenches F, G, H and I, were excavated along the line of the boundary ditch between the area excavations. Excavations in Area D suggested the continuation of archaeological features to the W., and three trenches, Trenches K, L and M, were subsequently machine excavated to test hypotheses.

[4] 'An archaeological evaluation, Slade Farm, Bicester, Oxfordshire', Birmingham Univ. Field Archaeology Unit (1996), Report no. 397.

Fig. 2. Location of geophysical survey areas and results; scale as shown.

Fig. 3. Location of evaluation trenches and excavation areas; scale as shown.

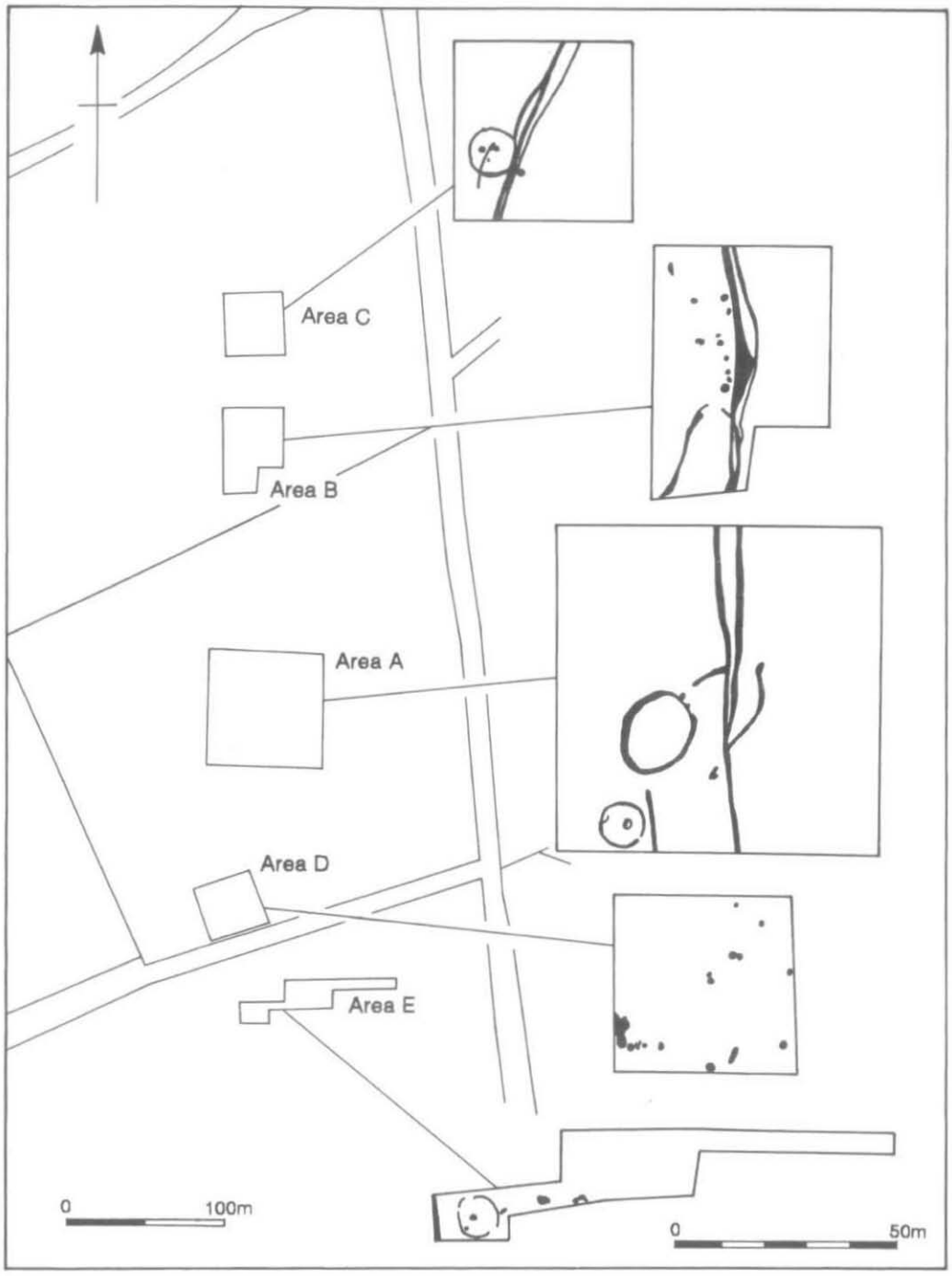

Fig. 4. Main findings of area excavations at three times enlargement.

Five research aims were identified in advance of the excavation of Areas A-E. They were:

i) To define the limits of, and excavate any features associated with, the Mesolithic activity in Area E.
ii) To investigate the morphology and general chronology of a prehistoric landscape complex on the limestone uplands, and to compare it with those known from the river gravel terraces of the upper Thames and Avon.
iii) To establish a site sequence, mainly using ceramic data, and to compare it with those from the river valley sites and the local hillforts (especially Rainsborough, Northants).
iv) To undertake a detailed study of the spatial patterning and deposition of pottery and other artefacts in relation to the various feature types represented, using two-dimensional and three-dimensional systems of recording as necessary.
v) To test and develop current economic and social hypotheses for Iron Age settlement in the region.[5]

Following fieldwork, a post-excavation assessment report and an updated research design was prepared.[6] This contained an initial site narrative, an indication of the size of the archive, and specialist assessment reports. A discussion of the research objectives suggested a focus on the nature and function of upland open settlements and on the artefact finds whilst maintaining the earlier aims.

The excavated features have been divided into three periods on the basis of the pottery and on observed stratigraphic relationships. No distinct features relating to the Mesolithic flint scatter were identified.

Period 1 Early/Middle Iron Age. A linear boundary ditch with associated ring-gullies, ditches and pits.
Period 2 Late Iron Age. Maintenance of the linear boundary and a possible pottery kiln.
Period 3 All later features.

In the following structural report the findings are described by period from Areas A-E and from the test pitting and additional trenches. The Period 3 archaeology is not described further. It comprised the findings from the N. area where recent pottery and other finds served to date quarry features and from Area E where recent colluvial deposits were recorded and where animal burials of modern date were found.

Bicester lies on Jurassic rocks, chiefly Cornbrash, Oxford Clays and Great Oolite, the site itself lying on Cornbrash.[7] In excavation the bedrock was seen to have a shattered surface sealed in places by a brown silty clay. Topsoil was 0.2-0.3 m. deep and was composed of brown silty clay. Until recently few sites of prehistoric date were known in the locality[8] and the Iron Age record was weighted toward hillforts with few open settlements known. However work in recent years has altered the picture, particularly in the Bicester area where

[5] Cf. R. Hingley and D. Miles, 'Aspects of Iron Age Settlement in the Upper Thames Valley', in B. Cunliffe and D. Miles (eds.), Aspects of the Iron Age in Central Southern Britain (OUCA Monograph 2, 1984), 52-71.
[6] L. Jones and G. Hughes, 'Slade Farm: archaeological assessment' (BUFAU report).
[7] T.I. Pocock, *The Geology of the Country around Oxford* (1926).
[8] G. Briggs, J. Cook and T. Rowley (eds.), *The Archaeology of the Oxford Region* (1986), maps 3-8.

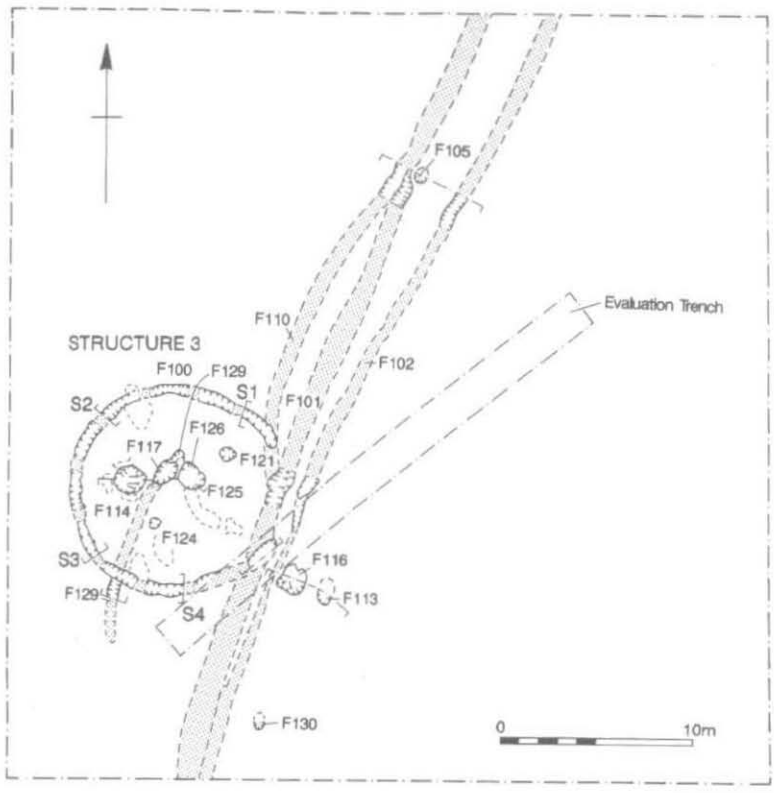

Fig. 5. Plan Area C; scale 1:400.

excavations of Iron Age sites have taken place to the S. of the town on Oxford Road,[9] and at Bicester Fields Farm to the E.[10] South of Bicester an Iron Age site has been excavated near Merton,[11] while a number of sites have been excavated on the route of the A421 S. of Bicester.[12]

THE EXCAVATIONS

The excavation results are described from each area north to south.

Area C and Trench F

Period 1: A linear boundary was represented by two ditches, F101 and F110 (Figs. 4 and 5). Ditch F101 was the earlier and deeper retaining a straighter line than F110 which bowed westward for a distance of 18 m. To the W. was a short linear gully, F129 (Fig. 7). Gully F129 and both boundary ditches were cut by a ring gully,

[9] C. Mould, 'An Archaeological Excavation at Oxford Road, Bicester, Oxfordshire', *Oxoniensia*, lxi (1996), 65-108.

[10] A.M. Cromarty, S. Foreman and P. Murray, 'The Excavation of a Late Iron Age Enclosed Settlement at Bicester Fields Farm, Bicester, Oxon.', *Oxoniensia*, lxiv (1999), 153-233.

[11] P. Bradley, M. Parsons and R. Tyler, 'The Excavation of Two Barrows at Merton, Oxfordshire', *Oxoniensia*, lxii (1997), 51-86.

[12] Oxford Archaeological Unit, forthcoming.

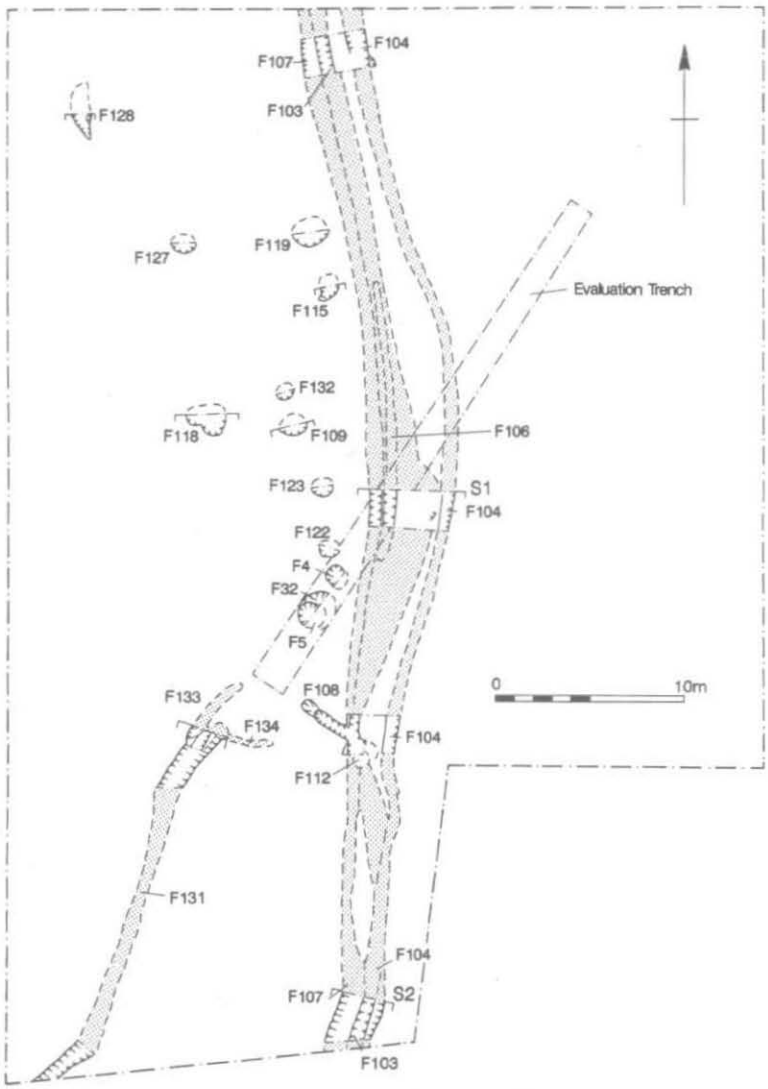

Fig. 6. Plan Area B; scale 1:400.

F100, defining Structure 3. The gully had an internal diameter of 10 m. and was up to 0.7 m. wide and 0.25 m. deep with an entrance gap to the E. The gully profile varied from U-shaped to steep-sided with a flat base, with the terminals marked by the U-shaped profile (Fig. 7). The gully fill was a slightly orange brown silty clay. Six pits lay within the ring gully. On the further side from the entrance, F114 was irregularly cut and was filled with mixed orange and greyish brown silty clay (Fig. 7). Near the centre of the structure was an oval pit, F117, cutting the earlier linear gully F129. This again was irregular in its profile though generally steep-sided and flat-based (Fig. 7). Its lower fill consisted of large stones, many of which were burnt, within an orange brown silty clay. To its east was a pit, F125, with steep sides and a flat base and a fill of brown silty clay (Fig. 7). This was cut by a smaller pit, F126, with a bowl-shaped profile (Fig. 7). It was filled with large stones, some burnt, and orange brown silty clay. Above this was a similar fill containing larger but fewer stones. Two small sub-circular pits, F121 and F124, were also recorded. They were up to 0.07 m. deep and were filled with brown silty clay containing burnt stone. The S. side of the entrance gap was marked by two shallow pits, F116 and F113 which may have marked the S. side of a porch (Fig. 7). A pit is suggested on the N. side of the

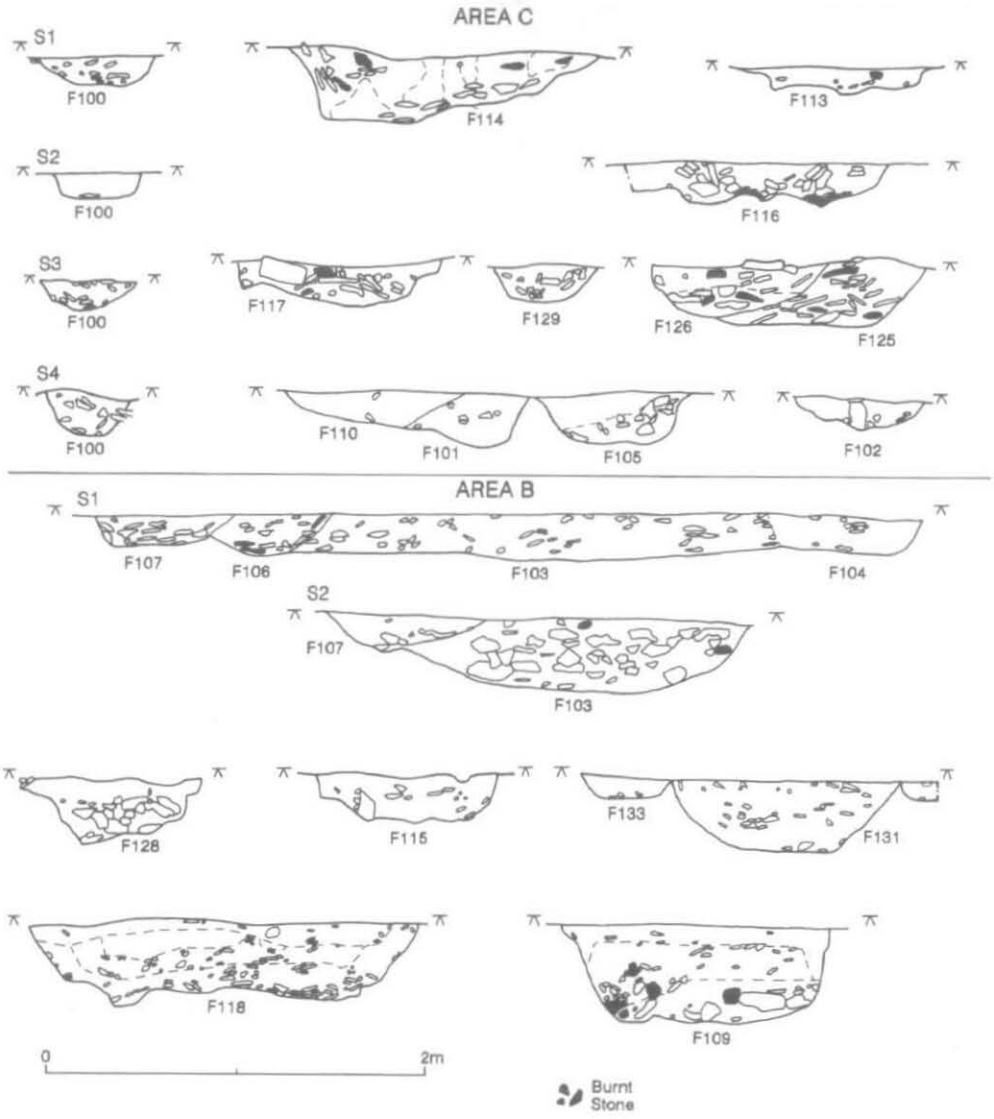

Fig. 7. Sections Areas B and C (locations Figs. 5 and 6); scale 1:40.

entrance by a widening of ditch F101. Two oval or sub-circular pits, F105 and F130, were also found. They had steep sides and fairly flat bases (Fig. 7 for F105). Diameters were a maximum of 1.6 m. and depths 0.2 m. deep. Both were filled with a brown silty clay.

Ditch F129 defined an area alongside the boundary ditches in a location that was also marked by a slight westward curve in the line of the later ditch F110. This deviation from the straight line marked by ditch F101 may have been marked to the N. by pit F105 while to the S. it coincided with the N. end of F129. Structure 3 was then sited across the ditch lines. Whilst the ditches may have become silted, the boundary itself is likely to have remained in place with the entrance to Structure 3 presumably sited across the boundary. Of the internal pits many may be contemporary with Structure 3 but the possibility exists that some may relate to the earlier ditch F129, in particular, pit F114. Pits F117, F125 and F126 may be more securely related to the building. The finds evidence suggests that these pits played a role in ritual activities starting with F114 in an area that was then marked by the building which would seem to have been sited so that its entrance was placed opposite F114.

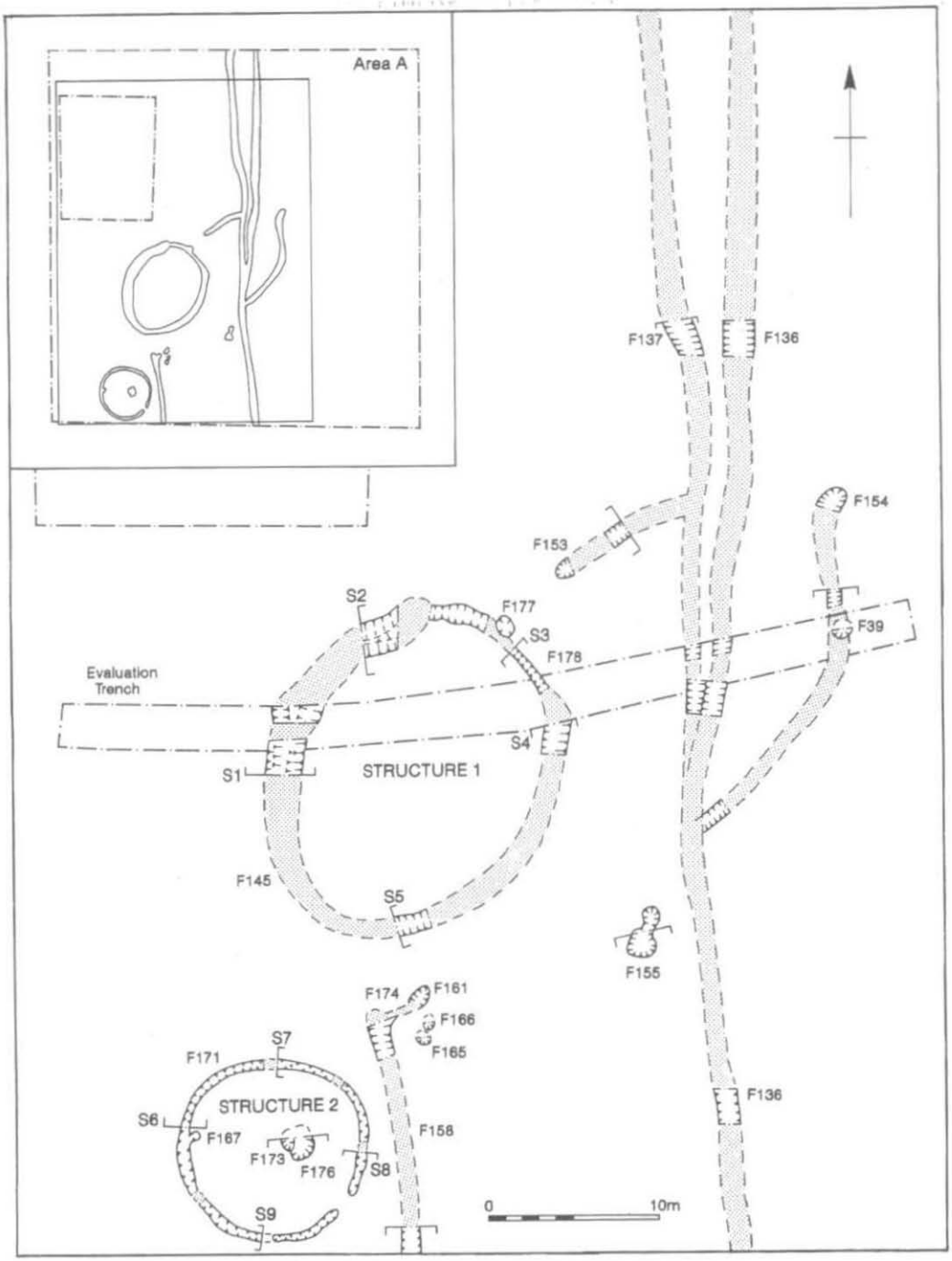

Fig. 8. Plan of part of Area A (framed on inset); scale 1:400.

