

# Excavations at Pear Tree Farm, Elstow, Bedfordshire, 1976

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## SUMMARY

*The excavation of a cropmark complex, south of Elstow Abbey, at Pear Tree Farm (TL 050473), showed that by rapid mechanical stripping and a sampling of the exposed cropmark features, a fairly detailed assessment of their function and date could be made; and that this to some extent confirmed an initial interpretation of the cropmarks from aerial photographs. The only dating evidence for the site came from the pottery, and this in association with other finds and features showed evidence for small scale farming with domestic structures from the later Iron Age to the early Medieval period.*

*Domestic and infield farming activities in the later Iron Age were represented by a series of pits, 'ring' ditches and a rectilinear enclosure. Continuity of this occupation into the Romano-British period was noted. Apart from a single grubenhäus type feature, which could possibly be of Saxon date, the site was next used in the Early Medieval period (eleventh to twelfth centuries) where a series of parallel ditches and pits showed light industrial/stock farming activities. These were succeeded by a series of close boundary ditches laid off from what is now the A6, and which apparently ceased to be in use by the end of the twelfth century. A single beam slot outside a close boundary suggested the presence of a barn structure at this date.*

## INTRODUCTION

The excavations set out to examine a complex series of cropmarks (TL 050473, Beds C.C./S.M.R. 1624), noted by Dr J.K. St. Joseph, to the south of Elstow Abbey and adjacent to the A6 (Plate 1). These cropmarks are situated on the gravel terrace of the River Great Ouse, and those which form the focus of these excavations have been transposed onto a site/location plan (Fig. 1).

The only element of this cropmark complex which could be associated with surviving landscape features were a series of rectilinear boundaries laid off what is now the A6, and which bore some resemblance to the close surviving to the south.

Examination of an Enclosure map of 1767 showed no such closes surviving at this date; the site being a field called Warren, farmed by John Cox as a tenant to Dennis Ferrer Hillersdon in 1767.<sup>1</sup> These close boundaries could therefore be interpreted as being of an earlier Medieval period.

The cropmarks in this complex otherwise comprised of a series of spots (2-8m across) irregularly spaced, linear and curving features, ring cropmarks with associated spots, rectilinear enclosures, a 'droveway' feature, and a sharply turning right angular and linear cropmark.

The spot cropmarks could be interpreted as pits sometimes associated with the closes and sometimes clearly with the ring cropmarks. They were also thought to possibly represent grubenhäus type features of the Saxon period. The ring and rectilinear enclosure features were seen to be similar to other domestic and farming enclosures of the Iron Age and Romano-Belgic period, known on the gravel terrace of the River Great Ouse.<sup>2</sup> The regularly turning right-angular ditch could be associated with a more extensive cropmark of this type to the south-west,<sup>3</sup> which could be identified from local information as being military practice trenches of the First World War period.

Due to the construction of the Bedford Southern Orbital Sewer in the Spring of 1977 for the North Bedfordshire Borough Council and the Anglian Water Authority, the northern part of this cropmark complex was threatened. An archaeological examination of the site was therefore undertaken in September 1976 for the Department of the Environment and Bedfordshire County Council prior to its destruction. The object of the investigation was to determine as rapidly as possible the date and function of the cropmark elements and to assess the archaeological potential of the site. The excavation was therefore of a rapid, sampling nature; total excavation was not contemplated.

The topsoil was stripped by a J.C.B. with ditching blade, to the natural gravel surface at a

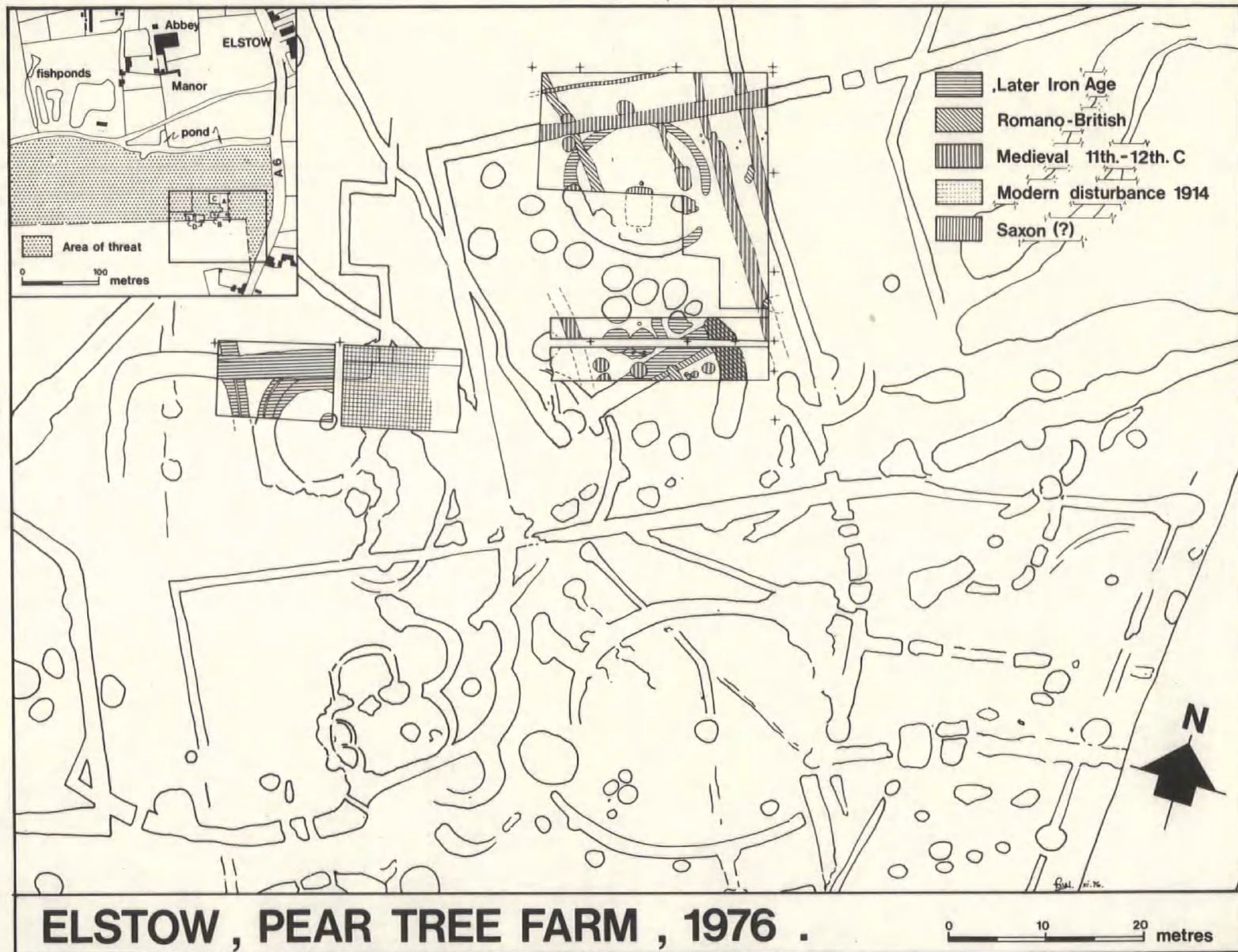




Plate 1 The cropmarks at Pear Tree Farm, Elstow, from the North East, aerial photograph by Dr J.K. St. Joseph.

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depth of 0.45 to 0.6 metres below ground level (layer 1). No alluvial build up was apparent but some areas of the site had some soil depth below the modern plough disturbance. This could be interpreted as being an old plough soil of varying depth (a result of differential soil movement within the field). It was clear that the original level from which the exposed features had been cut, had now been removed by ploughing. The exposed gravel surface and observed features were

then cleaned by shovel and spade and finally by trowel prior to their excavation. This cleaning was taken as layer 2.

A single sequential numbering system was used to denote general layers features, feature layers and small finds. This unique observable phenomenon (O.P.) number was prefixed by the year and Bedford Museum Accession Number (e.g. 1976/4/201). Each O.P. number was recorded on a standard record sheet. The site was divided into four areas (A-D) for ease of feature location. These areas are shown on the site/location plan (Fig 1) and in detail in figure 2 (Area D), and in figure 3 (Areas A, B and C).

All the site records and 'Level 3' record<sup>4</sup> are deposited in Bedford Museum together with the finds.

Fig 1 Opposite the cropmarks at Pear Tree Farm, a location/site plan for the excavation trenches with a date interpretation for the major archaeological features excavated.

## THE EXCAVATIONS

In this excavation report the various elements of the site are grouped and described by period rather than location. It was possible from the pottery to place most features into the general date brackets of Later Iron Age (pre-conquest), Romano-British, Saxon (possibly) and Early Medieval. Certain elements of the site could only be dated by inference and some (particularly random post-holes) could not be associated with any period. A number of features could be interpreted as animal burrows and natural solution holes; these are noted in the site record but are not discussed here and have been omitted from the published plans.

The dating of features, the occurrence of pottery and other material is summarised in the table in figure 6. Unless this material is of particular significance, it is not otherwise described in the following excavation report (Detailed notes on the finds follow this section). A detailed description of the soils is also omitted, but a general description is appended in a brief soil report.

### THE IRON AGE FEATURES

(Site plans: fig 1 and 2, sections: fig 4)

The Iron Age features could be dated to the immediate pre-conquest period with continuing use after the conquest (see below; pottery report). These features were characterised by local hand-made pottery (primarily shelly wares) with the occasional finer Romano-British wheel-turned pottery in their upper levels and recuts. Animal bone and knapped flint often occurred, which with fired clay, daub quern stones, a loom weight, a bone pin, and a drilled bone in certain features (fig 6) indicated a domestic and small scale mixed farming function for the site.

One of the foci of this Iron Age activity was identified in Area D (Fig 2). Two sections were excavated through the rectilinear enclosure ditch (191). The section (fig 4) shows that the ditch was recut and the occurrence of an outer bank can be inferred from the ditch silts and a backfilling with gravel in the upper levels. The occurrence of Romano-British fine wares in this gravel layer (193) suggests the removal of the bank at this period. A small linear gully (229) (depth: 0.4m, width: 0.9m) cut into this layer, clearly supersedes the larger ditch and bank in the post-conquest period although only earlier hand-made pottery was recovered from it.

This rectilinear enclosure cut through earlier

Iron Age features; a ring ditch (208) and a series of linear gullies (214) and (225). The ring ditch comprised of a steep sided ditch with a trenched bottom and internal 'berm' and a surrounding gully (section: Fig 4). Although no post-emplacements could be identified in the fill of the ditch, the lack of collapsed gravel from its sides suggests that it was filled immediately on construction. This in addition to the trenched bottom suggests some form of palisade construction in the ditch, this being surrounded by a small drip gully (210). Shallow double and recut gullies (214) and (225) to the west would appear to be contemporary.

Inside the 'palisade' ring, part of a pit (199) was examined. This pit was unfortunately in the corner of the excavation trench so that its complete shape was not defined. However, it would appear from the section and its cropmark that it was circular with a tongue of gravel projecting into it, the fill of the pit collapsing around this tongue (section fig 4). The pit had undercut sides and two post-holes cut into its base. The pit seems to have been deliberately filled at some stage and a compacted hard clay and chalky deposit (202) suggests deliberate trampling of the fill. The finds from the pit of a quern stone, a loom weight and a bone pin suggests this pit was in a domestic area of the settlement. The shape of the pit and the post-holes suggest that this feature was possibly a covered storage pit.

Other Iron Age features outside this domestic focus were located in areas A, B, and C; areas much disturbed by later Romano-British and Medieval activity. These features include a ring ditch (94)/(169); a series of pits (274), (110), (74), (80) and a large recut linear ditch (103).

The ring ditch (169)/(94) was sectioned in several places, and was very much disturbed by animal burrowing and later medieval activity. Despite the animal disturbance, the three sections (fig 4) show a shallow 'V' profile with a trenched bottom. The ring was open with an entrance on the east side; the portion of the ditch to the south of this entrance (94) was disturbed by activities associated with the medieval slaking pit (86), located inside the entrance. There were no internal features apart from a shallow feature (197) and an associated post-hole, which have been interpreted as a possible grubenhäus and which are discussed under the Saxon heading. The finds from the ring, in comparison to those from the pit associated with the 'palisade' ring, do not indicate any close association with domestic activities for this feature.

## EXCAVATION AREA D , PEAR TREE FARM , ELSTOW , 1976

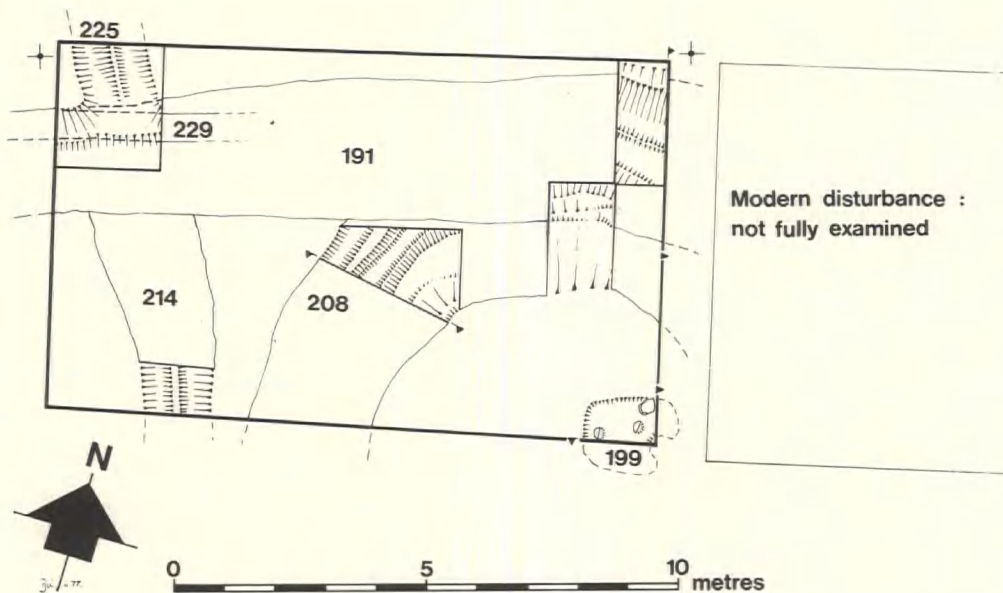


Fig 2 Excavation Area D.

The series of pits (274), (110), (74) and (80) excavated in area B were all very similar. They were steep sided with flat bottoms and were fairly accurately circular. Two of the pits (74) and (110) were conjoined on the southern side and had associated post-holes (124) (143) and (73). There were no finds from pit (274) and is therefore only one of this group of pits by inference. The dimensions and shape of the three pits sectioned were:—

- (110) — 75° sides, flat bottomed, 2.9 metres diameter, 1.6 metres deep.
- (80) — near vertical sides, flat bottomed, 1.8 metres diameter, 0.8 metres deep.
- (74) — vertical sides, flat bottomed, 2.6 metres diameter, 1.2 metres deep.

The fill of the pits was gravel and sand, with a small loam content. The shape and the fill indicate that they were backfilled almost immediately. The function of these pits is rather elusive but possibly a quarrying function could be suggested, their extremely symmetrical shape and careful concave construction does suggest that this is not the case.

To the south of these pits was a repeatedly

recut linear ditch (103) (section: fig 4). From the aerial photograph this would not appear to be an enclosure or boundary ditch. The section shows four phases of ditch construction. The first two phases (141) and (142) would appear to represent a recut 'U' shaped ditch similar to (191). Their upper levels were totally removed by a wide flat bottomed ditch (140) (phase 3). This ditch contained large amounts of pea grit and gravel with tip lines sloping down from the north which perhaps indicates an association with the pits previously noted. The final phase was a gully (144) running along its length, which contained some fine wheel-turned Romano-British pottery and was clearly a gully of post-conquest date. Apart from small quantities of hand-made pottery in the first three phases only one find of significance was recovered; a drilled cow tibia from phase 3. This object showed remarkable similarities to a bone from a first century context at Odell<sup>5</sup> and is discussed in detail later in the report.

A gully (70) lying between the pits and cut by (103) (6.8 metres wide, 9.4 metres depth) with steep sides and a flat bottom contained a few sherds of hand-made pottery.

### THE ROMANO-BRITISH FEATURES

(Site plan: Fig 3)

Apart from the continuing use of the Iron Age features, very few separate features could be associated with this period: a single boundary ditch (168)/(182), a shallow irregular feature (12), a curving ditch (77)/(22), a linear gully (83), and a partly observed feature (55) on the edge of the excavation. Apart from these, Romano-British pottery was recovered as a residual element in the medieval features, suggesting that parts of the Romano-British complex were removed in this medieval period.

The boundary ditch (168)/(182) had a 'V' shaped profile (width: 1.6 metres, depth: 0.4 metres) and ran from north-west to south-west across the Iron Age ring (169).

The shallow irregularly cut feature (12) (width: 0.8m, depth: 0.2-0.3m) was cut by a medieval ditch (13) and residual Romano-British pottery in this medieval ditch clearly showed the removal of this earlier feature in part. A complete and empty cordoned jar was found in this feature. The reason for its presence is not at all clear.

A large curving ditch (22)/(77) (width: 2.9m, depth: 1.1m) had a gentle 'U' profile and was much disturbed in its upper levels in the medieval period. Its function, like (103), is not at all clear but it would not appear to be an enclosure or boundary ditch.

A small linear gully (83) (depth: 0.45m, width: 1.2m) clearly relates in function to the last phase of (103) (i.e. Gully (144)). Both were linear and of similar dimension and fill.

It is clear that whilst some of the Romano-British features continued the use of some parts of the Iron Age complex, others cut across and replaced some of the earlier elements.

### THE SAXON FEATURE

(Fig 3)

A single feature (197)/(196) which was partly excavated in area C could possibly be assigned to this period from the pottery and its shape. (197) was a shallow depression (depth: 0.2m, width: 3.1m) with a post-hole (196) on its north side. This to some extent resembles a very much ploughed out sunken hut (grubenhäus) and the hand made pottery suggests a Saxon date for it, although there is some uncertainty as the 'Saxon' pottery has close affinities with some of the Iron Age fabrics (see below: pottery report).

### THE MEDIEVAL FEATURES

(Site Plan: Fig 3; Sections: Fig 5)

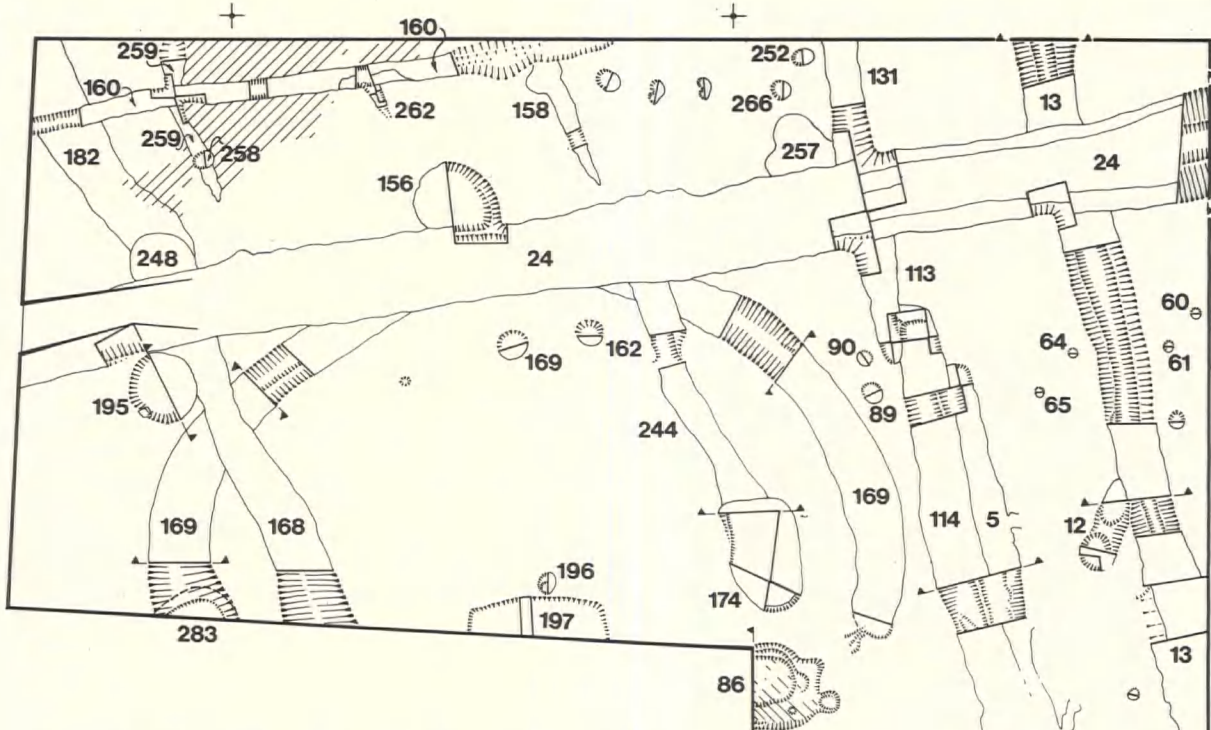
The medieval features were confined to areas A, B and C and it was clear from the stratigraphy that there were two phases of site usage. However the dating of the pottery was not fine enough to separate the two phases entirely from one another (refer pottery report). Both phases were within the eleventh and twelfth century, and both were characterised by local St Neots type pottery. However the upper levels of the second phase contained some 'Imported' medieval sandy wares, occurring in association with the St Neots type wares, which put the final use of the second phase to the later twelfth century.

The first phase was represented by a pair of parallel ditches (5) and (13), with their associated pairs of post-holes (60) and (61), (64) and (65), (89) and (90). Also some of the pit features could be assigned to this phase as they were clearly cut by (as were the parallel ditches) the Medieval close boundary (24); these were pits (248) and (156). The second phase was represented by the large close boundary ditch (24). Other features which could be associated with this phase because of the presence of imported sandy wares were linear ditch (170), the upper disturbance of the Romano-British curving ditch (22)/(77), and double pit (183). All the other features could have fallen into either phase. These included a series of pits (125), (283), (195) and (174); a slaking pit (86), a beam slot (160) and a series of 'post' pits (134).

The parallel ditches (5) and (13) ran NW - SE at some 2.5 metres apart. They had a shallow 'U' profile with a sharp trenched bottom (sections: fig 5). Paired post-holes associated with them suggests that they were contemporary rather than replacements for one another. Ditch (5) was clearly recut and extended by ditches (114), (113) and (131). It seems likely that they represented some form of driveway/penning system for animal stock. The boundary ditch (24) that cut across these parallel ditches was clearly part of a series of close boundaries laid off what is now the A6 (see site plan). The ditch silts indicated that it was an open ditch, and concentrations of gravel collapse showed that there was perhaps a bank to the north at one time (section: Fig 5).

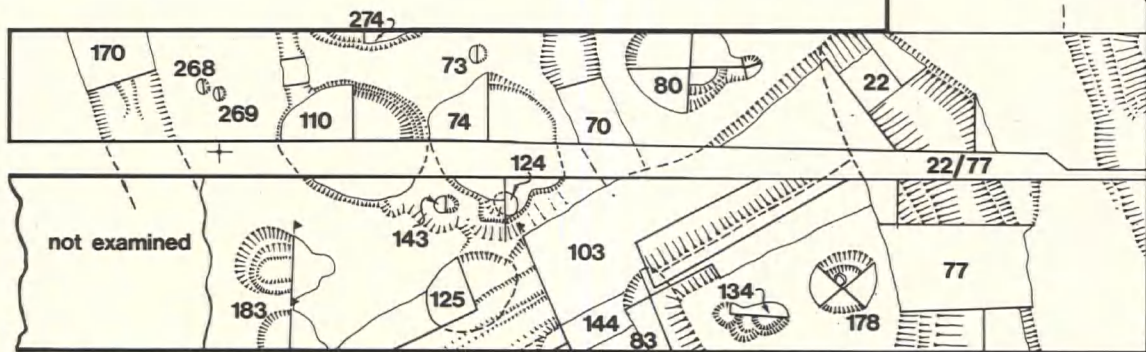
The 'beam' slot (160) (width: 0.15-0.2m, depth: 0.3-0.4m, steeply angled sides and flat bottom), ran parallel to this close boundary to the north. The pottery from it; St Neots type rims and a

Fig 3 (opposite) Plan of trenches A, B and C.



**EXCAVATION AREAS A, B, C  
PEAR TREE FARM  
ELSTOW, 1976**

0 5 10 metres



single residual Romano-British rim (probably originating from ditch (182)), suggested that it at least belonged to the phase when the close boundary was constructed. Its position, parallel to the close boundary, does suggest that it was contemporary. It was positioned outside the close boundary and the length of the beam slot suggested a barn type structure. Various features (259), (262), (158) and post-hole (258) bore some relationship to this beam slot but their function was rather indeterminate. A break in the fill of the beam slot at its junction with (262) may indicate the presence of a joint in a cill beam. A layer of 'sticky' blue clay and gravel surrounded the beam slot on both sides (hatched on plan). This may represent a trampled clay floor.