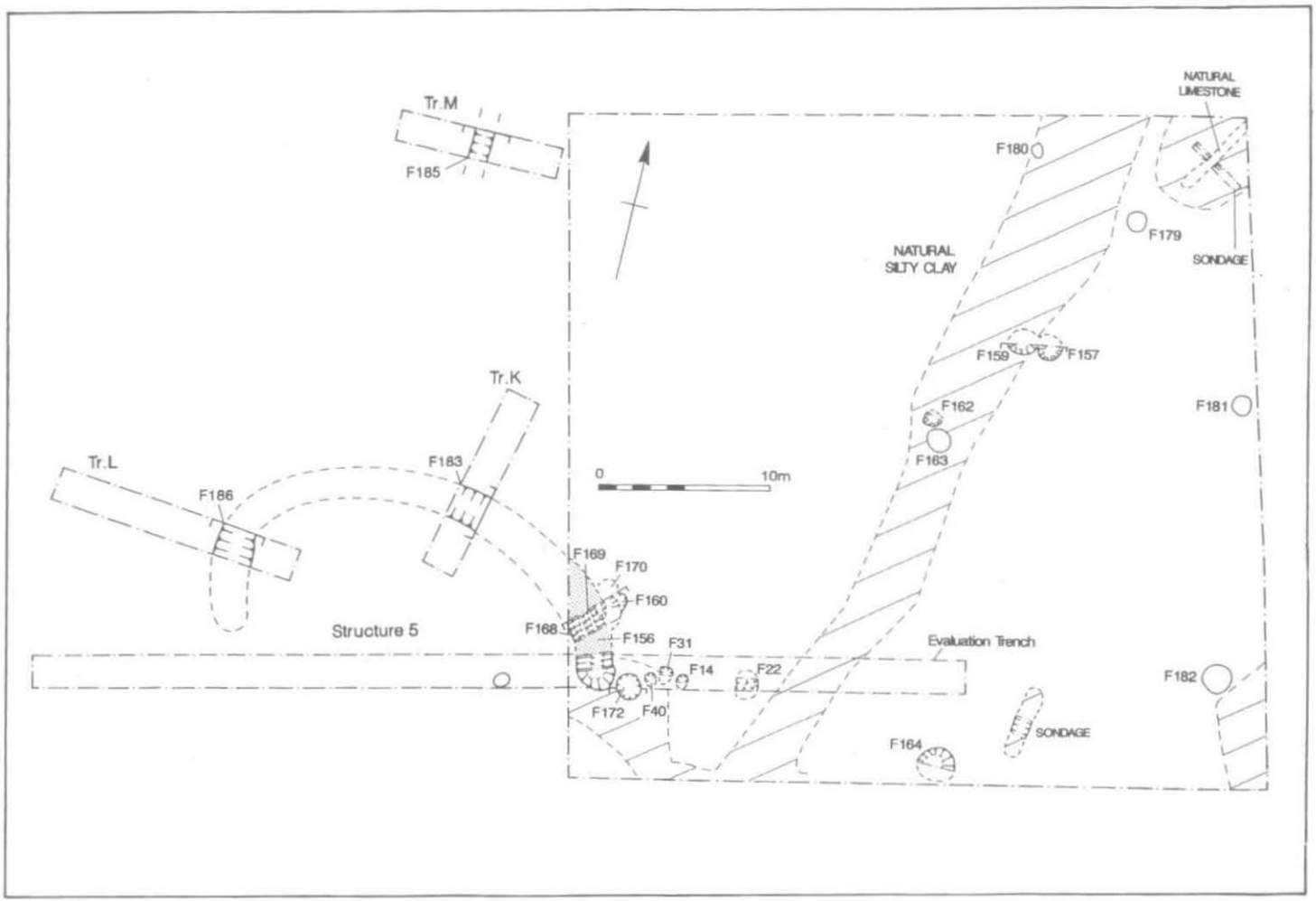

Fig. 9. Plan Area D and trenches K, L, and M; scale 1:400.

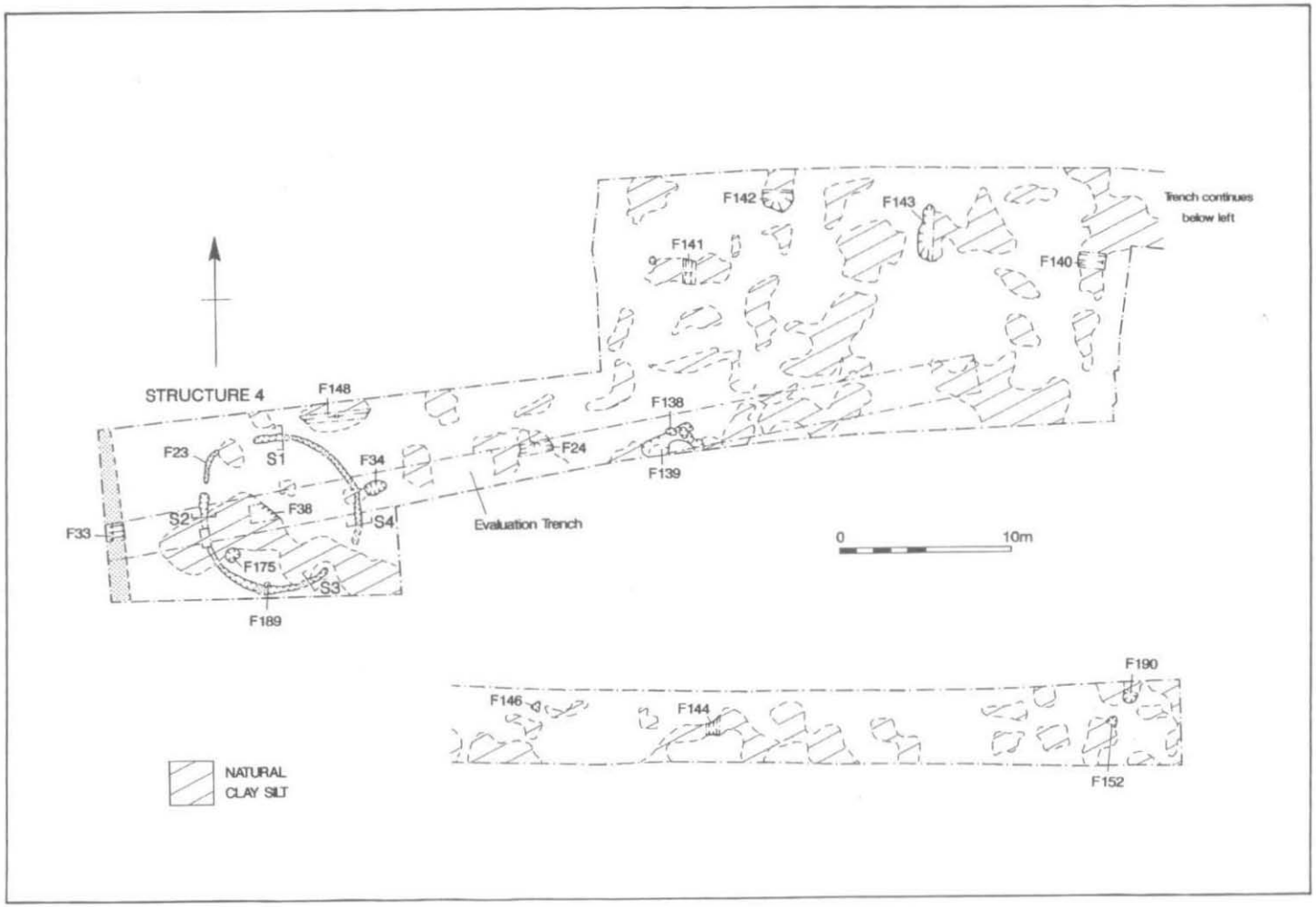

Fig. 10. Plan Area E; scale 1:400.

Early/Middle Iron Age pottery was found in ditch F101 (Fig. 14.7), ring gully F100 (Fig. 15.13) and in pits F114, F117, F124, F125, and F126. Pottery of the same date was also found in three of the pits outside the ring gully, F105, F113 and F116. Pit F114 contained fragments of two globular jars, one decorated (Fig. 15.14, 15), and F125 two, possibly three, globular jars (Fig. 15.16-18). A decorated rim sherd came from the gully, F100 (Fig. 15.13). The southern ring gully terminal contained a particular concentration of pottery in terms of sherd numbers as did pits F114, F125 and F126 (Fig. 20). There was also a significant group of sherds in the possible N. entrance pit. Pit F114 contained a copper alloy Hallstatt C razor dated to the 8th or 7th century BC (Fig. 21.1), and a partial dog skeleton. Ring gully F100 also contained burnt stone, animal bone and worked flint; F114, ash, burnt stone and animal bone; F117, ash in its lower fill and burnt stone and burnt bone in its upper fill; F124, ash; F125, ash and bone; and finally F126, burnt stone and ash. The four external pits contained burnt stone and animal bone.

Period 2: The Period 1 ditched boundary was replaced in Period 2 by a narrow, shallow, gully, F102, cutting F101 (Figs. 5 and 7). The ditch contained a little Late Iron Age pottery. Two ditches were recorded in plan in Trench F.

Area B and Trench G

Period 1: The N.-S. boundary of Area C was again represented by two successive shallow ditches, F103 and F107 (Figs. 4 and 6). The earlier, F103, varied between 0.25 m. and 0.36 m. in depth. In the excavated area the ditch varied from a more or less straight line at two points. The first, to the N., was marked by a widening of the ditch to a width of almost 3 m. This widening, over a length of about 20 m., was to a uniform shallow depth, and unlike a normal ditch definition (Fig. 7). The ditch line also bowed out to the S. for 14 m. In the wide N. area the ditch was cut by a concave-profiled gully, F106, 14.4 m. long and filled with brown silty clay (Fig. 7). Ditches F103 and F106 were then cut by ditch F107 which held a more or less straight line and standard width across the area excavated (Fig. 7). This too was filled with brown silty clay. To the W. of the ditch line was a group of 12 pits. The majority were sub-circular or oval with very steep or vertical sides and flat bases. Diameters varied from 0.9 m. to 2 m. and depths from 0.18 m.-0.5 m. Most contained a single brown silty clay fill. Four have been illustrated (Fig. 7). Pit F118 was one of the largest excavated and had four distinct fills. Pit F109 contained a particular concentration of burnt stone. Also to the W. of the ditches, a ditch, F131, terminated to the N. as two smaller gullies, F133 and F134, the latter cutting an earlier terminal (Fig. 7). To the E. of this a short length of ditch, F108, cut ditches F103 and F107. A pit, F112, was sited to the S. of the terminal of F108, also cutting both ditches.

The wide section of F103 might suggest that material was collected in this area to create a mound. The particular significance of this section of the ditch was then marked by F106 which may have been a palisade trench rather than representing another in the succession of ditches. Ditches F131 and F108 marked two sides of an enclosure with F108 crossing the silted ditches and presumably butting against a boundary feature such as a hedge or bank. Gullies F133 and F134 must have represented complex entrance features, presumably with a stock control function. The pits respected the ditch line marked by F107 and lay only to the N. of the enclosure.

Early/Middle Iron Age pottery was found in ditches F103 (Fig. 14.1-5), F107, F108, F131 and F133 and in all the pits with the exception of F132 (F109: Fig. 14.8-11; F123: Fig. 14.12). A particular concentration of pottery was present at the terminals of the enclosure in F108 and F131 (Fig. 20). A pair of iron tweezers was recovered from pit F109 (Fig. 21.2). Burnt stone and animal bone was also present in the ditches and pits. One of the layers in pit F118 comprised powdered lime containing lumps of possible iron slag suggesting an industrial function.

Period 2: The Period 1 ditch line was replaced to the E. by a narrow shallow ditch, F104, which was seen to cut ditch F103 in the centre of the area (Fig. 6). Here it curved to the E. respecting the wider section of F103. It was filled with brown silty clay (Fig. 7).

In addition to earlier pottery a few sherds of Late Iron Age pottery came from F104 (Fig. 14.6 for the earlier pottery). A single ditch was recorded in plan in Trench G.

Area A and Trench I

Period 1: Ditch F137 continued the boundary line S. from Areas B and C (Figs. 4 and 8). The ditch had a flattened V-shaped profile (Fig. 11). It had been removed in part by a later, Period 2, recutting. Two short, curvilinear ditches with flat bases and steep sides, F153 and F154, ran on either side of F137. The ditches and pit were all filled with a similar brown silty clay. To the W. of the ditch line was a large ring gully, F145, marking Structure 1, and defining a sub-oval area varying from 13 m. to 17.5 m. across. The gully had been preceded by an earlier, deeper gully, F151, which was present on the W. and E. sides (Fig. 11, S1, S2 and S4) but not located to the NE. or S. (Fig. 11, S3, S5). A possible terminal was identified on the N. side suggesting

an entrance. Another possible entrance lay on the S. side. The ditch was cut more deeply to the W. than to the E. It was filled with a primary fill of light brown clay silt, 0.2 m. deep, beneath an upper fill of brown clay silt. F151 was then replaced by the more substantial gully F145. This again varied between the cut segments, having a deep, wide profile on the W. and E. sides (Fig. 11, S1, S2, S4) but a shallower and narrower profile to the N. and S. (Fig. 11, S3, S5). The gully was filled with two brown clay silt fills. Two shallow pits, F177 and F178, were located at the NE. sector of the ring gully, neither more than 0.1 m. deep. Both had been cut by the later ring gully F145. No internal features were identified within the area defined by F145. Approximately 10 m. to its S. was a second, smaller ring gully, F171 (Structure 2). The gully defined an area with an internal diameter of 10 m. and an entrance to the SE. The gully had differing profiles (Fig. 11: S6-S9). The two profiles toward the entranceway were slighter and shallower than those to the W. The gully fill was of reddish-brown silty clay. Slightly E. of centre were two oval pits, F176 and F173, the latter cutting the former (Fig. 11). Both were filled with a brown silty clay. To the E. of Structure 2 was a pit, F161, filled with reddish brown silty clay. This had been cut by a gully, F174, 0.3 m. wide and 0.2 m. deep which had in turn been cut by the N. end of a more substantial linear ditch, F158 (Fig. 11). This was filled with a brown clay silt.

Structure 1 may represent an outer gully around a building of which no trace has otherwise survived. Alternatively, it may have been associated with gullies F153 and F158 to N. and S. forming an arrangement associated with stock management. Postholes F177 and F178 may have marked an entrance to the area enclosed by the ring gully in its first, F151, phase, and F177 may also have been associated with gully F153 marking the S. side of the gap between it and the ring gully. A similarly-sized gap lay between F158 and the ring gully to the S. where a second entrance is proposed. The smaller ring gully, F171, is more likely to represent the position of the walls of a house with an entrance on the SE. The two internal pits may be structural or represent internal features.

Early/Middle Iron Age pottery was found in the secondary fill of F151, and in F145 (Fig. 16.19-23), F158, F161, F167, F173 (Fig. 16.24) and F176 (Fig. 16.25, 26). The pottery distribution data does not indicate any particular concentration with the exception of a group of 76 sherds from pit F176. Pottery from F173 gave a luminescent date of 335BC +/-100. The primary fill of F151 contained large amounts of small limestone fragments and a lump of possible iron slag, while the secondary fill contained limestone fragments, a few burnt stones and animal bone. F145, F158, F167, F171 and F173 contained burnt stone and animal bone, including two bones of red deer from F158 and F171, with noticeably large quantities of animal bone from the S. terminal of F171.

Period 2: The Period 1 ditch was replaced by a similarly-profiled ditch, F136 (Figs. 8 and 11). To the S. F136 followed exactly the line of the earlier ditch. A 'keyhole'-shaped feature, F155, was sited close to its W. edge (Fig. 11). The S. part of the feature had steeply-sloping sides and a flat base and the narrower N. part was more gently sloping. It was filled with a brown silty clay similar to those in the ditches. Two small pits, F165 and F166, a pit, F167, adjacent to the S. Period 1 ring ditch, and a pit, F39, cutting the Period 1 ditch F154, were also recorded. None were more than 0.3 m. deep.

Ditch F136 indicates a maintained boundary from Period 1. F155 to its W. may represent the stoke hole of an oven or pottery kiln. Late Iron Age pottery was found in F136 (Fig. 18.36-40), F155 (Fig. 17.33, 34), F165 and F167. It was also present in F137 and F154, but the pottery distribution data indicates that the findings were close to F136 suggesting that the material was intrusive (Fig. 20). Pottery from F136 gave a luminescent date of 610BC +/-360. All the Period 2 features contained fragments of burnt stone and animal bone with a particularly large quantity of burnt stone in the possible oven or kiln F155. A single ditch was recorded in plan in Trench I.

Area D, Trenches J, K, L and M

Period 1: Part of a curvilinear gully was located at the edge of the excavated area, with a butt end within the excavation (Figs. 4 and 9). Three successive recuttings of the feature were recorded, with the first gully, F169, cut by F168 and then by the latest gully F156 (Fig. 11). The narrow steep-sided profile of F156 may well have been a repeat of similarly cut earlier gullies judging by the steep surviving side of F168. Gully F169 had a primary fill of yellowish brown sandy silt sealed by a secondary fill of an orange brown clay silt. Gully F168 was filled with yellowish brown sandy silt sealed by a brown clay silt, while F156 was filled with five different brown clay silt or silty clay fills. Gully F156 cut two pits, F160 and F170 (Fig. 11). Five other pits lay nearby including a large pit, F172, close to the ditch terminal (Fig. 11). Trenches K, L and M were subsequently dug to the E. of the area to locate further evidence of the recut gullies (Fig. 9). In Trench K, an earlier feature was found comprising a shallow gully F184 traced for over 3 m. Its profile and alignment were similar to a gully, F185, located in Trench M nearly 25 m. to the N. (Fig. 11). Gully F184 was cut by gully F183 which had a shallower profile than F169 with no evidence of recutting. This lay on the line of F169 and seemed likely to be the same feature as a further gully, F186, excavated 20 m. W. of F169, in Trench L. This had a similar if slighter profile to F169 with evidence of two recuttings (Fig. 11).

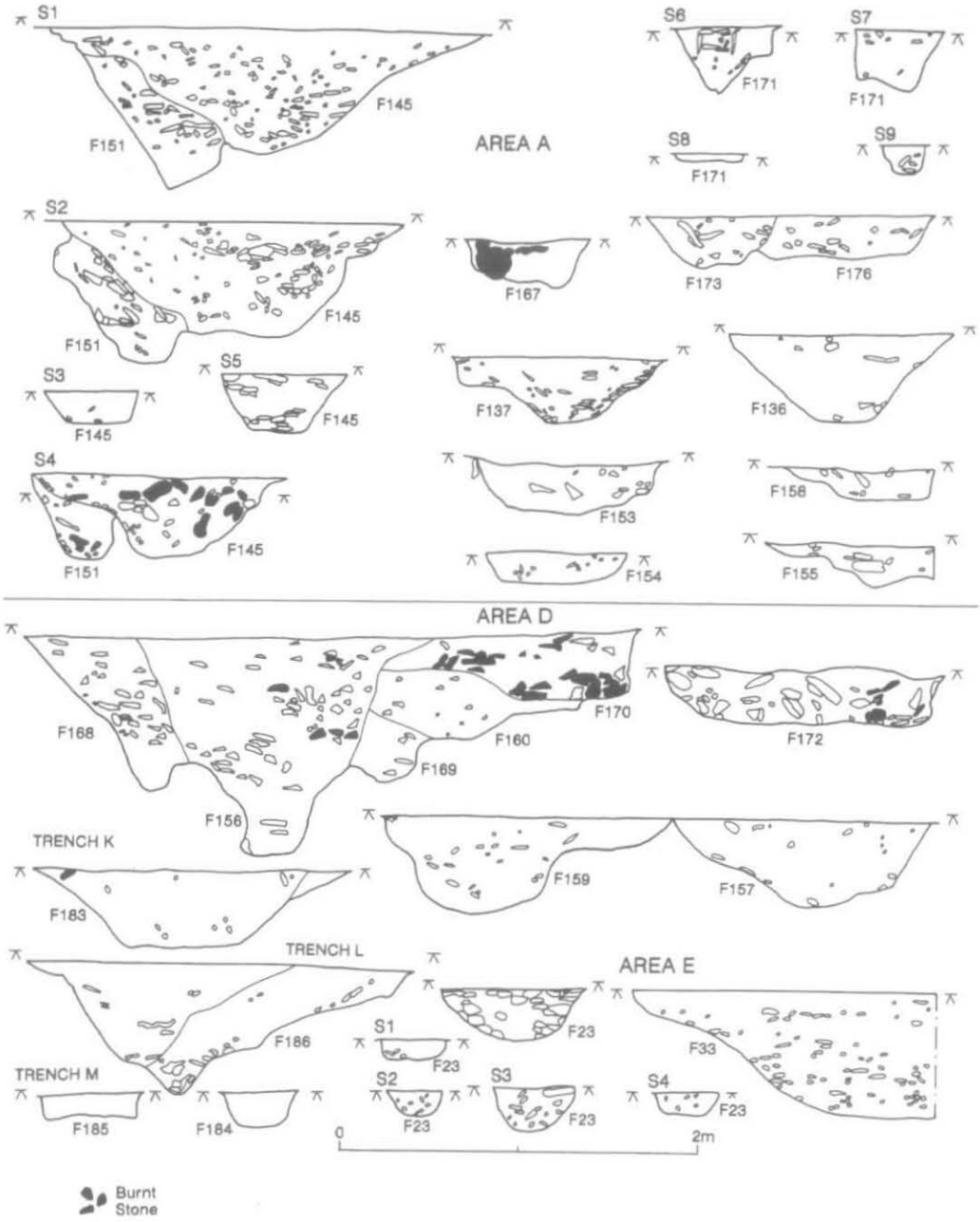

Fig. 11. Sections Areas A, D and E and trenches; scale 1:40.

Treating the three gullies F168, F183 and F186 and their recuttings as three exposures of a possible single gully is encouraged by the geophysical data (Fig. 2). This would suggest a crescent-shaped gully. There was no geophysical survey to the S. and the gully may have formed part of a circular enclosure. Such a feature would have been around 20 m. across and is designated Structure 5. Ditch profiles and diameter make this hypothetical enclosure comparable with Structure 1 in Area A.

There were no indications in Area D of the ditch or ditches recorded to the N. in Area A. On the line suggested by them was a band of natural clay perhaps representing the last remains of a bank. The gullies F184 and F185 may represent a boundary feature to the W.