Two of the medieval pits (248) and (156) clearly belong to the earliest medieval phase. The latter only was sectioned and had a shallow bowl shape (diameter: 1.8m, depth: 0.4m). This shallow circular shape to some extent resembled pit (195) (Section: fig 5). Only St Neots type pottery, animal bone and fired clay was recovered from these pits. Their function is rather elusive but the possibility of their being post-pits could be considered.

The other medieval pits (283), (174), (125) and (86) could, from the pottery belong to this earliest phase. Pits (283) and (174) had undercut sides. Pit (283) cut through the earliest Iron Age ring ditch (169) and undercut into the gravel to the east. Pit (174) (Section: fig 5) was very deep and undercut into fine sandy seams in the natural gravel subsoil. The possibility of quarrying for these two pits could be considered, albeit (283) being badly located. Pit (125) had a flat bottom and near vertical sides (depth: 0.4m, diameter: 1.2m) and more closely resembled pit shape (195) (section: fig 5). Pit (86) (section: fig 5) had quantities of pink chalky lime and gravel on its bottom surfaces (hatched on section and plan). The pink colour could have been formed from the heat produced in the slaking of lime, and a function for this pit as a slaking pit can clearly be inferred. Some animal disturbance, or possibly a post-hole, was evident on its eastern edge.

A series of smaller 'post' pits (134) contained St Neots type wares and a pottery spindle whorl. These bore little relationship to other post-holes but they were adjacent to 'post'-pit (178) which contained no diagnostic material. They could perhaps be all considered as a group, perhaps part of a structure unexcavated to the south.

The only other dateable medieval feature was part of a gully (170) uncovered in area B. This belonged to the second phase with its sandy wares. Two paired post-holes lay to its east.

#### UNDATED FEATURES

(plan: Fig 3)

Apart from the paired post-holes associated with the medieval parallel ditches, a large number of post-hole features could not be dated or identified into any structural grouping. However some of the post-holes did occur in pairs. Post-holes (268) and (269) adjacent to linear ditch (170) could be considered to have affinities with the paired post-holes and parallel ditches. Post-hole pair (266) and (252) have similar positional characteristics. A pair of shallow pits (161) and (162) (162 with concentrations of charcoal) could represent a pair of post-pits and be associated with the medieval occupation.

The date of gully (244) was not ascertained. Feature (257) was not excavated and no pottery recovered from its top surface, but it would seemingly represent another pit similar to (156).

#### MODERN FEATURES

(site plan: Fig 1)

Modern disturbance was examined to a depth of 0.6m in the eastern trench of area D. This was probably associated with the sharply bending angular cropmark feature (Site plan: Fig 1) which was probably a First World War military practice trench. This area was not examined further.

#### DISCUSSION

This cropmark complex is a fairly typical example of many found on the gravel terraces of the River Great Ouse<sup>6</sup>, and although it was possible from an initial interpretation of the cropmarks to suggest dates and functions for some of the elements of the cropmark complex, it is clear that on excavation these broad interpretations are greatly amplified and in some cases found to be erroneous and limited.

It is clear that cropmarks can only be interpreted if their shapes have some sort of period classification (e.g. Bronze Age ring ditches, Iron Age rectangular enclosures and hut circles), but it is not possible to identify the finer details of occupation continuity and site function. Also the majority of cropmarks represent only the infield boundary ditches and rarely the buildings that must be associated with them, unless they



are of substantial construction (e.g. a Roman villa), or are delineated by constructional ditches (e.g. some Iron Age hut circles).

This is particularly the case with timber buildings (those with cill beams or insubstantial post-holes) and, in the case of Saxon grubenhaus, their confusion with pits is obvious. Often the location of buildings is indicated by the arrangement of infield boundaries. However, this is sometimes not the case (e.g. the barn beam slot at Elstow) and it is clear that for a fuller understanding of a particular cropmark site, the areas both within the complex and outside should be examined. At Elstow a larger area to the north of the medieval close boundary clearly should have been excavated, but because of the limited nature of this excavation this was not possible, and the location of a trench in a blank cropmark area at the outset of an excavation is not sensible, unless there is other data available, which could identify the area as being of archaeological interest. One method, by which a cropmark site could possibly be augmented, is by systematic field-walking prior to excavation, which may identify occupation areas adjacent to or away from a cropmark complex. Documentary research may sometimes also give additional information.

The Iron Age occupation of the site at Elstow is represented by the rectilinear enclosures and curving ring cropmarks which have many parallels on the gravel terraces of the River Great Ouse.<sup>7</sup> The earliest Iron Age features excavated (a palisade ring and storage pit and associated linear gullies) showed a domestic focus for the site. This was replaced by the larger rectilinear enclosure whose use continued into the post-conquest Romano-British period. Surrounding this domestic focus were pits, a 'ring' ditch and other ditches which probably served quarrying, infield farming and animal penning functions. In the post-conquest period the 'ring' ditch was replaced by linear gullies, probably representing small rectangular fields. The small portions of this Iron Age complex, which were excavated, therefore indicated a pre-conquest Iron Age farming focus continuing into the Romano-British period with alteration and modification and finally with total (?) rearrangement.

This type of continuity and changing settlement shape is very similar to another Great Ouse Valley site at Odell, where an existing later Iron Age farm, after slight modification around the conquest date, was remodelled in the late first century A.D.<sup>8</sup> This sort of pattern of occupation is repeated at similar

excavated cropmark sites along the Great Ouse Valley.<sup>9</sup>

The evidence of these small rural farm sites, points to a well organised and settled countryside prior to the Roman Invasion, and that the later Iron Age Communities of the area needed to change little in order to accommodate themselves within the *pax Romana*.

The grubenhaus type feature at Elstow was rather uncertainly identified with the Saxon period and it is not possible to be certain about continuity of occupation into this period. However, it is worth noting that at Odell three wells of Saxon date were identified,<sup>10</sup> but although this Saxon date is certain, the continuity link is not.

The medieval occupation was clearly split into two periods. The earlier period possibly represented small scale stock farming and industrial activities which were presumably outlying to a domestic focus that was not identified. The subsequent organisation of the site with close boundaries laid off what is now the A6 is perhaps representative of a transition from independently located domestic units to planned areas within a nucleated medieval village<sup>11</sup>, or the expansion of the planned village into farming areas outside.

There are clearly limits to the amount of data that can be recovered from a rapid sampling excavation of this nature and a limit on the level of interpretation that can be placed upon it. However, if the data from an excavation of this sort is compared with that from more completely excavated and better stratified sites, then our overall archaeological knowledge of the various periods (in the Great Ouse Valley) can be greatly expanded. The picture generated will in turn (if the right questions are asked), suggest better strategies for sampling or complete excavation for the various types of site; with, in this case, particular reference to the elements of cropmark complexes known in the Great Ouse Valley.

## THE FINDS

### POTTERY

*A. The Medieval and Romano-British shelly wares* (Figs 7 and 8. Nos 1 to 39)

The medieval pottery, recovered from a series of pits and ditches at Pear Tree Farm, was primarily a wheel-thrown shelly ware of local manufacture. This medieval pottery was characterised by cooking pots, bowls and dishes with inturned

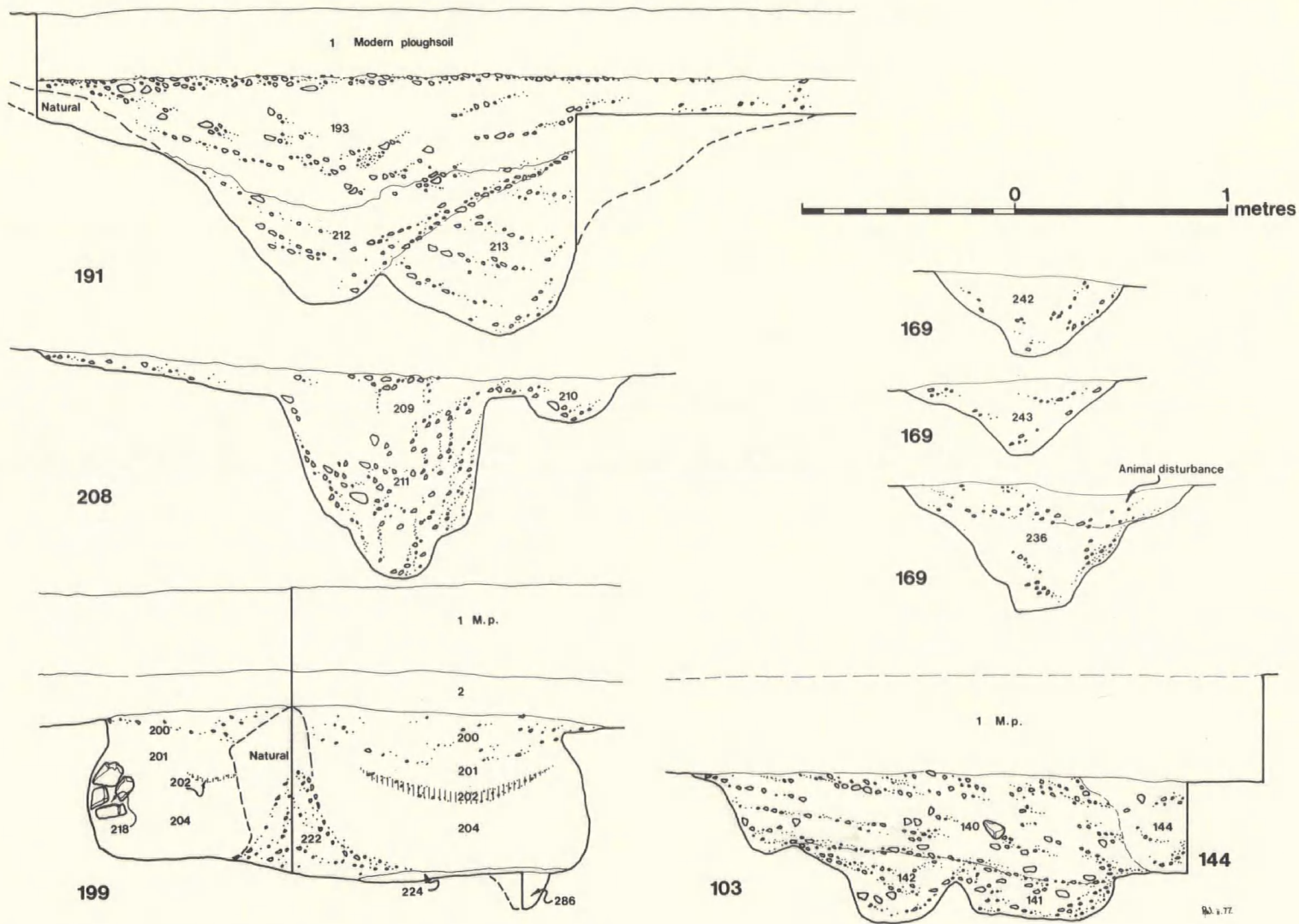


Fig 4 Sections through major Iron Age features.

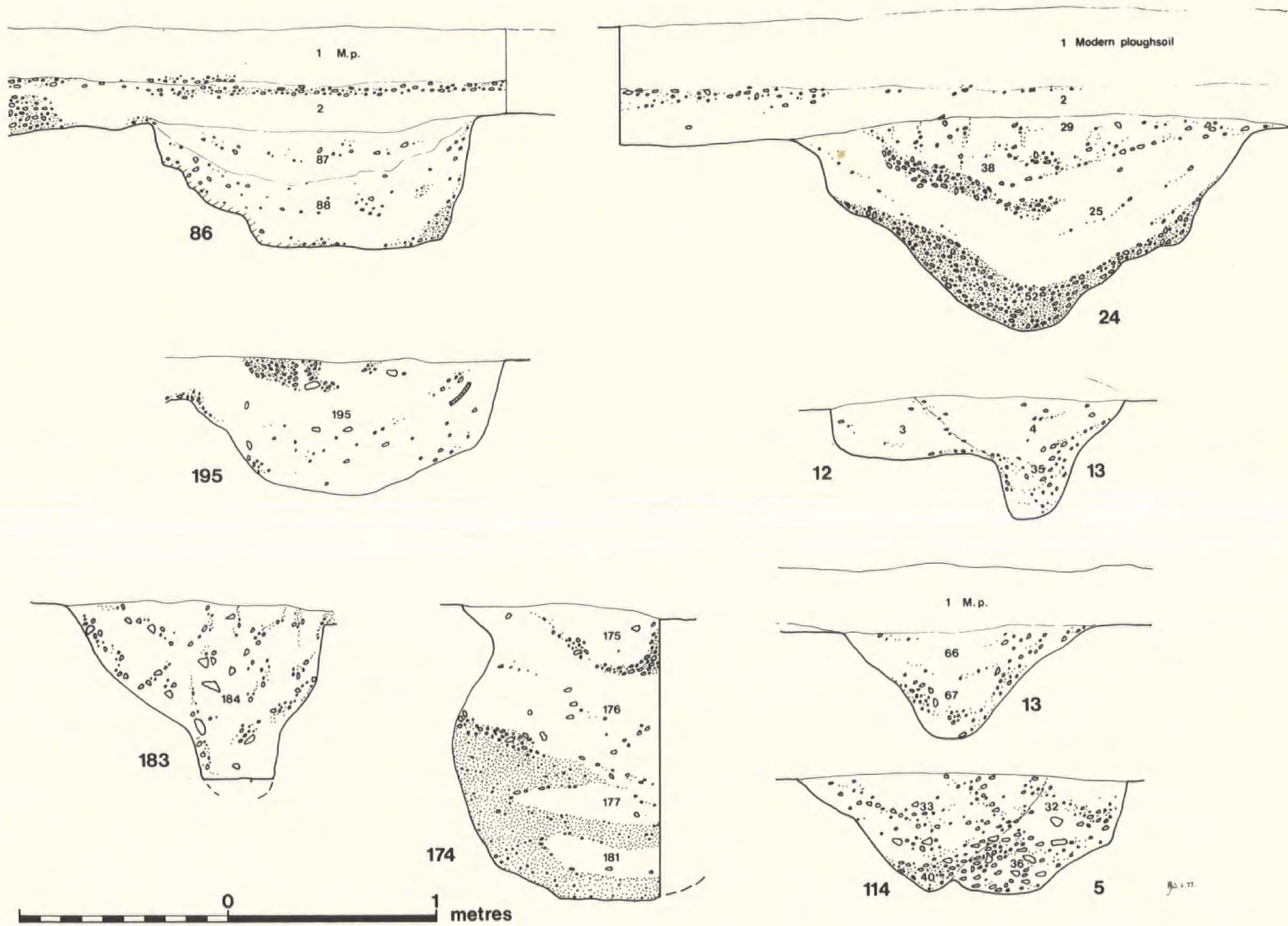


Fig 5 Sections through major Medieval features.

and flanged rims — a St Neots type ware of the eleventh and twelfth centuries (Fig 7, 1 to 11); and a range of cooking pots with everted rims, short curved necks and sagging bases (Fig 7, 12 to 20), bowl and jar rim forms (Fig 7, 21 to 27), and a handle (Fig 7, 28) — a developed St Neots type ware of the twelfth century. These types have been defined by Hurst,<sup>13</sup> and illustrated and described amongst others by Addyman,<sup>14</sup> Baker,<sup>15</sup> Hassall,<sup>16</sup> and Kennett.<sup>17</sup> However until a more thorough analysis of the available excavated material from the Bedford area has been made,<sup>18</sup> a more exact positioning of this material cannot be attempted. However two pit groups (156 and 195) to provide us with a context for directly associating some of the everted cooking pot forms with the St Neots type wares.

However it is clear that some of the vessel forms in this shelly fabric cannot be directly paralleled with medieval pottery from either St Neots or Bedford, some having closer affinities with vessel forms of an earlier Romano-British period. Shelly wares are indeed part of a long tradition of pottery manufacture in the Great Ouse region from the Iron Age onwards. The occurrence of a cordoned jar (Fig 8, 29), in an isolated shallow feature (12) and probably manufactured in the mid- to late first century, is clearly in the tradition of earlier Belgic forms. Many of the sherds recovered from features otherwise dated to the eleventh and twelfth centuries, clearly relate to this type of vessel and therefore can be seen as being of Romano-British origin. These residual Romano-British sherds are characterised by their rounded everted rims with sharply curving necks (Fig 8, 30–35). However, there were no Romano-British contexts, which were not disturbed by later medieval activity, and which could provide us with well stratified groups of this material.

The close similarity, between the shelly wares of the Romano-British and medieval periods, in both the fabric and in some of the forms, results in some difficulty in placing many of them in either period. Indeed, if the rim of the cordoned jar (Fig 8, 29) is seen in isolation, it has many of the characteristics of a rim of the twelfth century. A number of these rim forms are illustrated (Fig 8, 36–39) and are representative of those that are most ambiguous.

The fabric is very much the same in both periods — Fairly smooth surfaced, sometimes with a soapy texture and with ground shell evenly distributed throughout a fine clay matrix. The

shell varies from a very fine particle size to the occasional flat plate up to 20mm across, in which the shell structure is sometimes clearly visible. Rounded limestone fragments sometimes occur. Mica grit impurities sometimes occur on the surface. Rounded and pinhead spherical voids occur both internally and externally, originating from burnt out or eroded shell and very occasionally from vegetable particle impurities. The occasional grass temper is noted. The core is usually grey or black with a surface colour varying from light buff to pink, and which is sometimes reduced to light grey.

A detailed fabric analysis for the shelly wares from this site has not been carried out, although such an analysis would perhaps better define the nature of this material from the different periods of its manufacture. This type of fabric analysis is perhaps better applied to larger and better stratified pottery assemblages. A detailed fabric description of individual sherds is not included in the pottery catalogue.

The pottery catalogue for the shelly wares is arranged in the following order:

- A. i. St Neots type forms  
Fig 7 Nos 1 to 11
- A.ii 12th century developed St Neots type forms  
Fig 7 Nos 12 to 28
- A.iii Romano-British cordoned jar and other R.-B. forms  
Fig 8 Nos 29 to 35
- A.iv ?Medieval or ?Romano-British rim forms  
Fig 8 Nos 36 to 39

#### *B. The Medieval Sandy Wares* (Fig 8 Nos 40 to 45)

Medieval sandy wares were a very small percentage of the total medieval assemblage by weight (less than 5% of the total weight, although this percentage is approximate since some of the shelly wares could be of Romano-British origin).

The location of the sandy wares were mainly in the latest medieval features, and occurred with St Neots type forms. These wares were possibly imported into the Ouse Valley region from kilns to the south and perhaps farther afield. They can be dated to the later twelfth century.

#### *C. Other Romano-British wares* (Fig 8 46 to 50)

Fine wheel-made wares of the Romano-British period in other fabrics were very few compared to the shelly kiln products (less than 3% by

weight). These generally occurred in mixed contexts or in the upper levels or the recuts of earlier Iron Age features, which can therefore be seen to be of immediate pre-conquest date. One of the vessels illustrated (Fig 8, 46) recalls an earlier Belgic form and the material illustrated can perhaps be placed in the mid to late first century A.D.

*D. Hand-made Pottery of the Later Iron Age and (?) Saxon Period (E)*  
(Fig 9 Nos 51 to 71)

Hand-made pottery, occasionally wheel finished, could be in the main be placed in the later Iron Age, although one group of black gritty pottery with a burnished surface (Fig 9, 69 to 71) could possibly be associated with the Saxon period.

This hand made pottery compares well with other later Iron Age material to the north of and in the north of the county, at Irthlingborough, Easton, Strixton and Harrold. Reference should be made to D.N. Hall and N. Nickerson, 'Iron Age pottery from North Bedfordshire and South Northamptonshire', *Beds. Arch. J.*, 4, 1969, 1-15, for making more detailed comparisons.

This hand-made pottery can probably be placed in the immediate pre-conquest period as some of the material displays Belgic characteristics (vessels of inturned form and beaded rims: e.g. Fig. 9, 61, and compare to Belgic forms from Harrold, Hall and Nickerson, 1969, Fig. 7, 107 and 112); and some is found with later Romano-British wheel turned products in the upper levels and recuts of the Iron Age features (see above; site report).

The fabric was very variable and nearly every sherd recovered was slightly different in nature. However, the pottery could be classified into four general fabric descriptions:

i *Shelly Fabrics*: Fine ground shell, shell plates (up to 30mm across) and some limestone fragments occur in a coarse clay matrix. Voids of irregular rhombic, pinhead and disc shape often occur as a result of the erosion of these inclusions. The material 'laminates' but does not shear easily. The surfaces are medium to soft and can be scratched with the fingernail. The core is grey to black and sometimes has an oxidised surface of buff to reddish brown colour. The surface often has vegetable tempering and is frequently differentially fired. Quarzite and mica-grit impurities sometimes occur particularly on the surface. Some of the sherds have a marked grog content.

ii *Shelly Fabric with Grits*: This fabric is very similar to i. but has an evenly distributed small to medium (up to 2mm across) quartzite and mica-grit content. A grog content occurs in some of the material. This fabric often has a slightly burnished surface.

iii *Gritty Fabrics*: Reddish brown to white grit inclusions (up to 2mm across) occur in a fine sandy matrix with few voids. Mica-grits often occur more noticeably at the surface. The fabric has a smooth often burnished medium hard surface which sometimes appears to be wheel finished and is often soapy to the touch. The surface is sometimes oxidised to a buff or reddish brown colour, although more often reduced to black. The core is grey to black and the pottery is often differentially fired. There are occasional shell impurities and evidence of some vegetable tempering.

iv *Sandy Fabrics*: 'A grey sandy fabric in which pinhead voids occur, the surface of which is often oxidised to a buff or reddish brown colour. The surface is often slightly burnished and differential firing occurs. Infrequent quartzite grits, shell and mica grits can be taken as impurities; these often occurring on the surface.

The relative proportion of these general fabric groups are i: ii: iii: iv, 2750gm: 1190gm: 605gm: 50gm. Clearly the use of the shelly clays is the predominant feature of this pottery assemblage, as it was in the Romano-British and medieval periods. The vessels represented in these fabrics are primarily cooking pots and bowls. They have been arranged in the catalogue in their fabric groups. There is a great variety of forms, but the group as a whole is characterised by straight sided, or inturned vessels with a slight shoulder and with a slight out turning or beading of the rim. Finger-tip or thumb decoration of the upper rim surface is a typical detail.

One group of gritty black burnished pottery (group iii) from a 'grubenhau' type feature (198) has characteristics of pottery from the Saxon period. However, its occurrence with fabrics, closer in similarity to other Iron Age fabrics on the site, and the occurrence of gritty black burnished pottery body sherds in other Iron Age contexts, does cast some doubt on this interpretation. The possible Saxon sherds are noted in the catalogue (Fig 9, 69 to 71).

Fig 6 Pottery analysis.

FEATURE	AREA	TYPE	POTTERY *						ANIMAL BONE	FLINT	SLAG	CLAY/STONE TILES, BRICK	FIRED CLAY	DAUB	LIME/MORTAR	'BLDG.' STONE	QUEEN STONE	Fe NAILS	ILLUSTRATED SMALL FINDS	DATE
			A	B	C	D	E	F												
			(i)	(ii)	(iii)	(iv)														
191	D	Enclosure ditch (first)					x		x										I.A.	
191	D	Enclosure ditch (recut)					x	x	x										I.A.	
229	D	Gully					x		x										I.A.	
208	D	'Pallisade' ring ditch					x		x	x				x					I.A.	
169	A/C	Ring ditch					x		x	x									I.A.	
94	A	Ring ditch (?)					x		x					x					I.A.	
225	D	Double gully					x		x										I.A.	
214	D	Double gully					x		x										I.A.	
103	B	Recut linear ditches					x		x										I.A.	
22/77	B	Curving ditch (lower)					x	x	x	x				x					I.A.	
144	B	Linear gully					x		x	x									R-B	
83	B	Linear gully					x	x	x	x									?R-B	
70	B	Linear gully					x		x										R-B	
168/182	C	Linear ditch							x										I.A.	
12	A	Shallow feature							x										R-B	
55	A	? feature							x	x									R-B	
274	B	'Gravel' pit	NO	FINDS					x	x									R-B	
110	B	'Gravel' pit					x		x										I.A.	
74	B	'Gravel' pit					x		x	x									I.A.	
80	B	'Gravel' pit					x		x	x									I.A.	
199	D	Rubbish pit					x		x										I.A.	
24	A/C	Close boundary ditch	x		x	x	x		x					x					223. Stone loom weight, 205. Bone pin.	
13	A	Linear ditch	x	x	x	x			x	x	x			x					x 15. Bone needle 30. Fe nail. 238. Fe knife.	
131	A	Linear ditch	NO	FINDS					x	x				x					10. Bone spindle whorl.	
113	A	Linear ditch	NO	FINDS															Med	
5/114	A	Linear ditch	x	x	x	x	x	x	x	x	x								122. Oxhoe. 54. Fe hinge.	
244	C	Linear ditch							x	x									Med	
170	B	Linear ditch					x	x	x										x 381. Fe Nail. ?	
22/77	B	Curving ditch (upper)	x		x		x		x					x					x 380. Fe Nail.	
283	C	Pit	x	x			x		x										237. Whetstone.	
195	C	Pit	x	x					x										Med	
248	C	Pit					x												Med	
156	C	Pit	x	x			x		x										Med	
174	A/C	Pit	x	x					x										Med	
86	A	Lime pit					x		x										Med	
134	B	Post-pits					x		x										237. Pottery spindle whorl.	
183	B	Pit					x		x										Med	
125	B	Pit	x	x					x	x	x								Med	
197	C	'Grubenhalle'					x	x											?Sax	
160	C	Beam slot	x	x			x												Med	

\* POTTERY : A. SHELLY WARES - (i) Medieval, St. Neots type, (ii) Medieval other, (iii) Romano-British, (iv) Romano-British/Medieval.  
 B. MEDIEVAL SANDY WARES. C. ROMANO-BRITISH, OTHER WHEEL THROWN WARES. D. IRON-AGE (later) HAND-MADE POTTERY.  
 E. SAXON(?) HAND-MADE POTTERY. F. SHELLY WARES - UNDIAGNOSTIC.