Early/Middle Iron Age pottery was found in ditch F168 and in a number of the fills of F156. Pottery of this date was also present in pits F14, F22, F31 and F172. Significant concentrations came from the ditch terminal of F156 and from pit F31 (Fig. 20). Ditch F168 also contained burnt stone, as did F156 together with animal bone. An unidentified iron object came from F172. Worked flint came from pit F31.

Period 2: Nine sub-circular or oval pits were recognised, widely spaced within the excavated area. They varied between 0.73 m. and 2.05 m. in width and between 0.2 m. and 0.5 m. in depth, with either very steep or vertical sides and flat bases, or with bowl-shaped profiles. Most contained a single brown clay silt fill. Pits F157 and F159 are illustrated (Fig. 11). None of these widely-spaced pits contained Early/Middle Iron Age pottery. If these are later pits they may indicate a further Period 2 focus nearby as was the case in Area A. No geophysical survey was undertaken to the SE. or directly to the N. of Area D. Directly E. two anomalies were noted 10 m. from the E. side of the excavation. Late Iron Age pottery came from pits F157, F159, F162 and F163. An iron reaping hook was recovered from pit F164 (Fig. 21.3). A ditch was recorded in plan in Trench J.

Area E and Test Pit 31

Period 1: In the W. part of the area was a ring gully, F23, marking a sub-circular area (Structure 4) with internal dimensions varying from 8.5 m. to 9 m. (Figs. 4 and 10). The gully was up to 0.5 m. wide and 0.25 m. deep with a regular U-shaped profile (Fig. 11: S1-S4). There were gaps in the gully at three points, one on the SE. side and two to the NW. The gully was filled with a greyish brown silty clay. Two small pits were recorded within the gully, F175 and F189, the former having a bowl-shaped profile (Fig. 11). Partially within the W. side of the excavated area was a N.-S. aligned linear ditch, F33, at least 4 m. wide and 0.70 m. deep (Fig. 11). It was filled with a greyish brown silty clay. Other features which appeared to have an archaeological origin comprised a small sub-circular pit, F138, and a possible pit, F141. A sub-circular pit was cut into bedrock in one of the Test Pits. It was 0.70 m. wide and 0.30 m. deep, and filled with four distinct silty clay fills.

Early/Middle Iron Age pottery was found in the ring gully, F23 (Fig. 17.27-31), ditch F33 and in pits F138, F141 (Fig. 17.32), F147 and F175 (Fig. 20). Burnt stone and animal bone was found in F23, F33 and F147. Possible pieces of iron slag were also found in F33.

Across the area, bedrock was interspersed with bands or patches of orange brown clay silt with occasional flecks of charcoal filling irregular natural fissures and undulations. Eleven of these irregular features, F24, F34, F38, F139-F140, F142-4, F148, F152 and F190, were sample excavated. The shallowest was 0.05 m. deep, but the majority were between 0.28 m. and 0.43 m. deep. Several contained varying quantities of worked flint including artefacts of Mesolithic date. It seems likely that the flintwork in the features is intrusive. There was no other evidence to suggest that they were of archaeological origin.

Period 2: A shallow pit, F140, contained a sherd of Late Iron Age pottery.

Test pits

Apart from the small pit referred to above, no archaeological features were located in any of the Test Pits (Fig. 3). A total of 844 worked flints and 32 sherds of Early/Middle Iron Age pottery was recovered from the topsoil and subsoil. Plotting of the data did not reveal any particular concentrations of Mesolithic material by type or quantity, nor any indication of the densities tailing off at the margins of the test-pitted area.

THE FLINT by LYNNE BEVAN

Introduction

A total of 1,021 pieces of humanly-struck flint weighing 1,368 g. was recovered. Over 97% of this material, comprising 994 pieces weighing 1,285 g., came from the test pitting and excavation of Area E suggesting a focus of earlier prehistoric activity. The flint was recovered in small amounts from the initial trenching and subsequent series of test pits, and although clearly no longer in its original context, the overall appearance of the assemblage suggests homogeneity and that the flint was all part of the same industry. This is particularly

clear in the case of the microliths. Although the possibility that the flint includes later material cannot be discounted, in the absence of any obviously post-Mesolithic tools the assemblage is considered to be early Mesolithic in date.

With the exception of cores and some struck pieces, most items weighed less than 1 g. For this reason, only the weights of cores have been considered in the following discussion. Due to the very small amounts of flint recovered from Areas A to D (Table 1), the flint is considered and discussed as a single assemblage. The composition of the flint from Area E is summarised in Tables 2 and 4, with each class of tool or waste being listed by percentage of the total assemblage. Core types are listed by percentage of total assemblage in Table 3. A selection of artefacts has been illustrated in Fig. 12.

Raw Material

The flint used was of a generally good quality with the brown, compacted cortex characteristic of pebble flint from secondary deposits. Almost all of the flint was re-corticated to some extent, with the vast majority being completely white in colour with only a few partially re-corticated pieces exhibiting traces of natural light grey and brown colouration. Of the flint, 126 pieces are burnt (12.68%), and 48 pieces (4.83%) show evidence for utilization. With the exception of four pieces, the burnt items occur among the unretouched flakes and struck pieces.

Debitage: cores

A total of 31 cores was recovered weighing 381 g. The cores were all fairly small, as a result of both the small size of flint pebbles used and the tendency to reduce the cores beyond the point of apparent usefulness, since many had been completely de-corticated. The cores varied in weight between 1 and 27 g. The largest core measured 67 mm. x 29 mm. x 22 mm., but the majority clustered within the 20-30 mm. range of maximum dimensions, and the smallest, lightest, examples measured less than 20 mm. Weights can be broken down into the following groups:

Weight	no. of cores
1–8 g.	14
10–18 g.	9
20–27 g.	8

Over half of the cores were multi-platformed from which small, squat flakes had been detached. These accounted for nearly 60% of the total weight, and included both small cores weighing as little as 2 g. and four of the heaviest cores in the collection weighing between 20 and 27 g. Seven blade cores were also present, the heaviest of which weighed 22 g., and the lightest only 2 g., with the remainder clustering in the medium size range and weighing between 8 and 16 g. The two cores, classified as 'mixed' (Table 3), multi-platformed flake cores with single blade scars on one platform, weighed 7 and 16 g. The remainder, five single-platformed flake cores, and a flake core with two platforms were fairly lightweight, weighing between 1 and 12 g. with one exception weighing 20 g.

Hinge fractures were common, especially among the blade cores. Two cores had been burnt, and one multi-platformed core had a single retouched edge (Fig. 12.1). Another multi-platformed core of brown, un-recorticated flint, showed areas of abrasion characteristic of its re-use as a hammerstone (Fig. 12.2). Core re-use, as retouched implements with 'scraper-like edges' and as a hammerstone, has also been noted in the possibly contemporary assemblage from Thatcham, Berkshire.[13]

Debitage: flakes

Entirely cortical flakes were rare, and the majority of both flakes and blades were devoid of cortex. Striking platforms were usually plain and bulbs of percussion tended to be diffuse, the product of soft, rather than hard, hammers. Hinge terminations were common, in accordance with the hinge-fractured cores discussed previously. Five core rejuvenation flakes were identified, resulting from the removal of striking platforms from blade cores. One had been utilized along the opposite edge to the removed platform (not illustrated). Core rejuvenation flakes are 'characteristic of Mesolithic blade production' and have been found on a number

[13] J. Wymer, 'Excavations at the Maglemosian Sites at Thatcham, Berkshire, England', *Proc. Prehist. Soc.* 28 (1962), 329-54.

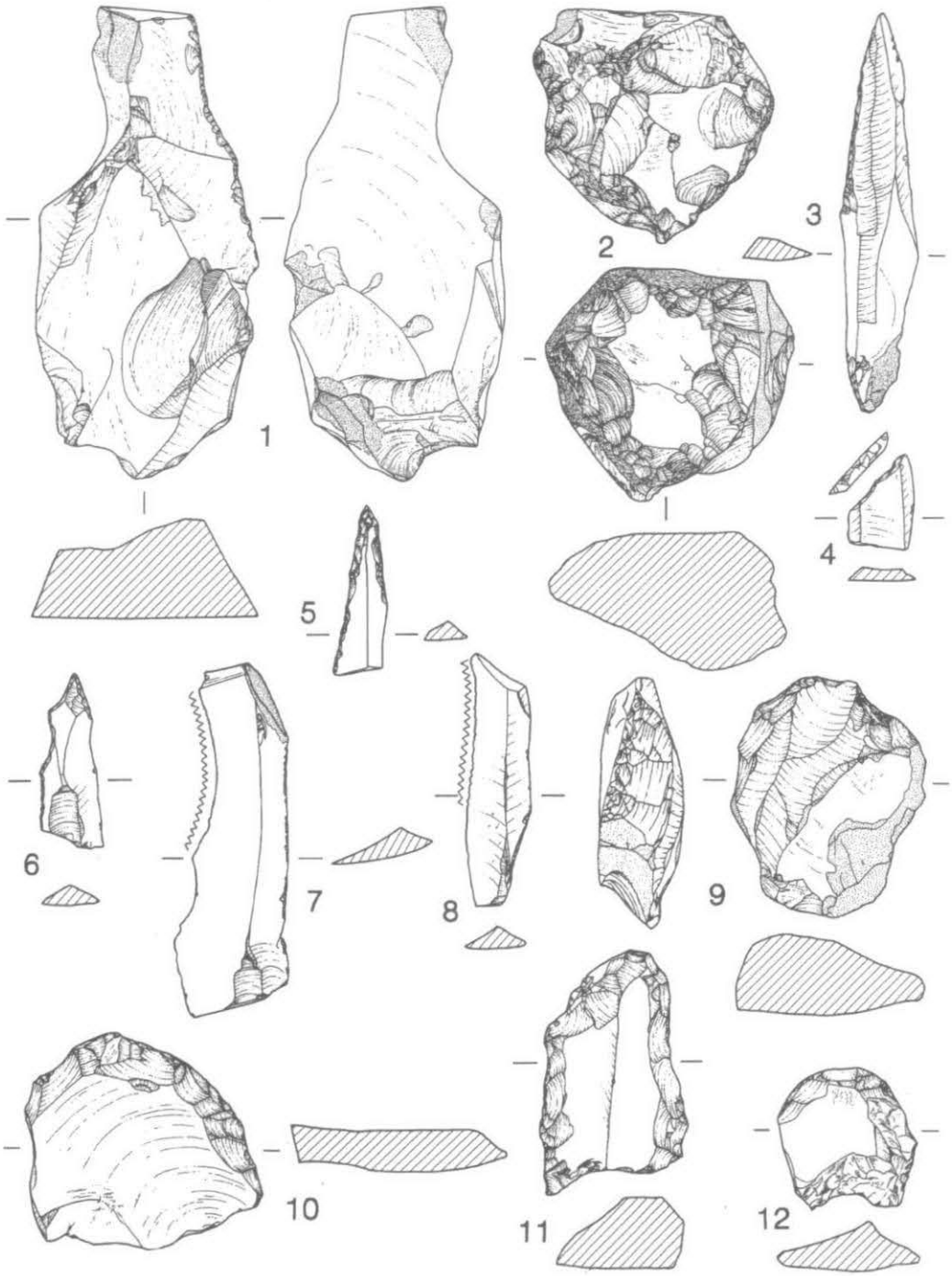

Fig. 12. Flint tools 1-2, cores; 3-4, points; 5-6, microburins; 7-8, blades; 9-12, scrapers; scale 2:1.

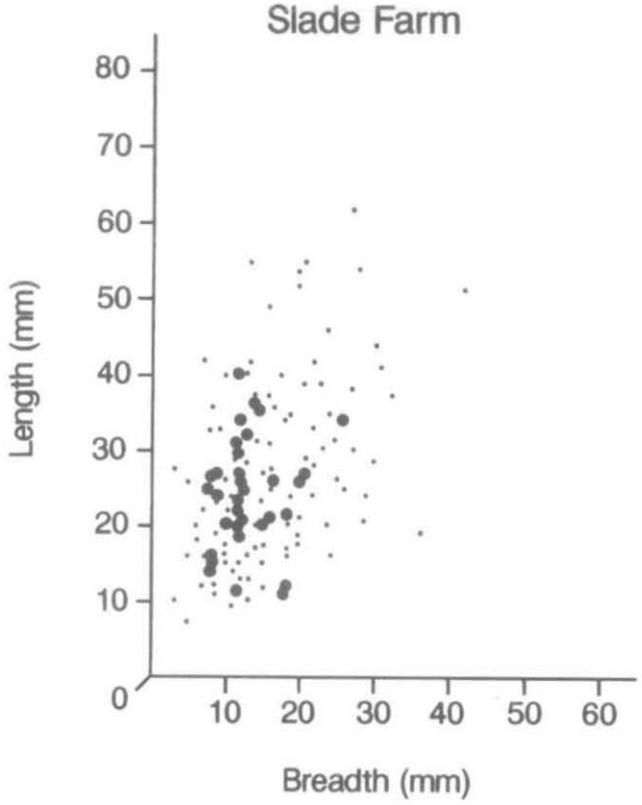

Fig. 13. Flint: length/breadth ratios of all complete blades and flakes (n = 147).

of sites including Thatcham, Berkshire,[14] and Nettlebed,[15] New Plantation, Fyfield and Tubney,[16] all in Oxfordshire.

Less than 17% of the flakes and blades, including all retouched and serrated forms, were complete. A total of 147 complete flakes and blades is presented as a scattergram showing length/breadth ratios (Fig. 13). While the flakes tended to be shorter and squatter in shape than the blades and blade-like flakes, a general clustering is visible within the 15-30 mm. length by 8-13 mm. breadth ranges. This pattern compares favourably to a scattergram based upon the flake/blade component of a recently-discovered assemblage from Lightmarsh Farm, a Mesolithic hunting camp on the Trimpley to Blackstone Aqueduct, near Kidderminster.[17] While the Lightmarsh Farm assemblage was typologically later Mesolithic, radiocarbon dating revealed an early Mesolithic date in the 9th millennium, which has been interpreted as 'representing a trend towards miniaturisation and geometrication at an early date'.[18] Despite the dating discrepancy, the scattergram is typically Mesolithic as opposed to Neolithic/Bronze Age, based upon comparative data from later sites in the Midlands.[19]

[14] Ibid.

[15] H. Case, 'Mesolithic Finds in the Oxford Area', *Oxoniensia*, xvii/xviii (1954), 5, Fig. 3:4.

[16] P. Bradley and G. Hey, 'A Mesolithic Site at New Plantation, Fyfield and Tubney, Oxfordshire', *Oxoniensia*, lviii (1993), 14, Fig. 6:9-13.

[17] R. Jackson, L. Bevan, D. Hurst and C. de Rouffignac, 'Archaeology on the Trimpley to Blackstone Aqueduct', *Trans. Worcs. Archaeol. Soc.* 15 (1996), 104, Fig. 7.

[18] Ibid. 110.

[19] Ibid. 102.

TABLE 1. THE DISTRIBUTION OF STRUCK FLINT IN AREAS A-D

Area	*Flakes*	*Blades*	*Cores*	*Total No.*	*Total Weights*
A	9	1	2	12	64g
B	1	1	-	2	2g
C	5	-	-	5	3g
D	7	1	-	8	14g
Totals	22	3	2	27	83g
% of total assemblage	2.57% of all flakes	5.35% of all unretouched blades	6.45% of all cores	2.64% of all flint	6.06% of all flint

TABLE 2. MANUFACTURING DEBRIS FROM AREA E

Tool	*Core*	*Struck pieces*	*Unretouched flakes*	*Core rejuvenation flakes*
Total	29	27	834	5
% assemblage	2.81%	2.64%	81.68%	0.48%

TABLE 3. CORE TYPES

Core type	*Blade*	*Blade*	*Mixed*	*Flake*	*Flake*	*Flake*
Platforms	1	2-3	1	1	2	multi
Total	4	3	2	5	1	16
Weight (g)	37	46	23	42	7	226
Burnt			1			1
% of cores	12.90	9.67	6.45	16.12	3.22	51.61

TABLE 4. TOOLS FROM AREA E

Tool	*Microliths*	*Retouched flakes*	*Retouched blades*	*Unretouched blades*	*Serrated forms*	*Scrapers*
Total	13	10	8	53	9	6
% ass.	1.27%	1.97%	0.78%	5.19%	0.88%	0.58%

Tools

Retouched pieces: Retouched pieces (as opposed to unretouched blades and manufacturing debris) accounted for less than 5% of the total assemblage. Apart from the tool groups discussed separately below, only eight retouched blades and ten retouched flakes were identified. Six of the retouched flakes were backed, and all of the retouched pieces were re-corticated to some extent. Due to a high incidence of breakage among both blades and flakes, none of the retouched pieces has been illustrated.

Microliths: Of the 13 microliths identified, only one, an edge-blunted point, was complete (Fig. 12.3). Nine fragmentary microliths (two broken shafts and seven broken tips), none of which has been illustrated, also appear to have been from edge-blunted points. The tip of a single obliquely-blunted point was identified (Fig. 12.4), and two edge-blunted microburins (Fig. 12.5, 6). All of the microliths were completely re-corticated and only the complete example (Fig. 12.3) has retained any original cortex.

Serrated forms: Nine serrated forms were recorded, including seven blades with areas of serration on one side, two of which have been illustrated (Fig. 12.7, 8). The longest and most complete example, with serration along its inner arching edge, terminates in a hinge fracture (Fig. 12.7). A smaller blade has serration on one

edge and has been steeply-retouched on the opposing tip, rather in the manner of a microlith (Fig. 12.8). Of the remaining two serrated forms, neither of which has been illustrated, one was made on a broad flake, and the other on a short, notched and retouched flake.

Scrapers: Six scrapers were identified. The three largest scrapers, two of which have been illustrated (Fig. 12.9, 10), are ovoid in shape and steeply retouched. One has some cortical survival at its base (Fig. 12.9) and the other is completely de-corticated (Fig. 12.10). One long, 'nosed' scraper was also identified, which had been as steeply-retouched as the ovoid examples and was totally devoid of cortex (Fig. 12.11). This appears to be a larger version of an irregular type of micro-scraper with 'complete peripheral retouch', a type 'not uncommon in Midlands Mesolithic assemblages'.[20] The remaining scrapers were a simple side-scraper with one single steeply-retouched edge (not illustrated), and a small 'button' scraper with shallow retouch and a slightly-domed dorsal (Fig. 12.12),[21] the latter being 'a typically Mesolithic form in the Midlands'.[22] All of the scrapers were completely re-corticated and the 'button' scraper had been burnt.

Discussion

As stated previously, the collection contains no diagnostically post-Mesolithic material. Although no areas of flint concentration or tool density were identified, which is not surprising in view of the generally ephemeral nature of Mesolithic settlement, and although the assemblage is fairly small with a low incidence of either cores or finished tools, the general appearance of the assemblage suggests homogeneity, and even, perhaps, a single, chronologically-distinct industry.

Although all but one of the microliths is now broken, they appear to have been very similar in size to the majority of microliths from New Plantation, Fyfield and Tubney which have been dated to the early Mesolithic.[23] As with the New Plantation microlith assemblage, the dominant type at Slade Farm is the obliquely-blunted point followed by the edge-blunted point, both of which are characteristic of early, rather than later, Mesolithic industries. This places the Slade Farm assemblage within a network of possibly contemporary sites including Kelling Heath, Iping II, Greenham Dairy Farm, and Thatcham IIIA.[24] At Honey Hill, Elkington, Northants, similar types of microliths have been identified in large, upland surface collections to which a generally early Mesolithic date has been ascribed.[25]

That the majority of the flint, including all of the microliths, was found in Area E suggests that this area was the main focus of early Mesolithic activity. The recovery of 13 microliths, only 28% of the retouched tools, does not conform to Mellars Group A 'microlith-dominated' assemblage associated with hunting camps, [26] although hunting of some kind must have featured in the activities carried out in the vicinity of the site. Instead, in purely functional terms, this small assemblage relates more to Mellars Type B 'balanced' assemblage, commonly associated with the early Mesolithic and suggestive of 'a broader and less specialized range of activities' than that postulated for Type A assemblages.[27] The site at New Plantation was also categorised as a Type B 'balanced assemblage', although, in common with the Slade Farm assemblage, the proportions of scrapers from each area are lower than in any of the assemblages classed by Mellars.[28] A low incidence of scrapers was also recorded at Iping Common, which was interpreted as a 'hunter's bivouac' used for tool production and maintenance activities.[29] At New Plantation, microdenticulates were a common tool type, leading to the hypothesis that they were used for plant food processing,[30] and at Slade Farm, serrated forms might have fulfilled the same function.

[20] A. Saville, 'Honey Hill, Elkington, a Northamptonshire Mesolithic Site', *Northamptonshire Archaeol.* 16 (1981), 8, 10, Fig. 6:203.

[21] L. Bevan, 'Later Mesolithic Settlement in the West Midlands: the analysis of worked flint from surface collections near Kinver Edge and excavated assemblages on the Trimpley-Blackstone Aqueduct' (Univ. of Birmingham unpubl. M.Phil. thesis, 1995), 99-101, Fig. 18:1.

[22] A. Saville, 'A Collection of Flint Artefacts from the South-East Shropshire Region', *Trans. Shropshire Archaeol. Soc.* 59 (1973/4), pt 3, p. 205, Figs. 16:7, 17:9.

[23] Bradley and Hey, op. cit. note 16, pp. 19-21, Fig. 11.

[24] Ibid. p. 21.

[25] Saville, op. cit. note 20, p. 13.

[26] P. Mellars, 'Settlement Patterns and Industrial Variability in the British Mesolithic', in G. Sieveking, I. Longworth and K. Wilson (eds.), *Problems in Economic and Social Archaeology* (1976), 386-9.

[27] Ibid. 389-94.

[28] Bradley and Hey, op. cit. note 16, p. 25.

[29] P.A.M. Keef, J.J. Wymer and G.W. Dimbleby, 'A Mesolithic Site on Iping Common, Sussex, England', *Proc. Prehist. Soc.* 31 (1965), 92.

[30] Bradley and Hey, op. cit. note 16, p. 25.

The small site at New Plantation has been interpreted as a possible winter base camp with possible evidence for re-occupation through time,[31] a smaller version of the sites at Honey Hill and Thatcham which represent the tool debris of either long-term camps, or the repeated occupation of short-term camps in favoured locations, perhaps designed for the exploitation of specific, seasonally-available resources. Based upon similarities in both assemblage size and composition, the site at Slade Farm might represent another winter base camp, thus broadly contemporary with New Plantation both in terms of microlith typology and seasonality. Therefore, although ephemeral and relatively small, the Slade Farm assemblage makes a significant contribution to our understanding of the Mesolithic seasonal economy in this part of the country.