## THE POTTERY CATALOGUE

(Figs 7 to 9)

Each sherd description in the pottery catalogue is followed by the O.P. number of the feature in which it was found and, in brackets, the Bedford Museum Accession Number for that particular sherd.

The locational occurrence of the pottery type (A(i-iv), - E) is summarised in figure 6.

A detailed fabric description for the shelly wares (Ai - Aiv) and the hand-made Iron Age wares (D) are not included in the pottery catalogue, but conform to the broad fabric descriptions previously noted under the appropriate heading in the pottery report.

### Ai. *St Neots type wares*

(Fig 7)

- 1 Upright dish rim with moulded shoulder and shallow sloping sides smoke blackened external surface. 195. (1976/4/298).
- 2 Slightly inturned dish rim with gently curving shoulder, smoke blackened external surface. 195. (1976/4/299).
- 3 Slightly inturned dish rim with gently curving shoulder. 176. (1976/4/292).
- 4 Inturned flanged bowl rim with sharply sloping sides, smoke blackened external surface. (Hurst 1956, fig 5, B38). 248. (1976/4/291).
- 5 Upright deep bowl with flat topped out-flared rim. 156. (1976/4/301).
- 6 Thickened inturned rounded rim. Smoke blackened externally. (Addyman 1973, fig 15, 1). 24. (1976/4/295).
- 7 Flat topped rounded inturned flanged rim with rounded external beading, of deep steep sided bowl. Smoke blackened internally and externally. 13. (1976/4/287).
- 8 Rounded and inturned flanged rim with rounded external moulding. Smoke blackened external margin. 5. (1976/4/296).
- 9 Triangular cross section rim with inturned rounded flange. Deep straight sided bowl. Smoke blackened external surfaces. (Addyman 1973, fig 15, 12). 13. (1976/4/300).
- 10 Triangular cross section rim with pronounced rounded external and internal flanges, shallow sided bowl. Smoke blackened external margin. 13. (1976/4/289).
- 11 Base of small bowl, cheese wire cutting on base. Possibly surviving portion of a bowl type described in Hurst, 1956, Fig 5, B1. 174. (1976/4/321).

### Aii. *12th Century Developed St Neots Forms*

(Fig 7)

- 12 Everted cooking pot rim and shoulder, rim everted hollowed inside, squared on external lip, defined neck and slight curve to shoulder. (Hurst, 1956, fig 4, 1). 195. (1976/4/303).
- 13 Everted cooking pot rim, squared on lip with a slight hollow on inside of rim. 195. (1976/4/311).
- 14 Everted cooking pot rim, slightly hollowed on inside, sharp internal angle to neck. (Hurst, 1956, fig 4, 35). 156. (1976/4/306).
- 15 Everted cooking pot rim, squared on lip with a slight hollow on inside of rim. Sharp turn to short neck. 156. (1976/4/309).
- 16 Cooking pot with everted rim and slightly bulbous lip with internal hollow. Vertical sides and no neck. 195. (1976/4/305).
- 17 Cooking pot with straight everted rim and bulbous lip, flat top and internal beading. 5. (1976/4/312).
- 18 Cooking pot with everted rim bulbous lip, a slight internal hollow and smooth curve to short neck. 248. (1976/4/318).
- 19 Cooking pot with simply rounded everted rim and short curved neck. (Addyman, 1973, fig 14, 12). 13. (1976/4/317).
- 20 Sagging cooking pot base with near vertical sides. 156. (1976/4/304).
- 21 Bowl with everted round beaded lip, 5. (1976/4/315).
- 22 Bowl rim with overhanging lip and heavily moulded internal hollow. A sharp angled internal turn to vertical neck. 5. (1976/4/316).
- 23 Bowl with everted straight angled lip, squared and slightly bulbous. 174. (1976/4/314).
- 24 Bowl with sharply everted bulbous lip. 170. (1976/4/333).
- 25 Bowl with simply everted rim with bulbous lip and internal hollow. 5. (1976/4/336).
- 26 Bowl with simply everted rim and slight internal hollow. 195. (1976/4/308).
- 27 Bowl with rounded external moulding and slight internal bead. (Addyman, 1973, fig 15, 16). 5. (1976/4/337).
- 28 Simple handle or lug applied to side of vessel. (see note 18). 128. (1976/4/323).

### Aiii. *Romano-British Cordoned Jar and other R-B forms.* (Fig 8)

- 29 Complete cordoned jar with internally hollow rim, sharply angled lip short straight

- neck, and three slight cordons on a slightly rounded shoulder. There is a very slight pedestal to the base. Manufactured in the Belgic tradition, probably mid to late first century A.D. 12. (1976/4/9).
- 30 Slightly everted rim with rounded bulbous lip and grooved neck. 5. (1965/4/324).
- 31 Slightly everted rim with rounded bulbous lip and outward curving grooved neck. 13. (1976/4/330).
- 32 Short comparatively short necked vessel with outward curving rim and gently curving shoulder. 13. (1976/4/331).
- 33 Sharply everted rounded rim with outward curving neck. 5. (1976/4/346).
- 34 Everted rim with bulbous lip and sharp thin neck. 13. (1976/4/343).
- 35 Heavy almost clubbed rim. 22/77 (lower). (1976/4/329).

*Aiv (?) Medieval and (?) Romano-British rim forms.* (Fig 8)

- 36 Simply curved everted rim. 24. (1976/4/322).
- 37 Simply curved everted rim with internal hollow. 22/77 (lower). (1976/4/332).
- 38 Straight everted rim with rounded lip and sharp short neck with groove. 5. (1976/4/327).
- 39 Straight everted rim with flat topped lip and external beading. A sharp short neck with groove. 174. (1976/4/338).

*B. The Medieval Sandy Wares* (Fig 8).

- 40 Jar with slightly everted rim and external groove at lip. Fine hard sandy fabric with frequent micaceous grits. Grey core with dark red brown external and internal margins. Smoke blackened on external surface. 24. (1976/4/547).
- 41 Bowl with flat topped and external round beaded lip. Fabric as 40. Grey core with dark red-brown external and internal margins, reduced to a light grey on both surfaces. 125 (1976/4/348).
- 42 Bowl with upright moulded lip, fabric as 40. Light grey core with orange external and internal margins. 170. (1976/4/349).
- 43 Jar with slightly everted rim and grooved neck. Hard coarse sandy fabric with many pin-head voids and frequent small grits. Pale buff internal and external margins and steel grey core. 185. (1976/4/350).
- 44 Body sherd with applied thumb strip and incised lines. Fine hard smooth surfaced

sandy fabric reduced to a steel grey colour throughout. 248. (1976/4/352).

- 45 Simple circular spout thumbed on to vessel. Fine sandy matrix with frequent small micaceous grits. Dark grey core with light pink internal and external margins, reduced in patches to a light grey. 24 (1976/4/351).

*C. Other Romano-British wares* (Fig 8).

- 46 Inturned rim of globular vessel. Shelly matrix with smooth surfaces slightly burnished. Grey core with light orange internal and external margins. Unstratified. (1976/4/357).
- 47 Simply everted rim to narrow mouthed vessel. Fine sandy matrix with slightly burnished smooth hard surfaces. Grey core with occasionally buff internal and external margins, which are more generally reduced to black. 83. (1976/4/356).
- 48 Simply everted rim with gently curving short neck. Fine sandy matrix with smooth hard burnished surfaces. Light grey core reduced to dark grey internal and external margins. 191 (recut). (1976/4/354).
- 49 Simply everted rim with sharply defined external beading on underside of lip. Fine sandy matrix with smooth hard burnished surfaces. Light grey core with buff internal and external margins sometimes reduced to a dark grey black surface. 83. (1976/4/355).
- 50 Body sherd of bowl with rouletted shoulder. Fine paste with occasional mica grits. Grey core with orange internal and external margins. Fine red-brown applied colour coat with a slight sheen on surface. 22/77 (lower) (1976/4/353).

*D. Hand-Made Pottery of the Later Iron Age* (Fig 9)

- 51 Club rim to straight sided vessel, with thumb-ed decoration below external lip and thumb tipped hollows on top surface. Fabric D.i., 13. (1976/4/376).
- 52 Narrow necked jar with simply everted rounded, bulbous rim. Fabric D.i. Wheel finished; 208. (1976/4/373).
- 53 Slightly everted rim with external beading. Fabric D.i.; 199. (1976/4/371).
- 54 Bowl with upright rim with squared external beading. Fabric D.I.; 74. (1976/4/368).
- 55 Bowl with slightly everted rim. Fabric D.i.; 199. (1976/4/362).
- 56 Bowl with slightly inturned rim and finger



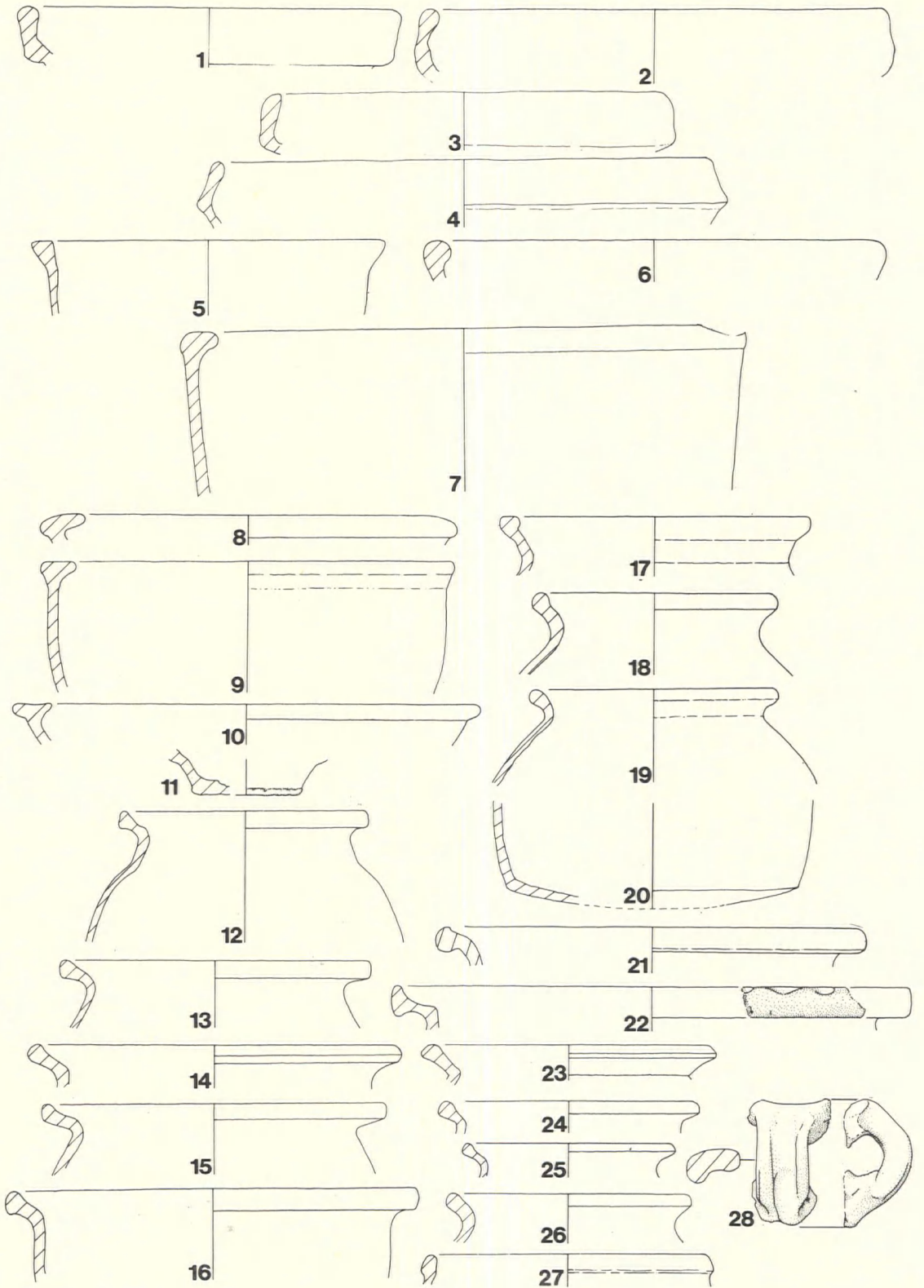


Fig 7 St Neots type shelly ware pottery (Scale:  $\frac{1}{4}$ ).