THE IRON AGE POTTERY by ANN WOODWARD and JANE MARLEY with a contribution by DAVID WILLIAMS

Introduction

A total of 2,480 sherds of Iron Age date, weighing 16,192 g., was recovered. The occurrence of pottery by major feature groups is shown in Table 5. Most pottery belonged to Period 1, Middle Iron Age, with some Early Iron Age material also represented. The Period 2, Late Iron Age, features: the latest phase of the boundary ditch, a small concentration of features in Area A and four pits in Area D, contained a small but significant assemblage of Late Iron Age pottery, but almost all the Period 2 deposits contained material residual from Period 1. Therefore gross counts of sherds by period would not be meaningful. From Table 5 it can be seen that the highest concentrations of stratified pottery occurred in ditch cuttings (20% of the total by sherd count) and from Structures 1 and 2 in Area A (12%). Smaller groups of pottery were found in the Structures within Areas C and E, and from the Middle Iron Age pits in Area C. The assemblage included 93 pieces of identifiable vessel form (Early Iron Age: 10; Middle Iron Age: 64; Late Iron Age: 19), a further 50 rim sherds and 59 scored or decorated items (Middle Iron Age: 7; Late Iron Age: 53).

Fabric, by David Williams and Ann Woodward

The fabrics were classified and recorded by Jane Marley using the Oxfordshire system. The main categories of inclusion identified were sand, shell, calcareous and grog. A total of 41 fabric types were identified, and these were subsequently arranged in 16 fabric groups; 8 of them of Early/Middle Iron Age date and 8 of them Late Iron Age. Within the Late Iron Age assemblage, 59% of the sherds were definitely wheelmade. The Early Iron Age/Middle Iron Age and Late Iron Age fabric groups, along with their constituent fabric types are listed in Table 7 (left hand columns).

The occurrence of fabric groups amongst the major phased context groups is shown in Table 5. In the Middle Iron Age contexts, the most common fabric groups were those containing medium to coarse shell inclusions, followed by fine shell inclusions. The next most significant fabric groups were coarse calcareous inclusions, and, in Area A only, coarse sandy wares. By the Late Iron Age, the most popular fabrics were very coarse grogged wares, those containing mixtures of grog, sand and mica, and grog and shell mixtures.

A series of 16 samples were analysed in thin section by David Williams. The results confirmed a dual division into sherds which contained inclusions of shelly limestone (mainly of Middle Iron Age date) and sherds tempered with grog (all analysed samples of Late Iron Age date). Within the Early/Middle Iron Age assemblage five petrological groupings were discerned:

(a) Scattered throughout the clay matrix are frequent plates of fossiliferous shell and pieces of shelly limestone. The shells include bivalves, brachiopods, ?echinoids and a few small pieces of bryozoa. Also present are a few grains of quartz, some shreds of mica, calcite, some clay pellets and a little opaque iron ore.
(b) A somewhat similar fabric to (a) but with more quartz grains present. Hence a sandier fabric in the hand-specimen.
(c) Scattered throughout the groundmass are frequent pieces of fossiliferous shell and shelly limestone, together with large grains of quartz.
(d) Frequent platelets of fossiliferous shell of variable size are scattered throughout the clay matrix, together with frequent well-sorted grains of quartz. Also present are a few small pieces of shelly limestone, some shreds of mica, a little calcite and some opaque iron oxide. This is a much more sandy fabric than is the case with the other shelly limestone sherds described above.
(e) The fabric of one sherd includes a number of well-rounded oolith grains (easily seen in the hand specimen), together with some plates of fossiliferous shell, a little shelly limestone and sparse small quartz grains.

[31] Ibid.

TABLE 5. IRON AGE POTTERY: THE OCCURRENCE OF FABRIC GROUPS

Period		MIA								LIA								
										Hand-made		Hand or wheel	Wheel-made					Total
	Site total	fine sand	fine calc	fine shell	coarse sand	coarse calc	med to coarse shell	calc+ mica+ Fe+ sand	calc+ shell	shell	fine grog	grog+ shell	sand	shell	grog+ sand+ mica	very coarse grog	fine grog	
	No sh Wt (g) Av. Sh. wt(g) (no sh only)	30 187 6	108 630 6	254 1661 7	137 993 7	375 2840 8	781 4331 6	128 878 7	49 277 6	100 478 5	18 223 12	138 1310 9	12 48 4	16 75 5	51 498 10	233 1460 6	50 303 6	2480 16192 7
mainly 1	MAIN DITCH SITES B+C	1	37	64	11	78	34		6	17		1						249
mainly 2	MAIN DITCH SITE A	6	1	6	6	21	26	5		9	8	27	1		43	61	19	239
1	AREA C Structure 3 F100		1	16	2	12	1	4	5		1	3		1				48
1	PITS AREA C (F114, F117 F125/6)		1	16	2	3	53	1		1		2						79
1	AREA A Structure 1 F145		13	11	27	28	46	5	7		1	14			1	1	2	156
1	AREA A Structure 2 F171 & Interior pits		6	24	5	5	99	1		4	1					1	1	149
1	AREA E Structure 4 F23		12	6	1	13	34	9		2	1	3			1			82

TABLE 6. IRON AGE POTTERY:THE OCCURRENCE OF POTTERY FORMS: SELECTED FEATURE GROUPS AND SITE TOTALS

		jar sharp shoulder	slack shoulder s'times FP	barrel jar	fine globular jar	proto-bead rim globular	fine bowl	cordoned bowl wheel-made	bead rim	large storage jar	interior expanded rim only	exterior expanded	T-shaped	simple	flat	everted	scored ware	cordons (HD)	Incised+ combed (CN)
Period		EIA		MIA					LIA			EIA			IA				
		CT	CS	CB	CG	CG2	HG	HD	CH	CN	Z1	Z2	Z3	Z4	Z5	Z6			
mainly 1	MAIN DITCH SITES B&C		1	2	6	1								7			1		
mainly 2	MAIN DITCH SITE A		1		1	3	2	4		1			1	1			2	7	26
1	SITE C S3 F100 INT PITS	1		1 1	5	3									1				
1	SITE A S1 145		2	3	4			1					1	1		1		1	
1	SITE A S2 F171 & INT. PITS		1	*	1	1						1							
1	SITE E S4 F23				1									4					
1	PITS SITES B&C			1	8				1		1			4	2		1		1
2	SITE D LIA PITS						1										1		1
2	AREA A LIA FEATURES							1						1					4
	SITE TOTALS	1	9	13	36	12	3	12	1	6	3	3	3	32	5	4	6	10	43

TABLE 7. IRON AGE POTTERY: THE CORRELATION BETWEEN POTTERY FABRIC GROUPS AND VESSEL FORMS

		EIA				MIA					LIA			
		CS	Z1	Z2	Z3	CB	CG	CG2	HG	dec & scored	HD	CH	CN	dec wall
FABRIC GROUPS														
MAINLY EIA/MIA														
fine sand	Q2, Q6, Q8						1	1						1
fine calc	C1, C2	1				1	2							
fine shell	S1, S5, S7					3	8	1				1		2
coarse sand	Q1, Q3, Q5, Q9		1	1			3						1	2
coarse calc	C3, C6, C7, C9	2				4	6	2		2				2
med to coarse shell	S4, S6, S8, S9	3	1	1	2		8	4	1	1				
calc/mica/Fe/sand	C4						2						1	
calc shell	C5						2	2						
MAINLY LIA														
(handmade)														
shell	S3													
fine grog	G2, G10							1			1			
(hand or wheel)														
grog/shell	G1, G3, G6, G7			1	1	1	3			1	4		1	10
	G8, G9, G13, G14													
(wheelmade)														
sand	Q4										3			
shell	S2										1			
grog/sand/mica	G4									1	1		1	4
v. coarse grog	G5, G15						2				2		2	32
fine grog	G11, G12										3			2

The geology of the area of the site consists of Jurassic formations, mainly Cornbrash, Oxford Clays and Great Oolite.[32] The range of fossil shell noted in groups (a) to (d) would all fit in with local fossiliferous clays of Jurassic origin, particularly the Cornbrash.[33] The oolitic sherd, group (e), may possibly have derived from the nearby Great Oolite deposits. There seems at this stage no reason to think of sources further afield although this is a possibility.

The Late Iron Age assemblage includes two main petrological groupings: grog/shell combinations and other grog mixtures:

(f) Pieces of angular-shaped grog occur throughout the clay matrix. Also present are moderately sparse plates of fossil shell, a little shelly limestone, small grains of quartz, a few pieces of calcite and a little opaque iron oxide.
(g) A fairly fine-textured fabric containing angular-shaped pieces of grog. Also present are moderately frequent grains of ill-sorted quartz and a little opaque iron oxide. In another sample are a few thin elongate voids which probably represent organic material burnt out during firing, a little chert, some shreds of mica and opaque iron oxide.

Grog-tempered pottery is notoriously difficult to source. Group (f) samples also contain a little shelly limestone, which may indicate a local origin. However, the group (g) sherds contain a range of common inclusions that makes prediction of sources a problem.

Form

Forms were classified and recorded by Jane Marley according to the Oxford Archaeological Unit coding system.

Early Iron Age

CT	jar with sharp shoulder
CS	jar with slack shoulder

Middle Iron Age

CB	barrel jar with convex profile and incurving rim
CG	globular jar with upright or everted short rim
CG2	globular jar with proto-bead rim
HG	fineware bowl; incised or stamped decoration possible

Late Iron Age

HD	fineware bowl with everted rim, high rounded shoulder; neck cordons or grooves
CH	bead-rim jar with narrow mouth
CN	large thick-walled storage jar

In addition, three Early Iron Age rim forms: interior expanded (Z1), exterior expanded (Z2) and T-shaped (Z3), plus three generalised Iron Age forms: simple (Z4), flat (Z5) and everted (Z6) were identified and quantified.

The occurrence of vessel and rim forms (sherd count) by phased context group is shown in Table 6. Of the Early Iron Age forms represented, the slack-shouldered jar (CS) was the most common. In the Middle Iron Age groups, globular jars (CG and CG2) were by far the most common, followed by barrel jars (CB). Fineware vessels (e.g. HG) were not so well represented. In the Late Iron Age, cordoned bowls (HD) were twice as common as the large storage jars (CN).

The correlation between vessel form and fabric grouping is given in Table 7. Patterning within the major Middle Iron Age and Late Iron Age groups appears to be rather generalised. Well-represented fabric recipes were used for a wide variety of vessel forms, and the more common vessel forms e.g. CG, HD or rim Z4 occur in a wide range of fabric types. However, amongst the Middle Iron Age globular jars (CG) shell is the most common inclusion type, and most of the decorated sherds of Late Iron Age, many of them from CN storage jars, were in very coarse grogged fabrics.

[32] Geological Survey 1" Map of England, Sheet no. 219.
[33] Pocock, op. cit. note 7.

Surface finish and decoration

Within the Middle Iron Age assemblage, there was one incidence of diagonal incisions on the top of a rim and one bowl decorated with incised decorative motifs: both are described below. In addition, there were five scored wall sherds and one base angle. The occurrence of scored ware, at 0.3% (sherd count) of the total Middle Iron Age assemblage (as defined by fabric) was therefore very low. Decoration was much more common on the Late Iron Age vessels. This included the decorative grooves and cordons on the HD jars, and combed grooves forming multiple bands and swags or festoons on the large CN storage vessels. The occurrence of these types by context group is given in Table 6.

Illustrated sherds

Boundary ditch fillings in Areas B and C – Early and Middle Iron Age (Fig. 14)

1. Slack-shouldered jar with flat rim. CS, fabric S9. Area B, ditch F103.
2. Barrel jar, simple rim, probably Early Iron Age. CB, fabric S5. Area B, ditch F103.
3. Simple rim, probably Early Iron Age. Z4, fabric S3. Area B, ditch F103.
4. Tapered simple rim, probably Early Iron Age. Z4, fabric C8. Area B, ditch F103.
5. Globular jar with proto-bead rim. CG2, fabric C6. Area B, ditch F103.
6. Globular jar with proto-bead rim. CG2, fabric S9. Area B, ditch F104.
7. Globular jar with everted rim. CG, fabric C6. Area C, ditch F101.

Pits in Area B

8. Globular jar with internal rim bevel. CB, fabric C8. Area B, pit F109.
9. Globular jar. CG, fabric S4. Area B, pit F109.
10. Bead-rim jar. CH, fabric S5. Area B, pit F109.
11. Globular jar with everted rim. CG, fabric S41. Area B, pit F109.
12. Globular jar. CB, fabric S6. Area B, pit F123.

Structure 3, Area C (Fig. 15)

13. Flat rim sherd decorated with diagonal fingernail impressions. Z5, fabric C5. Area C, gully F100.
14. Globular jar, decorated with incised double swags and short strokes. CG, fabric G8. Area C, pit F114.
15. Globular jar with proto-bead rim. CG2, fabric C6. Area C, pit F114.
16. Globular jar. CG, fabric S5. Area C, pit F125.
17. Globular jar with proto-bead rim. CG2, fabric C5. Area C, pit F125.
18. Obtuse base angle, possibly from the same vessel as no. 16. Fabric S6. Area C, pit F125.

Structures 1 and 2, Area A (Fig. 16)

19. Slack-shouldered jar. CS, fabric C4. Area A, Structure 1, F145.
20. Slack-shouldered jar. CS, fabric C4. Area A, Structure 1, F145.
21. Slack-shouldered jar. CS, fabric G1. Area A, Structure 1, F145.
22. Barrel jar, simple rim. CB, fabric S5. Area A, Structure 1, F145.
23. Base angle. Fabric C7. Area A, Structure 1, F145.
24. Bar handle. Fabric S5. Area A, pit F173 in Structure 2.
25. Slack-shouldered jar. CS, fabric C6. Area A, pit F176 in Structure 2.
26. Globular jar. CE, fabric C5. Area A, pit F176 in Structure 2.

Structure 4, Area E (Fig. 17)

27. Globular jar. CG, fabric C2. Area E, gully F23.
28. Simple rim. Z4, fabric C2. Area E, gully F23.
29. Barrel jar with inturned rim. CB, fabric Q2. Area E, gully F23.
30. Flat rim. Z5, fabric S6. Area E, gully F23.
31. Expanded base angle. Fabric S6. Area E, gully F23.
32. Large jar with flat rim. Z3, fabric S6. Area E, pit F140.

Possible oven or kiln in Area A (Late Iron Age)

33. Combed wall sherd from large jar. CN, fabric G5. Area A, F155.
34. Rim from cordoned jar. HD, fabric G11. Area A, F155.

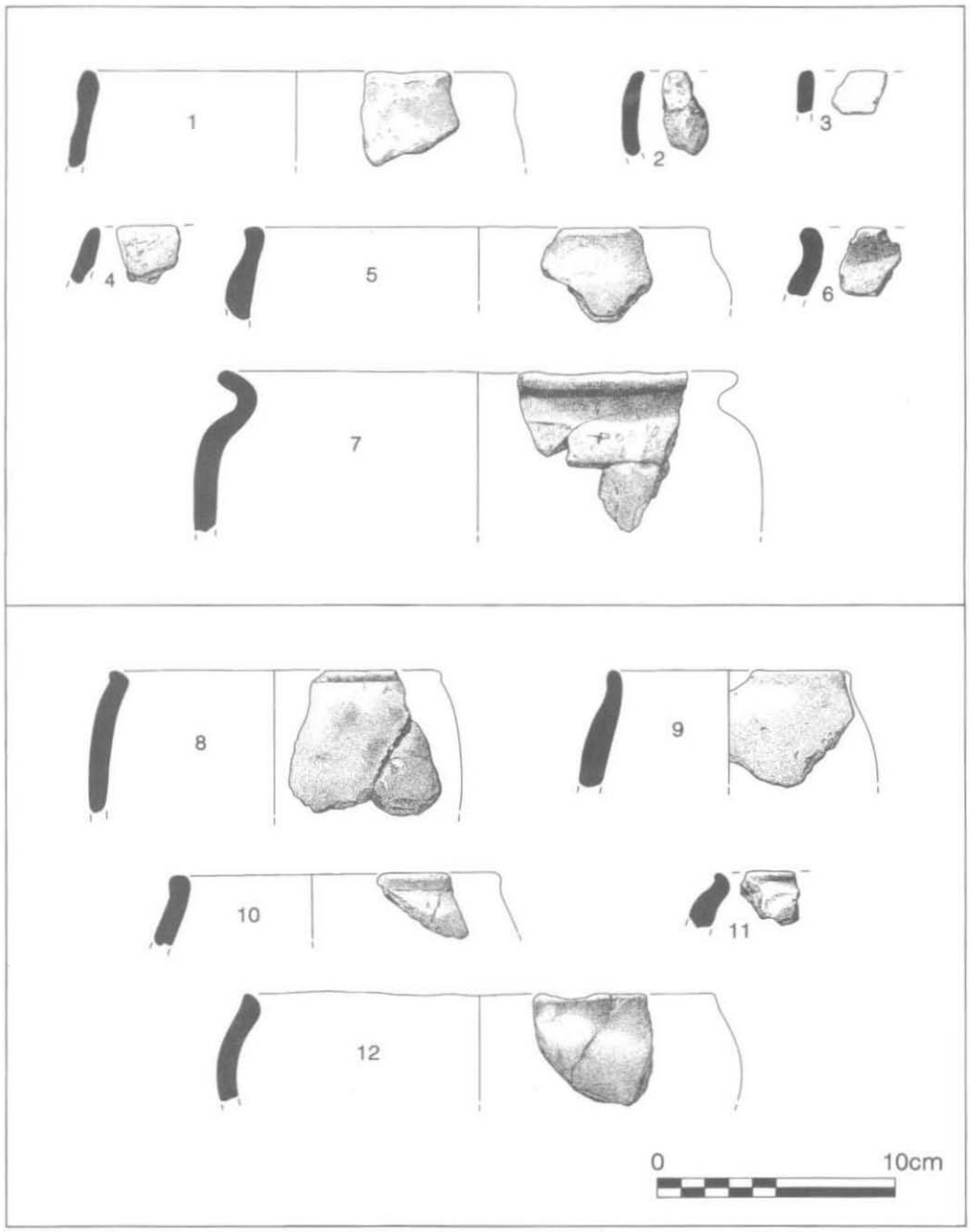

Fig. 14. Early/Middle Iron Age pottery: 1-7 boundary ditches, 8-12 pits Area B; scale 1:3.

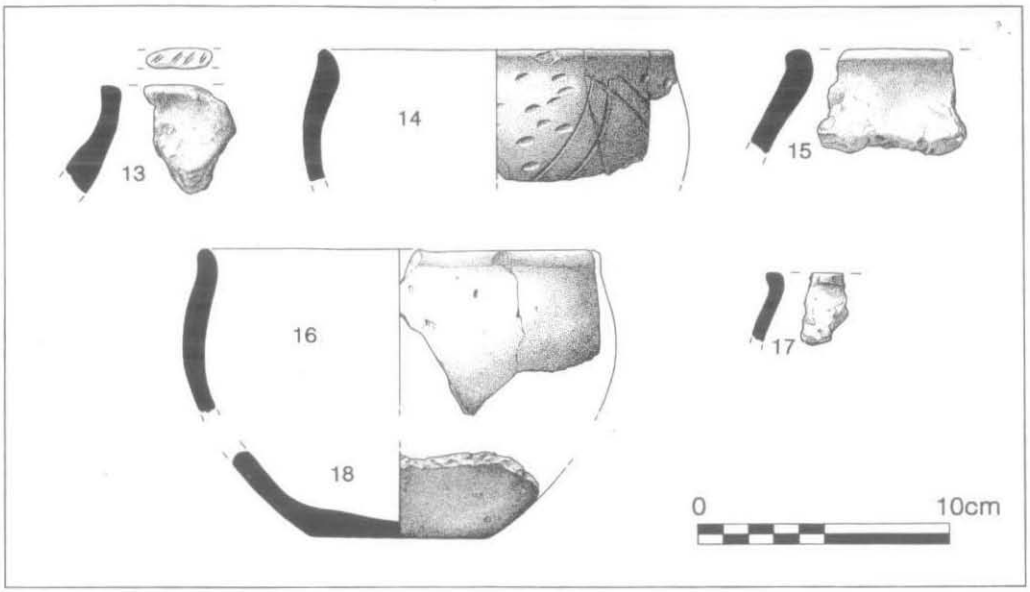

Fig. 15. Early/Middle Iron Age pottery: Structure 3; scale 1:3.

Boundary ditch fillings in Area A - Late Iron Age (Fig. 18)

35. Cordoned jar. HD, fabric G11. Area A, Trench 24, ditch F21.
36. Cordoned jar. HD, fabric G3. Area A, ditch F136.
37. Cordoned carinated bowl, fabric G7. Area A, ditch F136.
38. Combed wall sherd. CN, fabric G5. Area A, ditch F136.
39. Combed wall sherd. CN, fabric G5. Area A, F136.
40. Rim from large storage jar. CN, fabric G5. Area A, F136.

Other Late Iron Age pieces from Areas A and D

41. Cordoned jar. HD, fabric S2. Area D (unstratified).
42. Thin-walled globular jar. CG, fabric S3. Area D (unstratified).
43. Combed wall sherd. CN, fabric C9.2. Area A (unstratified).

Taphonomy

Much of the pottery was unabraded. However, significant quantities of sherds in fabrics and forms of Middle Iron Age type were found in the later ditch fillings and it is probable that these were residual. Ceramic groups from the few discrete Late Iron Age features excavated (e.g. Area A, F155) contained Late Iron Age wares alone, thus adding weight to this conclusion.

Average sherd weights were variable. For the four Middle Iron Age ring gullies averages of 9, 7, 6 and 6 g. were obtained. Pottery of this date from the main boundary ditches was more fragmented: average sherd weight 4 g. for the ditch deposits in Areas B and C and 4 g. again for contexts containing mainly Middle Iron Age pottery in Area A. By contrast, the average sherd weight relating to the Late Iron Age ditch deposits in Area A was 25 g. The Middle Iron Age pit group in Area C contained sherds of average weight 7 g., similar to the figures for the ring gullies, but the pits within Structure 2 in Area A contained larger sherds of average sherd weight 21 g.

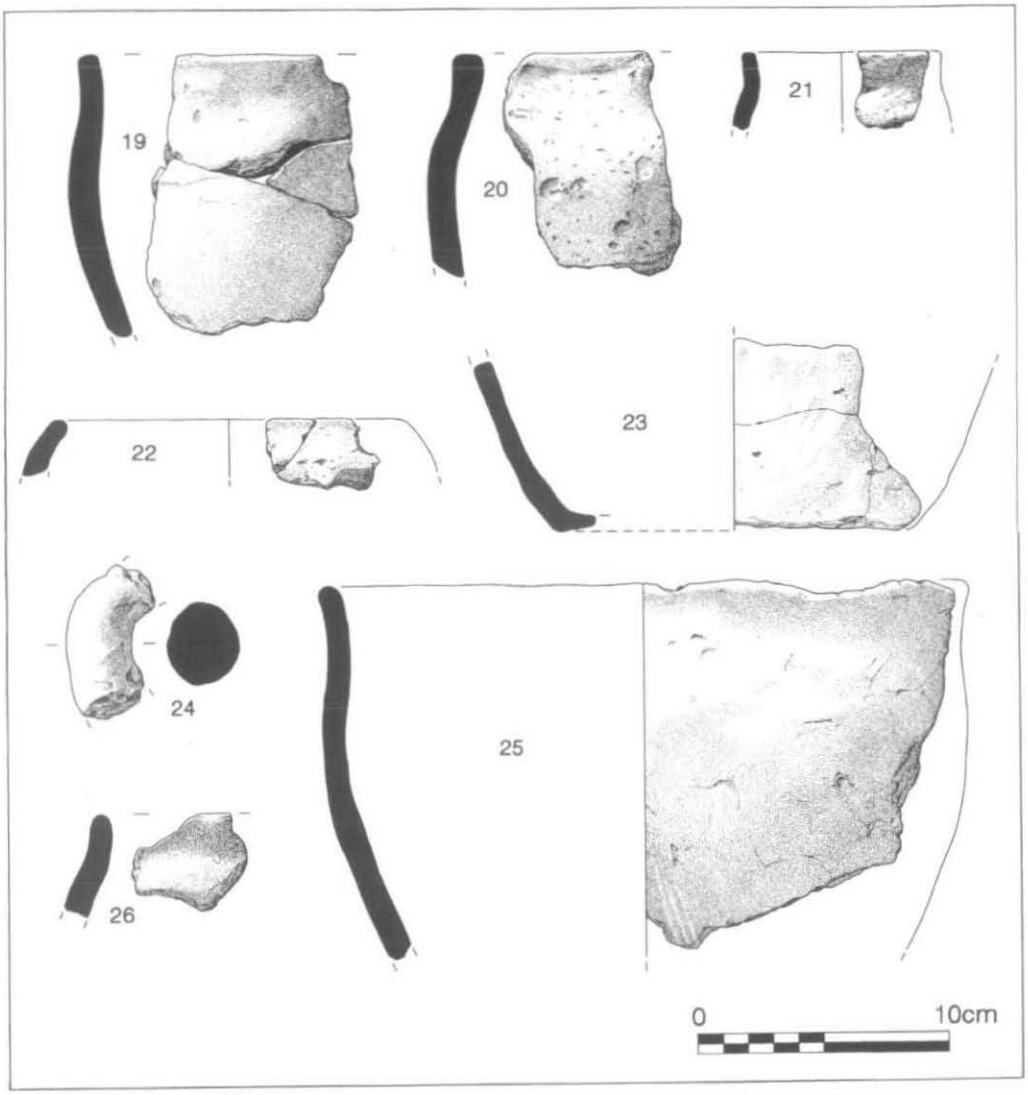

Fig. 16. Early/Middle Iron Age pottery: Structures 1 and 2; scale 1:3.

Vessel size and function

It has been demonstrated that an analysis of rim diameters may provide a useful indication of the range in vessel sizes represented on a site, and thus the possible functions of an assemblage.[34] In Fig. 19 the range of rim diameters recorded for the three period assemblages represented at Slade Farm are illustrated. Although few examples of probable Early Iron Age date are present they do fall into a wide-ranging and possibly threefold patterning of coarseware vessel sizing which has been noted at other sites such as Cadbury Castle in

[34] A. Woodward, 'Size and Style: an alternative study of some Iron Age pottery in southern England', in A. Gwilt and C. Haselgrove (eds.), *Reconstructing Iron Age Societies* (Oxbow Monograph 71, 1997).

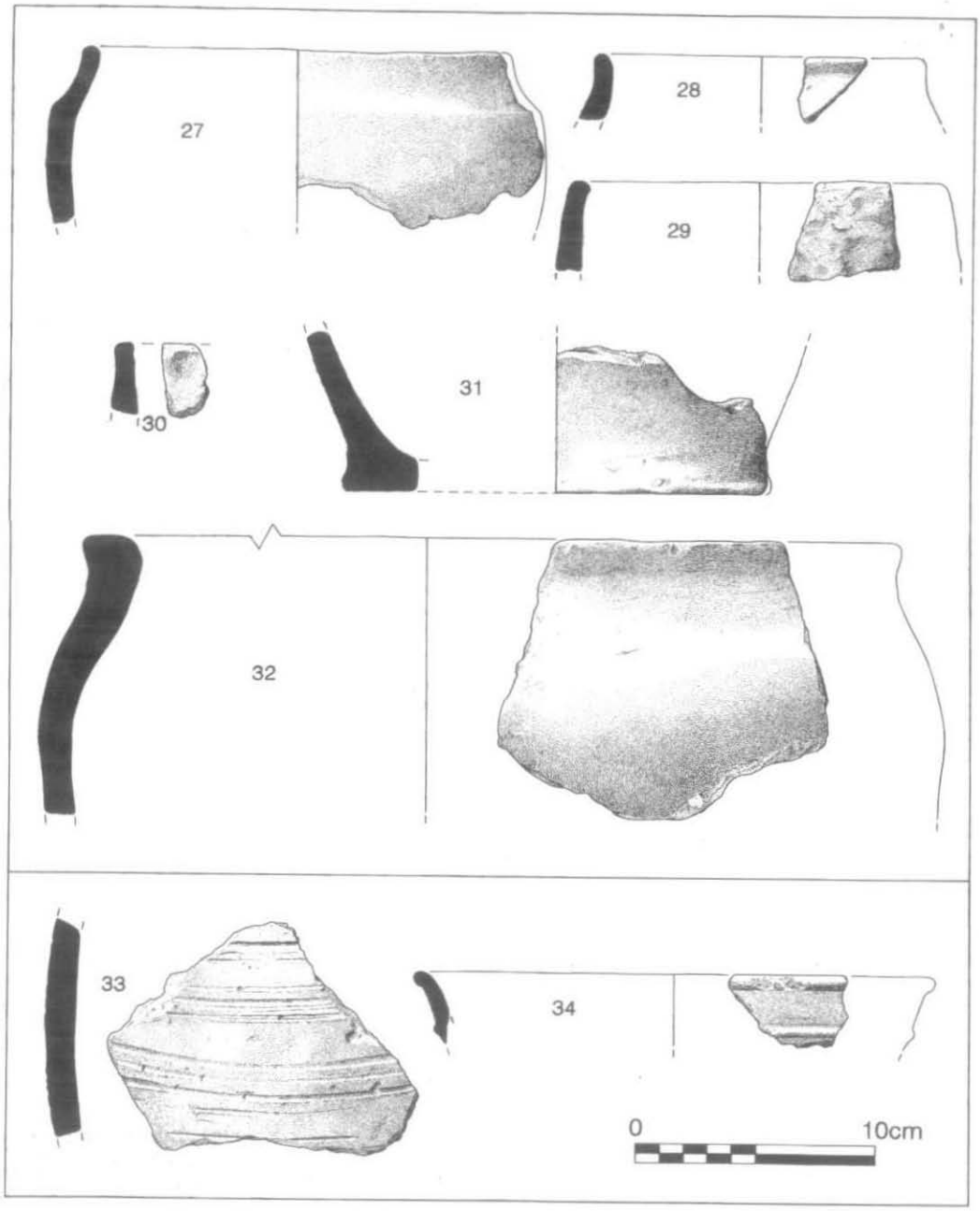

Fig. 17. Iron Age pottery: 27-32 Early/Middle Iron Age Structure 4, 33-34 Late Iron Age Area A; scale 1:3.

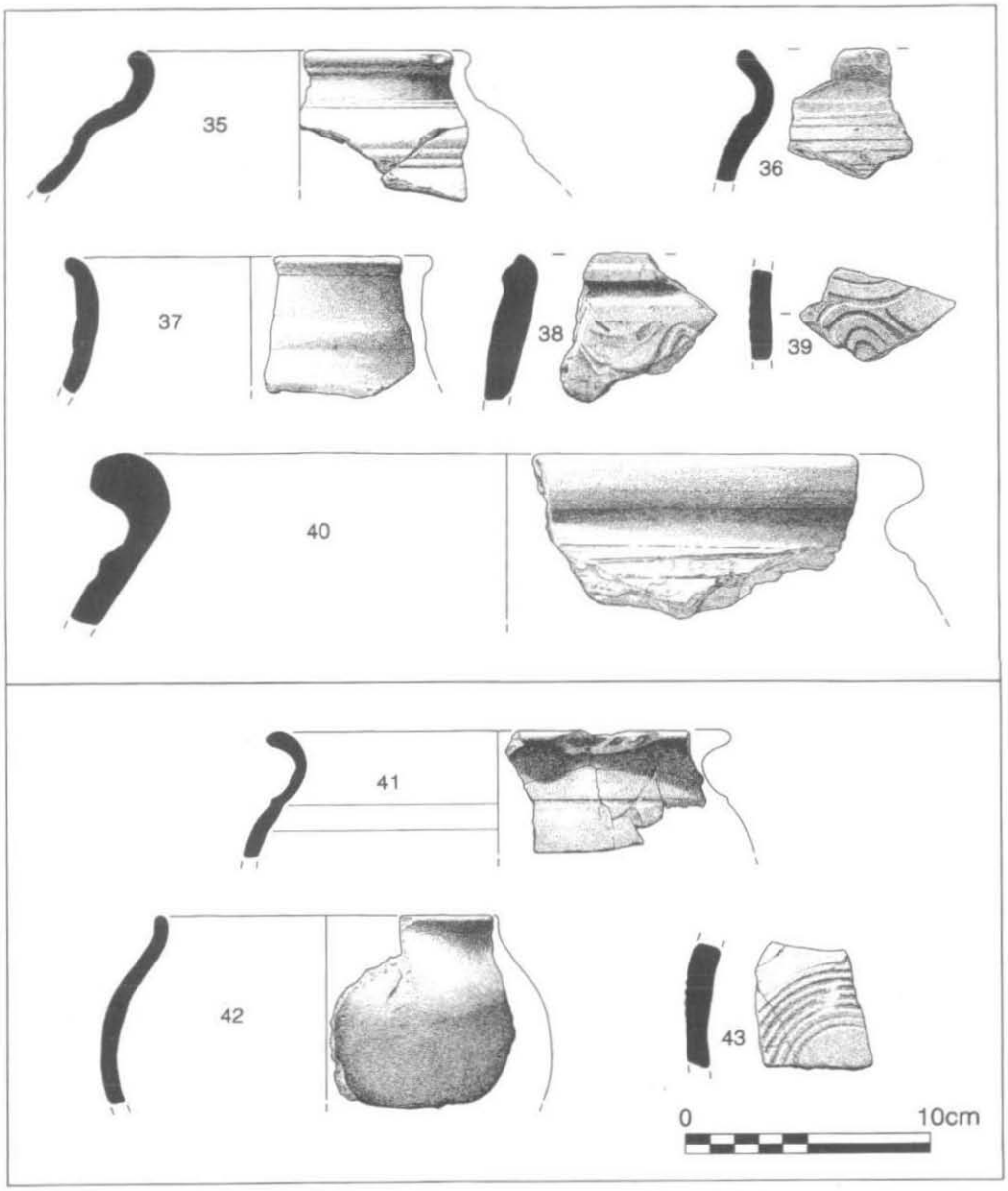

Fig. 18. Late Iron Age pottery: Areas A and D; scale 1:3.

Somerset.[35] The Middle Iron Age vessel size range for Slade Farm is much more restricted, almost formalised, with peaks at rim diameter levels of 120 mm. and 180 mm. Little comparative data is available for the Midlands but in relation to the rim diameter ranges recorded for Early to Middle Iron Age fine and coarse shell-tempered wares from Buckinghamshire and Northamptonshire,[36] the Slade Farm figures relate more closely to the fine wares than to the coarse wares. The peaks of occurrence however are different, and the twofold peaking of the Slade Farm material contrasts with the rather weaker threefold pattern obtained for the Buckinghamshire and Northamptonshire assemblages. It will be interesting to compare the Slade Farm results with those for contemporary assemblages from the upper Thames Valley when such data becomes available. The range of the Slade Farm jars is in fact more similar, but not identical, to that obtained for the Upper Thames fineware bowls in the Stanton Harcourt-Cassington style.[37] The range of the Late Iron Age rim diameters at Slade Farm is the widest of all the three period samples. Although numbers are low, small, medium and two groups of large vessels are probably represented. This data can be compared with that presented by Meadows for the Late Iron Age period at Barton Court Farm, Oxon.[38] If one combines the data for Late Iron Age bowls and jars which are presented in the left and right histograms of her figure 4,[39] and the results are then compared with the Slade Farm histogram, a highly uniform pattern seems to emerge. The rim diameter peaks of 140 mm., 220 mm., plus minor ones at 280 mm. and 320 mm. for Slade Farm are matched at Barton Court Farm by peaks of 130 mm., 220 mm. and 260 mm. rim measurements. Considering the possible cultural divergence of pottery types N. and S. of the Thames in this period (see below), this degree of size standardisation is highly remarkable.

Discussion

The chronological and cultural affinities of the ceramic assemblages can be discussed in relation to the Iron Age traditions of the upper Thames valley on the one hand, and of Warwickshire and Northamptonshire on the other. It will be seen that elements from both these regions are represented at Slade Farm. The Early Iron Age shouldered jars, and expanded rim types can be matched in assemblages of that period from the upper Thames, especially Ashville Period 1,[40] Farmoor Phase I[41] and south Northamptonshire at Rainsborough Camp.[42] The relative paucity of sharp shouldered jars at Slade Farm, compared to the quantified assemblage from Ashville, and the lack of fingertip impressed decoration may imply a late Early Iron Age date for the Slade Farm material, but the sherd totals are probably too low to sustain such a hypothesis.

The globular jars and barrel jars of Middle Iron Age tradition at Slade Farm can be compared to those in the assemblages from Ashville Period 2,[43] Farmoor Phase II,[44] Mingies Ditch,[45] Whitehouse Road, Oxford,[46] Deer Park Road, Witney,[47] Madmarston Camp,[48] Rollright,[49] Rainsborough Phase 4,[50] on the A421 sites B

[35] Ibid. Fig. 4.1, PA1 barrel jars and JB1/JB2 shouldered jars.

[36] A. Woodward and P. Blinkhorn, 'Size is Important: Iron Age vessel capacities in central and southern England', in C.G. Cumberpatch and P.W. Blinkhorn (eds.), *Not so much a Pot, More a Way of Life* (Oxbow Monograph 83, 1997), Fig. 1.

[37] Ibid. Fig. 2.

[38] K.I. Meadows, 'Much Ado about Nothing: the social context of eating and drinking in early Roman Britain', in Cumberpatch and Blinkhorn, op. cit. note 36.

[39] Ibid. p. 25.

[40] M. Parrington, *The Excavation of an Iron Age Settlement, Bronze Age Ring-ditches and Roman Features at Ashville Trading Estate, Abingdon (Oxfordshire) 1974-76* (CBA Research Rep. 28, 1978).

[41] G. Lambrick and M. Robinson, *Iron Age and Roman Riverside Settlements at Farmoor, Oxfordshire* (CBA Research Rep. 32, 1979).

[42] M. Avery, J.E.G. Sutton and J.W. Banks, 'Rainsborough, Northants., England: Excavations, 1961-5', *Proc. Prehist. Soc.* 33 (1967), 207-306.

[43] Parrington, op. cit. note 40.

[44] Lambrick and Robinson, op. cit. note 41.

[45] T.G. Allen and M.A. Robinson, *Mingies Ditch, Hardwick-with-Yelford, Oxon.* (Thames Valley Landscapes: the Windrush Valley, 2, 1993).

[46] A. Mudd, 'Excavations at Whitehouse Road, Oxford, 1992', *Oxoniensia*, lviii (1994), 33-86.

[47] G.T. Walker, 'A Middle Iron Age Settlement at Deer Park Road, Witney: excavations in 1992', *Oxoniensia*, lx (1996), 67-92.

[48] P.J. Fowler, 'Excavations at Madmarston Camp, Swalcliffe, 1957-8', *Oxoniensia*, xxv (1960), 3-48.

[49] G. Lambrick, *The Rollright Stones: megaliths, monuments, and settlement in the prehistoric landscape* (1988), Site 6.

[50] Avery, Sutton and Banks, op. cit. note 42.

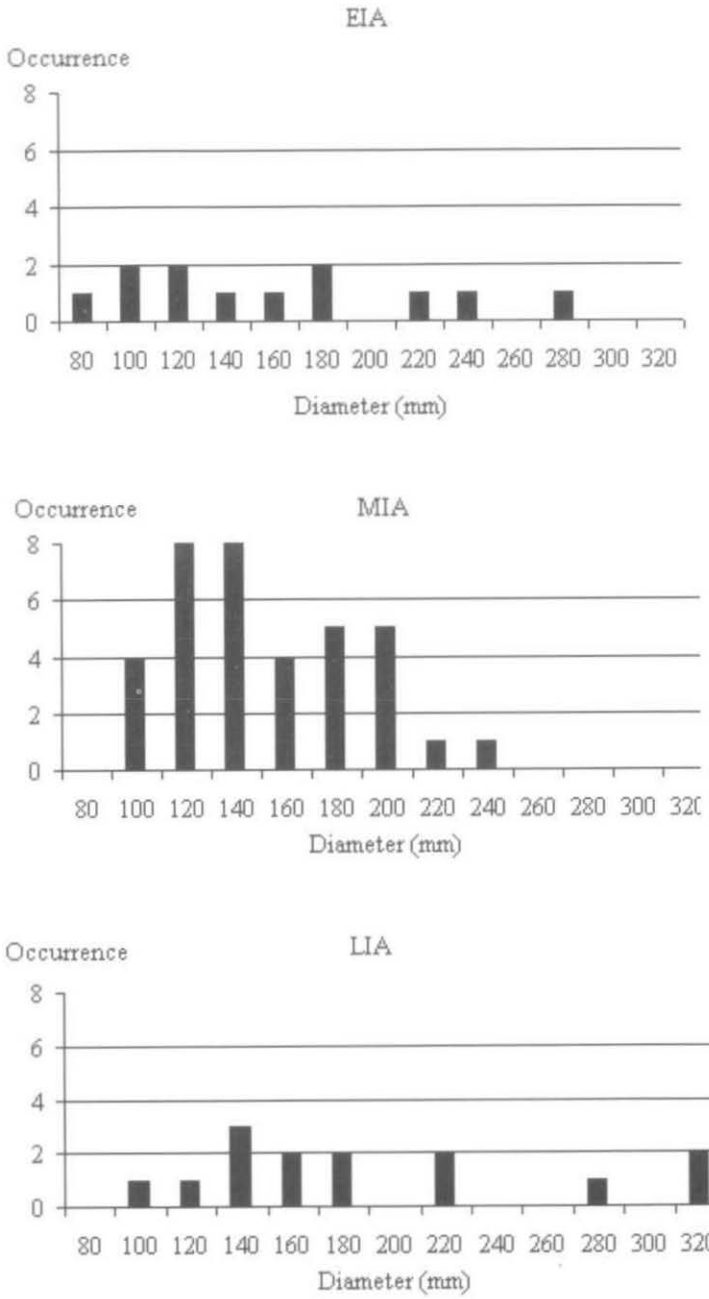

Fig. 19. Iron Age pottery: rim diameters.

and C, just S. of Bicester[51] and Bicester Fields.[52] These jar types occur at Slade Farm in similar proportions to those quantified at Ashville. Scoring occurs very rarely in the upper Thames region,[53] but is a common characteristic of Middle and Late Iron Age assemblages in the Midlands. It occurs in northern Oxfordshire, notably at Madmarston Camp,[54] and in Warwickshire on sites such as Nadbury Camp[55] and Park Farm, Barford.[56] It is very common in the Nene valley, but does not occur at Rainsborough. Middle Iron Age jars with light vertical scoring, which may have been inspired by the Midlands scored ware tradition, are also known from Glympton[57] and from South Parks Road, Oxford.[58] The bowl bearing incised decoration relates to groups of decorated vessels known from the upper Thames and the simple swag motif can be matched best at Cassington.[59] Interestingly, the five incised sherds from Rainsborough,[60] only 14 km. to the NW., have affinities with the La Tène decorated bowls of the Nene valley, best exemplified at Hunsbury.

In terms of fabric, the Middle Iron Age wares at Slade Farm are more similar to those of the Jurassic uplands e.g. Rollright[61] and south Warwickshire[62] than to those of the upper Thames where shelly wares tend to give way to sandy fabrics by the Middle Iron Age period. Similar high percentages of shelly wares were also recorded at Glympton[63] and on the A421 sites, where calcareous fabrics were most common (76%) followed by sandy wares (15%) and lesser amounts of grogged sherds.[64] The luminescence date for a Middle Iron Age sherd of 335BC +/– 100, +/– 185 has wide error margins, but fits the suggested dates for this period determined from radiocarbon dates for several sites in the upper Thames valley.

The distribution of pottery (Fig. 20) around certain ring gullies, and in some of the pits – especially pit F114, Area C (see above), suggested that certain groups of sherds were deliberately deposited for symbolic reasons. Similar structured deposits have been identified elsewhere on the Jurassic uplands.[65] These include deposits related to ramparts,[66] in pits at Rollright[67] and cut into the remains of an earlier hengiform enclosure at Barford.[68] At Madmarston Camp, a remarkable set of scored ware jars had been deposited in a 'ceremonial' pit.[69]

The Early and Middle Iron Age pottery from Slade Farm seems to indicate a rural site of low status, with most of the pottery having been made locally. The rim diameter results show that vessels were generally smaller than those employed in Northamptonshire, but comparative data for the upper Thames is not readily available at present. The decorated bowl, found in a deliberate deposit, and in a sandy fabric, probably came from the upper Thames valley and it seems likely that the scored ware jars came from further N., possibly as containers for a desirable commodity of unknown type. Their status as exotic items in northern Oxfordshire

[51] Paul Booth pers. comm.

[52] Cromarty, Foreman and Murray, op. cit. note 10.

[53] G. Lambrick, 'Pitfalls and Possibilities in Iron Age Pottery Studies – experiences in the Upper Thames Valley', in Cunliffe and Miles, op. cit. note 5, Fig. 11.15, motif 15.