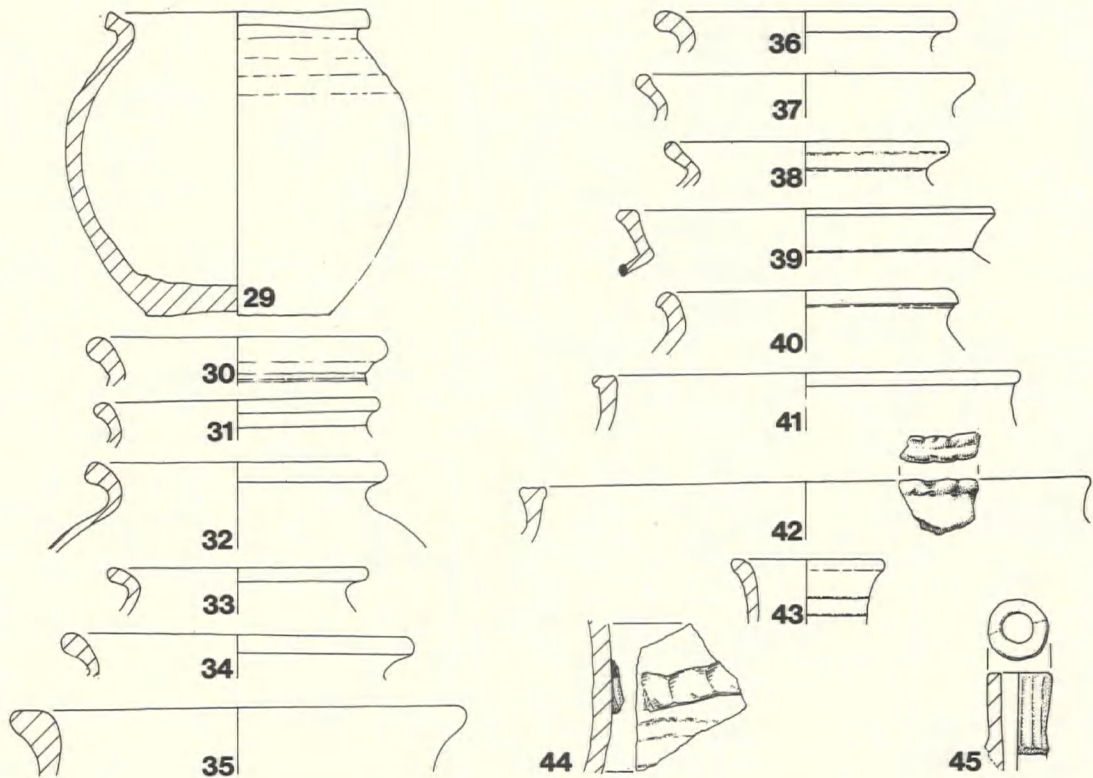


Fig 8 Other Medieval and Romano-British wares (Scale: ¼).

- 57 Bowl with upright flat topped rim. Finger tipping on rims upper surface. Frequent grass tempering. Fabric D.i.; 199. (1976/4/360).
- 58 Thistle shaped bowl with upright rim and small rounded internal beading. Fingertipping on rim at right angles to body. Fabric D.i.; 199. (1976/4/361).
- 59 Slightly out-turned straight rim with flat top and thumb tipped hollows. Fabric D.i.; 199 (1976/4/365).
- 60 Straight sided bowl with finger tipping on external lip. Fabric D.ii.; 191 (recut). (1976/4/364).
- 61 Large deep bowl with small beaded lip. Fabric D.ii.; 191 (recut). (1976/4/359).
- 62 Upright rim of small bowl with finger tipping at right angles to the vessel sides on the flat top to the rim. Fabric D.ii.; 199. (1976/4/372).
- 63 Upright slightly clubbed plain rim of small bowl. Fabric D.ii.; 199. (1976/4/363).
- 64 Body sherd with horizontal combing. Frequent grass tempers. Fabric D.ii.; 199. (1976/4/374).
- 65 Simple slightly everted rim with slight grooving on neck. Wheel finished. Fabric D.iii.; 208. (1976/4/370).
- 65 Inward curving vessel with slight upcurve to rim. Fabric D.iv.; 199. (1976/4/369).
- 67 Simply everted rounded rim. Wheel-finished. Fabric D.iv.; 191 (recut). (1976/4/358).
- 68 Inward curving small bowl with simple upward curving rim. Fabric D.iv.; 156. (1976/4/375).

*E. Hand-made Pottery of the (?) Saxon period (Fig 9)*

- 69 Slightly sagging base. Hard black gritty fabric with rounded and angular quartzite grits and mica grits. Smooth-hard surface with slight sheen and soapy to the touch. Similar to fabric D.iii.; 197. (1976/4/377).

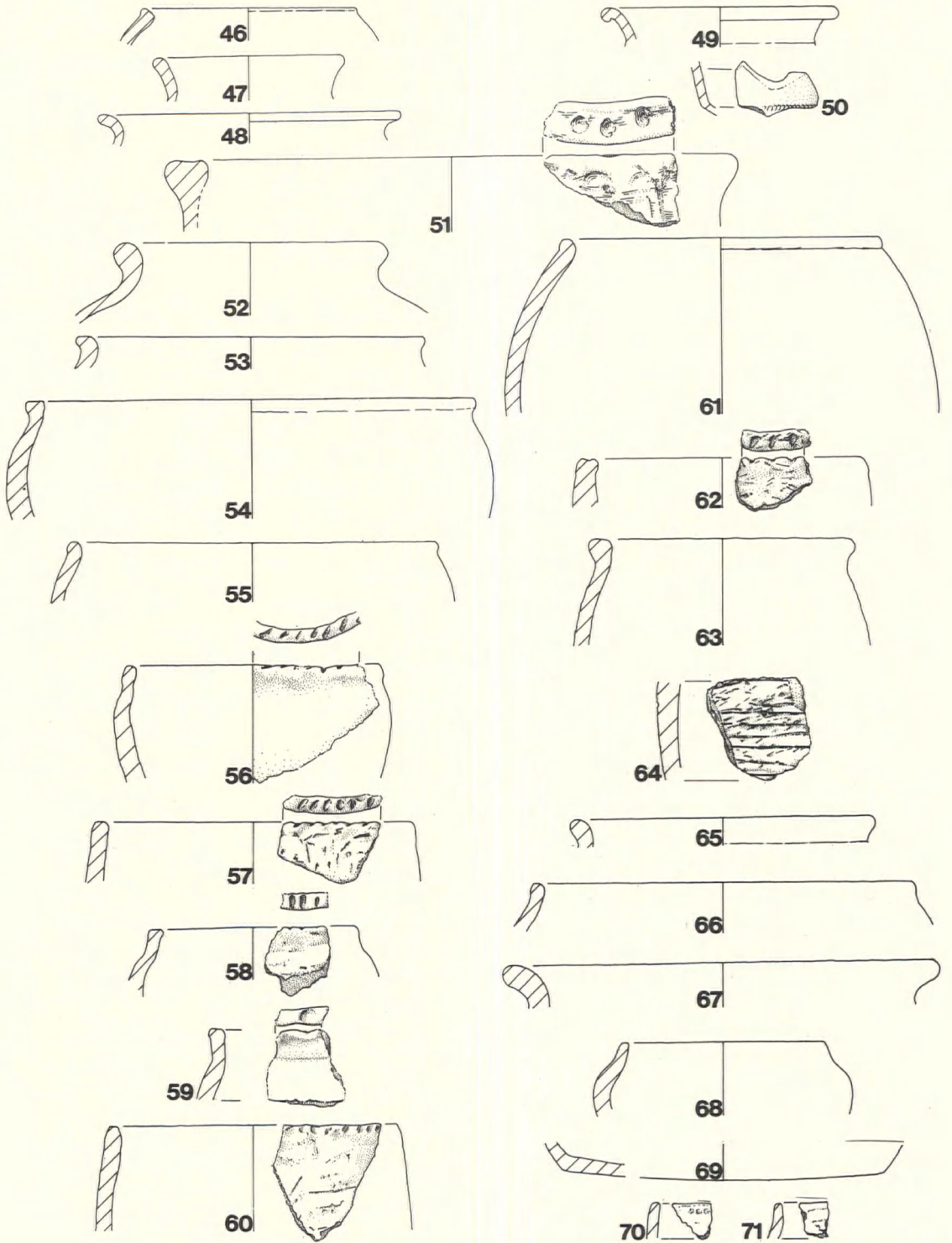


Fig 9 Hand-made Iron Age and (?) Saxon pottery (Scale: ¼).

- 70 Straight rim. Fabric as 69. 197. (1976/4/378).
- 71 Slightly everted rim. Fabric as 69. 197. (1976/4/379).

#### METALWORK

(Fig 10, 1-10)

Most of the metalwork recovered during excavations was found in early medieval contexts, and the objects from undated or mixed contexts probably originate from this period. The only bronze object (illustration 10) may date from the sixteenth to seventeenth centuries. Only a representative sample of the nails is illustrated. Each find is followed by its Bedford Museum accession number.

- 1 Animal-shoe nail; fiddle-key type for countersinking into shoe; from lower levels of Close boundary (24). (1976/4/30).
- 2 Square section nail with ridged head; from upper levels of ditch (22)/(77). (1976/4/380).
- 3 Square section nail with rounded flat head; from gully (170). (1976/4/381).
- 4 Nail with flattened head and squarish cross section; from animal disturbance, but possibly of early medieval origin. (1976/4/382).
- 5 Small single edged 'paring' knife with straight tang angled to blade; from Area A layer (2). Possibly of early medieval origin. (1976/4/276).
- 6 Triangular section knife blade, single edged, probably pointed; from upper levels of close boundary ditch (24). (1976/4/238).
- 7 Harness buckle; a form characteristic of the Early Middle Ages;<sup>19</sup> from Area C, layer (2). (1976/4/152).
- 8 Hinge (female socket) with two broad flat tangs; from ditch (5). (1976/4/54).
- 9 Animal-shoe (ox-shoe), three countersunk holes on outside edge, one with nail; from ditch (5). (1976/4/122).
- 10 Triangular bronze hook with curving profile and two holes punched near base; marked edge strip; curved hook bent at right angles to the body plate and with three angled cuts on reverse of hook;<sup>20</sup> from Area C, layer (2). Possibly of 16th-18th century date. (1976/4/153).

#### LOOM WEIGHT AND SPINDLE WHORLS

(Fig 10, 11-13)

- 11 Bone spindle whorl cut from end joint of

animal femur. From early medieval ditch (13). (1976/4/10).

- 12 Stone loom weight; Hard grey metamorphosed and micaceous stone, source not identified but probably imported. From pre-conquest Iron Age 'storage' pit (199). (1976/4/223).
- 13 Pottery spindle whorl, shelly ware fabric (dark grey core, buff surface). From early medieval post emplacements (134). (1976/4/128).