[54] Fowler, op. cit. note 48, Fig. 14.

[55] C. McArthur, 'Excavations at Nadbury Camp, Warwickshire', *Trans. Birmingham and Warks. Archaeol. Soc.* 95 (1990), 3-16.

[56] S. Cracknell and R. Hingley, 'Park Farm, Barford: excavation of a prehistoric settlement site, 1988', *Trans. Birmingham and Warks. Archaeol. Soc.* 98 (1994), 1-30.

[57] C. Cropper and A. Hardy, 'The Excavation of Iron Age and Medieval Features at Glympton Park, Oxon', *Oxoniensia*, lxii (1998), Fig. 2.1, 2.

[58] A. Parkinson, A. Barclay and P. McKeague, 'The Excavation of Two Bronze Age barrows, Oxford', *Oxoniensia*, lxi (1997), Fig.4.3.

[59] D. Harding, *The Iron Age in the Upper Thames Basin* (1972), pl. 63.D.

[60] Avery, Sutton and Banks, op. cit. note 42, Figs. 21.37, 22.46-8 and 50.

[61] Lambrick, op. cit. note 49, 80% limestone and shelly wares.

[62] R. Hingley, 'Iron Age Settlement and Society in Central and Southern Warwickshire: directions for future research', in A. Gibson (ed.), *Midlands Prehistory* (BAR 204, 1989), Fig. 9.6.

[63] Cropper and Hardy, op. cit. note 57.

[64] Paul Booth pers. comm.

[65] R. Hingley, 'Prehistoric Warwickshire: a review of the evidence', *Trans. Birmingham and Warks. Archaeol. Soc.* 100 (1997), 16.

[66] McArthur, op. cit. note 55.

[67] Lambrick, op. cit. note 49.

[68] A. Oswald, 'Excavations for the Avon/Severn Research Committee at Barford, Warwickshire', *Trans. Birmingham and Warks. Arch. Soc.* 83 (1969), 1-64.

[69] Fowler, op. cit. note 48, Fig. 14.1-7.

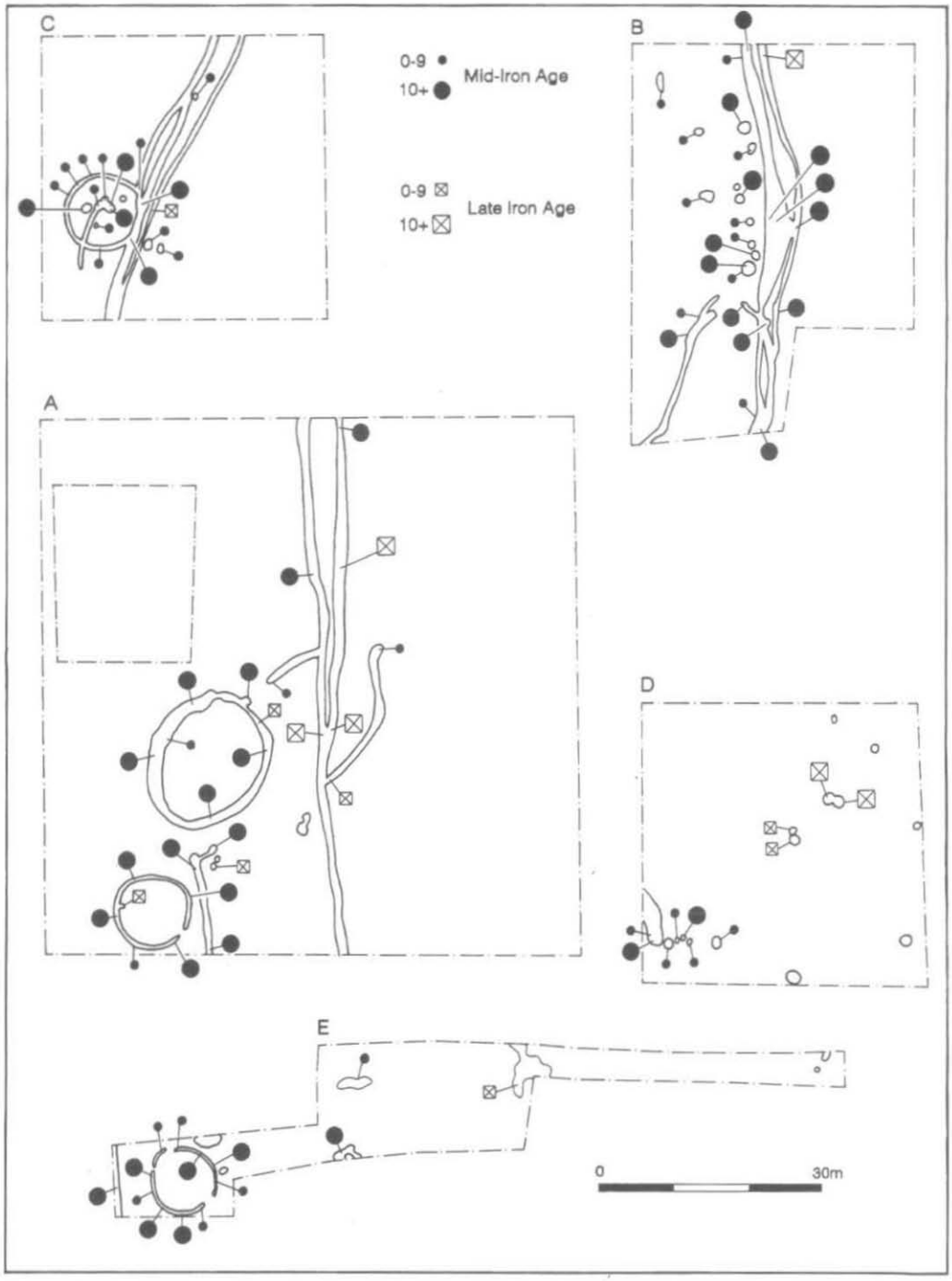

Fig. 20. Pottery distributions from area excavations.

may be demonstrated by the deposition of a set of such jars in the special deposit at Madmarston Camp, referred to above. Briquetage was absent from the Slade Farm assemblage although Droitwich briquetage is known from Rollright,[70] Mingies Ditch[71] and Bicester Fields.[72]

The Late Iron Age assemblage forms a significant group of fine and coarse wares of 'Belgic' affinity. The range of vessels represented is very restricted with two main types, the fine cordoned jar and the large storage jar, predominating. Many of the vessels were wheel-made, and grog fabrics were the norm. The presence of shell in many of the fabric types suggests that the vessels were made locally, and the presence of the key-shaped feature and of the dumps of large sherds in its vicinity (Area A) may be indicative of on-site production. No more exotic forms, such as butt or girth beakers, 1st century AD regional imports, or sherds of Samian or amphorae were present. In the absence of such items, which could be due to economic rather than chronological factors, it is difficult to date the assemblage in relation to the Roman conquest, and the luminescence dates provide little assistance in this direction either. Therefore, the assemblage will be compared with the coarse wares in similar assemblages from the upper Thames, and from in and around the nearby Roman town of Alchester, where some of the groups can be dated by the presence of imports and occasional datable metalwork.

One of the largest such assemblages is that from Gravelly Guy, Stanton Harcourt,[73] where the Slade Farm jars of forms HD and CN can be matched by types JR5-JR6 and SJ. Slade Farm number 37 is from a carinated bowl of Gravelly Guy type BO1, but otherwise none of the more unusual types can be identified. The Slade Farm assemblage is similar to the Phase 1 groups from Oxford Road, Bicester, dated there to *c.* AD 20/30 to AD 60/70.[74] These were characterised by wares tempered with grog, sand and shell and a roughly similar range of forms was represented.[75] However the Oxford Road site also produced fragments of a rouletted butt beaker and from a fineware girth beaker probably manufactured in the vicinity of Abingdon. The Abingdon finewares were probably current immediately after the conquest.[76] In general the Oxford Road assemblage, like that at Slade Farm, was felt to be indicative of a low status rural site. Where dateable finewares are absent, as at Slade Farm, this may be due to differences of site status and this absence cannot be used to imply an earlier pre-conquest date. Booth suggests that 'Belgic type' wares in the upper Thames region may have appeared only shortly before the conquest and continued in use until the later part of the 1st century AD.[77]

At the small Roman town of Alchester, located just SW. of Bicester, Belgic wares in forms similar to those found at Slade Farm (cordoned jars and large storage jars) were found in association with butt beakers and Samian of Flavian date. This pottery was found in marsh and ditch deposits below the eastern town defences, deposits which probably started to accumulate *c.* AD 70.[78] 'Belgic style' pottery is also known from within the walled area of the Roman town, and from an area of the suburbs investigated by Harden, but very little was recovered from the sites excavated more recently in this area.[79]

Carinated bowls, such as Slade Farm no. 37, are found on all Late Iron Age sites in Oxfordshire N. of the Thames, but are absent S. of the Thames.[80] This may perpetuate a cultural division which had existed since the Middle Iron Age. From the mid 1st century AD however Savernake wares occur N. and S. of the Thames. Booth suggests that this may indicate a disruption of patterns of exchange around the time of the conquest. However, the large storage jars from Slade Farm do not match Savernake Ware in terms of colour (red rather than grey) or fabric (no flint inclusions), and trading connections may have been aligned more to the N. and E.

The Late Iron Age rim diameter data from Slade Farm accords with that from Barton Court Farm, Abingdon (see above), and indicates that vessel sizes may have become highly standardised by this period. It will be interesting to compare this data with statistics from other sites in the Thames valley, including the defended enclosure at Abingdon,[81] as they become available.

[70] Lambrick, op. cit. note 49, p. 96.
[71] Allen and Robinson, op. cit. note 45, p. 77.
[72] Cromarty, Foreman and Murray, op. cit. note 10.
[73] S. Green, P. Booth and T. Allen, 'Stanton Harcourt Gravelly Guy: The Late Iron Age and Roman Pottery' (OAU, forthcoming).
[74] Mould, op. cit. note 9, pp. 75-88.
[75] Ibid. Fig. 6.
[76] Ibid. p. 82.
[77] Ibid. pp. 81-2.
[78] C.J. Young, 'The Defences of Roman Alchester', *Oxoniensia*, xl (1975),142-4, Fig. 5.1-17.
[79] For the A421 sites, P. Booth pers. comm.
[80] Green, Booth and Allen, op.cit. note 73.
[81] Parrington, op. cit. note 40.

LUMINESCENCE DATING by SARAH BARNETT

Out of the 17 sherds submitted for dating, five were selected and tested using the quartz inclusion technique.[82] No measurable thermoluminescence (TL) nor optical stimulated luminescence (OSL) signal was detected for three of these samples. Dates obtained for the remaining two samples are as follows:

Luminescence single dates (+/– random error; +/– overall error; 68% level of confidence)	Lab ref	Context
335BC +/- 100, +/- 185	Dur97OSLqi 219-1	Area A, F173
610BC +/- 360, +/- 390	Dur97Tlqi 219-2	Area A, F136

Details of the measurements made are held in the archive.[83] The random error should be used when comparing luminescence dates within the site, but the overall error should be used to compare with independent dating such as typology or radiocarbon dates and with dates from other sites.

FIRED CLAY by ANN WOODWARD

A small amount of fired clay was recovered from Areas A, B and C. There were 29 fragments weighing 68 g. Of these, 23 pieces were found stratified in pit deposits in Areas B (F109) and C (F125 and F105), associated with Middle Iron Age pottery. All the fragments were in a very soft and friable oxidised fabric containing large amounts of coarse fossil shell filler. Slightly curved surfaces were represented on three pieces and it is possible that all the material derives from perforated clay weights.

METALWORK by JENNIFER FOSTER

Razor (Fig. 21.1)

A tiny bronze razor of trapezoidal shape with slightly splayed blade, originally curved at the bottom but now with a damaged edge. Triangular section blade with almond-shaped cut-out above the blade. Originally two circular loops at the top; one now remains. The razor appears to be well-worn. There is a band of polish on the lower half of the blade and the upper part is also highly polished. On the back (as drawn) there is a series of parallel fine striations across the blade, at 45° to the edge, perhaps use wear. On the front, in addition to fine striations (some parallel to the blade), are numerous deep scratches, which are more likely to be due to stropping. L 37 mm., depth of blade 15 mm., diam. of loop 7 mm., diam. of hole 3 mm. From Area C, pit F114.

Bronze razors of this type, with two loops and a trapezoidal blade, date to the earliest phase of the Iron Age,[84] coinciding with the Hallstatt C phase in Germany and Austria (*c.* 700-600BC).[85] It might be expected that iron razors would take over from bronze in the Early Iron Age, but iron was still a prestige metal and iron razors appear in Hallstatt D contexts in very rich graves only.[86] The type is widespread in western Europe, with local variations, particularly in France,[87] and examples are found as far as Sweden and Germany.[88] This example is most similar to the four from Britain: from Winterslow, the Thames at Richmond, Danebury and South Cadbury,[89] suggesting that the razors were made locally, like the bronze swords of the Late Bronze Age.[90] In fact Piggott [91] suggested that the Ham Hill razor (later reprovenanced as coming from Hamdon Hill) was a failed casting.

[82] M.J. Aitken, *Thermoluminescence Dating* (1985).
[83] According to recommendations in I.K. Bailiff, Ancient TL date list, *Ancient TL*, 4.38-45.
[84] B.W. Cunliffe, *Iron Age Communities in Britain* (1991), 61, 418, Fig. 16.10.
[85] Ibid. p. 407.
[86] As at Hochdorf: J. Biel, *Der Keltenfürst von Hochdorf* (1985), 66-7.
[87] A. Jockenhövel, *Die Rasiermesser in Westeuropa* (Prahistorische Bronzefunde VIII, Bd. 3, 1980).
[88] A. Jockenhövel, *Die Rasiermesser in Mitteleuropa* (Prahistorische Bronzefunde VIII, Bd. 1, 1971).
[89] Biel, op. cit. note 86, pp. 173-4.
[90] C. Burgess, 'The Bronze Age in Wales', in J.A. Taylor, *Culture and Environment in Prehistoric Wales* (BAR 76, 1980), 243-86.
[91] C.M. Piggott, 'The Late Bronze Age Razors of the British Isles', *Proc. Prehist. Soc.* 12 (1946), 128.

TABLE 8. DIMENSIONS OF BRITISH EARLY IRON AGE RAZORS (RECONSTRUCTED DIMENSIONS IN BRACKETS)

Site	*Length mm*	*Depth of blade mm*	*D of loop mm*	*D of hole mm*
Two loops, trapezoidal blade				
Danebury	89	38	14	4
Hamdon Hill	70	16	12	8
Richmond	74	32	10	4
Slade Farm	(42)	(25)	7	3
South Cadbury	68	40	11	4
Staple Howe	84	18	9	4.5
Winterslow	83	32	10	4
One or double loop, Triangular blade				
Leckwith	36	28	14	8
Llyn Fawr	62	30	11	4
Sion Reach	(48)	27	8	3

Data from Jockenhövel 1980, op. cit. note 87

It is assumed the razors were used for shaving. Razors on the continent are usually found in graves, occasionally with human hair,[92] in one case eyebrow hair.[93] Jockenhövel suggests that they were included in graves after ritual shaving of the corpse, a suggestion supported by the fact that they are occasionally found in women's graves. Certainly they are unusual objects, not owned by all; in France they are found in about one in ten graves. They were probably made to order: it is a difficult group to classify as each razor was unique, e.g. with varying cut outs, loop shapes and blade sizes. It is not known what the loops were for: for suspension; to support a handle; decoration; or to give the fingers a leverage at the top of the razor. The inner side of the hole of this example does not appear to be worn as though by suspension, and the wear suggests that it was held, rather than the rings being covered by a wooden handle. This razor is a very small example of its type, being only about half the size of its nearest parallels (Table 8). However, it is still large enough to have been used in a functional way: the one-ringed Leckwith razor has a blade only 36 mm. wide.

Tweezers (Fig. 21.2)

Pair of iron tweezers with straight blades, slightly rounded at the ends. The blades are thick (2 mm.) but curve into a sharp edge for gripping. L 79 mm., width of blade 9 mm. From Area B, pit F109.

Bronze tweezers are well-known from Bronze Age and Iron Age contexts, often as part of cosmetic sets.[94] Iron tweezers are much less common and tend to be Late Iron Age or Roman in date,[95] but they have no diagnostic features and there is no reason why this pair should not date from the Early Iron Age. Tweezers were probably used for cosmetic purposes for plucking hair.

Reaping hook (Fig. 21.3)

Small iron reaping hook with strongly curved blade and rounded rather than pointed end.[96] The handle end has slightly raised flanges on both sides. The handle was held in place with two large square-section rivets,

[92] Jockenhövel, op. cit. note 87, p. 246.
[93] Ibid. p. 198.
[94] J. Déchelette, *Manuel d'Archéologie III, Premier Age du Fer ou époque de Hallstat* (1927), 367-71.
[95] E.g. from King Harry Lane: I.M. Stead and V. Rigby, *Verulamium: the King Harry Lane Site* (1989), 104.
[96] As an example from Glastonbury: A. Bulleid and H.St.G. Gray, *The Glastonbury Lake Village*, II (Glastonbury Antiq. Soc. 1917), 1179.

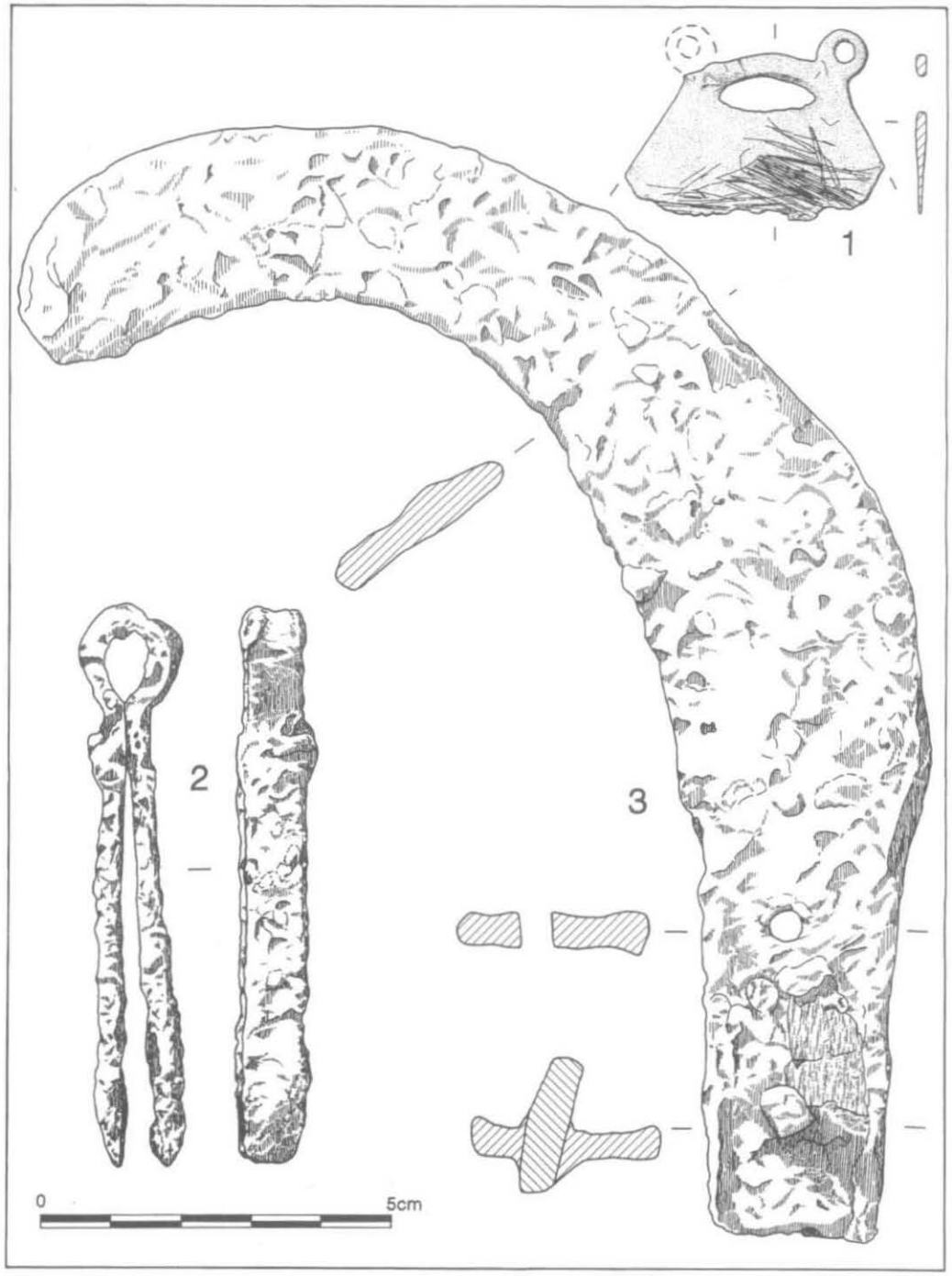

Fig. 21. Metalwork: 1 bronze razor, 2 iron tweezers, 3 iron reaping hook; scale 1:1.

one of which survives (length at least 20 mm.). Traces of the wood of the handle survive in the corrosion products, the grain running parallel to the edge of the reaping hook tang.[97] L 186 mm., max width of blade 38 mm. From Area D, pit F164.

The size is small compared to modern sickles, but before the Roman period they were generally small. The earliest iron reaping hook, from Llyn Fawr, only measures 180 mm. long with a socketed handle at right angles,[98] while later in the Iron Age the Glastonbury reaping hooks are 200-300 mm. long.[99] Curved iron blades appear in earliest Iron Age contexts and they are ubiquitous on most settlement sites from All Cannings Cross onwards.[100] Reynolds argues that they were not used for reaping, but for splitting thin wooden rods, e.g. hazel, willow and bramble.[101] Alternatively, they could have been multi-purpose tools, used for reaping, cutting wattles and hedge trimming. The shapes vary from almost straight blades to very large hooked blades.[102] There is also a range of handle[103] attachments which are not diagnostic as to date. Some are flanged with rivets, as in this case, some are tanged, while in others the handle was on one side of the reaping hook only and was held in place by a single rivet and a hook at the base of the handle. Handles could be of wood as here[104] or antler.[105]

THE ANIMAL BONES by ANDY HAMMON

Introduction and methods

This report considers bone from the two Iron Age periods and excludes the very small amount of material derived from Period 3. The mammal bones were recorded following a modified version of the method described by Davis[106] and Albarella and Davis.[107] Mandibular fragments were considered to be ageable when there were two or more teeth present with recognisable wear. Mandibular teeth, both *in situ* and loose, were aged using tooth eruption and wear patterns. Cattle and pig teeth were recorded using the system devised by Grant,[108] whereas sheep teeth were recorded according to Payne.[109] Von den Driesch[110] defines the majority of measurements. All pig measurements follow the definitions of Payne and Bull.[111] Measurements for all species followed the same authors and Davis.[112] The differentiation of sheep and goat was attempted on the

[97] For a definition of reaping hooks and sickles see W.H. Manning, *Catalogue of Romano-British Ironwork in the Museum of Antiquities, Newcastle* (Dept. Archaeology, Newcastle, 1976), 30.

[98] H.N. Savory, *Guide Catalogue of the Early Iron Age Collections* (Nat. Museum of Wales, Cardiff, 1976), Fig. 11.8.

[99] Bulleid and Gray, op. cit. note 96, pl. 61.

[100] M.L. Cunnington, *The Early Iron Age Inhabited Site at All Cannings Cross Farm, Wilts* (1923), pl. 20.

[101] P.J. Reynolds, *Iron Age Farm* (Brit. Mus. Publ. 1979), 64-5.

[102] Some at Glastonbury are probably billhooks, e.g. Bulleid and Gray, op. cit. note 96, p. 366.

[103] As at Danebury: B.W. Cunliffe and C. Poole, *Danebury: An Iron Age Hillfort in Hampshire*, 5 (CBA Research Rep. 73, 1991), Fig. 7.9, no. 2.209; and Glastonbury: Bulleid and Gray, op. cit. note 96.

[104] Bulleid and Gray, op. cit. note 96, p. 369.

[105] Cunnington, op. cit. note 100, p. 120, no. 10.

[106] S. Davis, *A Rapid Method for Recording Information About Animal Bones from Archaeological Sites* (Ancient Monuments Lab. Rep. 19/92, 1992).

[107] U. Albarella and S. Davis, *The Saxon and Medieval Bones excavated 1985-1989 from West Cotton, Northamptonshire* (Ancient Monuments Lab. Rep. 17/97, 1997).

[108] A. Grant, 'The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates', in B. Wilson, C. Grigson and S. Payne (eds.), *Ageing and Sexing Animal Bones from Archaeological Sites* (BAR 109, 1992), 91-108.

[109] S. Payne, 'Kill-off Patterns in Sheep and Goats', *Anatolian Studies: Jnl. of Brit. Inst. of Archaeol. at Ankara*, 23 (1973), 281-303; S. Payne, 'Reference Codes for the Wear States in the Mandibular Cheek Teeth of Sheep and Goats', *Jnl. of Archaeol. Sci.* 14 (1987), 609-14.

[110] A. von den Driesch, *A Guide to the Measurement of Animal Bone from Archaeological Sites* (Peabody Mus. Bull. 1, 1995).

[111] S. Payne and G. Bull, 'Components of Variation in Measurements of Pig Bones and Teeth, and the Use of Measurements to Distinguish Wild from Domestic Pig Remains', *Archaeozoologia*, 2 (1988), 27-65.

[112] Davis, op. cit. note 106.

following elements: deciduous lower premolars (dP3 and dP4); humerus; metacarpal; tibia; astragalus; calcaneum; and metatarsal. The criteria defined by Boessneck[113] were used for all elements except the teeth[114] and the tibia.[115] The criteria of Lister[116] were used to distinguish between fallow deer (*Dama dama*) and red deer (*Cervus elaphus*).

Overview

The following report considers all the hand-retrieved vertebrate remains from the evaluation and the excavation. The charred plant flotation residues were not assessed for additional vertebrate remains. Normally a reliance on purely hand-collected material would have introduced a recovery bias into the assemblage. However with this collection, Albarella[117] concluded that because of the small size of the samples (usually 20 litres) and the poor preservation, little additional material would have been produced. Hand retrieval generally favours the larger skeletal elements of the larger species at the expense of the smaller elements of the larger species and the smaller species of mammal, bird, amphibian and fish.

The animal bones represent a small assemblage, which weighed around 12 kg. Period 1 produced 214 identified skeletal elements and Period 2 produced 34 (Table 9). The whole assemblage (both phases) produced only 2 ageable cattle mandibles and 5 sheep/goat mandibles. A total of 19 mandibular measurements were taken and 13 post-cranial measurements were taken from a variety of species, which included cattle, sheep/goat, pig, equid and dog. The assemblage was dominated by the major domesticates. For both phases, sheep (which includes specimens identified as either sheep – *Ovis aries*, or sheep/goat – *Ovis/Capra*) were the predominant species, followed by lesser amount of cattle, equid (almost certainly horse – *Equus caballus*) and then pig (Table 9). Dog and cat (see below) were present in small numbers (Table 9). Wild species were also present (Table 9). Two red deer specimens were noted from F158 and F171 in Area A. A single rat/vole incisor was recorded from F163 in Area D, and either belonged to the brown rat (*Rattus norvegicus*) or the water vole (*Arvicola terrestris*). There is even the possibility that this specimen may be from the black rat (*Rattus rattus*), which is generally thought to have been introduced during the Roman period.[118]

TABLE 9. NUMBER OF COLLECTED IDENTIFIED SKELETAL ELEMENTS (NISP), USING A DIAGNOSTIC ZONE SYSTEM, BY SPECIES AND PHASE

SPECIES	*Period 1*	*Period 2*	*TOTAL*
Cattle (*Bos taurus*)	69	9	78
Sheep (*Ovis aries*)	8	1	9
Sheep/Goat (*Ovis/Capra*)	90	14	104
Pig (*Sus scrofa*)	11	1	12
Equid (*Equus sp.*)	21	6	27
Dog (*Canis familiaris*)	12	2	14
?Cat (?*Felis catus*)	1		1
Red deer (*Cervus elaphus*)	2		2
Rat/Vole (*Rattus/Arvicola*)		1	1
TOTAL	214	34	248

Davis 1992; Albarella and Davis 1994

[113] J. Boessneck, 'Osteological Differences between Sheep (*Ovis aries Linné*) and Goat (*Capra hircus Linné*)', in D. Brothwell and E. Higgs (eds.), *Science in Archaeology* (1969), 331-58.

[114] S. Payne, 'Morphological Distinctions between the Mandibular Teeth of Young Sheep, *Ovis*, and Goats, *Capra*', *Jnl. of Archaeol. Sci.* 12 (1985), 139-47.

[115] Z. Kratochvil, 'Species Criteria on the Distal Section of the Tibia in *Ovis ammon F. Aries L.* and *Capra aegrus F. Hircus L.*', *Acta Veterinaria*, 38 (1969), 483-90.

[116] A.M. Lister, 'The Morphological Distinction between Bones and Teeth of Fallow Deer (*Dama dama*) and Red Deer (*Cervus elaphus*)', *Internat. Jnl. of Osteoarchaeology*, 6 (1996), 119-43.

[117] U. Albarella, *Slade Farm, Bicester (Oxfordshire): Assessment of the Animal Bones* (Dept. of Ancient Hist. and Archaeol., Univ. of Birmingham, 1997).

[118] G.B. Corbet and S. Harris (eds.), *The Handbook of British Mammals* (1991).

The animal bones were in general poorly preserved, which was characterised by the extensive abrasion and exfoliation of their original surfaces. Some contexts contained material which was exceptionally poorly preserved and had little, if any, of their original surfaces intact (to the extent that tooth enamel had been degraded). A few contexts contained material which was moderately well preserved. The overall poor preservation meant that the identification of canid gnawing and butchery marks, especially fine knife marks, was extremely difficult. Consequently, both the levels of dog gnawing and butchery recorded from this assemblage is probably under representative. The assemblage, for both periods, was quite heavily fragmented. The proportion of isolated mandibular and maxillary teeth within the 'countable' elements can be used to gauge the severity of fragmentation. 73% (181 of 248 'countable' elements) of the assemblage (both Periods 1 and 2) consisted of isolated teeth. Canid gnawing was recorded on 17% (9 of 54) of the 'countable' post-cranial elements. This is probably an under representative figure (see above), but would still suggest that the majority of bones were retrieved from their original anthropogenic place of deposition, rather than from secondary deposition caused by scavenging dogs. Butchery marks were noted on 9% (5 of 54) of the 'countable' post-cranial elements. This is probably not an accurate picture of the level of butchery (see above). All the marks noted correspond to the primary division of the carcass. It has not been possible to infer whether the Slade Farm inhabitants were slaughtering animals at the site, or whether already prepared joints of meat were being brought to the site.

Several interesting pathological and congenital conditions were noted from the assemblage. A sheep/goat mandibular M_3 (from F33, Area E) demonstrated abnormal root formation, which has been associated with chronic infection.[119] A sheep/goat mandible from F157 in Area D demonstrated periodontal disease and had an abscess located on the lingual side of the P_4 alveolus. A missing hypoconulid (third/distal cusp) was noted from a mandibular cattle M_3 (F171 in Area A) and a greatly reduced hypoconulid from a cattle mandibular M_3 (from a cleaning layer). This type of congenital abnormality occurs with some frequency in prehistoric animals and becomes less common by the medieval period. Absence of the hypoconulid may have something to do with breeding cattle from limited gene pools, a phenomenon which decreases with deliberate breed improvement.

A femur from a very young animal was recorded from F31 in Area D. It has been tentatively identified as cat (*Felis catus*). The ritual pit, F114, in Area C contained a partial dog skeleton, the only example noted from the site. No butchery marks were noted; this was, however, a fill with poor preservation. The suggestion that the possible stock control features associated with the boundary were most suited to the management of sheep would seem to be supported by the species composition of the Slade Farm assemblage (Table 9). The assemblage was too small to test wider hypotheses. It was of interest to note that Structures 1 and 5, interpreted as stock pens, contained no 'countable' bone and this may perhaps be significant.

Summary and conclusions

The hand-retrieved animal bones from Slade Farm represent a small assemblage. This material was characterised by poor preservation and extensive fragmentation. The majority of the material was assigned to Period 1. Both assemblages were dominated by the major domesticates. Sheep (including specimens identified as either sheep or sheep/goat) were predominant, with lesser amounts of cattle, horse and then pig. Dog was present in small numbers and one probable cat bone was identified. Red deer and a single rat/vole specimen represented wild species. Unfortunately, due to the preservation and fragmentation this assemblage provided only limited information. It has been possible, to a degree, to apply the Slade Farm vertebrate assemblage to site-specific questions. The species composition noted supports the interpretation of the structural evidence as stock control measures best designed to manage sheep. Additionally, the presence of a partial dog skeleton from the same feature as the Hallstatt razor lends support to the ritual interpretation of the deposit.

THE CHARRED PLANT REMAINS by ANGELA MONCKTON

Introduction and methods

Charred seeds, cereal grains and chaff are preserved in most soil conditions, and samples were taken for their recovery because these remains can provide evidence about crops and diet in the past. Features of Early to Middle Iron Age date were sampled from all the areas excavated, and included pits, gullies and ring ditches associated with occupation. A group of Late Iron Age pits was also sampled. Charred plant remains were

[119] J. Baker and D. Brothwell, *Animal Diseases in Archaeology* (1980), 150.

found in all the samples taken and although not abundant it was considered worthwhile recording them to show their distribution on the site and for comparison with other sites in the region. Samples were taken from contexts which were datable and thought to have the potential to contain charred remains. They were processed by flotation into a 0.5 mm. mesh sieve and the flotation fractions (flots) were air-dried and sorted using a stereo microscope. The plant remains were identified by comparison with modern reference material in the Department of Archaeology, University of Leicester. The remains were counted and tabulated (Table 10).[120] Remains are seeds in the broad sense unless described otherwise. The plant remains were tabulated by area from north to south.

Results

Cereals: Charred cereal grains were found in all the samples. Grains of wheat (*Triticum* sp.) were the most common and the identified grains were all of emmer or spelt (*Triticum dicoccum/spelta*) with a possible grain of emmer (*Triticum dicoccum*). Barley (*Hordeum vulgare*) was also present including a hulled form. All the grains were abraded and most could not be identified further and were recorded as indeterminate cereal. Chaff fragments were found in nine of the samples. These were mainly the glume bases of wheat, either emmer or spelt, with spelt (*Triticum spelta*) most common. Occasional rachis fragments of emmer or spelt and a few of barley were also found. Spelt and emmer are both glume wheats which have the grains held tightly in the robust glumes (chaff) so additional processes are required to free the grain and remove the chaff which is left as waste and if burnt can be preserved by charring.

Other plants: Charred weed seeds were mainly of the plants of arable or disturbed ground. These included cleavers (*Galium aparine*), a plant typical of autumn sown crops, together with other weeds of disturbed ground such as goosefoot (*Chenopodium* sp.), knotgrass (*Polygonum aviculare*) and docks (*Rumex* sp.). The vetches (*Vicia/Lathyrus*) and clover type (*Medicago/Melilotus/Trifolium*) are plants of grassy places but could also be weeds of cultivated fields. This is also true of the brome grass (*Bromus hordeaceus* or *secalinus*) which is often found with charred grain. The few damp ground plants included spike rush (*Eleocharis* sp.) and buttercup (*Ranunculus* sp.) which could have grown in damp areas of cultivated fields or in damp grassland or near the ditches. The only evidence for gathered food was from fragments of hazel nut shell (*Corylus avellana*) which were found in four of the samples.

Period 1 (Early/Middle Iron Age features): The most productive samples were from the N. of the site. In Area C, four samples from pits within Structure 3 were relatively productive. In samples from F114, F126 and, less markedly, in F125, the wheat glumes outnumbered the wheat grains indicating that the features contained cereal cleaning waste because in the ear of wheat there is one glume to each grain on average. These three samples also have higher numbers of weed seeds than grains adding to this conclusion.[121] The remains however are not abundant suggesting small scale cereal cleaning for domestic use. The few remains from F117 were dominated by grains suggesting that this was waste from food preparation. Hazel nutshells from this area also suggests that domestic waste was present. In Area B, one of the four pits sampled, F109, was the most productive from the site with glumes markedly outnumbering wheat grains 91:12, suggesting that this contained cereal cleaning waste from fine sieving the grain to remove the chaff.[122] The remaining samples from this area were dominated by grains suggesting a scatter of domestic waste.

The S. areas of the site produced fewer remains. In Area A, the ring ditch of Structure 1, F145, and a pit within Structure 2, F173, produced only a few cereal grains. In Area D, ditch terminal F156 was similar to the Area A samples in producing few remains mainly cereal grains, as were Area E samples from Structure 4, ring ditch F23 and pit F175. The remains from these areas suggest a scatter of domestic waste.

Period 2 (Late Iron Age features): Three pits in Area D were sampled, with F162 the most productive. This was dominated by weed seeds which showed a slightly wider variety of arable weeds than the earlier samples. The samples contained a few cereal grains, chaff and weed seeds probably from the final hand-sorting of cereals for consumption, together with hazel nutshell also probably representing domestic waste.

[120] With reference to C. Stace, *New Flora of the British Isles* (1991).

[121] Van der M. Veen, *Crop Husbandry Regimes* (Sheffield Archaeol. Monographs 3, 1992).

[122] G.C. Hillman, 'Reconstructing Crop Processing from Charred Remains of Crops', in R. Mercer (ed.), *Farming Practice in British Prehistory* (1981).

TABLE 10. CHARRED PLANT MACROFOSSILS

Area	C				B			
Period	1	1	1	1	1	1	1	1
Feature	114	117	125	126	109	119	132	118
Context	3022	3036	3030	3035	2022	2034	2040	2031
Context type	Pit	Pit	Pit	Pit	Pit	Pit	Pit	Pit
CEREALS								
Triticum cf *dicoccum* grain	-	-	-	-	-	-	-	-
Triticum dicoccum/spelta grain	3	-	3	1	5	6	-	3
Hordeum vulgare L. hulled grain	-	-	-	1	-	-	-	-
Hordeum vulgare L. grain	1	-	1	-	2	1	-	-
Cereal indet. grain	10	6	7	3	10	7	3	1
Cereal/Poaceae grain	1	-	-	-	1	-	1	-
Triticum cf dicoccum glume base	-	-	1	1	-	-	-	-
Triticum spelta L. glume base	3	-	1	2	18	1	-	-
Triticum spelta L. spikelet fork	-	-	-	-	2	-	-	-
T. dicoccum/spelta glume base	26	1	9	7	59	4	2	-
T. dicoccum/spelta spikelet fork	-	-	-	-	5	-	-	-
T. dicoccum/spelta rachis	-	-	1	-	1	-	-	-
Hordeum vulgare L. rachis	-	-	1	-	-	-	-	-
Culm node large	-	1	1	1	3	1	-	-
WILD PLANTS								
Ranunculus subgen *Ranunculus*	-	-	-	-	-	-	-	-
Corylus avellana L.	2	-	-	2	-	-	-	-
Chenopodium album type	-	-	2	1	-	-	-	-
Stellaria/Cerastium	1	-	1	2	-	-	-	-
Polygonum aviculare L.	-	-	-	-	-	-	-	-
Fallopia convolvulus (L.) A Love	-	-	-	-	-	-	-	-
Rumex sp.	1	-	-	1	1	-	-	-
Aphanes arvensis L.	-	-	-	1	-	-	-	-
Vicia/Lathyrus	1	-	-	1	-	-	-	-
Medicago/Melilotus/Trifolium	5	1	5	2	3	6	-	-
Solanum sp.	1	-	-	-	-	-	-	-
Galium aparine L.	-	-	-	-	-	1	-	-
Galium sp.	1	-	-	-	1	-	-	-
Eleocharis sp.	-	-	1	-	-	-	-	-
Luzula sp	-	-	-	-	-	-	-	-
Bromus hordeaceus/secalinus	1	-	2	2	-	-	1	-
Poaceae large	2	3	2	-	4	2	-	-
Poaceae small	3	-	1	1	-	-	-	-
Indetermined seeds	2	-	1	2	2	-	-	-
Culm fragments, small	-	-	-	-	+	+	-	-
Charred fragments indet.	-	-	-	-	-	-	-	-
TOTAL	64	12	39	31	117	29	7	4
Vol sample	9	8	10	8	19	17	6	7
Vol flot	35	45	70	30	120	60	50	40
Items/litre	7.1	1.5	3.9	3.9	6.2	1.7	1.2	0.6

Key. + = present, ++ = abundant, Gu = Gully, RDch = ring ditch, Dch = ditch.
Flots 100% sorted. Remains are seeds in the broad sense unless described otherwise.

A		D	E			D			
1	1	1	1	1	1	2	2	2	
145	173	156	23	23	175	157	159	162	
1008	1049	4005	5023	5030	5032	4004	4009	4011	
RDch	Pit	Dch	Gu	Gu	Pit	Pit	Pit	Pit	
-	-	-	1	-	-	-	-	-	Emmer
-	-	2	-	-	-	-	-	1	Wheat
-	-	1	-	-	-	-	1	-	Barley
1	-	1	-	-	2	1	-	1	Barley
2	1	3	4	2	1	4	2	2	Cereal
-	-	-	1	-	-	-	-	2	Cereal/Grass
-	-	-	-	-	-	-	-	-	Emmer
-	-	-	-	-	-	-	1	5	Spelt
-	-	-	-	-	-	-	-	-	Spelt
-	-	5	-	-	-	-	5	7	Glume wheat
-	-	-	-	-	-	-	-	-	Glume wheat
-	-	-	-	-	-	-	-	-	Glume wheat
-	-	1	-	-	-	-	-	-	Barley
-	-	-	-	-	-	-	-	-	Cereal stem
-	-	-	-	-	-	-	-	1	Buttercup
-	-	-	-	-	-	2	5	-	Hazel nut shell
-	-	-	-	-	-	-	-	5	Fat-hen
-	-	-	-	-	-	-	1	2	Stitchwort/Mouse-ear
-	-	-	-	-	-	-	-	1	Knotgrass
-	-	-	-	-	-	-	-	4	Black bindweed
-	-	-	-	-	-	-	-	-	Dock
-	-	-	-	-	-	-	-	-	Parsley-piert
-	-	-	1	-	-	2	-	-	Vetch/Vetchling
-	-	-	-	-	-	-	-	1	Clover type
-	-	-	-	-	-	-	-	-	Nightshade
-	-	-	-	-	-	1	3	1	Cleavers
-	-	-	-	-	-	-	-	-	Bedstraw
-	-	1	-	-	-	-	-	-	Spike-rush
-	-	-	-	-	-	-	-	1	Wood-rush
-	-	1	-	-	-	-	1	-	Brome grass
-	-	1	-	-	-	-	-	1	Grasses
-	-	-	2	-	-	-	-	2	Grasses
-	-	2	1	-	-	1	2	3	Seeds
+	-	-	-	-	-	-	-	-	Grass stem
-	-	-	-	+	+	-	-	-	Charred frags
3	1	18	10	2	3	11	21	40	(Items)
7	8	12	6	10	16	12	19	10	(Litres)
45	90	110	30	45	70	55	65	75	(mls)
0.4	0.1	1.5	1.7	0.2	0.2	0.9	1.1	4.0	(Items/litre)

Discussion and conclusions

The cereals present show the use of glume wheat and barley, as found at other sites of the period.[123] Spelt was found to be the most common wheat from the Early Iron Age onwards at Abingdon.[124] The glume wheats differ from modern bread wheat in having the grains tightly held in the chaff (glumes) which needs extra stages of processing to free the grain. This could be done by parching and pounding the cereal and could be carried out in small batches as the grain was required,[125] the chaff then being removed by fine sieving leaving the waste chaff commonly found on occupation sites. The sample from pit F109 in Area B probably contains waste from this activity as do the samples from Area C albeit in smaller quantities. After this processing any remaining contaminants including chaff and seeds were removed from the grain by hand sorting before consumption. If this cleaning waste was burnt then charred weed seeds, chaff and accidentally included grains could be preserved. Most of the rest of the samples appear to consist of this type of waste.

The weeds found could all be from the cultivated fields although some may have been brought to the site with plant material for other purposes such as thatch, fodder or bedding, or may have been burnt incidentally with other material. They may all have been brought to the site with the cereals and a similar group of seeds has been found on a number of sites in the region. Cleavers are thought to indicate autumn sowing[126] and wheat is usually autumn sown. All the plants found could grow on such soils as are found in the area and it is likely that the cereals were grown in the vicinity of the site.

The majority of the charred plant remains found, including all the samples which contain chaff, were concentrated in Areas C and B in the Early-Middle Iron Age period with a scatter of mainly cereal grains in the S. area of the site. This may reflect a difference in activity in the past or may simply be caused by differences in preservation. However, the preservation of charred plant remains in Area D at the S. of the site in Late Iron Age features may suggest that this is possibly a real difference in distribution.