#### WHETSTONES

(Fig 10, 14-15)

- 14 Broken honestone; grey/green metamorphosed mudstone. From area A layer (1). Possibly of early medieval origin. (1976/4/281).
- 15 Perforated micaceous schist hone. Characteristic of the early medieval period. — 'Hones of this material are absent from prehistoric and Roman deposits in this country, but have been found in a number of sites of the Norman period, but not later in South-Eastern England.'<sup>21</sup> From early medieval pit (283). (1976/4/237).

A small oblong and rounded glacial erratic pebble (9.5c, by 3.0cm by 2.0cm) with worn facets, was also recognised as being a whetstone. From area D layer (1). (1976/4/282) — not illustrated.

#### BONE OBJECTS

(Fig 10, 16-18)

- 16 Bone bodkin with hole cut in broader end, tip broken; From close boundary ditch (24), early medieval. (1976/4/15).
- 17 Bone bodkin; worn at both ends, possibly a bird bone; From pre-conquest Iron Age 'storage' pit (199). (1976/4/205).
- 18 Polished bone pin with worn facets, broken at broader end, circular cross-section; From area A, layer 2. (1976/4/275).

#### THE DRILLED TIBIA

(Fig 11, Plate 2), (1976/4/207)

This drilled tibia (cow) was recovered from the third phase of the large linear ditch (103), of Later Iron Age date (see above; pottery and site report).

The object has a series of five drilled holes in a 'T' formation on one of the ridges of the tibia and the two adjacent surfaces, with a shallow curved

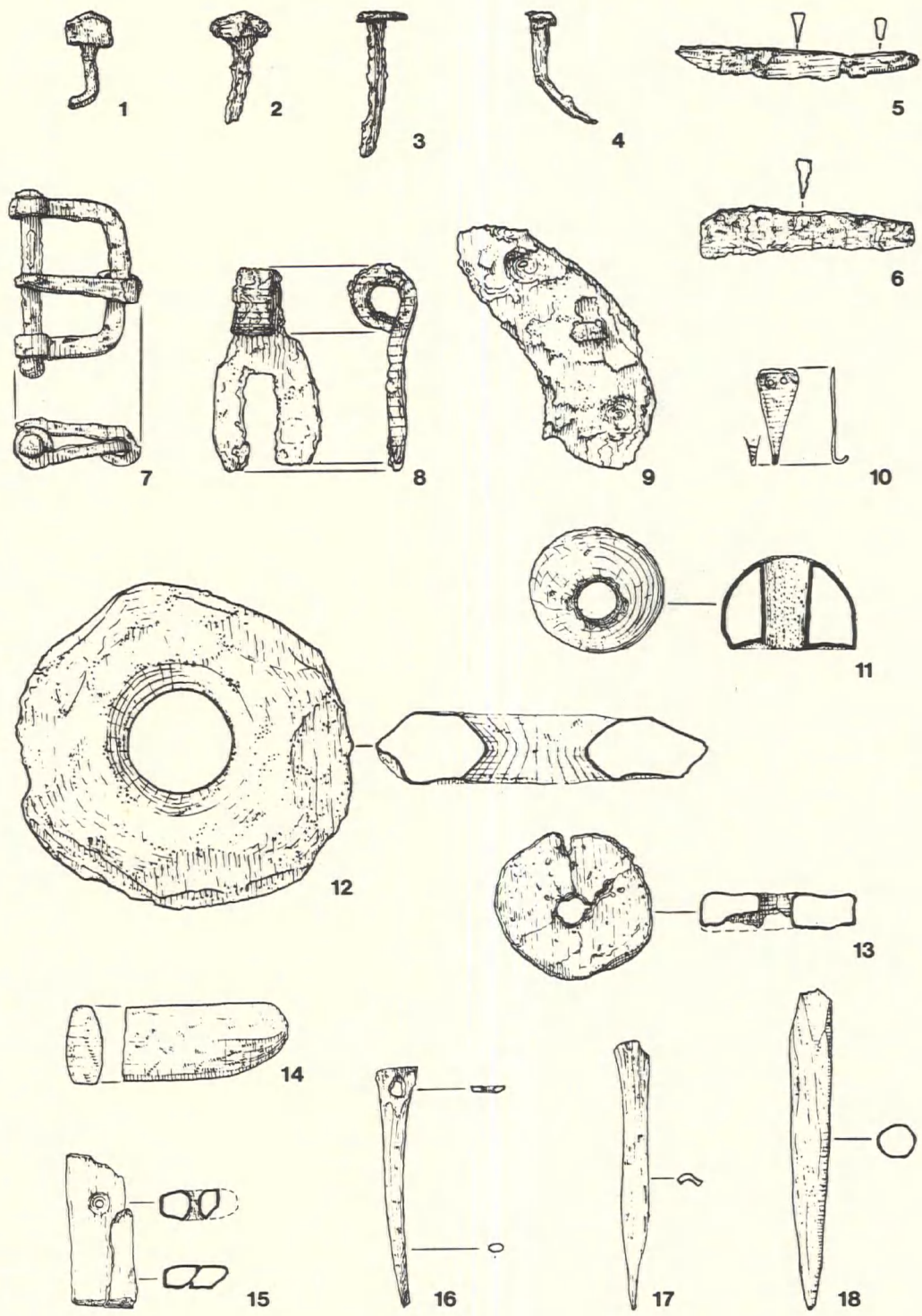


Fig 10 Small Finds (Scale: ½).



Plate 2 The drilled cow tibia from the Odell excavations (left) compared to that from the Elstow excavations (right).

[Photographs: Bedfordshire County Council, copyright reserved]

## ELSTOW EXCAVATIONS



**ELSTOW EXCAVATIONS**

notch below the lowest of these (the top end of which has apparently been drilled through by this lowest hole). Three drilled holes (two upper and one lower) are located on the opposite facet of the tibia; the two uppermost lining up approximately with the central hole of the opposing 'T' formation. All these holes have straight sides; are very finely drilled; and show no particular signs of wear. There are also no other signs of wearing on the bone apart from a smoothing of the cut notch. The bone has been hollowed out and the base of it has a carefully formed circular hole (drilled?). The base otherwise does not appear to be worked. The upper end of the tibia is clearly broken.

This object can be directly paralleled with another drilled tibia found during the excavations at Odell<sup>22</sup> in a similar Later Iron Age/Romano-British context – a quarry pit (subsequently used as a pond), which was within a small farming settlement, and which was filling in the middle years of the first century A.D. Although there are differences in the drilling arrangement, the two bones have remarkably similar design characteristics.

The Odell tibia (Plate 2) has a series of three holes in a 'Y' formation on one of the ridges of the tibia and the adjacent surfaces. The lowest of these is located in a cut notch. Two drilled holes both at the same level, are located on the opposite facet of the tibia, the one on the left lining up with the lowest hole of the opposing 'Y' formation. Apart from the upper two holes of the 'Y' formation the holes have straight sides; are very finely drilled; and show no particular signs of wearing. The upper two holes of the 'Y' formation have rebates formed by crude scratching (perhaps an initial attempt to form the holes or a method of locating them). The cut notch is not as smoothed as the one on the Elstow tibia, and on the opposite tibia facet scratches are noted between the pair of holes. Cut marks, possibly representing slaughtering are noted on the facet to the right of the 'Y' formation. Otherwise marks are probably representative of later abrasion. The bone is hollowed out and the base of it has been cut through rather crudely. The upper end of the tibia has been carefully cut but is smashed at the top end of the drilled ridge.

The differences between these two bones is clear and contrasting, but the intention of the design, for whatever purpose, must be very simi-

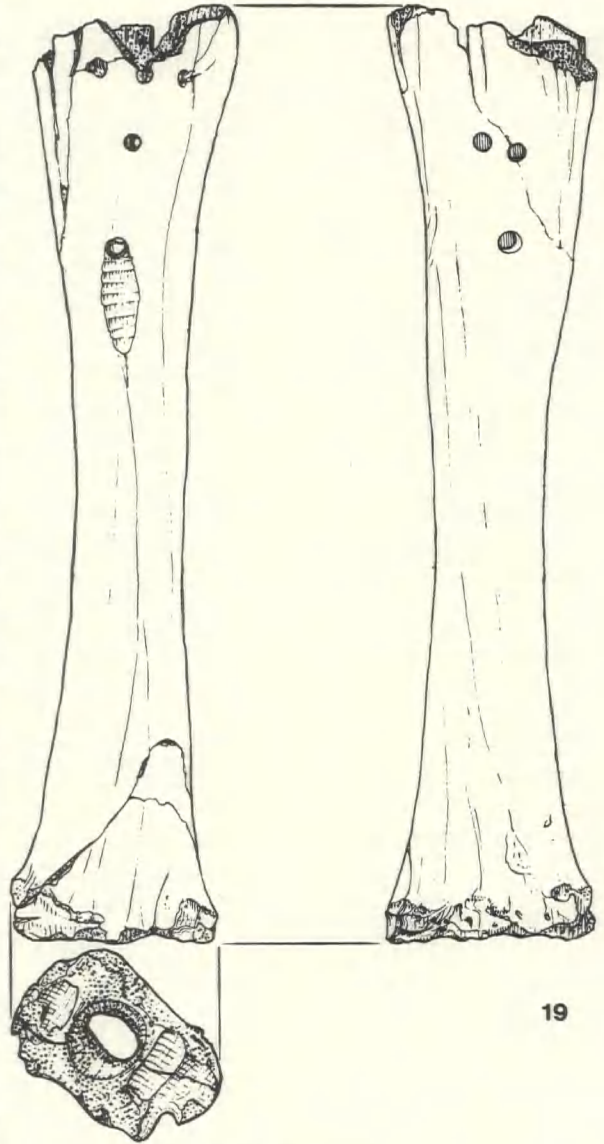


Fig 11 Drilled Tibia (Scale: ½).

lar. The type of bone chosen was clearly for its 'triangular' nature, and it appears to be irrelevant which facet or ridge is used for the drill holes. The function of the bones clearly relies on opposed holes but the location of the notches differs and perhaps precedes the location of the drill holes. The objects are broken at their upper ends and would appear to be discarded because of this. In addition, the Odell tibia particularly indicates that it is the loss of this upper part of the drilled ridge, which caused them to be so discarded.



Feature	All Flint Total	Cores						Flakes						All Secondary Worked Material	Reused Material	All Patinated Material	Cortical Material	Broken Flakes	Mesolithic/Microlithic Material
		Scrapers	Other Tools	Specialised	Non-Specialised	Worked Lumps	Squat >1:1	Intermediate <1:1, >5:2	Long <5:2	Non-Secondary Worked	Secondary Worked	Non-Secondary Worked	Secondary Worked						
Medieval Features	19	0	0	1 <sup>a</sup>	1 <sup>b</sup>	3	6	0	3	0	2	0	0	0	4	13	3	0	
Romano-British Features	9	1 <sup>f</sup>	0	0	2 <sup>c</sup>	0	0	0	0	5	0	1	0	3	8	1	0		
Iron Age Features	15	0	0	0	0	2	2	0	5	0	1	1	1	0	5	8	4	0	
Unstratified/Undated Features	47	1 <sup>g</sup>	0	1 <sup>d</sup>	5 <sup>e</sup>	9	9	1	12	1	8	2	5	0	18	30	1	0	
Total	90	2	0	2	6	14	17	1	20	1	16	3	7	0	30	59	9	0	

Notes: CORES: a. Single Platform; b. Two Oblique Platforms; c. Single Platform, Two Platforms at right angles; d. Two Opposite Platforms; e. 2 with >3 Platforms, Single Platform.

SCRAPERS: f. Crude Distal End Scraper, Rounded, Squat proportion. g. Crude End Scraper, Round End, Side Usage, Intermediate, proportion, Patinated, Cortex.

Fig 12 Numerical analysis of knapped flint material.

The hollowing of the tibia and the cutting away of the upper ends was obviously necessary for their function, but the shaping of the base hole does not appear to be important.

Having described the objects themselves and their design characteristics the purpose of them remains unclear. That they were tools connected with some manufacturing process seems most likely, although lack of wear marks do in no way confirm this. Toys, musical instruments or ritual (!) objects could be equally well proposed. That they were part of a more complex object with other materials being used in its construction does not seem unlikely. However, until other more complete examples in more informative contexts are found, their function at present must remain a mystery.