Charred cereal remains thus gave evidence for the use of wheat, mainly spelt, and barley on the site in the Early to Middle Iron Age. There was evidence from wheat chaff (glumes) and weed seeds of cereal cleaning on the site on a domestic scale mainly in the N. of the site. Cereal grains were found in small numbers from samples from all areas of the site and were thought to represent domestic waste from food preparation. Hazel nutshell was found as the only evidence of gathered food. Three Late Iron Age pits gave similar evidence with a slight increase in the weeds found with the cereals.

DISCUSSION

Mesolithic activity

The flint collection from Slade Farm suggests a focus of activity near or at Area E. The activity can be characterised from the tools, cores and flakes as of early Mesolithic date, and may represent a seasonal winter encampment, perhaps regularly revisited, where a number of activities took place including the preparation of plant food. The collection does not include later material and is likely to relate to a specific period of activity and function. Very little Mesolithic activity is recorded in the area, with distributions seemingly biased to higher ground to the NW.[127] A similar collection from Bicester Fields Farm, however, suggests that this is a reflection of an absence of data.[128] There the material may indicate a continuation of activity into the Bronze Age. A wider range of material, including flint of Mesolithic date, has been found at Merton.[129] Mesolithic bands clearly exploited the limestone plain of the Ray as well as the higher ground.

[123] J. Greig, 'The British Isles', in W. van Zeist, K. Wasylikowa and K.E. Behre (eds.), *Progress in Old World Palaeoethnobotany* (1991).

[124] M. Jones, 'The Plant Remains', in Parrington, op. cit. note 40, pp. 93-110.

[125] Hillman, op. cit. note 122.

[126] M. Jones, 'The Development of Crop Husbandry', in M. Jones and G. Dimbleby (eds.), *The Environment of Man, the Iron Age to the Anglo-Saxon period* (BAR 87, 1981).

[127] Briggs, Cook and Rowley, op. cit. note 8.

[128] Cromarty, Foreman and Murray, op. cit. note 10.

[129] Bradley, Parsons and Tyler, op. cit. note 11.

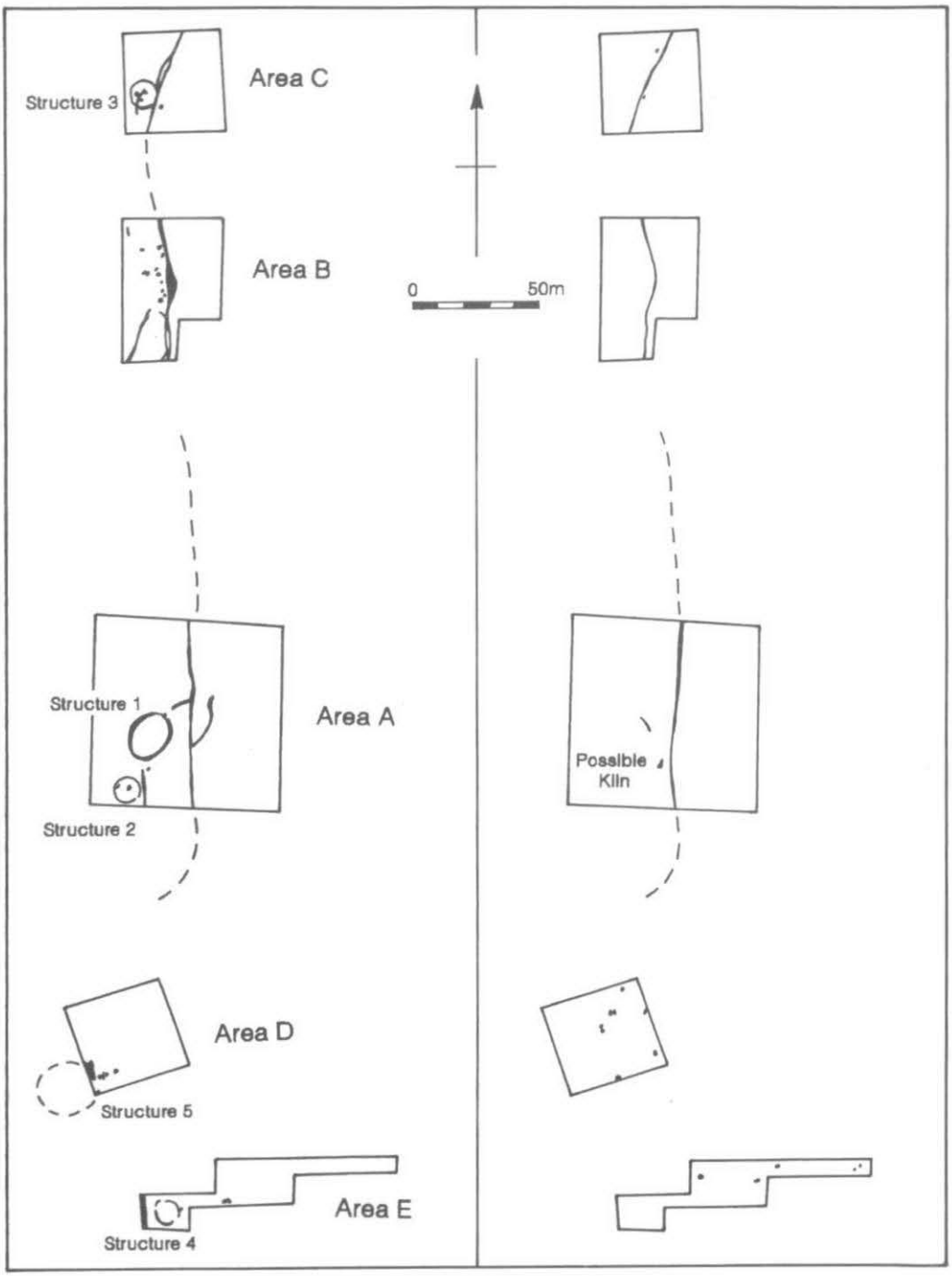

Fig. 22. Area excavations Period 1 (left) and Period 2 (right); scale as shown.

The Early/Middle Iron Age boundary

The sequence of ditches running N.-S. across the area represents the dominant Period 1 feature at Slade Farm, one that continued into the Late Iron Age (Fig. 22). None of the ditches, except perhaps F33 in Area E, could have presented a major obstacle and it must be suspected that the long-standing boundary was marked by other barriers such as a bank, a hedge line with or without a bank, or a drystone wall. The ditches would then represent a succession of slight drainage features on one side of the major boundary; although their drainage functions were not significant: there were no indications of flooding or of any necessity for water management. With few exceptions the excavated features in Areas A-C lay immediately to the W. of the ditches suggesting that the hypothesised boundary feature lay to the E. of the ditches. The succession of ditches themselves were generally cut to the E. of preceding ditches, and the boundary may have been pushed back under pressure of activity on its W. side.

The geophysical plot demonstrates that although the boundary can be traced for 420 m. in a general N.-S. direction, there are significant changes of alignment (Fig. 2). The first from the N. occurs in Area C where the ditch turns several degrees to the S., a second may occur in Area A, while a third, apparently the sharpest, may be present just S. of Area A where the ditch line turns slightly westward before petering out. Two of these changes in direction coincide with the ring gullies of Structure 3 in Area C and Structures 1 and 2 in Area A. It is possible that the boundary was laid out in a series of alignments on significant landscape features or use areas, and that these were reused by the ring gullies, which, in the case of Structure 3 at least, are later than the earliest boundary ditch. Open countryside could thus be suggested at the time of the initial layout with sight lines clear from each fresh alignment.

No southern continuation of the boundary ditch was picked up in the geophysical survey to the S. of Trench J where the southernmost ditch record was made (Figs. 2 and 3). There was no evidence of the ditch in Area D. There, however, the limestone lay just below the surface and ditch cutting may not have been attempted. A bank may have been the only boundary definition where the subsoil gave way to rock, and the remains of this may well have been seen in the form of the line of clay running across Area D, albeit apparently lying in a rock fissure. One factor in support of this would be the position of Structure 5 which would then, like Structures 1-3, have lain directly W. of this major boundary. Ditch F33 located in Area E may have formed the start of a further boundary line with Structure 4 close to F33 but on the opposite side to those to the N. The ditch may mark a continued definition of a general N.-S. boundary with a gap between F33 and the main excavated line of ditches.

The significant feature on which the boundary may have been aligned in Area C was not Structure 3 which cut both Period 1 ditches. The change of alignment of the ditches strongly suggests that another focus should be looked for. Pit F114 contained a piece of metalwork, a pottery vessel and a dog skeleton, suggesting special deposits. The pit may be seen as having a connection with gully F129, itself cut by Structure 3. The Hallstatt razor must have been an heirloom with the pit itself dated to the Middle Iron Age by the pottery vessel. If this pit is seen as the focus then the boundary itself will belong to the same date. However, the presence of Early Iron Age material suggests earlier activity of which no evidence survives on the ground. Structure 3 would then have been added later in order to reinforce the significance of the pit and its deposits.

The slight nature of the Slade Farm boundary would suggest that it should be seen as a permeable boundary similar to pit alignments. These latter may have marked attempted solutions to landscape disputes between different communities, or have marked areas held in common, or have divided different resources.[130] Their construction may have been of greater significance than their upkeep.[131]

In the South Midlands, linear Iron Age boundaries may indicate the management of resources by emerging large scale communities, as has been proposed by Hingley for the Upper Thames[132] and Warwickshire Avon valleys.[133] Long standing boundaries would thus represent agreed divisions of land by collections of families or larger communities. The nature of these boundaries varied, with single and double ditches and associated walls, pit alignments, trackways and field systems recorded.[134] The changing alignments of the Slade Farm ditches might be an indication that differently aligned sections were the responsibility of different groups. A possible interpretation of its function might be that the boundary divided areas devoted to summer and winter activities, with seasonal use of the floodplain pasture as postulated for the site at Farmoor.[135] At Slade Farm the grassland to the E., flooded at times by the River Ray and its tributaries, would have represented the summer grazing. It would also have benefited from being kept clear of stock over the winter months and at the outset of the growing season. Lands to the W. may perhaps have been cultivated or have had cultivated areas present. Here stock would be unwelcome until after the harvest when their manure would have played an important part in maintaining fertility. The presence of plant remains indicating crop processing suggests that this was an activity near the occupation areas.

Other or complementary interpretations are possible, as suggested for pit alignments, such as defining common or disputed land. Linearity was also favoured in the Iron Age for other reasons than separating ground and areas of grazing. It may be a mistaken modern interpretation to see boundaries as peripheral and they may instead have become the foci of activity.[136] Many boundaries may have been accompanied by trackways[137] along which dwellings may have been sited. At Slade Farm, the ditch line may mark a track heading S. perhaps associated with the enclosed house site at Bicester Fields Farm.[138] Those settlements which were laid out on a line, as at Claydon Pike,[139] may have originated with single widely spaced house sites as at Slade Farm, that site representing a survival of early layouts elsewhere.

It would also be possible to view the boundary in emblematic and symbolic rather than functional terms although it would seem likely that such distinctions are a product of contemporary culture. Nevertheless such an approach might well be supported by the slightness of the boundary and by the special deposits in pit F114 on which it may have been

130 J. Pollard, 'Iron Age Riverside Pit Alignments at St Ives, Cambridgeshire', *Proc. Prehist. Soc.* 62 (1996), 110.

131 Ibid.

132 R. Hingley, 'Towards Social Analysis in Archaeology: Celtic society in the Iron Age of the Upper Thames Valley', in Cunliffe and Miles, op. cit. note 5, p. 85.

133 Hingley, op.cit. note 62, p. 146.

134 Ibid.; Hingley and Miles, op. cit. note 5; Hingley, op. cit. note 65.

135 Hingley, op. cit. note 132, p. 83.

136 Pollard, op. cit. note 130, p. 113.

137 Hingley and Miles, op. cit. note 5, p. 57.

138 Cromarty, Foreman and Murray, op. cit. note 10.

139 Hingley and Miles, op. cit. note 5, p. 63.

initially focused. Although later than the boundary, the position of the house sites to one side may be an indication that land had domestic uses to the W. and non-domestic uses to the E. Certainly a long-standing division such as the Slade Farm boundary has a context in the binary opposites seen as key elements in understanding earlier prehistoric societies.[140] If a tame/wild division is considered then Structure 3 is interestingly spaced. It lies physically within the area of domestic space but can only be accessed from the non-domestic side of the boundary. This ambiguity may be reflected by the nature of the deposits within the building.

The associated gullies

A feature of the excavations was the presence of lengths of gullies forming enclosures, not necessarily complete, alongside the boundary ditches and mostly on their W. side. In Area C to the N., ditch F129 ran parallel to the ditches for a short length. In Area B, F131 and F108 marked out an area which may be related to a bank alongside F103 rather than the ditch which was cut by F108. In Area A three gullies, F153, F154 and F158, again suggested enclosures. At two of these three sites it was also noticeable that the ditch itself was treated differently. In Area C, ditch F110 was cut with a slight westward curve for a short distance while in Area B trench F106 coincided in part with the earlier widening of ditch F103. This latter must have been intended to scrape up material for an earthwork which may then have been emphasised by F106.

The gullies in Areas B and A seem likely to represent features for controlling stock such as those beside the Fens discussed by Pryor.[141] In Area B the gully lengths at the end of F131 may have been used to divert animals to different areas. F106 might indeed be seen as forming a race between it and the boundary bank assumed to lie to its E. Hurdles could have been placed and removed in these features as required. At Area A a rather more elaborate system can be seen where stock may have been run down the side of the boundary and diverted across from E. to W. as required where a stockyard may have been sited between gully F158 and the boundary, and where the large enclosure, Structure 1, was sited. There may also have been a large gap between two boundary sections, between Structure 5 in Area D and ditch F33 in Area E. Sheep flocks can be best envisaged to fit this evidence for controls, funnelling and sorting features and, albeit from a small animal bone collection, sheep were indeed the predominant species in both periods. It is possible that some activities, such as separating, exchanging and counting stock, had both a practical and a display purpose. The crossing of the boundary by stock might represent a summation of the importance and position of those who managed them and might therefore also be a reason for attracting ritual deposits in Structure 3.

Although activity appears to have been limited to the W. of the boundary, with the exception of the house site in Area E, it is clear that the boundary was not an impregnable one. The permeability of the boundary was underlined by the entrance to Structure 3 in Area C and by the arrangement of gullies F153 and F154 in Area A. Structure 1 was sited at the clearest point of access across the boundary. Further, the boundary was the location of a range of activities rather than lying as a remote marginal feature; excavation along its line revealing a variety of uses: house sites, pit groups, a ritual focus, and gully arrangements.

[140] I. Hodder, *The Domestication of Europe* (1990), 27.
[141] F. Pryor, *Farmers in Prehistoric Britain* (1998), 100.

The ring gullies: function and status

The ring gullies of Structures 2-4 were similar in size varying from 8.5 m.-10 m. in diameter. Structure 1, 13 m. by 17.5 m. was considerably larger while Structure 5 would have been about 20 m. across. All fall within the size ranges of gully-defined buildings known from the Upper Thames[142] and from Warwickshire.[143] The smaller ones are likely to have defined circular houses and two of these were sited at the points of variation of the ditch alignment noted above. Structure 3 appears only to have been entered from the opposite side of the boundary, its possible porch supports extending over 4 m. beyond the E. side of the ditch and so, presumably, crossing the associated bank. This building seems likely to have served a ritual purpose marking an area where significant objects had already been deposited in pits. It is worth underlining its exceptional nature. It was erected on the site of a ritual deposit, pit F114, itself the focus of the linear boundary, and then may have had a continued ritual use having been symbolically sited across the boundary. Structures 2 and 4 in contrast may have been domestic in purpose, separated by 170 m. Looking at Structures 1 and 5 it is clear that the latter may, like the former, have defined a complete oval. If so it would appear that different segments of the circle were differently treated. The depth of F151, the first gully around Structure 1, varied and was not present at two points. The later gully, F145, also varied. At Structure 5 similarly different gully depths were achieved, although here there were two definite gaps undefined by the slightest of gullies. The Structure 1 ring gully, and that of Structure 5, if accepted as marking a complete circuit, may possibly have marked a drainage gully set several metres from the house wall. However a relationship has been suggested between Structure 1 and the lengths of gully beside it, and it is possible that this and Structure 5 functioned as part of the process of stock control, and may therefore have been oval animal pens, perhaps containing structures. These would have lain 150 m. apart.

It might be, as was attested at Farmoor,[144] that the house sites at Slade Farm were seasonally occupied by shepherds or cowherds. At Slade Farm this cannot be proved by evidence of flooding or a short period of occupation. Transhumance documented in the historical period, albeit involving cattle herds, indicates that the summertown dwellings would have required buildings for humans and, at times, for stock.[145] The house sites may also have been deliberately placed on the boundary as was the case more recently.[146] The evidence of crop processing from the plant remains suggests that this was undertaken at or near Structure 3 and around the pits of Area B with much slighter evidence from Structures 1, 2, 4, and 5 to the S. The processing may therefore have been undertaken close to the area of ritual significance.

The Middle Iron Age pits

Pits were generally grouped either within buildings as in Area C, beside an enclosure as in Area B, or near a gully or ditch terminal as in Area D. The more widespread pits were near the structures or the ditch in Area D, or were in discrete clusters as in Area B. The pits seem in almost all cases to have lain on the W. side of the boundary and to be sited close to it. A

142 T. Allen, D. Miles and S. Palmer, 'Iron Age Buildings in the Upper Thames Region', in Cunliffe and Miles, op. cit. note 5, pp. 89-101.

143 Hingley, op. cit. note 62; Hingley, op. cit. note 65.

144 Lambrick and Robinson, op. cit. note 41, p. 134.

145 A. Bil, *The Shieling 1600-1840: The case of the Central Scottish Highlands* (1990), 174.

146 Ibid. 66.

particular characteristic of the fills of many Period 1 features was the presence of burnt stone as well as animal bone and pottery. The pits in Area B may have been clearance from an area of hearths, perhaps dug on a number of separate occasions. Hardly any of the pits were intercut, the exceptions being F5 and F32 in Area B. If the product of separate occasions of digging, then earlier pits may have been marked in some way. The burnt material may derive from pottery making or iron working, as has been recorded at Bicester Fields Farm,[147] their remains subsequently cleared into pits. The cleaning of crops is attested by the plant remains and some of the pits were probably storage pits for the final cleaned product. However, in view of the presence of ritual deposits it might have been the case that some of the pit fills represent structured and meaningful deposits.

Status and chronology

Apart from the copper alloy razor, there were few finds indicating any special status or widespread connections for the Middle Iron Age settlement. There was no evidence of contact with salt distribution networks as is evidenced by briquetage at other sites. It is possible that pottery making and iron working took place judging by the burnt material. However, as noted above, it is possible that these deposits were symbolic, perhaps of activities elsewhere such as the iron working attested at Bicester Fields Farm.[148] The pottery has parallels both to the S. and to the N. Fabrics were generally similar to those from north Oxfordshire and south Warwickshire from where the best parallels for the structuration of deposits come, yet the pot selected for deposition in Structure 3 had decorative traits most closely paralleled by material from Cassington on the Thames to the SW. The deposition of the razor may have been considered as an appropriate way to mark the establishment or reinforcement of the boundary. Its significance is hard to gauge. Its importance may have been that it had been used for ritual shaving of the dead but had not been deposited in a grave. It might thus have had an ancestral connection and been thought of as a fitting offering or as marking a cenotaph.[149]

Reviewing the dating evidence, it is clear that Early Iron Age activity, attested only by pottery, preceded the archaeological remains. In the Middle Iron Age, a pit, F114, was then the focus of ritual deposits and is datable by its Middle Iron Age vessel. Whatever the pit and the area around it represented, it then became one of the points on which a boundary ditch was aligned and was subsequently marked by a structure. The other structures excavated, of a domestic and agrarian nature, seem likely to have been contemporary. The ditch fills contained Early Iron Age pottery suggesting that this material was still being disturbed when the ditches silted up. It is possible that the silting occurred quite rapidly, the boundary remaining in some other form through until being reused in the Late Iron Age.

Late Iron Age activity

Although the ring gullies and other gullies would have gone out of use by the Late Iron Age, the boundary was still maintained (Fig. 22). Whether this was in the form of a bank, hedge or wall is unknown but it was clearly necessary to recut the ditch, however slight, running, as is presumed, to its W. The maintenance of the boundary contrasts with Late Iron Age

147 Cromarty, Foreman and Murray, op. cit. note 10.

148 Ibid.

149 In more recent times locks of hair and nail parings were taken from the body of the recently deceased to preserve good fortune – see E. Le Roy Ladurie, *Montaillou: Cathars and Catholics in a French Village*, 1294-1324 (1978), 31. It is possible that the Slade Farm razor was retained over generations for such a ritual purpose.

evidence from nearby sites, particularly at Oxford Road.[150] There it was argued that new ground was colonised, ditches cut and house sites established within a context of expansion. The function of the Slade Farm boundary may have changed. It has been argued, from evidence from the Welland valley,[151] that the later Iron Age saw earlier boundaries still functioning but now more in terms of expressing individual holdings and straightforward property ownership. However, there is no evidence of new settlements or new land allotment at Slade Farm in the Late Iron Age nor was the function of the ditch apparently any different to its use in Period 1.

By the time of the use of the possible oven or kiln, F155, in Area A, the boundary may have lost its significance since kilns were frequently sited on marginal ground, sometimes alongside old boundaries for protection from the weather. Area D saw a second concentration of activity with a scatter of pits amongst which three contained Late Iron Age pottery. Some of these lay along the suggested line of the Period 1 bank. In Area C two possible Period 2 pits lay where the bank might have been expected. All the haphazardly-sited pits, at least so sited in relation to the surviving archaeology, were undated or Late Iron Age in date suggesting that all were from Period 2. Similar pottery to the Late Iron Age material at Slade Farm occurs in nearby contexts dated after the Roman conquest. The evidence can be used to suggest that the boundary continued in use until some time in the 1st century AD. Whether its abandonment can be attributed to the local impact of the conquest or whether it was, by then, an increasingly forgotten and unimportant feature, it was still possible for material associated with pottery production from the early Roman period to collect in the Late Iron Age ditches and, intrusively, in the upper fills of some Middle Iron Age features. If the site at Slade Farm was now involved in pottery production, its position near the Roman road between Alchester and Towcester, or its early Roman predecessor, would have allowed easy distribution of its products. Thereafter, as on the Upper Thames gravels,[152] the land appears to have been marginal through the Roman period.

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[150] Mould, op. cit. note 9.

[151] J. Taylor, 'Space and Place: some thoughts on Iron Age and Romano-British landscapes', in Gwilt and Haselgrove, op. cit. note 34.

[152] Hingley, op. cit. note 132, p. 85.