### FLINT (Fig 12)

The knapped flint material from Elstow was recovered from features of all periods. There was no consistency in knapping technique and none of the tools, cores or utilised material indicated a specific period from which this group of material could have originated. The nature of this assemblage is summarised in the table (Fig 12). The majority (just over 50%) of the material came from unstratified contexts or undatable features and the remainder from medieval, Romano-British and Iron Age contexts. The material was examined

in these period groupings, although clearly the material could be residual in all cases. No high concentrations of flint debris were noted. The locational occurrence of the flint from dateable features is shown in Fig 6. Although the total number of flints in the analysis does not provide us with results which are to any extent statistically valid, certain features of the assemblage are worth noting:

- (i) There is no preferential core technique and most cores are crude. The flakes are removed with little regularity in size or shape.
- (ii) The three category flake analysis shows no preferred flake size, if all flakes are considered together. If, however, the periods are considered separately, contrasts can be noted with long flakes peaking in the R-B period. However, because of the high percentage of unstratified flakes (about 57%) and the small total number of flakes, these contrasts are not particularly valid. Only a small amount of secondary working was noted on the flakes (about 8% of all flakes), and although chipping and marking on a great many flakes was noted, this was not interpreted as any form of utilisation, because of the likelihood of breakage and abrasion.
- (iii) The two flake scraper tools noted were very crude examples with very little retouch. They had no characteristics that could place

DITCH FEATURE	SURFACE LAYERS OF FEATURE	AVERAGE MUNSELL DETERMINATION FOR SURFACE LAYERS	APPROXIMATE WIDTH OF DITCH FEATURE	AVERAGE DEPTH OF DITCH FEATURE	GENERAL DATE
5	27 = 28 = 6 32 = 120 = 119 33 = 121	10YR 3/2 10YR 3/2	1.5 m	0.6 m	Med
13	34 = 4 66	10YR 3/3 10YR 3/3	1.0 m	0.5 m	Med
24	29 38 25	10YR 3/2 10YR 3/3 10YR 3/2	2.1 m	1.1 m	Med
22/77	78 = 72 23	10YR 3/2 10YR 4/3	2.8 m	1.3 m	Med
113	115 = 117	10YR 3/2	0.4 m	0.25 m	Med
131	131	10YR 4/4	0.7 m	0.15 m	Med
244	245 = 157	10YR 3/3	0.6 m	0.2 m	Med
169	236 = 242 = 243 = 100	10YR 5/4	0.8-1.4 m	0.5 m	I.A.
208	209 210	10YR 4/4 10YR 5/4	1.0 m 0.5 m	1.0 m 0.2 m	I.A. I.A.
214	215 216 217	10YR 4/4 10YR 5/6 10YR 5/4	2.2 m	0.3 m	I.A.
225	227 228	10YR 4/3 10YR 5/4	1.9 m	0.7 m	I.A.
191	193 230 229	10YR 3/3 10YR 5/6 10YR 3/4	3.0 m	1.2 m	I.A.

Fig 13 Table showing Munsell Colour determinations for the top surface colours of 'dated' open silting ditches.

them with a 'dateable' tool type. They could perhaps be termed 'field scrapers'; i.e. ones prepared rapidly as one-off tools for immediate use and then discarded.

- (iv) 30% of the material was patinated which is a fairly typical percentage for material recovered from the gravel terraces.<sup>23</sup> 60% of the material had some cortex. These two points combine to show that small flint nodules were obtained locally from the gravel terrace (presumably from the field surface), for knapping.

- (v) No Mesolithic/Microlithic material was noted.

The absence of material that could with any certainty suggest that this flint debris could have originated from a time prior to the Iron Age does

suggest that perhaps most of it comes from this period or later. However, there is no great likelihood that the flint occurring locally was knapped for any reason in the medieval period. It is suggested that this type of assemblage, characterised by random knapping techniques, no preferred flake size and crude one-off field tools, would be representative of Later Iron Age casual usage of the material. There are however no assemblages in the immediate locality with which it can at present be compared.

#### ANIMAL BONE

Animal bones were recovered from most features but in small quantities, because of the limited sampling nature of the excavations. No large groups of well stratified bones were recovered, and much of the bone was from the open silting of and the recutting of ditches, where a residual element was almost certain to be present. Many of the bones were broken and damaged. Any detailed analysis could be seen to be of little statistical value. Most of the bones were likely to be of the usual domestic type (cow, sheep . . .) on a site of this type. No detailed analysis was therefore undertaken but the bones are available for study in Bedford Museum.

#### QUERN AND GRINDING STONES

Three fragments of Rhenish lava querns were recovered from the early medieval parallel ditches (5) and (13) — clearly these are most likely to be of early medieval date, although a residual Romano-British pottery element was present in these ditches.

A quern fragment of a medium hard fossiliferous sedimentary rock (not limestone) was found in the Iron Age gully (225). This had been shattered by burning and had a ground surface rising from the outside curved edge — presumably the upper half of a quern pair. The original diameter was probably about 32cm.

A large rounded igneous boulder (290cm by 160cm and 140cm in height) with a ground surface slightly rising towards its centre was found in the Iron Age storage pit (199). No direction of grinding was noted but its use for grinding grain seems likely.

#### OTHER MATERIAL

Other material finds of slag, tile, brick, daub, lime/mortar and cut stone were recovered from a

range of features and have been noted in the table of finds for dateable features (Fig 6).

The slag occurred exclusively in the medieval features; tile and brick occurred in medieval and the occasional Romano-British contexts; daub of various composition (sometimes fine clay with wattle impressions, but more usually a very friable impure clay with a shell content, samples were often burnt) occurred most commonly in the medieval features, but occasionally in Iron Age and Romano-British contexts; lime/mortar, apart from being present in the slaking pit (86), was present in very small quantities; there was the occasional cut piece of 'building' stone (limestone). The occasional oyster, snail, seed and charcoal was collected but these were of no environmental or dating value.

### THE SOILS

A general impression of the soils in the Elstow area can be obtained from the 'Reconnaissance Survey of the Soils of the Luton and Bedford District' by D.W. King (Special Survey No. 1, 1969). The soils at the Elstow site were gleyic brown earths derived from the fluvialite and glacio-fluvialite sands and gravels of the river terrace of the Great Ouse.

A detailed analysis of the soils at the Elstow site was not undertaken and a detailed description of the soils comprising the various stratified archaeological layers is not included in the site report published here. However, a more detailed description of specific deposits can be found in the site record (ref. Bedford Museum 1976/4). The soil deposits generally fell within the loamy sand to clay loam range with varying quantities of small and large gravels. The colour range was from 10YR3/2 to 10YR5/6.

Observation of the colour of the soils on the site suggested that the colour of the earlier features was significantly lighter. A graphical comparison of the top surface colours of 'dated' ditches was therefore thought valuable to test this site observation. It was thought that a comparison of the 'open' ditch colours would be most certain since they would have filled in similar ways at different periods and therefore be closely related to each other and to the principal soil series of the area. The top surface colours only were compared. Those ditches used for this comparison are tabulated in figure 13 and the colours graphically compared in figure 14.

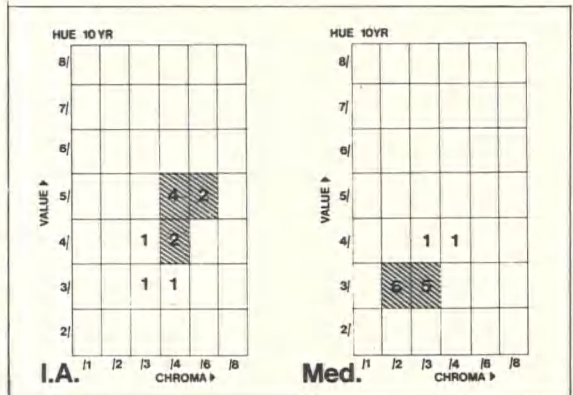


Fig 14 Graphical representation of Munsell Colour determinations for the top surface colours of 'dated' open silting ditches. The shaded area denotes about 75% of the determinations in each group.

A relationship between colour and date clearly does exist; however it would be a very uncertain means of establishing a date for ditches or other types of feature which are otherwise undated. This phenomena would also only provide for a local comparison, and is probably a result of a leaching of the soils by water movement.<sup>24</sup>

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### NOTES

- 1 Noted from a survey of 1767 in Bedfordshire Record County Office, document XI/6/1,4.
- 2 The site at Odell, at present being excavated by Brian Dix for the D.O.E. and Bedfordshire County Council, exhibits similar characteristic cropmarks (Beds. C.C. S.M.R. 543; SP 956568); and other extensive and small cropmarks of similar type can be seen all along the Great Ouse on the gravel terrace, for example at Roxton (Beds. C.C., S.M.R. 745; TL158557), at Cardington (Beds. C.C. S.M.R. 584; TL 091474 to TL 093474) and many others.

- 3 This cropmark is recorded by Dr J.K. St Joseph (ref YT30) at TL 049469 and is located in the Beds. C.C. Sites and Monuments Record as accession 1624.
- 4 'Level 3' publication as defined in *Principles of publication in Rescue Archaeology*, Report by Ancient Monuments Board for England's Committee for Rescue Archaeology, D.O.E., October 1975.
- 5 Brian Dix drew attention to this bone, found during his excavation at Odell (10c *cit.* note 2).
- 6 *Loc. Cit.* notes 2 and 8.
- 7 *Loc. Cit.* notes 2 and 8.
- 8 A summary to date of the excavations at Odell can be found in C.B.A. Group 9, *Newsletter 7*, 1977, 9-10.
- 9 The site at Newnham (TL 073491; Beds. C.C. S.M.R. 986) shows similar characteristics, and has been summarised to date in C.B.A. Group 9, *Newsletter 6*, 1976, 17; as also does the excavated site at Bromham (TL027523, Beds. C.C. S.M.R. 975), Peter Tilson, 'A Belgic and Romano-British Site at Bromham', *Beds. Arch. J.*, 8, 1973, 23-66.
- 10 Information provided by Brian Dix, *loc. cit.* note 8.
- 11 The change of settlement pattern from the Romano-British one, of independent small scale farming units, to the planned, complex and nucleated Domesday villages, has been noted for the Medieval villages in the rivers Nene and Welland in Northamptonshire. (R.C.H.M., *County of Northampton*, Vol. 1., pp xxxvii). Although Elstow is mentioned at Domesday (Elnestou - E.P.N.G.3 see A. Mawer and F.M. Stenton, *The Place-Names of Bedfordshire and Huntingdonshire*, [Cambridge, 1926]), it is not certain as to when it was so called or as to when it took this nucleated or organised form.
- 12 This point has been similarly raised in an excavation and survey programme to examine Bronze Age settlement in the Great Ouse Valley, being carried out by Peter Woodward for the D.O.E. and Beds. C.C. Summaries of which can be found in C.B.A. Group 9, *Newsletter 6*, 1976, 14, 15; and *Newsletter 7*, 1977, 23-25. A more detailed publication has been accepted for the *Archaeological Journal* (1978).
- 13 J.G. Hurst, 'Saxo-Norman Pottery in East Anglia', *Proc. Camb. Ant. Soc.* 49, 1956, 43-70.
- 14 P.V. Addyman, 'Late Saxon Settlements in the St Neots area - III: The Village of Township of St Neots.' *Proc. Camb. Ant. Soc.*, 54 (1973) 45-99.
- 15 D.B. Baker, 'Excavations in Bedford, 1967', *Beds. Arch. J.*, 5, 1970, 67-100.
- 16 J. Hassall, 'Excavations at Willington, 1973', *Beds. Arch. J.*, 10, 1975, 25-40.
- 17 D.H. Kennett, 'St Neots ware from Bedford: Jugs and Bowls', *Beds. Arch. J.*, 4, 1969, 17-25.
- 18 The material excavated from Bedford in the last ten years is at present being prepared for a Monograph publication (*Beds. Arch. J.*, 13, 1978, forthcoming) and reference should be made to these pottery series, when they are available.
- 19 *London Museum Medieval Catalogue*, 1940/1967, 277 and plate LXXIX.
- 20 A similar bronze plate hook was found in Southampton in a 16th to 18th century context. D.C.M. Platt, 'Excavations in Medieval Southampton' 1975 Vol. 2, 265, Fig 245 (1863).
- 21 *London Museum Medieval Catalogue*, 1940/1967, 293 and plate XCIV.
- 22 Brian Dix drew attention to this parallel, and agreed to details being published prior to his full excavation report.
- 23 A comparison of flint by fieldwalking at Roxton between that recovered on the gravel terrace and that recovered on the surrounding clays, shows that about 15-30% of the material on the gravel terrace was patinated as opposed to about 80-95% on the surrounding glacial clays. This piece of fieldwalking and survey has been prepared for publication. *loc. cit.* note 12.
- 24 Paper submitted for publication July 1977.

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